



***Profiles and Lessons Learned:
Examples from Florida, Michigan, and South Dakota***

Virginia V. Van Horne, Research Associate
Directorate for Education and
Human Resources, AAAS

SECTION I



Profiles and Lessons Learned: Examples from Florida, Michigan, and South Dakota

OVERVIEW

In 1996 the American Association for the Advancement of Science (AAAS) released *Science Education Reform for All (SERA): A Look at How State Departments of Education Are Infusing Equity and Excellence into PreK-12 Systemic Reform*, a report which examined the policies, practices, and strategies that state departments of education or state education agencies (SEAs) are using to infuse equity and excellence into their ongoing science, mathematics and technology (SMT) systemic education reform efforts. The report focused primarily on the SEAs located in Florida, Michigan, and South Dakota.

As part of the SERA reform, three school districts in Florida, five school districts in Michigan, and two school districts and three tribal schools in South Dakota received mini-grants in the amount of \$2,000 from the Science Education Reform for All (SERA) project. In order to receive the \$2,000, the schools were required to enter into a Memorandum of Understanding with AAAS and accomplish the following tasks:

- form a SERA action team composed of staff in the school district office who manage mathematics and science programs, U.S. Department of Education categorical programs, and other equity programs for the purpose of developing strategic plans and plans of actions that will ensure science/mathematics education for all;
- provide staff time for selected members of the SERA action team to participate in planning sessions with other school districts in their state as part of systemic initiative programs; and
- assign a key staff member to serve as the SERA liaison between the district and AAAS. This staff

member would coordinate meetings and activities for the district, circulate the strategic and action plans for ensuring equity in SMT education reform, and promote outreach programs on SMT education to parents and community members.

To ascertain their progress towards SMT reform and follow up our first report, we circulated and analyzed mail surveys and held in-depth telephone interviews with a representative from each of the ten school districts and three tribal schools. We also conducted or sponsored workshops in these SEAs on the topics of SERA and reform.

Following this overview are three sections separated by SEA: Florida, Michigan, and South Dakota. Within each section you will find:

- a brief recap of the SEA's statewide systemic reform;
- profiles on each of the 13 SERA sites;
- profiles of school districts include performance indicators. These indicators are presented to show how states or districts report data to the public or to school advisory councils. These indicators are designed to provide information for an individual school district or school improvement plan and are not designed for comparison among school districts or schools;
- lessons learned from individuals who are directly involved with the SERA reform efforts within each SEA. Address and contact information for each SERA site can be found at the back of this report in Appendix I.



Florida



About the Florida Statewide Systemic Reform

Lessons Learned

Profiles:

Osceola County School District

Palm Beach School District

Pinellas County School District



About the Florida Statewide Systemic Reform

The State Board of Education approved the Sunshine State Standards on May 29, 1996. *The Sunshine State Standards* identify the essential knowledge and skills that students should learn and for which the state will hold schools accountable. Standards in language arts, mathematics, science, social studies, music, visual arts,

theatre, dance, health, physical education, and foreign languages have been developed. Each subject is broken down into four levels: PreK-2, 3-5, 6-8, and 9-12. Curriculum frameworks for each of the above subjects have been developed as well. According to the *Sunshine State Standards* home page on the Internet, every school

TABLE 7 FLORIDA'S GOALS FOR EDUCATION

Goal 1: Readiness to Start School	Communities and schools collaborate to prepare children and families for children's success in school
Goal 2: Graduation Rate Readiness for Postsecondary Education and Employment	Students graduate and are prepared to enter the workforce and postsecondary education
Goal 3: Student Performance	Students successfully compete at the highest levels nationally and internationally and are prepared to make well-reasoned, thoughtful, and healthy lifelong decisions
Goal 4: Learning Environment	School boards provide a learning environment conducive to teaching and learning
Goal 5: School Safety and Environment	Communities provide an environment that is drug-free and protects students' health, safety, and civil rights
Goal 6: Teachers and Staff	The schools, districts, colleges of education, postsecondary institutions, and state ensure professional teachers and staff
Goal 7: Adult Literacy	Adult Floridians are literate and have the knowledge and skills needed to compete in a global economy and exercise the rights and responsibilities of citizenship
Goal 8: Parental Involvement	Communities, school boards, and schools provide opportunities for involving parents and guardians as active partners in achieving school improvement and education accountability

Source: Florida Department of Education, *The Basics of School Improvement and Accountability in Florida*, <http://www.firn.edu/doe/bin00048/basics.htm#goals>

and school district in Florida has a set of these materials, known as the *Florida Curriculum Framework: PreK-12 Sunshine State Standards and Instructional Practices* series. Of note, *Florida's Sunrise Performance Standards for Publically Funded Early Education and Care Programs* were released in May 1997. They do not focus on grades, but rather on early education and care. The *Sunrise Standards* are targeted towards those working with young children such as program administrators and teachers to improve the quality and care of all early education childcare programs.

