

Understanding school consolidation policy:

An analysis of inferences to be drawn based on the evidence that has been provided and that has *not* been provided to the Commission

A presentation by Southern Echo, Inc. and the Mississippi Delta Catalyst Roundtable to the Commission at a public hearing on May 3, 2010

Southern Echo, Inc.

1350 Livingston Lane

Jackson, MS 39213

Phone: 601-982-6400

Email: souecho@bellsouth.net

Website: www.southernecho.org

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and the
MS Delta Catalyst Roundtable

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The premise from which we begin is that the core value of this entire process ought to be: What is in the best interests of the students? Our children need to obtain a quality first-rate education from early children learning to the 12th grade to prepare them for higher education and for meaningful work. We need to do everything we can to keep them in school to graduate on time.

Whether school district consolidation is an appropriate strategy depends on whether it is in the best interests of the children. We are not taking a blanket position against any consolidation under any circumstances. We are contending, however, that in assessing whether a proposed abstract consolidation model, such as John Augenblick has proposed, makes good sense depends on whether the criteria chosen for analysis are the appropriate ones, and whether the research data developed is thorough and compelling.

Concerns about the Commission process

We have the following concerns about the framework in which the Commission on Educational Structure is seeking to assess the transformational and complex education policies involved with under-performing public schools and the allocation of resources, especially funding, for public schools.

1. The Governor's charge to the Commission *asserted* that the duty of the Commission is to consolidate school districts, to assess how many school districts ought to be consolidated, and to determine which school districts ought to be included in this process.
2. The Governor also made it clear in his charge to the Commission that in his view the *focus* ought to be on school districts that are small in size and underperforming in order to realize savings that the Governor speculated would be realized from consolidation.
3. On the surface, the impact of the Governor's *assertion* and *focus* would appear to be an unfortunate incursion on the independent judgment of the Commission members regarding *whether* the research-based data-driven evidence supports and justifies school consolidation, especially in light of other policy strategies already in play (such as Children First 2009). We have been pleased that the members of the Commission in their commentaries during the public meetings have lifted up a variety of relevant critical issues that impact whether school district consolidation will provide appropriate solutions. In response in each instance, John Augenblick has noted that the compelling concerns of the Commissioners were outside the scope of his inquiry and that he would not seek to address them.

4. Although parents, students and other education stakeholders are the primary constituents and consumers of the public school districts, the composition of the Commission does not include representatives from any parent, student or other community organizations that have a demonstrated record of meaningful, productive involvement in public education issues. Although the Commission may not be able to pick its own members we would hope the Commission would include such representatives *ex officio* in a meaningful way in its discussions of the policy considerations surrounding school district consolidation *prior to* making any recommendations to the state legislature.
5. This public hearing, May 3, 2010, which provides individuals who sign up an opportunity for 5 minutes to *talk at* Commission members, although we appreciate it, is not a *meaningful* opportunity to address the depth and complexity of the education policy issues involved in school consolidation. Nor is it an opportunity to participate in the give-and-take of discussions that impact the deliberations of the Commission. Although we have the opportunity to share information with and discuss issues with individual members, it is *catch as catch can* and that is not the same as being *at the table*.

Evaluating the data-driven research-based evidence

As consultant to the Commission, John Augenblick, of Augenblick & Palaich, presented his research and his recommendations to the Commission in which he “targeted” 18 school districts for consolidation and a larger number of potential “receiving” school districts with which the targeted districts could be merged. He stated to the Commission at the end of the last public meeting on April 19, 2010 that his work was finished.

What the Commission’s consultant did and did not do:

1. Augenblick was clear that he narrowed his consideration of variables in his research to 3:
 - a. “weighted” size of enrollment in each school district;
 - b. Quality Distribution Index (QDI) scores for each school district under the new State Board of Education accountability assessment model; and
 - c. the cost per student in each school district of school district central office administrative expenses.
2. Augenblick stated that he used these 3 criteria to generate his proposed list of 18 “target” districts for consolidation. However, Augenblick:
 - a. did not account in his research for the impact of *poverty, low-wealth or socio-economic status* on student performance and the consequent impact of *poverty* on the Quality Distribution Index (QDI) score of each school district under the new state accountability assessment model. The research shows that when socio-economic status is accounted for the size of the school is irrelevant. The extent of poverty in the district, not the size of the

district, has the most significant impact on whether the school district is higher or lower performing in the state's accountability assessment model. See the study by Jerry Johnson and Brian Lipsett presented by Southern Echo to the Commission entitled, *Understanding school consolidation policy: A data-driven research-based analysis of school size, school district performance and poverty in Mississippi school districts*.

