This case study examines the history and current circumstances of education in Humphreys County (Mississippi) in the context of its participation in the Delta Rural Systemic Initiative (RSI), which aims to improve science and mathematics achievement through systemic reform. This report describes the county's history, demography, and economic condition; the school system and its involvement with the Delta RSI; and progress on the National Science Foundation's "six drivers of educational system reform": implementation of standards-based curriculum, supportive policies, convergence of resources to support math and science programs, broad-based parent and community support, improved student achievement, and improved equity of achievement. The county lies in the rural Mississippi Delta and has high poverty and low educational attainment. De facto segregation permeates the fabric of life. Local employers depend on a pool of unskilled workers and give little support to the school system. The system serves approximately 2,400 students, almost all Black, in a K-3 elementary, a 4-6 elementary, and a 7-12 secondary school. (White students attend a private academy not associated with the RSI.) The RSI attempts to increase local capacity to improve math and science education by providing professional development and technical assistance and fostering resource convergence and community engagement. Evaluators found moderate evidence of developing success on three drivers of reform and weak evidence of progress on the other three. The county's ongoing tradition of segregation and difficult economic realities create an incredible challenge for the schools. Educators welcome the RSI's assistance, but there are too many problems to expect quick success. (SV)
A Case Study
of
Humphreys County (Mississippi) School District and
Its Role as a Partner in the NSF-Supported Delta
Rural Systemic Initiative (RSI)

Prepared
for
The NSF Rural Systemic Initiatives Evaluation Study

by

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May 2000

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Jerry G. Horn
To the Educational Resources Information Center (ERIC)
Foreword

On behalf of The Evaluation Center at Western Michigan University and the site visitation team for the NSF Rural Systemic Initiatives Evaluation Study, I want to express gratitude and appreciation to the officials of Humphreys County (Mississippi) School District for their willingness to include this community in our study for the National Science Foundation. First, former Superintendent Howard Austin participated in early planning for the study-visit; and later his successor, Joyce McNair, opened the district to our formal visit. Further, each and every principal committed time for interviews and visits to classrooms in their buildings. Teachers allowed us to visit their classrooms and talked with us about their experiences related to the Delta Rural Systemic Initiative involvement and impact in this school district. The area coordinator for the Delta RSI, Nancy Campbell, arranged her time to meet with us and served as a valuable resource person. Finally, we thank each and every person who met with us and shared their perspectives on the community and the schools of Humphreys County.

This was an enjoyable visit on behalf of the team, and we hope this report provides a fair and accurate description of the community, school, and efforts to provide a quality education for the students of this county. Certainly, there are challenges and disappointments in some cases, but we acknowledge the time and effort that many professionals are providing to meet the student needs of this community.

Lastly, I want to thank study team members Barbara Havliceck and Brian Lotven for their professional expertise and effort and the positive contributions they made in the development of this report.

Jerry G. Horn
Principal Research Associate
A Case Study
of
Humphreys County (Mississippi) School District and Its Role as a Partner in the NSF-Supported Delta Rural Systemic Initiative (RSI)

Humphreys County (pronounced "Umphreys" with a silent H) is located in west central Mississippi and covers an area of approximately 412 square miles, with a population of 12,134 in 1990 and a projected population of 11,926 in 2000. The land is a part of the Mississippi delta that is primarily used for agricultural purposes, including the traditional production of cotton and the more recent addition of expanded catfish farming operations. The county seat and the schools of Humphreys County School District are located in Belzoni, a town with a population of 2,536 in 1990, down from 2,982 in 1980. Belzoni is about 30 miles east of the nearest stretch of the Mississippi River and 46 miles southeast of Greenville, a city with an approximate population of 45,500 and the nearest city of 20,000 or more. Most of Humphreys County lies between the Mississippi and the Yazoo rivers, and over time, these two rivers have likely flooded and changed courses many times, leaving the area today as a flat and fertile area with soils from far upstream. Jackson, the state capitol of Mississippi, is located about 75 miles southeast of Belzoni. Other geographic reference points place Belzoni 416 miles from Atlanta, 700 miles from Chicago, 170 miles from Memphis, and 258 miles from New Orleans.

In promotional brochures provided by the Belzoni-Humphreys Development Foundation, Inc., Humphreys County is identified as "The Heart of the Mississippi Delta" and as an area "with an abundance of southern hospitality and rich in southern heritage." In 1976, it was "aptly named THE CATFISH CAPITAL OF THE WORLD." Major points/places of interest in the area are the Wister Gardens (home to dozens of varieties of roses, thousands of azaleas, daylilies, and many other flowering plants and shrubs), the Catfish Capitol Museum, and the Ethel Wright Mohamed Stitchery Museum (a depiction of her family's history in intricate stitchery, some of which is on permanent display at the Smithsonian Institution). An unlikely attribute is the fact that Belzoni has the most outdoor sculpture per capita of any city in the state—12 pieces of outdoor sculpture, 5 of which are related to catfish. Twenty years ago the city of Belzoni embarked on a redevelopment program for the downtown area with the replacement of sidewalks using brick and exposed aggregate; the planting of 19 linden trees; concrete poles with sodium vapor lighting, which was new at that time; and more appropriate parking. It is described on the city's Internet web page (http://www.belzoni.com) as a "small Delta town . . . with a thriving central business district."

The history of the area now known as Humphreys County can be traced back to a period of 20,000 years ago when the first prehistoric ancestors of many southeastern Indian tribes inhabited the Mississippi River Valley. These people were known as "Mound Builders," because of the earthen mounds that they left behind. Numerous Indian mounds still dot the landscape of the county, and pottery items, arrowheads, and other Native American artifacts are still being discovered at many of these ancient burial sites.
From these prehistoric tribes came the "Five Civilized Tribes": the Choctaws, Chickasaws, Creeks, Cherokees, and Seminoles. The Choctaws were a farming populus and the most numerous of all the tribes in Mississippi. Also, it is believed that they were generally friendly to the French, who were the first white people to invade the area. In 1519, the Spanish arrived in what was designated the "Mississippi Territory"; later the English gained control of the area after the French and Indian war, which lasted from 1754 to 1763. In 1779, the Spanish regained control of the territory and, from historical accounts, the people prospered. However, the area now known as Humphreys County was still wilderness and unsettled by any of the non-Indian groups.

In 1789, the United States acquired control of the Mississippi Territory through the Treaty of San Lorenzo. With only the Native American Indian tribes and a few thousand settlers along the Mississippi, the acquisition was primarily valued as an opportunity for expansion of the U.S. and new lands for prospective settlers. To accommodate the movement of settlers and to gain access to the Mississippi River from the east, the U.S. government obtained permission to establish a wagon trail through Indian lands. This trail was later to be known as the Natchez Trace.

Later, mostly immediately before and during the administration of Andrew Jackson, the U.S. obtained additional lands through purchases from the Indians, land trades, and other negotiated and aggressive actions and gained complete control of more than seven million acres of land. After Jackson's election to the presidency in 1829, this land was placed on the market, and the wealthy began buying up large tracts of it to establish plantations and grow cotton, for which the demand was great and the price was high. Without mechanized farming, much of the labor for clearing the land and growing the cotton and other farm products was done by slave or mule. After flourishing for a number of years and as a result of low prices and the effects of boll weevil infection, the production and value of cotton farming greatly diminished, and a more diversified agriculture developed in the area.

According to Pemble Delashmet in Welcome to Humphreys County: A Brief History of the County,

Belzoni and Humphreys County played a minimal part in the Civil War, except, of course in regard to the many people who gave their lives for a cause they believed in. The little action it did see came when a nineteen gunboat armada, ordered by General Grant to go down the Yazoo River to Vicksburg and commanded by Admiral Farragut, ran out of fuel and stopped along the river at the Castleman House. The boats were later attacked by a cavalry brigade commanded by General Ross but sustained little damage.