With respect to assessment, local school districts, or local education agencies (LEAs) select their own norm-referenced tests. A new statewide, custom-made, criterion-referenced test, the Florida Comprehensive

Assessment Test (FCAT), has been developed to measure students' achievement of the Sunshine State Standards. The FCAT was administered in late January and early February of 1998. Students will be assessed once in the elementary years, once in the middle school years, and once in the high school years.

As noted on the Florida Department of Education's homepage, "each student's progression from one grade to another must be determined, in part, by proficiency in reading, writing, and mathematics. Students not meeting specific district and state levels of performance must be provided remediation through (1) additional diagnostic assessments to determine academic needs and (2) implementation of an individual academic improvement plan developed by the school in

TABLE 8 PERFORMANCE INDICATORS AND REPORTING

An essential part of the system is accountability to parents and the community for school and student performance. Sixteen indicators are used to report information on how well each school is doing on Goals 1-8. The indicators are designed to provide data for individual school improvement, not for comparisons among schools. Schools will report data on each of the indicators in the School Public Accountability Report. This is a unique report prepared annually by each school. Beginning in 1997-98 and each year thereafter, the report will be distributed to parents no later than November 15. The data will be reported at the district and state level when available.

The School Advisory Council Report is a more detailed report describing subpopulations, and where appropriate, gender and race/ethnic groupings. This report is used by the school advisory council for school improvement planning. This report is not intended for direct distribution to parents, but they are informed that copies are available to the public.

Goal 1: Readiness to Start School

Indicator 1.1 Number and percentage of students meeting the expectations of the state for school readiness as determined by a formal observation of each kindergarten student using an instrument that meets guidelines developed by the Department of Education.

Goal 2: Graduation Rate and Readiness for Postsecondary Education and Employment

Indicator 2.1 The number and percentage of students who graduate from high school as defined in Section 232.2468, Florida Statutes.

Indicator 2.2 Number and percentage of students 16 years or older who were reported as dropouts at the end of each school year

Indicator 2.3 Number and percentage of students who meet the state levels in reading, writing, and mathematics for placement into college-level courses.

Indicator 2.4 Number and percentage of graduates who are employed, enrolled in postsecondary programs, or enlisted in the military using the most recently available data.

Goal 3: Student Performance

Indicator 3.1 Student performance results on state-designated external student assessments at various grade levels, including Florida Writes!, the High School Competency Test (HSCT), and locally administered norm-referenced tests at grades four and eight.

consultation with their parents or guardian. For additional information on education in Florida, Tables 7 and 8 in this section outline Florida’s goals for education as well as the indicators used to report information on how well each school is doing in terms of meeting those goals. With respect to performance indicators for our three Florida SERA school districts, three charts (12, 13, and 14) can be found at the end of the Florida profiles section: one on student performance in reading and math at grade ten; one on graduation rates, and one on dropout rates.

Looking at professional development, the state requires each school to develop a school

improvement plan; professional development activities are incorporated into each school’s respective plan. The state mandates one day of professional staff development in March and one in October. In terms of English for Speakers of Other Languages (ESOL) training, Florida requires teachers to take a mandatory 60-hour component for ESOL training within three years of becoming employed as a teacher.

Since our first SERA publication, Florida has implemented a new law that will require students to have a 2.0 grade point average (a “C”), up from a 1.5 grade point average (a “D”), in order to graduate

TABLE 8 (CONTINUED)

Goal 4: Learning Environment	Indicator 4.1 Results of an annual locally-administered school learning environment survey.
	Indicator 4.2 Number and percentage of teachers and staff who are new to the school at the beginning of each school year.
	Indicator 4.3 Number and percentage of students absent 11 to 20 days and 21 or more days each year.
	Indicator 4.4 Average number of days teachers and administrators were not in attendance at the school for reasons classified as personal leave, sick leave, and temporary duty elsewhere.
Goal 5: School Safety and Environment	Indicator 5.1 Number and percentage of incidents of violence, weapons violations, vandalism, substance abuse, and harassment on the bus, on campus, and at school-sponsored activities.
Goal 6: Teachers and Staff	Indicator 6.1 Number and percentage of classes taught by out-of-field teachers.
	Indicator 6.2 Number and percentage of teachers, administrators, and staff who receive satisfactory annual evaluations based on the district assessment system.
	Indicator 6.3 Number and percentage of teachers in the school who have earned degrees beyond the bachelor’s level.
Goal 7: Adult Literacy	Indicator 7.1 Number of adult students served by the district earning a State of Florida High School diploma either by earning credits and taking the High School Competency Test (HSCT) or taking and passing the General Education Development (GED) tests.
Goal 8: Parental Involvement	Indicator 8.1 Number and percentage of school advisory council members by membership type and racial/ethnic category. (NOTE: The Florida Commission on Education Reform and Accountability is requesting the addition of “attendance of council members” to this indicator.)