- b. did not consider, using existing available data, whether larger, higher-performing districts in Mississippi have any greater success than smaller, lower-performing school districts in reducing the achievement gap among higher and lower performing students. The research data shows that they do not. See the study by Johnson and Shope presented by Southern Echo to the Commission entitled, *School District Achievement Gaps in Student Performance within the State Accountability Assessment Categories that are Linked to Race, Poverty and Disability*. The data in this study also shows that the smaller districts tend to reduce the negative impact of poverty on the performance of students more than the larger districts do.
 - c. did not, therefore, consider whether merging smaller, lower-performing school districts with larger, higher-performing districts would have any beneficial impact on the performance of the students who attend the smaller, lower-performing school districts;
 - d. did not identify any criteria at all for determining how he selected the "receiving" districts he proposed in his recommendations to the Commission;
 - e. did not provide to the Commission a table, or spreadsheet, that showed the data for the 3 criteria for all 149 school districts which the commissioners can use to make an independent assessment of the evidence concerning which districts, if any, ought to be "target" or "receiving" districts. Commission members, education stakeholders and the public need this data to effectively evaluate the issues. The Commission ought to request this data and make sure it is released to the public, as well.
3. Augenblick was clear that his research-based data-driven model used as a basis for his recommendations for "target" and "receiving" school districts did not consider such other expense and resource factors as:
- a. *transportation* expenses, and the specter of increased *transportation* expenses, that may offset any anticipated savings in central office administrative expenses;
 - b. the increased expense of adjusting *teacher supplements* so that they are consistent among all of the teachers in the merged school districts that may offset any anticipated savings in central office administrative expenses;
 - c. the differences in school district *tax bases* of "target" and "receiving" districts and how that will impact the legal and political complexity of how local revenues will be raised for the newly merged districts; and

- d. the differences among target and receiving districts in the *millage* assessed to raise local revenues and how that will impact the legal and political complexity of how local revenues will be raised for the newly merged districts.

Further, in his study Augenblick did not consider the impact on the school districts of:

- a. the necessity for merged districts to have to start all over again in the data-gathering process for QDI and growth to arrive at new scores for the state's accountability assessment process;
- b. the necessity to continue to comply with existing *school desegregation* orders;
- c. the dilemma of merging and subordinating *governance* structures from different communities with distinct and separate community cultures and histories;
- d. the legal and political problems of eliminating or merging elected school boards and appointed school boards;
- e. the legal and political problems of eliminating or merging the offices of elected school superintendents and appointed school superintendents;
- f. the protracted legal and administrative issues associated with compliance with the *1965 Voting Rights Act* as amended; or
- g. the specter and expense of *protracted litigation* and associated *political travail* that may ensue from *mandatory* consolidation rather than *voluntary* consolidation.

Although Augenblick was assertive that his research produced data-driven evidence upon which the Commission ought to rely, and that his selection of the 18 "target" districts simply followed the data, Augenblick at every public meeting acknowledged to the Commission that:

- a. he could alter or change the criteria to produce any data outcome the Commission desired;
- b. there is no evidence in Mississippi or other states that school district consolidation spurs or contributes to improvement in student performance or the quality of education which they receive;
- c. there are no savings in state or local revenue or other resources that can be achieved at the individual school building level;
- d. the only savings to be realized at the school district level is for *central office administrative costs*.

- e. Augenblick estimated the total savings for the 18 “target” districts at approximately 12 to 14 million dollars, which represents only approximately 0.5% (one-half of one percent) of the total state K-12 budget. Augenblick did not provide the underlying data with which to assess that estimate. Further, he noted that the estimate was based on a “cold” assumption built into his model: that the merged district would expend funds at the rate of the highest performing district involved in the merger. But Augenblick asserted that he had no knowledge about any given district, conceded thereby that he did not know if this would actually happen in real life, and acknowledged that this is only a model and that in real life the exigencies of the situation would control, not the model. In addition, he was forthright in explaining that in his abstract model he did not take into consideration any other expenses outside of *central office administration* that might arise or alter as the result of a merger of two or more school districts.