Belzoni, first known as Burtonia, consisted of two stores and three bars in the 1870s, part of a thrown together strip of structures that developed up the river, after a fire burned one of the stores in 1879. The strip along the river was named "Greasy Row" by the boatmen off the Yazoo River.
One of the early landowners of the area was Alvarez Fisk, a wealthy Natchez aristocrat who purchased thousands of acres of land from William Hamer of Warren County. Hamer was awarded a land grant in 1832 and almost immediately sold half of the grant to Fisk. The land purchased by Fisk was recorded as being sold for $217.75, and the first records refer to it as the Fisk Plantation and later as the Fisk or Belzoni Plantation. In 1835, for a price of $80,000, Fisk gave a warranty deed to A.T. McMurtray, Stephen Castleman, and Oscar Ross for a portion of the land, about 2,100 acres, that lies on the east side of the river. He retained the land on the west side of the river, known as Fisk Landing or Belzoni Landing, a part of Belzoni Plantation. The name of Belzoni was given to the property because of Fisk’s admiration for “The Great Belzoni,” an Italian showman, engineer, and explorer of Egyptian antiquities.

As the area of Greasy Row continued to grow and expand, Steve Castleman took it upon himself to acquire a charter of incorporation from the state naming Belzoni a village in 1895. He was appointed the first mayor, with Morris Cohn and L. D. Pepper serving as aldermen.

In 1817, Mississippi gained its statehood and was formed with 14 counties; yet, two-thirds of the state was still under Native American control. As early as 1870, attempts had been made to create a new county for the area with Burtonia as the county seat, but it was not until 1918, after repeated attempts, that Humphreys County was legally established. The 412 square miles of Humphreys County was taken from 5 other counties (Washington, Sharkey, Sunflower, Yazoo, and Holmes), and it was named for a former governor (1865-1868) and Confederate Army general, Benjamin Grubbs Humphreys.

The closest institutions of higher education are Mississippi Delta Community College, Mississippi Valley State University, and Delta State University; all are within easy driving distance of Humphreys County residents. Most teachers in the county school district have at least one degree from one of the four-year institutions.

Except for the fact that the first school was a room in the home of the Knott family and later moved to a one-room school building sometime before 1895, little information could be found about early educational opportunities in Belzoni or Humphreys County. Interestingly, there is little easily accessible information about the development and activities of the county in the early 1900s, the likely tumultuous years of civil and racial unrest in the 1960s, and the creation of a private academy established and still operating on the outskirts of Belzoni that has led to an almost all black public school and a white private school academy.

Today, Belzoni has a mixture of housing ranging from very poorly constructed and maintained “shotgun” houses near the downtown area and in the vicinity of the county high school to moderately large and well-maintained houses of 2,000 square feet or larger. The buildings in town are a mixture of structures probably dating back to the late 1800s or early 1900s, but it is evident that some remodeling and refurbishing has occurred and is still being accomplished. As mentioned elsewhere, the city’s streets and lighting have undergone some cosmetic and functional improvements in the last 20 years.
The businesses in Belzoni, the largest town in Humphreys County, are what one would expect to see in a small county-seat town serving a rural, agriculture-based county. Aside from the farms and catfish farms, there are really only two industries of any size in Belzoni, an apparel (T-shirt) sewing plant and a kitchen accessories (place mats, aprons, oven mitts, etc.) and bow production unit. None of these businesses/industries provide many opportunities for well-paying jobs or require advanced education.

The catfish industry probably provides the largest number of jobs for the community now and for the future. The first catfish pond was dug in Humphreys County in 1965 by J. B. Williams. According to literature provided by the Mississippi Department of Economic & Community Development, the area was “part of an economically blighted area in the heart of the Mississippi Delta.” While hopes and reasonable expectations of the catfish venture may have included only modest profits and a minor impact on the economy, Mississippi has about 102,000 acres of farm-raised catfish with an annual income of over $300M, and the industry employs more than 8,000 people. Humphreys County has approximately 117 catfish farms with more than 35,000 acres of farm-raised catfish, making it the top-producing county in the United States. Yet the unemployment rate for Humphreys County is twice that of the state of Mississippi, and the wage rate for the state is only about 75 percent of that for the United States. In summary, the major industries and opportunities for employment for Belzoni and Humphreys County require only a relatively low level of education and specialized training and pay minimal wages, and still there is considerable unemployment.

Listed among the largest Belzoni area businesses are the following (ranked by number of employees):

<table>
<thead>
<tr>
<th>Company</th>
<th>Total Employees</th>
<th>Type of Business</th>
</tr>
</thead>
<tbody>
<tr>
<td>ConFish</td>
<td>770</td>
<td>Catfish products</td>
</tr>
<tr>
<td>Delta Pride Catfish</td>
<td>220</td>
<td>Catfish products</td>
</tr>
<tr>
<td>Jockey International</td>
<td>213</td>
<td>Men’s T-shirts for military</td>
</tr>
<tr>
<td>Freshwater Farms</td>
<td>190</td>
<td>Catfish products</td>
</tr>
<tr>
<td>Sherrill Enterprises</td>
<td>73</td>
<td>Kitchen accessories</td>
</tr>
<tr>
<td>Producers Feed</td>
<td>60</td>
<td>Catfish feed</td>
</tr>
<tr>
<td>Majestic Metals</td>
<td>25</td>
<td>Structural steel</td>
</tr>
<tr>
<td>Master Systems Equipment Co.</td>
<td>20</td>
<td>Catfish maintenance equipment</td>
</tr>
</tbody>
</table>

Clearly, the catfish production and support services for this industry dominate the employment picture of this community and county. However, this is not to say that the service, retail trade, and other farming enterprises (cotton, grain, etc.) are insignificant in the total employment market.

In discussions with the mayor of Belzoni, he indicated that a major problem in attracting new industries to the area is the lack of a trained and well-educated labor force. Of course, this is a
self-perpetuating situation in which there is not much incentive to gain advanced/specialized training and education to prepare one for jobs that do not exist. Those who do pursue this route are forced to leave the area which, according to anecdotal information, is a difficult decision for young people of this area. They are reluctant to leave friends and relatives and anxious about moving to unfamiliar locations. Some community members insist that there is an unspoken intent in the community to maintain a low level of education and training in the labor force, as this ensures a pool of persons who can demand only low wages.

Selected demographic information about the residents of the county and the city of Belzoni are shown below.

**Population of County**
- Number of persons: 12,134
- Number of families: 2,878
- Number of households: 3,926

**Age Breakdown of County Population**
- 0 to 17 years: 36%
- 15 to 44: 36%
- 45 to 59: 12%
- 60 and over: 16%
- Median age of county population: 27.6 years

**Racial Composition of County Population (number of persons)**
- White: 3,856
- Black: 8,222
- American Indian, Eskimo, or Aleut: 9
- Asian or Pacific Islander: 43
- Other race: 4

**Place of Birth of County Residents**
- Born in state of residence: 1,332
- Born in other state in the United States: 759 (446 in the south)
- Born outside the United States: 1
- Foreign born: 42
Residence of County Residents in 1985

- Same house ............................................. 6,971
- Different house in the United States
  - Same county ........................................... 2,973
  - Different county:
    - Same state ......................................... 784
    - Different state ..................................... 335 (112 in the south)
- Abroad ................................................... 0

Employment

Persons employed in Humphreys County (1995 average):
- Manufacturing ......................................... 900
- Services .................................................. 600

Unemployment rate, 1995 average:
- Belzoni .................................................. NA
- Humphreys County ...................................... 12.1 %
- Commuting area ........................................ 11.8 %
  (Includes Humphreys and all contiguous counties)
- Mississippi ............................................. 6.1 %
- United States .......................................... 5.6 %

School enrollment, educational attainment, and employment (persons 16 to 19 years):

In armed forces:
- Not enrolled in school and not high school graduate ........ 1

Civilian:

- Enrolled in school:
  - Employed ............................................. 79
  - Unemployed ........................................... 40
  - Not in labor force ................................. 524
- Not enrolled in school:
  - Employed ............................................. 19
  - Unemployed ........................................... 5
  - Not in labor force ................................. 1
- Not high school graduate:
  - Employed ............................................. 62
  - Unemployed ........................................... 31
  - Not in labor force ................................. 112
School enrollment, educational attainment, and employment (persons 16 to 19 years) by race:

**White and civilian:**

- Enrolled in school
  - Employed: 33
  - Unemployed: 11
  - Not in labor force: 118

- Not enrolled in school and high school graduate
  - Employed: 3
  - Unemployed: 0
  - Not in labor force: 1

- Not enrolled in school and not high school graduate
  - Employed: 19
  - Unemployed: 7
  - Not in labor force: 14

**Black and civilian:**

- Enrolled in school
  - Employed: 46
  - Unemployed: 29
  - Not in labor force: 406

- Not enrolled in school and high school graduate
  - Employed: 16
  - Unemployed: 5
  - Not in labor force: 0

- Not enrolled in school and not high school graduate
  - Employed: 43
  - Unemployed: 24
  - Not in labor force: 98

Employment status of civilian males (16 years and over) by gender and race:

**White males**

- Employed: 1,053
- Unemployed: 15
- Not in labor force: 352

**Black males**

- Employed: 1,330
- Unemployed: 100
- Not in labor force: 784
White females
Employed .............................................. 717
Unemployed ........................................... 30
Not in labor force .............................. 882

Black females
Employed .............................................. 1,266
Unemployed ........................................... 206
Not in labor force .............................. 1,546

Wage Rates
Average wage rates, 1995:
Manufacturing
Mississippi ............................................. $9.74/hour
United States ........................................ $12.37/hour
Services
Mississippi ............................................. $9.83/hour
United States ........................................ $11.39/hour

Household Income in 1989 (number of households in county)
Less than $5,000 ........................................ 819
$5,000 to $9,999 ....................................... 893
$10,000 to $14,999 ................................... 486
$15,000 to 29,999 ..................................... 937
$30,000 to $59,999 ................................... 570
$60,000 to $99,999 ................................... 169
$100,000 to 149,999 .................................. 14
$150,000 or more ................................... 48

Households in County Receiving Public Assistance Income in 1989
Number that did ...................................... 1,052
Number that did not .............................. 2,874

Poverty Status of Children (under 5 years) by Race (number in the county)
White
Above ............................................... 181
Below ............................................... 26
Black
Above ............................................... 187
Below ............................................... 593
American Indian
Above ............................................... 0
Below ............................................... 0
Asian or Pacific Islander
   Above........................................0
   Below.......................................0

Other Race
   Above........................................0
   Below.......................................0

Cost of Living Index
   Humphreys County................................83.97
   United States..................................100.00

Property Costs
   Cost of housing, median value 1990:
      Belzonia.....................................$40,200
      United States...............................$79,098

Facilities/Housing Conveniences
   Telephone in housing unit:
      Owner occupied:
         With telephone..........................2,111
         Without telephone........................193
      Renter occupied:
         With telephone..........................1,037
         Without telephone........................171

   Kitchen facilities:
      With complete kitchen facilities.........4,060
      Lacking complete kitchen facilities.......171

   Plumbing facilities:
      With complete plumbing facilities.........4,023
      Lacking complete plumbing facilities......208

Educational Attainment
   Percentage of Belzoni population (25 years +) with:
      High school education or more.............52.5 %
      Bachelor’s degree or more................16.5 %
Number of county residents (25 years +):

<table>
<thead>
<tr>
<th>Educational Attainment</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 9th grade</td>
<td>1,906</td>
</tr>
<tr>
<td>9th to 12th grade, no diploma</td>
<td>1,636</td>
</tr>
<tr>
<td>High school graduate (includes equivalency)</td>
<td>1,336</td>
</tr>
<tr>
<td>Some college, no degree</td>
<td>776</td>
</tr>
<tr>
<td>Associate degree</td>
<td>265</td>
</tr>
<tr>
<td>Bachelor's degree</td>
<td>438</td>
</tr>
<tr>
<td>Graduate or professional degree</td>
<td>248</td>
</tr>
</tbody>
</table>

Race by educational attainment:

White:

<table>
<thead>
<tr>
<th>Educational Attainment</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 9th grade</td>
<td>438</td>
</tr>
<tr>
<td>9th to 12th grade, no diploma</td>
<td>571</td>
</tr>
<tr>
<td>High school graduate (includes equivalency)</td>
<td>669</td>
</tr>
<tr>
<td>Some college, no degree</td>
<td>427</td>
</tr>
<tr>
<td>Associate degree</td>
<td>192</td>
</tr>
<tr>
<td>Bachelor's degree</td>
<td>281</td>
</tr>
<tr>
<td>Graduate or professional degree</td>
<td>97</td>
</tr>
</tbody>
</table>

Black:

<table>
<thead>
<tr>
<th>Educational Attainment</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 9th grade</td>
<td>1,468</td>
</tr>
<tr>
<td>9th to 12th grade, no diploma</td>
<td>1,059</td>
</tr>
<tr>
<td>High school graduate (includes equivalency)</td>
<td>667</td>
</tr>
<tr>
<td>Some college, no degree</td>
<td>345</td>
</tr>
<tr>
<td>Associate degree</td>
<td>73</td>
</tr>
<tr>
<td>Bachelor's degree</td>
<td>155</td>
</tr>
<tr>
<td>Graduate or professional degree</td>
<td>151</td>
</tr>
</tbody>
</table>

American Indian, Eskimo, or Aleut:

<table>
<thead>
<tr>
<th>Educational Attainment</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some college, no degree</td>
<td>4</td>
</tr>
</tbody>
</table>

Asian or Pacific Islander:

<table>
<thead>
<tr>
<th>Educational Attainment</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>9th to 12th grade, no diploma</td>
<td>6</td>
</tr>
<tr>
<td>Bachelor's degree</td>
<td>2</td>
</tr>
</tbody>
</table>

Other race:

(None)

School Enrollment and Type of School (County residents 3 years and older)

Enrolled in preprimary school:

<table>
<thead>
<tr>
<th>Type of School</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public school</td>
<td>186</td>
</tr>
<tr>
<td>Private school</td>
<td>98</td>
</tr>
</tbody>
</table>
Enrolled in elementary or secondary school:
  Public school...........................................2,598
  Private school...........................................568

Enrolled in college:
  Public school...........................................231
  Private school...........................................35

Not enrolled in school................................. 7,781

Humphreys County School District: A Description

The Humphreys County School District (HCSD) was established in 1918, with schools located in every town in the county, i.e., Louise, Isola, Belzoni, Midnight, and Silver City. In 1970, the schools were consolidated, forming one of the largest consolidated school districts in the state of Mississippi. As a part of the consolidation, all schools were located in Belzoni, the county seat. Today, the district is composed of 5 schools located on 80 acres of prime delta farmland in the city of Belzoni: Ida Green Elementary School, O.M. McNair Upper Elementary School, Humphreys County High School, Humphreys County Vocational Complex, and an alternative school. The 1999-00 enrollments in the regular K-12 schools are as follows:

  Ida Green Elementary School (K-3): 817
  O. M. McNair Upper Elementary School (4-6): 561
  Humphreys County High School:
    Junior High (7-8): 368
    High School (9-12): 602

A total of 2,348 students (1,378 in K-6 and 970 in 7-12) are enrolled in the district in 1999-00. The average daily attendance is 2,171 or 92.5 percent, with an estimated high school graduation rate of 65 percent.

It would be inappropriate to fail to mention the private school, Humphreys Academy, that was founded in 1972 in Humphreys County. It has an enrollment of 272 students in grades 1-12 or about 12 percent of the total number of students in those grade levels in the public schools. The academy is located on a compact campus on the outskirts of Belzoni. As a private institution, it is not accredited (nor required to be accredited) by the Mississippi Department of Education, but it is accredited by the Mississippi Private Schools Association. Virtually all of the students in the academy are from Humphreys County. In effect, the establishment of the private academy created two school districts in the county, one for black students and one for white students. While there are a few white students who attend the public schools, the two schools are racially separated. Humphreys Academy is not a part of the Delta RSI, nor does it receive any services from the collaborative.