Source: Florida Department of Education, The Basics of School Improvement and Accountability in Florida, <http://www.firn.edu/doe/bin00048/basics.htm>



from high school or participate in sports or other extra curricular activities. This new law will begin with the class of 2000. Additionally, graduating seniors will be required to have completed Algebra I or its equivalent.



Thomas M. Baird
Director, Area Centers
for Educational Enhancement
Florida Department of Education

Lessons Learned: from Teaching Science and Mathematics Equitably in Florida

The primary objective of Florida’s SERA project was to effect change in student participation and performance so that all students have equitable access to high-quality science, mathematics and technology education, and to equitable treatment in the classroom, schools, and postsecondary education institutions. Capitalizing on the resources from the American Association for the Advancement of Science, Florida developed two strategies: 1) strengthen the relationship between district equity coordinators and science and mathematics supervisors, essentially developing SERA teams at the district level; and 2) develop a state technical assistance strategy in mathematics and science.

With these priorities and strategies established, Florida developed specific initiatives at the state, district, school, and postsecondary levels. At the state-level, an Equity Action Group was formed and charged with developing an Equity Action Plan that would infuse equity into state and regional professional development activities. At the school district-level, the SERA plan focused on strengthening the relationship between district equity coordinators, Title I coordinators, and science and mathematics supervisors for the purpose of promoting a unified approach to achieving equity. As part of the plan, participating schools were given the opportunity to learn more about model equity programs such as Family Math/Family Science, Complex Instruction, and Proyecto Futuro. Postsecondary educators were provided resources and consultants on model teacher education and preparation programs in science and mathematics education.

Impact of SERA

There are two major impacts of SERA in Florida.

- Individuals at all levels participated in discussions about equity issues and increased their awareness of

how a focus on equity issues in policies and programs can positively impact student achievement.

- Resources and technical assistance were available to those individuals involved in equity action planning.

With the assistance of national experts, the state-level Equity Action Group discussed equity issues and resources and focused its efforts on coordinating professional development activities. One product of the Equity Action Group was to produce a document and *Multicultural Checklist* to guide the writing teams developing the new state *Curriculum Frameworks*. This checklist guided the inclusion of multicultural, gender, and language proficiency diversity in the various frameworks.

Other products that reflect the influence of SERA professional development and technical assistance include the booklet “*Choosing Quality Mathematics and Science Materials and Programs*.” Produced by the Florida Statewide Systemic Initiative, the document stresses Standards, Florida *Curriculum Frameworks*, Assessment, and Equity designed to guide schools and districts in the selection and evaluation of science and mathematics instructional materials. The document includes an Equity Checklist to evaluate science and mathematics programs at schools, and is used as part of the selection criteria for state textbook adoption committees for mathematics and science.

Another product of SERA technical assistance was the Florida SSI Model School Achievement Continuum used by schools to guide and gauge progress in seven aspects of school reform including Leadership, School Culture, Vision and Action Planning, Curriculum, Support and Involvement, etc. Infused in all aspects and levels of the continuum were equity and access indicators leading to conditions where equity issues were identified and action taken to rectify the problems, resources allocated to support equitable education for all students and professional development for all

■ ■ ■

teachers, and tracking of students eliminated in science and mathematics education.

Because Florida is unique in that there are equity and science and mathematics contacts in each district, a strategic direction was to strengthen the coordination at the district level. The role of the science and mathematics contact at the district level is to improve the science and mathematics instruction so that student achievement in those areas improves. The role of the district equity contact is to focus on equal access and equal opportunity for all students in the district. By increasing the dialog between these district contacts, a coherence in the types of services and professional development activities offered would begin to develop. Three school districts in Florida received mini-grants from SERA. Details on these school districts follow. The three school districts involved with Florida's SERA project had an opportunity to develop a vision and action plan at the district level for achieving equity in science and mathematics education for all students. Because of the technical assistance available through SERA, these districts had the time and the resources to analyze what they were doing and why—and how they could do it better.