What Southern Echo and the MS Delta Catalyst Roundtable would like the Commission to consider

1. What is in the best interests of the children ought to be the core value when the issue of school consolidation is considered.
2. *All* of the relevant data-driven research-based evidence should be considered, not just some of it.
3. The data in the Johnson and Lipsett study [see 2(a) above] shows that *poverty* is a critical factor in the performance of school districts, not the *size* of the school districts. Therefore, policies need to address the academic and other supports needed by low-wealth students. Simply merging smaller school districts with higher rates of low-wealth students into larger schools with lower rates of low-wealth students will not meaningfully improve the performance of the students from the under-performing school districts. The data in the Johnson and Shope study [see 2(b) above] shows that the larger, higher-wealth districts, as a class of school districts, are not effectively meeting the education needs of low-wealth students, students of color, or students with disabilities.
4. In 2005 Augenblick and Palaich provided a study to the Legislative Task Force on Revising the MS Adequate Education Program formula that showed that in Mississippi each student of low-wealth, to receive the education support they actually needed, requires an enhancement over base student cost of 114 percent. [Example: If the *base student cost* is \$7,000, then the *enhancement* of 114% would be \$7,980. To get the total support needed for low-wealth students we add together the *base student cost* and the *enhancement*. So - the base student cost of \$7,000 + the 114% enhancement of \$7,980 = a total per low-wealth student support of \$14,980.]

Rankin County Superintendent Lynn Weathersby testified before that Task Force that the actual cost of effectively supporting the education of low-wealth students in the Rankin County district was 121 percent above base student cost. Later in the process Augenblick reduced his proposed enhancement from 114 percent to 43 percent above base student cost. At the time his colleague in the presentation told Mike Sayer of Southern Echo that the

enhancement percentage was reduced because the consultants thought that the true figure of 114 percent would be politically unpalatable to the Legislature. Which it was!

Most important, at this time the MAEP formula continues to provide an enhancement over base student cost to address the needs of low-wealth students of only 5 percent. [Example: If the base student cost is \$7,000, then enhancement of 5% would be \$350. The total of base student cost + 5% enhancement = \$7,350.] Since 114% is what is really needed we can see that whether public schools are larger or smaller, lower-wealth or higher-wealth, for each low-wealth student the schools are under-funded by the Legislature at this time in the amount of \$7,630.

More than 3 of every five of Mississippi's half million public school students – approximately 300,000 students – are low-wealth children at-risk under the MS Adequate Education Program formula:

- a. 41% (63 districts) have 70%+ low-wealth children at-risk;
- b. 56% (85 districts) have 60%+ low-wealth children at-risk;
- c. 71% (108 districts) have 50%+ low-wealth children at-risk;
- d. 89.5% (136 districts) have 40%+ low-wealth children at risk;
- e. 96.7% (147 districts) have 30%+ low-wealth children at risk; and
- f. The district with the fewest low-wealth children at-risk? 22.78%.

The specter, of course, is overwhelming. When we multiply the under-funding per student of \$7,630 by 300,000 students the total under-funded amount is immense: \$2.289 billion dollars per year.

Political leaders and educators can't see how to talk about an amount this large and convert it into rational budget policy, especially in the midst of an intense recession, which for some parts of our state may actually be a depression. Consolidation of low-wealth underperforming schools will not make the problems go away or disappear.

Systemic under-funding of Mississippi school districts is not new. It is especially familiar to smaller, low-wealth majority black school districts which did not begin to come out from under systemic disparities in education funding that began during segregation until the passage of the MAEP in 1997. However, we did not fully fund MAEP until a decade later in 2007 and 2008. The legislature fully funded the formula in 2009, but in the fall of 2009 Governor Barbour began to make significant cuts from the MAEP funding on the basis of revenue shortfalls. This meant that in 2009 MAEP was not really fully funded. But, in any event, in no year did the enhancement for low-wealth students ever exceed 5 percent.

The solution is not to duck our heads and avoid the significance of poverty as a driving factor in the under-performance of public school districts. In some cases consolidation of school districts may blur the problem for a period as a whole new data-gathering process will have to be undertaken to evaluate the impact of the mergers. But no administrative re-structuring, no minor savings of costs here and there, will address the primary problem of a severe lack of

sufficient resources in all Mississippi school districts with which to address the needs of the low-wealth students.