1Based largely on informational materials provided by central administration of Humphreys County School District
The Humphreys County School District includes 125 state certified (licensed) teachers, 3 noncertified teachers, and 40 instructional aides. Approximately half of the certified staff hold advance degrees. Each school is headed by a principal, and the district’s highest administrator is a publicly elected superintendent. The year began with Howard Austin as superintendent, Fred Avery as assistant superintendent, Joyce McNair as curriculum coordinator, and five principals: Janie Haynes (K-3), Eula Davis (4-6), Brenda Aust (7-8), Sarita McGee (9-12), and James Brown (Vocational Director). With the announced resignation and retirement of Superintendent Austin and the results of a public election in Fall 1999, Joyce McNair was elected superintendent. Her four-year term began on January 1, 2000. Superintendent McNair is a long-time resident of the community, and the Upper Elementary School is named for her father, O.M. McNair, also a long-time teacher and school administrator in Humphreys County.

The school district is governed by a five-member Board of Education. Each board member is elected from a designated supervisory district in the county, and the members serve staggered six-year terms. The board holds scheduled open public meetings twice a month.

The district is identified as “An Equal Opportunity Employer,” and “The Humphreys County Public School District does not discriminate on the basis of race, color, age, creed, gender, natural origin, handicap, or marital status.” The motto for the school district, as found on an informational brochure, is “Providing A Quality Education to All Children.”

All schools within HCSD are accredited by the Southern Association of Colleges and Schools and the Mississippi State Department of Education. The district’s curriculum is described as follows:

... a balanced and diverse curriculum, emphasizing that all students can learn. The district offers progressive, performance-oriented programs of high academic caliber. The administration, faculty and staff are devoted to helping 2,550 students learn basic skills, and to develop an intellectual curiosity which leads to the love of learning and lifelong learning.

Our commitment to providing a quality public education to all children is shown by the various programs implemented within the district: Honors Program (Gifted), Saturday Academy, Advanced programs at the middle and high school, compensatory programs, tutorial programs, and Special Education programs throughout the school district. Computer labs are located in every school, with take-home computers in the Parent Center.

High school students must successfully complete 24 Carnegie Units of coursework to be eligible for graduation. Currently, these requirements are as follows:

<table>
<thead>
<tr>
<th>Curriculum Area</th>
<th>Units</th>
<th>Required Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>4</td>
<td>I, II, III, and IV</td>
</tr>
<tr>
<td>------------------</td>
<td>-------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Math</td>
<td>3</td>
<td>Algebra I and Geometry</td>
</tr>
<tr>
<td>Science</td>
<td>3</td>
<td>Biology I</td>
</tr>
<tr>
<td>Social Studies</td>
<td>4</td>
<td>½ MS Studies, ½ World Geography, 1 World History, ½ U.S. History, ½ U.S. Government, and ½ Economics</td>
</tr>
<tr>
<td>Business and Computer</td>
<td>1</td>
<td>½ Computer Applications and ½ Keyboarding, or 1 Computer Discovery</td>
</tr>
<tr>
<td>Comprehensive Health</td>
<td>½</td>
<td>Comprehensive Health and Family &amp; Individual Health</td>
</tr>
<tr>
<td>The Arts</td>
<td>1</td>
<td>Art, General Music, Music Theory, Choral Music, Band, etc.</td>
</tr>
<tr>
<td>Electives</td>
<td>7½</td>
<td></td>
</tr>
<tr>
<td><strong>Total Units Required</strong></td>
<td><strong>24</strong></td>
<td></td>
</tr>
</tbody>
</table>

In the 1999-00 *Course Catalog for Humphreys County High School*, the following courses can be identified within or potentially directly related to the areas of science and mathematics.

**Science**
- Biology I and II
- Chemistry
- Environmental Science
- Human Anatomy and Physiology
- Introduction to Agriscience

**Mathematics**
- Algebra I and II
- Geometry
- Compensatory Math²
- Computation in Business
- Trigonometry
- Pre-Calculus

Teachers are employed to work for 180 days per year, which includes 1 parent conference day and 6 staff development days. Schools are open from 7:00 a.m. to 4:30 p.m.; teachers must

²For students who fail to meet the district’s minimum placement requirements or need assistance in mathematics, reading, or study skills.
report to work by 7:30 a.m. daily and may leave after 3:30 p.m. School days consist of 7 periods in high school and 6 periods in the middle school, or 330 minutes of academic instruction at each school level. Numerous activities, including concerts, athletic practice and events, and other extracurricular activities, extend the day for many students, selected teachers, and other activity supervisors.

Humphreys County is not a rich county, as evidenced by data presented earlier, yet the buildings and facilities are quite adequate and, except for one building, they are relatively new. However, the age of the buildings may be more a result of fires that required rebuilding as opposed to the will of the people to have newer facilities for students.

The HCSD has an annual expenditure of approximately $4,500 per pupil. Sources of monies to support the school district are distributed as follows:

<table>
<thead>
<tr>
<th>Source</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local</td>
<td>5%</td>
</tr>
<tr>
<td>State</td>
<td>70%</td>
</tr>
<tr>
<td>Federal</td>
<td>25%</td>
</tr>
</tbody>
</table>

In the March 1999 Humphreys County School District newsletter, Progressive Highlights, Superintendent Austin said,

Many of our high school graduates are very successful after entering community colleges, trade schools, and universities. While we take pride in the accomplishments of those students, we are also concerned about the segment of our school population who without more relevant education will become underachievers or dropouts.

I am especially concerned about those students who have the ability to be successful in school, but are not academically focused. Two major factors seem to be inadequate parental support and low-self esteem.

Unfortunately, some of our students are involved in group conflicts. They have become apathetic and have lost dedication and motivation to meet the academic challenges in their classrooms. Some of these students may even refuse to perform on our state mandated tests.

We are making a concerted effort to encourage and inspire more parental involvement to help these students who have somehow lost the desire and the will power to achieve.

In that same edition of the school district's newsletter, the superintendent and other administrative personnel, including the building principals, go on to describe specific activities and programs to help address some of the problems. One description related to technology is an article by Ms. Joyce McNair, then Curriculum Director and more recently the elected
superintendent of schools, in which a project entitled “Mid-Mississippi Delta Consortium/Distance Learning & Telemedicine Grant” was described. In part, Ms. McNair said,

The project seeks to improve access and use technology and distance learning to narrow the gap between students in the Mid-Mississippi Delta area and those in more affluent communities. The overall goal of the project is to improve educational achievement such that students are actively engaged in challenging learning experiences, have access to and practice with the tools and resources of technology, and are prepared for lifelong learning and productive employment.

The project will support the purchase and installation of multi-media computers with Internet access for targeted classrooms in grades 4 - 8, Internet connectivity for each of these computers, installation of videoteleconferencing equipment at the middle school with a district linkage to the electronic classroom. This project will enhance opportunities for homebound students to be engaged in the distance learning network via multi-media computers in the home. It will also enable the district to support its professional development goals and technology plan by opening new avenues and venues to professional development, integrating more up-to-date and challenging material across the curriculum, and providing opportunities for individualized approaches to learning.

The Delta Rural Systemic Initiative Project

The Humphreys County School District is a participating member in the Delta Rural Systemic Initiative (Delta RSI). This project includes 106 school districts, 557 schools, and more than 230,000 students in the delta states of Arkansas, Louisiana, and Mississippi. The mission of this RSI is

... to bring about systemic reform in the rural communities of the Delta region to ensure that Delta youth demonstrate globally competitive levels of knowledge and skills in science, mathematics, and technology for the achievement of professional and personal success.

The RSI’s goals are listed below:

Enhance the K-12 learning environment in the targeted counties and parishes to address each child’s needs and promote each child’s achievement in science, mathematics, and technology.

Increase the capacity of local communities to build and maintain quality science, mathematics, and technology educational programs for each community’s children.
Establish mechanisms to champion policy development and implementation at local and state levels in support of sustained reform in science, mathematics, and technology.

Create regional infrastructure that will utilize intra- and interstate alliances to develop sustainable regional improvements in science, mathematics, and technology.