The schools involved with SERA focused on parent involvement through the implementation of Family Science. The workshops provided the schools with alternative strategies for getting parents involved in their children's education. Additionally, teacher workshops were provided to SSI schools as part of the Florida SERA efforts. Typical goals of the workshops were increased schoolwide utilization of model equity programs such as Proyecto Futuro, increased awareness of equity issues, identification of equity issues at the

school, and a plan to address the identified issues. State and national consultants worked with the schools to develop realistic, achievable equity plans.

As a result of this work at the state, district, and school levels, the Department of Education's Area Centers for Educational Enhancement have made a commitment to addressing equity issues in their professional development activities. These Centers are the Department's "regional arms" and are responsible for helping schools and districts implement Florida's *Sunshine State Standards* and *Curriculum Frameworks*. These standards are what Florida expects *all* children to know and be able to do in the seven subject areas of language arts, mathematics, science, social studies, foreign languages, the arts, and health and physical education. AAAS has provided a technical assistance meeting for Center Directors, trainers, and postsecondary educators to update them on the latest equity resources and programs.

Long-Term Outlook

As mentioned earlier, Florida's Department of Education has challenged every student in the state of Florida to meet or go beyond the *Sunshine State Standards*. Explicit in these standards are high expectations for all students, of all races, genders, socioeconomic status, or ethnicity. This challenge must be supported through technical assistance to teachers, schools, and districts. It will involve alternative ways of teaching and learning to meet the needs of every student in Florida. The resources and support that SERA provided to Florida will continue to be used as this technical assistance and support is provided.



Osceola County School District

Introduction

Osceola County Schools serve approximately 26,000 students, 14,000 of whom are in the K-5 level. The district has 14 elementary schools, five middle schools, and four high schools, as well as a K-12 school located in Celebration, FL. (See text box below for further information.) Osceola uses the Stanford Achievement Test, Eighth Edition, Form L, and is also incorporating the *Sunshine State Standards* into their existing curriculum. In fact, the *Standards* are a frequent professional development topic.

Working closely with Head Start, Healthy Start, and Success by Six, the Osceola County School System is heavily involved in early intervention and school readiness. With 17 PreK classrooms, four of which have PreK handicapped inclusion, the classrooms focus on hands-on learning involving science activities, and students participate in field trips to the local science and environmental centers.

Current Status/Future Plans

Osceola County has had the highest percentage increase per capita of Limited English Proficient (LEP) students in the state. Accordingly, the majority of schools within the county retain an ESOL resource teacher on staff; these teachers work closely with the regular teachers in terms of which instructional strategies to use with ESOL students as well as developing and selecting appropriate programs, materials, and resources. Although Florida requires only 60 hours of mandatory ESOL training, teachers in Osceola County may participate in a 120-hour ESOL training program that is offered by the county. Testing accommodations for LEP students include the following: flexible scheduling, setting, and timing; assistance in the heritage language; and bilingual dictionaries.

As far as special education programs, Osceola is beginning to focus on a full-inclusion philosophy in all

TABLE 9 CELEBRATION SCHOOL

- Opened August 1996; served 225 K-12 students in the 1996-97 school year
- A public/private collaboration between Osceola County School District, Stetson University, and The Celebration Company, a subsidiary of The Walt Disney Company
- Personalized learning pathways for all students
- Integrated, relevant curriculum with guidance in research and assessment from internationally known experts
- Multi-age, non-graded classes
- Authentic assessment
- Classroom design (neighborhood rooms for small groups, rooms for large groups, and a hearth area where all students come together) resembles home environment
- Technology linkages with the community and beyond
- Education extending into the community
- Graduation by exhibition
- Professional development school

Source: Osceola County School District, 1996.

■ ■ ■

of its schools, at all levels. However, according to the SERA coordinator, this is a *slow-going* process as many schools are still practicing pull-out programs. Testing accommodations for special education students include the following: flexible scheduling, setting, timing, and presentation; and revised format.

In terms of professional development, the school district surveys its teachers to ascertain their interest in professional development activities. Offerings of various activities are made by the district; teachers self-select accordingly. In addition to the state mandate, Osceola practices early release on the first and third Wednesday of the month; these dates are reserved for district workshops and staff development, many of which focus on the *Sunshine State Standards*. With respect to SMT, the district's largest professional development activity over the past two years has been their concept development training, a series of workshops that begin with a three-day

districtwide session. After such a session, individual schools organize teams and work with district staff to develop concept-based integrated units that use science as their focus. In addition, Osceola County Schools work with the Area Center for Educational Enhancement in the following areas: curriculum alignment, standards review, and assessment and validity issues.