Funding for the sake of funding is not the end goal. However, sufficient funding is the means to obtain the core elements of the quality education to which all students ought to be entitled, regardless of race, class, gender, disability, status or geography:

- a. quality leadership and quality teachers;
 - b. quality facilities and quality programs;
 - c. teacher-student ratios that are low enough to enable teachers to be effective in the classroom;
 - d. quality teacher assistants that can assist the teachers and the students;
 - e. quality guidance counselors and nurses in sufficient numbers to meet the needs of students;
 - f. music, art, drama and writing programs in all of the schools, not just some of the schools;
 - g. and the list goes on and on.
5. If there are to be any mergers, the Commission needs to consider the wisdom of merging two or more academically struggling school districts, especially where there may be many unresolved violations of accountability standards, each of the districts is financially strapped, the tax base is small, the millage rates are nearly at statutory limits, and the strong leadership needed to run one district will need to be found to run an even larger merged set of districts. Some of Augenblick's recommendations would more or less create that specter.

In some of the other recommended mergers by Augenblick we can anticipate some serious tensions between the proposed merged communities where there has been a history of serious community tensions regarding race and class, sometimes underlying earlier efforts to create a consolidation to address great disparities between these school communities with regard to revenues and resources and access to revenues and resources.

6. Last, but not least, the State Board of Education, the State Department of Education, the State Legislature, School Superintendents, teachers, and other education stakeholders, including parents and students, worked together in the last 10 years to overcome historic distrust and disagreements to develop a series of ground-breaking and transformational policies at the state and local school district levels to bring a quality education in healthy schools to all students. For example: MAEP (1997), higher teacher pay (1997-1998), the Education Accountability Law (2000), Dropout Prevention (2007), Children First (including the Recovery District and the Turnaround Process (2009), and the New Start Schools and Conversion Schools (2010), and many others.

But we keep seeking to change policy strategies and models before we give the last, or the next to last, or the next to next to last policy strategy the support it needs to work, or an opportunity to work. So, we never actually find out what works and what does not work and why it works or does not work. That deprives us all of important data-driven research-based evidence about our education policies. If we can effectively evaluate what we have done in

the past, then our hindsight becomes foresight that can guide future policies. But if we never give what we start an opportunity to work we can never find out whether it would have worked. No meaningful hindsight, no meaningful foresight, either.

We should not rush to judgment regarding school consolidation. There is a great deal to consider, and certainly a great many factors to consider beyond what was presented in the study done by the Commission's consultant. Consolidation may make sense in some cases and may not in others. It depends a great deal on the specifics of each individual school district and the criteria used to weigh the strengths and weaknesses, benefits and risks, of any proposed merger of two or more districts. No single *model* will fit all situations. Nor should we expect it to do so. The voices of the people of these communities should be heard – parents and students, educators and public officials, business people and community organizations – as a material part of any consideration of these complex issues.



*Helping Rural Schools and Communities
Getting Better Together*

Two Analyses of Mississippi Achievement Data Produce Significant Findings for Policymakers

April 30, 2010

This article appeared in the April 2010 [Rural Policy Matters](#).

- **Smaller school districts reduce the impact of poverty on student achievement**
- **So-called higher achieving districts do no better than low-achieving districts at closing achievement gaps for Mississippi's low-income, African American, or disabled students**

The state of Mississippi is considering closing many of its school districts (see [RPM, January 2010](#)). Criteria for closure are likely to include some combination of factors including enrollment and district performance ratings. The Rural Trust, on behalf of Southern Echo, has analyzed student test data gathered as part of the state's accountability system to explore the relationships between achievement, poverty, and other factors. The results are relevant to public policy choices in many other states as well as in Mississippi.

Achievement, Poverty, and District Size

Low-income students who attend school in one of Mississippi's smaller school districts are less likely to fall behind their more affluent peers, on average, than low-income students in larger districts. In other words, the state's smaller districts reduce the impact of poverty on student achievement. That's important information in one of the nation's poorest states because poverty is more threatening to academic achievement than any other factor.

Rural Trust researcher Jerry Johnson, Ph.D., analyzed school data collected through the Mississippi Department of Education to determine the interaction of poverty, school district size, and student achievement. He found that poverty explains 78.5% of the variance in performance outcomes (using the state's Quality of Distribution Index, or *QDI*) in larger districts compared to 62.4% of test score variance in smaller districts. That's a substantial difference on an important achievement outcome.

In fact, poverty had less influence in smaller districts than in larger districts on all 18 assessments required by the state. These assessments include Language Arts and Math tests for students in grades three through eight and high school tests in algebra, biology, US history, and English.