There are several program elements of the Delta RSI:

- Leadership Institutes
- Request for proposal for stimulating systemic reform
- Technical assistance provided by field coordinators
- Resource convergence
- Community engagement

Public school districts eligible for participation in the Delta RSI are those located in the counties and parishes of the Lower Mississippi Delta Commission with a Beale Code of 6-9 (low population density) and in which 30 percent or greater of the school-age children are living in poverty, i.e., qualify for the free and reduced lunch program.

The Delta RSI, with administrative headquarters at the University of Mississippi in Oxford, Mississippi, is directed by Dr. Charles Alexander, and the Project Director is Dr. Alfred Hall. Mrs. Nancy Campbell, who is located at the Mississippi Department of Education in Jackson, Mississippi, is the field coordinator serving Humphreys County School District. Five other field offices and coordinators serve other areas of the three-state consortium. The external evaluator for the Delta RSI is Mr. Kirk Minnick, president of Minnick & Associates, Inc., with headquarters in Albuquerque, New Mexico.

While it is difficult to identify all of the activities and/or instances of involvement of the HCSD with the Delta RSI, it is noted that five representatives from the county registered for participation in Institutes I and II, held on February 15-20, 1998, in Fairfield Bay, Arkansas, and March 15-19, 1999, in Monroe, Louisiana. The persons who registered for these institutes were the superintendent, the curriculum director, a teacher, the librarian, and a hospital liaison.

A Regional Advisory Council, an entity developed to address one of the major goals of the project (create a regional infrastructure), has been developed to "... promote the goals and mission of Delta RSI in targeted counties/parishes of the project in order to enhance and improve the quality of Mathematics, Science, and Technology Education for the students in the rural counties of Arkansas, Louisiana, and Mississippi." The council was designed to have a membership that consists of stakeholders who have displayed leadership in their area(s) of expertise.
The council is organized with a slate of officers (chairperson, vice chairperson, and secretary), the Executive Committee, and five standing committees, each with a title and suggested charges related to the goals of the Delta RSI and the RSI program of the National Science Foundation. A listing of the standing committees is shown below.

1. Standards-Based Curriculum Committee
2. Community Engagement/Public Relations Committee
3. Technical Assistance/Professional Development Committee
4. Resource Convergence Committee
5. Policy and Finance Committee

Members of the council are expected to (1) be available to help the field coordinator promote the goals/mission of RSI; (2) promote systemic reform; and (3) attend major Delta RSI events, i.e., the DRSI Regional Conference and the DRSI Annual Conference.

In effect, the role of the field coordinators is defined by the council, and beyond NSF funding, the Regional Advisory Council or some form of it will be the sustaining element of this project.

From the Humphreys County School District, Ms. Joyce McNair (also a member of the Delta RSI Governing Board) is a member of the council; she was elected chairperson for the 1999-2000 school year. Ms. McNair also serves as a member of the Policy and Finance Committee. At the council’s October 1, 1999, meeting, future meeting dates were set for January 13, March 31, July 13, and October 13, 2000.

In the case of the Delta RSI overall, about 30 of the 106 school districts have not participated in the Leadership Institute, which is a prerequisite/requirement for an implementation grant. For the current year, these grants are about $10,000 per school district. These grants were made to support reform and improvement plans at the local school district level. Likely because of lack of experience, limited number of teachers, turnover of key personnel, etc., a number of school districts had problems in developing an acceptable plan for reform and improvement. To address these problems, each school district participating in the Delta RSI has identified two persons (usually a math teacher and a science teacher) as “points of contact”; and “key leaders” (about 1 per 15-20 points of contact) have been designated to facilitate communication and cooperation. Also, the administrators of the Delta RSI are considering developing “cooperative agreements” with each district. If implemented, a signed cooperative agreement would be a requirement and the basis for future involvement with Delta RSI activities and receipt of services.

The idea of “teacher leaders,” a practice in some other RSIs, was rejected for this project due to the high turnover rate among teachers. Also, two of the three states served by the Delta RSI (Arkansas and Louisiana) have NSF-supported State Systemic Initiative (SSI) projects. Efforts are made to coordinate activities between the RSI and the SSI of the given state. Much of the program level coordination is accomplished by the field coordinators, which results in a positive and close to a seamless effort from the perspective of individual teachers.
School District Student Assessment/Performance Results

The results of the 1998-99 (October 1998) administration of the Iowa Test of Basic Skills (ITBS) performance assessment for grades 4 - 9 in mathematics for the Humphreys County School District were made available to the study team. They are summarized below.

Table 1
Summary of Selected Math ITBS Results for 1998-99

<table>
<thead>
<tr>
<th>Grade Level/Area</th>
<th>N</th>
<th>NS</th>
<th>NCE</th>
<th>NPR</th>
<th>Overall Normative Performance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Math-Advanced Skills</td>
<td>195</td>
<td>4.3</td>
<td>41.9</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Math-Total</td>
<td>195</td>
<td>4.3</td>
<td>42.1</td>
<td>37</td>
<td>High Average</td>
</tr>
<tr>
<td>Grade 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Math-Advanced Skills</td>
<td>186</td>
<td>3.8</td>
<td>36.6</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>Math-Total</td>
<td>186</td>
<td>3.9</td>
<td>37.9</td>
<td>30</td>
<td>Low Average</td>
</tr>
<tr>
<td>Grade 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Math-Advanced Skills</td>
<td>235</td>
<td>4.0</td>
<td>38.6</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>Math-Total</td>
<td>235</td>
<td>4.1</td>
<td>40.9</td>
<td>35</td>
<td>Low Average</td>
</tr>
<tr>
<td>Grade 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Math-Advanced Skills</td>
<td>154</td>
<td>4.3</td>
<td>41.6</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Math-Total</td>
<td>154</td>
<td>3.9</td>
<td>37.8</td>
<td>30</td>
<td>Low Average</td>
</tr>
<tr>
<td>Grade 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Math-Advanced Skills</td>
<td>168</td>
<td>4.1</td>
<td>40.5</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Math-Total</td>
<td>168</td>
<td>4.1</td>
<td>40.5</td>
<td>36</td>
<td>Low Average</td>
</tr>
<tr>
<td>Grade 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Math-Advanced Skills</td>
<td>181</td>
<td>3.6</td>
<td>35.2</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>Math-Total</td>
<td>181</td>
<td>3.9</td>
<td>38.0</td>
<td>30</td>
<td>Below Average</td>
</tr>
</tbody>
</table>

Table 2 presents summarized data expressed as NCE assessment data for HCSD in 1998-99 and other Mississippi groups of students on 1997-98 data.
Summarized ITBS Math Assessment Data for Humphreys County (1998-99) and Mississippi Comparison Groups (1997-98)

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>All Schools in State</th>
<th>Delta RSI Schools</th>
<th>Humphreys County School District</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NCE</td>
<td>PR</td>
<td>NCE</td>
</tr>
<tr>
<td>4</td>
<td>49.3</td>
<td>49</td>
<td>45.9</td>
</tr>
<tr>
<td>5</td>
<td>47.7</td>
<td>47</td>
<td>43.4</td>
</tr>
<tr>
<td>6</td>
<td>49.9</td>
<td>52</td>
<td>46.2</td>
</tr>
<tr>
<td>7</td>
<td>47.2</td>
<td>47</td>
<td>42.9</td>
</tr>
<tr>
<td>8</td>
<td>47.1</td>
<td>47</td>
<td>42.9</td>
</tr>
</tbody>
</table>

At every grade level (4-8), Humphreys County School District students have lower NCE and PR scores than their counterparts in the other Delta RSI school districts.

In looking further at the data for HCSD on the 1998-99 administration of the ITBS, the rank order of math skills by grade level, according to the percentage of the items that were answered correctly, is as follows:

Grade 4
- Data Interpretation (57 %)
- Concepts (53 %)
- Problem Solving (46 %)
- Estimation (35 %)

Grade 5
- Concepts (53 %)
- Data Interpretation (41 %)
- Problem Solving (40 %)
- Estimation (36 %)

Grade 6
- Estimation (46 %)
- Concepts (44 %)
- Problem Solving (41 %)
- Data Interpretation (40 %)

Grade 7
- Problem Solving (48 %)
- Data Interpretation (43 %)
- Estimation (39 %)
- Concepts (33 %)

Grade 8
- Data Interpretation (45 %)
- Estimation (43 %)
- Concepts (38 %)
- Problem Solving (32 %)

There appears to be no consistent trend of what area was most correctly answered on the ITBS in 1998-99.
From data provided by Minnick & Associates, the external evaluator for the Delta RSI, a listing of the percentage of HCSD students enrolled in selected courses during 1997-98 and 1998-99 are presented below.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Percentage of HS Students Enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1997-98</td>
</tr>
<tr>
<td>Mathematics:</td>
<td></td>
</tr>
<tr>
<td>Algebra I</td>
<td>27.9</td>
</tr>
<tr>
<td>Algebra II</td>
<td>9.9</td>
</tr>
<tr>
<td>Geometry</td>
<td>20.7</td>
</tr>
<tr>
<td>Science:</td>
<td></td>
</tr>
<tr>
<td>Biology I</td>
<td>33.6</td>
</tr>
<tr>
<td>Biology II</td>
<td>3.5</td>
</tr>
<tr>
<td>Chemistry</td>
<td>3.5</td>
</tr>
<tr>
<td>Physics</td>
<td>2.7</td>
</tr>
</tbody>
</table>

Although these data are for only two years, it does not appear that there is an increase in the number of high school students who enroll in advanced science or math courses. However, it should be noted that these figures represent the percentage of students enrolled in each course in a given year. It does not mean, for example, that only 2.7 percent of the students ever take physics.

Other data pertinent to the overall goals of the RSI were provided by Minnick & Associates in the form of summarized data (percentages of students who agreed or strongly agreed) regarding the O.M. McNair Upper Elementary students' perspectives of math and science education. Some examples of each are provided below.

<table>
<thead>
<tr>
<th>Issue or Statement</th>
<th>Percentage Who Agreed or Strongly Agreed</th>
</tr>
</thead>
<tbody>
<tr>
<td>I like math.</td>
<td>66</td>
</tr>
<tr>
<td>I like science.</td>
<td>77</td>
</tr>
<tr>
<td>I am encouraged to ask questions in math class.</td>
<td>64</td>
</tr>
<tr>
<td>I am encouraged to ask questions in science class.</td>
<td>72</td>
</tr>
<tr>
<td>Some people can learn math better than others.</td>
<td>76</td>
</tr>
<tr>
<td>Some people can learn science better than others.</td>
<td>72</td>
</tr>
<tr>
<td>I will use math in many ways as an adult.</td>
<td>75</td>
</tr>
<tr>
<td>I will use science in many ways as an adult.</td>
<td>86</td>
</tr>
</tbody>
</table>
From the same survey of upper elementary students, it was reported that the following percentages of students perceive that each of these activities occurs 1-2 times a week or more in their math and science classes.

**Mathematics**
- Watch your teacher do a math demonstration (98 %)
- Work in small groups in math (56 %)
- Read a math textbook in class (80 %)
- Use a computer in math (30 %)
- Take a test or quiz in math (70 %)
- Create your own ways to solve or investigate math problems (49 %)
- Do math problems from textbooks or worksheets (88 %)

**Science**
- Watch your teacher do a science demonstration (75 %)
- Work in small groups in science (30 %)
- Read a science textbook in class (93 %)
- Do hands-on or lab science activities (44 %)
- Write lab or science reports (23 %)
- Use a computer in science (20 %)
- Take science field trips (9 %)
- Take a test or quiz in science (74 %)
- Create your own ways to solve or investigate science problems (35 %)
- Learn about science through real-life problems (57 %)

While these reported perceptions may or may not be indicative of what actually happens, they are important because they indicate what the students themselves perceive. Also, these are the responses of only the upper elementary students of the school district. The WMU visitation team observed classrooms during its three days in the school and community. We observed a variety of instructional styles, but observed very little hands-on work by students in science classes and no instructional time in which students used computers in the classroom. In the biology room at the high school, we saw a well-designed laboratory for high school use, including very modern and functional fixtures, i.e., lab tables, growth chambers, sinks, vent hoods, etc. However, it looked as though it had been some time since most of the fixtures had been used for their intended purpose. At that time, which may or may not be indicative of long-term use, we saw them being used as places where handmade posters were stored.

In conversations with persons from the community, they were able to cite many instances in which major industries of the community (agriculture and catfish farming) would lend themselves to field trips and laboratories for biology and chemistry. However, they could not recall an instance when the industries had been used for that purpose, and discussions with teachers did not produce evidence that these options had been considered.
Progress and/or Presence of the Drivers of Educational System Reform

Evidence of the presence or progress toward fulfilling the intent of the Six Drivers for Educational System Reform, as disseminated by the National Science Foundation, was a major focal point of the visitation team’s work. In the following section, these findings are summarized.

Driver #1: Implementation of a comprehensive, standards-based curricula and/or instructional materials that are aligned with instruction and assessment available to every student served by the system and its partners.

Overall, there is weak evidence that this driver is fully or functionally implemented in the Humphreys County School District. However, there is widespread movement to align elements of the current and newly developed curriculum with the state standards for math and science. Yet, it appears that much of the curriculum and instructional activities is selected and controlled by individual teachers. In essence, the curriculum is instructor specific or driven, which gives little assurance that systemic reform will be sustainable over time. In the documentation related to CAP/SIP Reading Sufficiency, A Process of Intervention for School Improvement, reference is made to the “state Mathematics Framework, NCTM Standards, and Addenda Series to continually prescribe and assess interventions” and to “continue to use state math curriculum to address identified student strengths and weaknesses.” Comparable action regarding the various science courses or levels of science instruction was not found.

Conversations with selected teachers revealed a relatively low understanding of state standards and virtually no knowledge of national standards. When they talk about instruction and student assessment, they do not couch their comments in relationship to recognized standards or on the basis of systemic reform literature. While the opportunity exists, we saw very little inquiry teaching or students working in laboratories or engaged in hands-on math and science activities.

While there are some broad goals for the school district, we are not aware of specific sets of goals for the areas of math and science.

Driver #2: Development of a coherent, consistent set of policies that supports: provision of high-quality mathematics and science education for each student; excellent preparation, continuing education, and support for each mathematics and science teacher (including all elementary teachers); and administrative support for all persons who work to dramatically improve achievement among all students served by the system.

Policies addressing graduation requirements and mandated student assessments are being developed or implemented. However, the quality and appropriate training of teaching personnel is questionable. There seems to be considerable community pressure to maintain employment for some instructional personnel because of their history with the school or the need for their families to have an income. Considerable effort and money are devoted to professional development activities, but it is not clear that these activities are selected/developed because of
an assessed need or for reasons of convenience. With the apparent shortage of math and science teacher candidates in the region, the school district may have little chance to employ strong teachers; therefore, there is school and community support for a "grow your own" program to encourage, support, and employ Humphreys County residents in HCSD.

The teacher evaluation form that was made available to the team includes 14 categories of competencies on which teachers are annually assessed. Among these competency areas are those listed below:

1. Plans intervention to achieve selected objectives
2. Organizes instruction to take into account individual differences among learners
3. Uses instructional techniques, methods, and media related to the objective
4. Communication with the learner
5. Demonstrates a repertoire of teaching methods
6. Demonstrates an understanding of the school subject being taught and demonstrates its relevance
7. Demonstrates high expectations for learners' academic performance
8. Helps learners develop positive self-concepts
9. Manages classroom interactions

Collectively, an objective and thorough evaluation using this instrument should provide a reasonable assessment of ability to perform as a teacher, but there is nothing in the procedure that suggests that effectiveness, as measured by student learning, success in higher grade levels, or advanced coursework, is considered.

In fairness to the current administration, the school district has undergone a change of administration. While there seems to be a lack of policies that forward or encourage excellence in the math or science programs, we do find practices, e.g., those related to professional development, that give evidence that the district is supportive of teachers and has taken steps to improve the quality of education in Humphreys County School District.