A large and consistent body of research suggests that the influence of school and district size on student performance is indirect. Enrollment size does not directly impact performance one way or the other. Instead, size disrupts the relationship between academic achievement and other characteristics, including poverty.

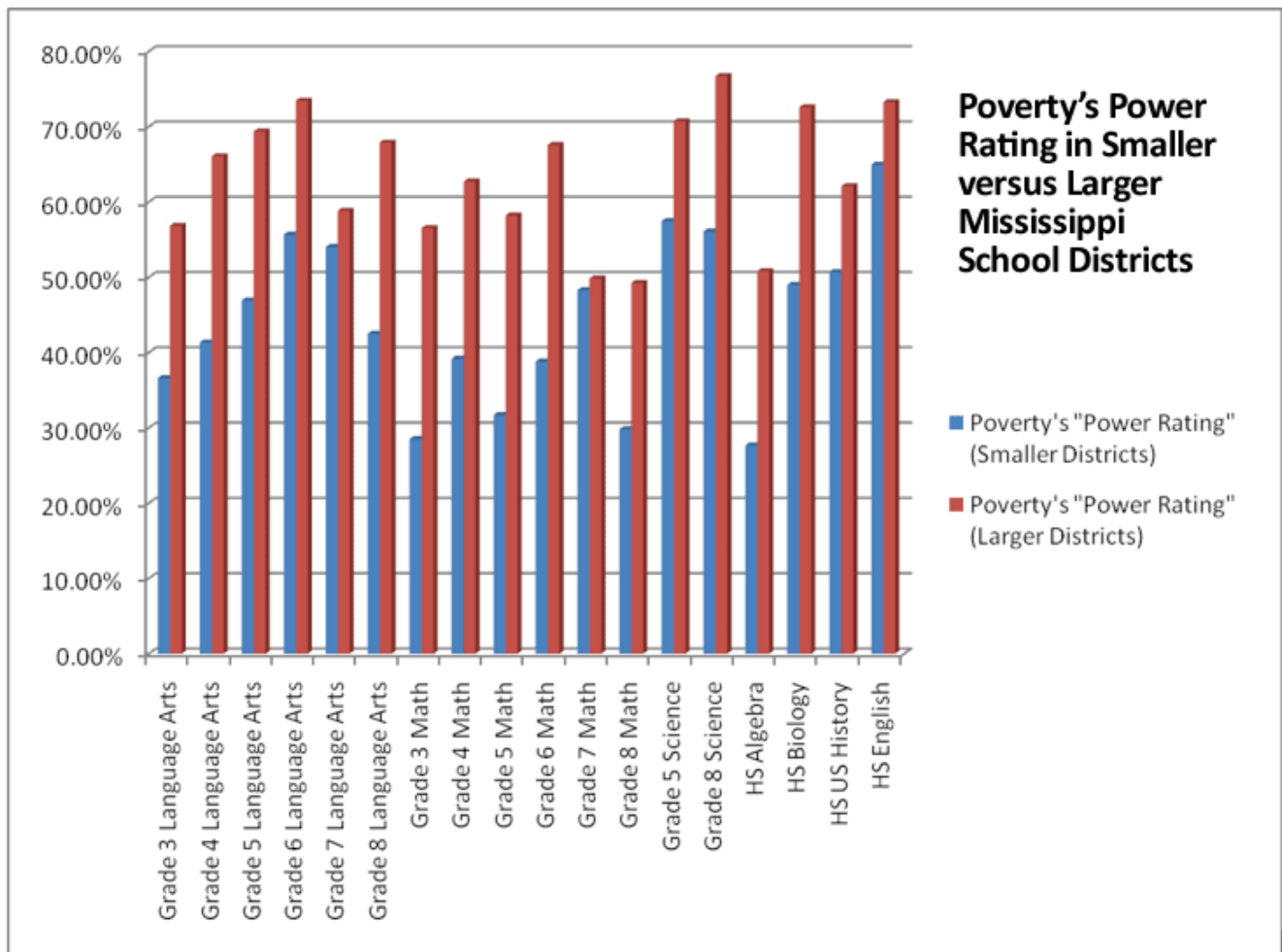


Figure 1. Poverty's Power Rating in Smaller versus Larger Mississippi School Districts (based on the state's 2008–09 Quality Distribute Index)

Studies conducted in more than 15 states have found similar results: smaller district size is associated with weakening the negative influence of poverty while larger district size is associated with increasing the negative influence of poverty.