**Driver #3: Convergence of the usage of all resources that are designed for or that reasonably could be used to support science and mathematics education—fiscal, intellectual, materials, curricular, and extra-curricular into a focused and unitary program to constantly upgrade, renew, and improve the educational program in mathematics and science for all students.**

This is a poor school district in a poor state. What we see today in the Humphreys County School District in terms of resources are likely recognized by the citizens of the county as quite good in comparison with earlier times. At the same time, the district has been a sought after participant in a number of externally funded projects—Star Schools and others—because of the high eligibility levels of the schools, i.e., poor and with large minority enrollments. In a sense, such recognition for participation is both a blessing and potentially a curse. The availability of external grants and assistance may reduce the local community's commitment to supporting the
schools at a financially reasonable level, and it may cause confusion and competition within the school if the programs are not compatible. To the extent possible, the visitation team observed an administration that was committed to these students and to the improvement of the schools. Administrators seemed to be able to recognize what benefits could be obtained from an external program and to reject elements that might have detrimental effects on the students and schools. Yet, we perceive them as opportunists and persons willing to take calculated risks in becoming involved in potentially beneficial activities for the schools.

In spite of the experience and skills of the administrators of the district, we did not see a particularly well-focused plan to converge all resources for the improvement of science and math. Areas other than math and science also need attention. In other words, math and science are not necessarily the highest educational priority of this community or school district. Going back to the community issues, particularly the relatively low educational level of the adult population and the lack of jobs that require technical skills and knowledge of science and math, the schools must face the negative impact of this situation on a daily basis.

Overall, we would judge this driver to be weakly implemented, but this is not to say that math and science are not receiving both attention and resources. The direct financial benefit from RSI involvement is small, but it does provide a focus for the district in terms of curricular and financial planning. District funding and extramural funding for targeted systemic reform initiatives were identified as part of the district’s planning process. The program improvement plan developed for May 1999 to May 2000, as well as discussion with district administrators, were sources of evidence for this conclusion. Limited funds from the district budget were included in the plan, since most of the funding was designated to be from external sources. However, no clear plan for convergence of funds in support of math and science is evident.

Reducing the student to teacher ratio in the areas of math and science has not occurred to any great extent. While funding is a factor, an even more complicating factor is the lack of certified and qualified teachers in this region. Administrators, teachers, and even community members identified the teacher shortage in math and science as a serious challenge to be addressed. To alleviate this situation, the assistant teacher program was designed to allow interested individuals to work in the classroom while they go to school to become certified.

More consistent progress has been made on the indicators relating to the use of technology and telecommunications used to support science and math education and in providing access to learning technologies throughout the facilities. HCSD has an electronic classroom that is used for distance education college classes and for staff development opportunities. Teachers, administrators, and the Delta RSI staff spoke positively about the learning opportunities this classroom has facilitated. In addition to this electronic classroom, teachers have a computer in their classrooms and are receiving staff development on utilizing this technology as an instructional tool for science and math.

There is evidence of visible success in the area of pooling resources to enhance the opportunities for professional development. Clearly, federal funds—like Eisenhower Grant money, Title I, Title II, and Carl Perkins Tech Prep—and state resources—like the technology fund money—
have been used together to support a more targeted district staff development plan and to support the district’s RSI efforts. In addition, through these and other funds, opportunities have been made available for work beyond the school day and year, such as summer school and other special programs for children and youth. One principal indicated that the RSI funds were extremely important in helping the district to accomplish the task of focusing its available resources. This administrator said that even though the dollar amount was small, the RSI funds helped the district show teachers, parents, and community members that the district was trying to find solutions. This gained greater support for the district’s efforts to pool funding for targeted program improvement.

Driver #4: Broad-based support from parents, policymakers, institutions of higher education, business and industry, foundations, and other segments of the community for the goals and collective value of the program, based on rich presentations of the ideas behind the program, the evidence gathered about its successes and its failures, and critical discussions of its efforts.

The extent of implementation of this driver is moderate. Evidence in the district illustrates that consideration was given to the indicators in this driver as the program improvement goals for science and mathematics education were planned. Implementation is in the beginning stages, but there has been some visible success.

Two goals in the Humphreys County School District Strategic Planning Document for 1998-99 relate to this driver: to increase parent involvement and to increase public awareness of school initiatives, programs, and events. Strategies that the district designed to achieve these goals relate to all of the indicators of this driver. However, most of these strategies were designed for short-term results. The district needs to develop a long-range plan designed to broaden its base of support and to strengthen the involvement of students, parents, community members, business and industry, and higher education in collaborative efforts to support systemic reform initiatives.

The following are two examples of strategies that were used by the district and immediately seemed to increase involvement. Implementation of a family math and science night last spring was one of the events that administrators, teachers, parents, and community members repeatedly identified as an example of a successful involvement of parents and the community with the school. In addition to the family math and science night, the district has instituted town meetings in each of the communities in the school district. These meetings were designed for the district to develop a dialogue with parents and community members. Not only could parents voice their concerns and questions, but the district could share program improvement goals and strategies to increase student achievement.

Both of the above strategies show evidence that the district is increasing the support level among relevant stakeholders, and it is working to increase the common understanding of expected outcomes for students. As a result of these efforts, it appears that there is a strong core group of parents and community members who are now dedicated to reform. However, the real challenge for this district will be to further increase the involvement and “buy-in” of the systemic program.
changes from a broader base of parents and community members. To involve many of the parents and community members who are seldom seen at school will undoubtedly take more time and effort to accomplish, but it is critical to the long-term success of the reform movement.

There is moderate evidence of collaboration with business and industry, community-based organizations, and higher education in support of reform efforts. “Adopt a school” partners with groups like Memorial Hospital and the soil conservation service have been established. An outdoor classroom for science is under development at the middle school from one of these partnerships. Teacher incentives and tutors for math and science are a couple of additional examples that illustrate the partnerships that have been formed. Expansion of this type of public/private partnership would enhance the program improvement efforts of the district.

In terms of higher education, Humphreys County School District has developed collaboratives with higher education institutions in the region to assist it in systemic reform initiatives. HCSD participates in The Delta Association for Improvement of Schools. This is a collaborative group sponsored by higher education. Its purpose is to provide leadership in pulling together school administrators and teachers in the region to design programs to support local systemic reform initiatives. Credit courses and staff development workshops that are needed by the schools have been designed for distance education delivery systems. The electronic classroom at Humphreys County High School has been widely utilized for these programs.

**Driver #5: Accumulation of a broad and deep array of evidence that the program is enhancing student achievement, through a set of indices that might include achievement test scores, higher level courses passed, college admission rates, college majors, Advanced Placement Tests taken, portfolio assessment, and ratings from summer employers, and that demonstrate that students are generally achieving at a higher level in science and mathematics.**

There is no substantial evidence of significant implementation of this driver and its indicators. This dearth of implementation should not be construed as lack of effort or desire to reform math and science education on the part of the Humphreys County School District. A more realistic interpretation, based on the information observed and obtained during the visit, would be to view the schools as being highly motivated but in the embryonic stages of implementation.

It is not known to what extent high quality courses exist and how much their presence influences enrollment. The ongoing restructuring of courses and an increase in graduation requirements may result in an increase in enrollments in more challenging math and science courses. Although the extent of implication is not significant at this time, the increased requirements evidence a positive future direction.

At this time, standardized tests are the most notable forms of accountability for student achievement. However, there is some question as to the seriousness with which some students respond to achievement tests for which there are few, if any, individual consequences. The plan for standardized testing does not provide a consistent method for tracking individual student
progress in relationship to the teachers' involvement in RSI activities. Further, there are a number of ongoing programs designed to improve education in this school district; thus, it would be difficult to identify the specific impact of RSI or any other program on increased (or decreased) achievement test scores.

Humphreys County School District personnel have been and continue to be involved in a number of workshops and in-service presentations made possible by the RSI. Data relative to implementation of RSI goals might be approached through data collection in connection with the workshops and presentations. No firm evidence of the data collection could be confirmed.

Data relative to implementation of findings from Delta RSI formative evaluation efforts and independent internal study are the basis for changes in the district's strategic improvement plan, according to top-level administrative personnel. They report that changes being implemented are data-based and reflect findings from RSI activities.