The Mississippi analysis divided the state's 149 regular school districts in half according to size. Half the districts (the smaller districts) have enrollments under 2,272 students; the other half (the larger districts) enroll 2,272 students or more.

The study found that, in Mississippi, larger districts tend to have higher student test scores. But that does not mean that larger districts improve achievement. Rather, the analysis found that larger districts have lower percentages of students living in poverty.

Achievement, Student Learning Challenges, and District Ratings

In a separate analysis, Johnson and researcher Shane Shope, explored the question of whether achievement gaps linked to race, poverty, or disability exist in the state's new district accountability assessment categories.

The system assigns districts to one of six performance categories based on student test scores: Failing, At Risk of Failing, Academic Watch, Successful, High Performing, and Star.

The analysis utilized the Mississippi Curriculum Test 2 for grades three through eight in Language Arts and Math. To determine whether achievement gaps existed in each of the six categories, the analysis made comparisons between (1) White and African American students, (2) Economically Disadvantaged and Non-Economically Disadvantaged students, and (3) Disabled and Non-Disabled students.

The resulting calculations provide a measure of the size of the achievement gap in each of the three student categories for each of the six district performance categories.

Results. Data for language arts results for 3rd, 4th, and 5th graders found that “Failing” districts actually exhibit less of an achievement gap between White and African-American students than “Star” districts. Similar patterns held at 6th, 7th, and 8th grade level and for math results at 3rd, 4th, 5th, 6th, 7th, and 8th grades. The data suggest that “lower” rated districts may actually do a better job of serving students from historically underserved groups than higher rated districts.

Data for low-income and disabled students showed no significant patterns linking achievement gap and districts with different ratings. The overall conclusion of the analysis is that no districts have been entirely successful at closing achievement gaps in Mississippi schools, even those touted as being the state’s best.

The results are important for a variety of reasons. High performance rankings in Mississippi’s districts tend to describe the demographics of the students and do not reveal how well those districts are educating students with learning challenges. Although no districts are successful in meeting the needs of historically underserved student groups, low-performing districts are doing a better job than higher-performance districts in several circumstances. Closing “low-performing” districts and sending students to “higher performing” districts will not likely improve educational outcomes for those students.

Conclusion

Together these two studies suggest that Mississippi should find more effective ways to improve achievement and close achievement gaps than closing districts. Consolidation will not move students into new districts that are more effective than their current districts at teaching students with learning challenges.

In a state where so many children and young people struggle with the challenges of deep and widespread poverty, closing districts will only add to the hardships students face. Further, eliminating districts will limit the opportunities local residents have to participate in the governance of their schools. And, eliminating schools almost always leads in short order to the closing of schools. And that’s yet another level of hardship for poor rural students and their families. Other research has not found financial savings associated with district consolidation.

Further, Mississippi’s school ranking system does not provide an accurate guide to how well districts are educating the most at-risk students. Indeed, many “failing” and “at risk of failing” districts are in that position primarily because they serve student populations with higher proportions of students of color, or who are low-wealth, or who have a disability.



The Hobbit Effect: Why Small Works in Public Schools

Date: September 05, 2006

By Lorna Jimerson, Ed.D

There is a battle going on out there, and it's not pretty and certainly not rational. Across the country, states are pushing to close their small rural schools with the mistaken hope of saving money. This struggle is currently happening in almost all regions of the country and includes states as diverse as Arkansas, Iowa, Kentucky, Maine, Nebraska, South Carolina, and South Dakota ("Anything but research-based," 2006).

What is especially irrational about this trend is that these efforts persist in spite of overwhelming evidence that smaller schools are beneficial for kids. For example, research evidence documents that when socioeconomic factors are controlled, children in smaller schools:

- Are more academically successful than those in larger schools.
- Have higher graduation rates.
- Are more likely to take advanced level courses.
- Are more likely to participate in extra-curricular activities (Cotton, 1996).

In addition, small schools are frequently the glue that binds together small communities, serving as their economic and social hub. Small villages that lose their schools lose more than a building—they lose their collective cultural and civic center.

The battle is even more illogical when compared with the opposing trend in urban areas, where reform efforts concentrate on breaking down dysfunctionally large schools and forming new smaller learning communities. Urban educators, recognizing the proven advantages of small schools, are actively pursuing a "smaller is better" model. Some of these efforts are state-supported, while others are financed through private sources. The Bill and Melinda Gates Foundation, for example, has pumped millions into these urban reform strategies.