There is no evidence that any formal, site-specific program evaluation of RSI involvement is occurring at this time.

The Humphreys County School District currently requires a variety of standardized tests. These have included the Iowa Tests of Basic Skills, exit exams in the fourth and seventh grades, and the McGraw-Hill exam that replaces the ITBS. These currently employed measures are relevant to the need for the use of valid and reliable student measures of achievement. However, there is no evidence that these tests are aligned with the curriculum of the school.

Job and college attendance data offer a degree of implementation through information provided on bulletin boards and counselors' offices. That more than half of the graduates continue in some form of postsecondary education is evidence that students are getting relevant information. Outcomes from science and math programs seem to be available for public scrutiny, in that interviewed parents were quite conversant about student performance issues. The Humphreys County Schools have been aggressive in seeking parental participation and input. The science night for parents is one specific effort for which they are quite proud, and justifiably so. Administrators at the schools report that the relationship with the RSI has been very helpful in this pursuit.

Traditional classroom exams and standardized tests were the only assessment methods observed, but it is reported that more than 50 percent of the graduates pursue postsecondary education and, according to both Mr. Austin and Ms. McNair, most of these students take the ACT. However, it is not known whether changes have occurred since the district's involvement with the RSI.

There was no evidence that any systematic follow-up procedure of graduates was present.

Driver #6: Improvement in the achievement of all students, including those historically underserved.
Given the fact that all of the students in the Humphreys County School District are historically underserved, the statements focusing on that segment of the driver are irrelevant. Clearly, since virtually all of the students are African American, the issues regarding minorities are rendered moot. With regard to the sections of the indicators focusing on success in math and science courses, i.e., increased/improved scores on measures of learning and improvement of standardized test scores among underserved populations, these are not evident. There is evidence that the schools are conscious of the need for attention to the math and science programs and focused efforts for improvement are occurring. A science night for parents featuring science projects prepared by students was widely reported as very successful. The creation of a natural science outdoor lab at the elementary school is intended to link the reality of where students live to what they study in the classroom. A much greater use of manipulatives in mathematics classrooms was reported by teachers and principals. As a result of the RSI, teachers are involved in a number of in-service opportunities focusing on curriculum and instruction. The visiting team was able to participate in both a science simulation and a meeting focusing on the implementation and use of technology. Technology is present in the classrooms, and the goal is to integrate the technology with the instruction to a greater degree than now exists.

Based on a set of indicators that were developed and validated for each driver by the Resource Advisory Team of the NSF RSI evaluation study being conducted by The Evaluation Center at Western Michigan University, the overall rating of each driver in the Humphreys County School District is shown in Table 4. The rating of each driver is a consensus, based on the evidence found during the on-site study/visit and the independent ratings of the four members of the visitation team.
Table 4

Rating of Educational System Reform Drivers

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<th>Driver</th>
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<tbody>
<tr>
<td>1. Implementation of standards based curriculum</td>
<td>1</td>
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<tr>
<td>2. Policies supportive of quality math and science programs</td>
<td>1</td>
</tr>
<tr>
<td>3. Convergence and usage of resources to support math and science programs</td>
<td>2</td>
</tr>
<tr>
<td>4. Broad-based support and involvement of parents and others</td>
<td>2</td>
</tr>
<tr>
<td>5. Accumulation of broad and deep array of evidence that the program is enhancing student achievement</td>
<td>1</td>
</tr>
<tr>
<td>6. Improvement in the achievement of all students, including the historically underserved</td>
<td>2</td>
</tr>
</tbody>
</table>

* 0 = Not present/no evidence; 1 = Weak evidence/beginning but sporadic; 2 = Moderate evidence/developing but visible success; and 3 = Strong evidence/operationally consistent and widespread

Concluding Statement

The Humphreys County School District, because of the milieu in which it exists, faces a number of daunting challenges. Schooling in America is increasingly difficult in the best of environments. Humphreys County, in addition to the problems that face schools everywhere, faces problems that do not exist in most locations. As a result, the ability of the schools to meet the Rural Systemic Initiative goal of improving test scores in math and science is severely compromised.

In the broadest sense, the tradition of segregation continues in Humphreys County. Although de jure segregation no longer exists, de facto segregation permeates the fabric of the county. The population of approximately 12,000 is 60 percent African American and 40 percent white. The population of the Humphreys County School District, with an enrollment of 2,500, is nearly 100 percent African American (it was reported that four white students are enrolled, although none were seen). The private school, with an enrollment of nearly 300, is 100 percent white.

The educational segregation of the children and youth of the community combined with long-held personal and political values are factors that affect schooling on a daily basis and are an easy target for criticism by both major racial groups. One long-time influential member of the community reported that “although it was probably wrong for whites to have abandoned the public schools when integration was ordered, they certainly wouldn’t return now because the schools are not safe.” Allegation of unsafe public schools was in no way confirmed by any of the team members who spent a considerable amount of time “walking the halls” and interacting
with students of all grade levels. It was also alleged that the public schools, although they had “plenty of money” and had teachers “making $50,000 a year” (again not confirmed), were simply not good. When questioned about the private school, the response indicated that it wasn’t great but that it was more “comfortable” for the white students. Also, it was reported by one white parent whose child had attended the public school for a time that she had no choice but to send her child to the private school because that would be the social circles in which she would live.

The tradition of segregation also permeates the church community of Humphreys County. An African-American minister who was interviewed stated that the white ministers are very supportive of integrated activities but fear they would lose their congregations and their jobs were they to take a lead in such efforts. The segregation even affects summer athletic programs and playing fields.

The tradition of segregation is difficult to overestimate as a factor that hinders the ability of the Humphreys County Schools to meet their goals. In 1954, Justice Earl Warren stated in the landmark Brown v Board decision, “Segregation ... denotes inferiority of the Negro group and affects their hearts and minds in a way nearly impossible to undo...” In other words, it is very difficult to inculcate a sense of pride and a reason to excel when the overall culture is full of barriers.

In addition to the ongoing tradition of segregation, there are some very difficult economic realities. By far the largest employer in the area is the catfish industry, which depends on a large pool of unskilled, minimum wage workers. It was reported and confirmed by school personnel including the superintendent-elect and two principals that the schools receive very little support from area industries. This is a logical assumption, given that area industry has little need for skilled employees. Indeed, a school that produces a large number of skilled graduates might not be in the best interest of the local industries.

Another economic reality in Humphreys County is poverty, with little hope for much improvement among many of its citizens. There is a very large population in the county for whom education in general, let alone math and science, is totally irrelevant. The concept of schooling for a better life is simply not understood or internalized. The rags-to-riches stories that many Americans were raised on never filtered down to the poorest of the poor in this county. As a result, the schools are constantly facing a very high dropout and teen pregnancy rate.

Finally, the site situation of Humphreys County must be understood. It is located in the Mississippi Delta, a rural, remote, poor, segregated region that is devoid of opportunities for educated individuals. It is not a particularly inviting place. As a result, attracting and retaining qualified teachers is a constant problem.

All of the negative features of this area combine to create an incredibly challenging situation with which the schools must cope. The Rural Systemic Initiative cannot magically transform the
Humphreys County School District. The visitation team was impressed with the energy and hope of some of the highest level administrators. Importantly, they have not given up hope, and they consider the RSI as one of several catalysts that may help them fulfill some immediate goals and give them direction for more lofty goals that may not be fulfilled for decades. They invited the visitation team to give suggestions for improvement and were most hospitable during our visit. We perceive them as open and willing to go that extra mile for their students. Interestingly, most of the persons with whom we spoke are from this area and have no intention of leaving or abandoning the long road they have ahead of them for substantial and systemic reform in this community. With regard to the RSI, this district is struggling with the need to improve in all areas, including math and science. While it acknowledges and welcomes the assistance and support from the Delta RSI, realistically, there are too many problems to expect instant success.
--- Revision List ---

Paragraph numbers shown as zero refer to the part of a paragraph that is carried over from the previous page. The \{Hrt/Hpg/Tab/Spc\} codes are generic symbols which refer to categories of end-of-line, tab/indent, or space codes.

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<td>Corporate Source</td>
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