In short, it is clear that small works in schools—this report explores why.

Small Works in Arkansas: How Poverty and the Size of Schools and School Districts Affect School Performance in Arkansas



Date: March 01, 2002

By Jerry Johnson – Rural Schools and Community Trust

Summary

[PDF](#) (397 KB)

This is a summary of a study conducted by Ohio University researchers Jerry D. Johnson, Craig B. Howley, and Aimee A. Howley. This summary is a publication of the Rural School and Community Trust and the views and interpretations provided are those of the Rural School and Community Trust, and not necessarily those of the study authors. The full study can be retrieved through the ERIC Clearinghouse or it can be accessed at the web site of the Rural School and Community Trust.

The full study may be cited as: Johnson, J.D., Howley, C.B., & Howley, A.A. (2002). Size, excellence, and equity. A report on Arkansas schools and districts. Athens, OH: Ohio University, College of Education, Educational Studies Department. ERIC Document Reproduction Service (forthcoming).

This summary of the study may be cited as: Small Works in Arkansas: How Poverty and the Size of Schools and School Districts Affect Student Achievement in Arkansas. A Summary by the Rural School and Community Trust of research conducted by Jerry D. Johnson, Craig B. Howley, and Aimee A. Howley. Rural School and Community Trust. 1530 Wilson Blvd., Suite 240, Arlington, VA 22209. March 2002.

Please direct questions or comments to Marty Strange, Policy Director, Rural School and Community Trust, P.O. Box 68, Randolph, VT 05060 or to marty.strange@ruraledu.org

A series of studies in seven states (Alaska, California, Georgia, Montana, Ohio, Texas, and West Virginia) indicates that smaller schools reduce the harmful effects of poverty on student achievement and help students from less affluent communities narrow the academic achievement gap between them and students from wealthier communities. The implication is that the less affluent a community, the smaller the school and school district serving that community should be in order to maximize student achievement. The present study conducted by Ohio University researchers extends this analysis to Arkansas. The findings are remarkably consistent with those from the other states.

The Arkansas findings are:

- The higher the level of poverty in a community served by a school, the more damage larger schools and school districts inflict on student achievement. In more affluent communities, the impact of school and district size is quite small, but the poorer the community, the stronger the influence.
- The achievement gap between children from more affluent and those from less affluent communities is narrowed in smaller schools and smaller districts, and widened in larger schools and larger districts.
- Smaller schools are most effective against poverty when they are located in smaller districts; they are less effective when they are located in larger districts. Poverty dampens student achievement most in larger schools located in larger districts.
- The relationship between school size, poverty, and student achievement is as much as three times greater in schools with the largest percentage of African American students.

Methodology

Regression and correlation analyses were used to measure how *achievement levels* of students in various grades are related to:

- The level of *poverty* in the school and district
- The school and district *enrollment size*
- The *interaction between these two factors*.

The researchers looked for two kinds of effects:

- The "*excellence effect*" of school size — Does the size of a school or a school district affect its students' academic performance, and does the nature and extent of that effect depend on the level of poverty in the community the school serves? Regression analysis is used to indicate how achievement scores vary as school size varies in communities of differing poverty levels.
- The "*equity effect*" — Is poverty's power over student achievement greater in smaller or in larger schools? Correlation analysis is used to show whether the link between poverty and low levels of achievement is stronger in schools above or below median size.

For this research, the unit of analysis is the school and the district, not the individual student. This is appropriate in today's policy environment because teachers, administrators, and leaders are increasingly held accountable for the school-level aggregate performance of their students.

The Data

Student achievement test scores from all tested grades in all Arkansas schools and all Arkansas school districts² were supplied by the Arkansas Department of Education. For schools, these data included three-year averages for the Stanford Achievement Test 9 for each of the grades 5, 7, and 9 (for years 1998, 1999, and 2000), and two-year averages for the Arkansas Benchmark test scores in literacy and math for grade 4 (1999 and 2000) and one year only for the Arkansas Benchmark scores for grade 8 (2000 only). For district scores, data was for the year 2000 only.³ The SAT data were reported as the mean percentile rank of students in each school or district, and the Arkansas Benchmark test data were reported as the proportion of students scoring at the "proficient" level or higher.