Osceola is beginning a school-to-work program that will be managed by the County Technical and Adult Education Department. At present, each school employs a guidance counselor; the middle and high school guidance counselors sponsor an annual career day. The high schools also retain an occupational specialist on staff who assists students with career information.

On the subject of parent/community outreach, approximately 35-40 percent of Osceola County schools are offering Family Math and Family Science nights.



Palm Beach County School District

Introduction

The fourth largest district in Florida and the 15th largest in the nation, Palm Beach County has approximately 136,000 students and 131 public schools: 78 elementary, 24 middle, 17 high, and 12 special. As noted in the district's brochure, the Palm Beach County School District has implemented the largest integrated learning system in the United States, with four computers installed in every elementary and middle school classroom. More than 15,000 computers are currently being used by students on a daily basis.

The district uses the Comprehensive Test of Basic Skills 4 and has implemented new curriculum guidelines in all subject areas, which are in alignment with the new *Sunshine State Standards*.

Current Status/Future Plans

Within Palm Beach County there are 15,775 students in ESOL classes. As noted in the district's brochure, more than 80 languages and dialects are spoken, and 7,200 students are foreign-born. Depending upon the student's exceptionality, the student is either in a regular classroom, or the student is pulled out at certain times of the day in order to work with a teacher in the student's native language. A special pilot program is in use in which science and mathematics content is used as a vehicle to learn English. In addition, there are classes consisting only of ESOL students taught by teachers who are certified in mathematics or science, as appropriate, and who have received training in the use of ESOL strategies. Testing accommodations for LEP students follow: a student can use a heritage language dictionary and receive varying levels of help from heritage language teachers, contingent upon the test. LEP students can be given additional time and can be tested in a common site within a school.

Contingent upon a student's Individual Education Plan (IEP), but wherever possible, special education

students are included in as many regular classes as possible. To quote the district's brochure, "the Department of Exceptional Student Education assists the schools by providing a free and appropriate public education for all handicapped students ages 3-21." As of December 1996, "there are approximately 25,000 students in all such programs. This includes 5,000 students in the gifted program." Excluding gifted students, approximately "15,000 of the remaining exceptional students are mainstreamed into regular classes for one-half day or more." There are mathematics and science classes designed specifically for special education students. Students who take these as part of their subject requirements for graduation, as opposed to receiving elective credit, receive a special diploma.

Teachers in Palm Beach County self-select their professional development activities. Each school has a school improvement plan. Based upon their plan, each individual school institutes its own staff development program. In addition, at the district level, staff development opportunities are offered—some to all teachers, some to selective teachers—by interest and by peer recommendation. Of note, four professional development schools have been created in collaboration with the Florida Atlantic University College of Education.

School-to-work activities vary from school to school. As an example, Applied Mathematics and Principles of Technology are incorporated into the high school students' program of Tech Prep study.

In terms of parent/community involvement, 10,954 community members provided academic assistance in the schools during the 1995-96 school year through the Volunteers in Public School program. Twenty-eight community schools provide adult and community education programs for more than 220,000 county residents.

Pinellas County School District

Introduction

Pinellas County School District is the 23rd largest school district in the United States and the seventh largest in the state. As noted in the district's brochure, Pinellas County has 104,000 students during the 1996-97 school year—18 percent African American, two percent Hispanic or Asian—in 80 elementary, 23 middle, and 16 high schools along with five exceptional education centers and two discipline centers. The district also operates seven community schools, three adult education/learning centers, two technical education centers, and one secondary vocational center. Pinellas County schools have a plethora of elementary, middle, and high school magnet programs. (Refer to Table 10 on the next page.)

The district coordinates with the Office of Early Intervention and School Readiness in the implementation of their Even Start and PreK Early Intervention Programs. These programs have adopted the High/Scope Curriculum in which daily classroom activities are planned around developmentally appropriate key experiences. Science key experiences—e.g., observing and exploring the natural environment—and math key experiences—the areas of number, serialization, and classification—are integral parts of this curriculum.

The Pinellas County School System uses the Comprehensive Tests of Basic Skills Form A, for assessment for grades four and eight. The district also uses the Florida Writing Assessment and High School Competency Test. In addition, Pinellas has incorporated the following quality initiative: each school and department must become familiar with the *Sunshine State Standards*. Student expectation documents that address each grade level have been created and distributed.

Current Status/Future Plans

LEP students use aides and interpreters. A variety of modifications and accommodations are offered to such students. Some examples follow: additional time; access to an English-to-heritage language/heritage language-to-English dictionary; the opportunity to be tested in a separate room; and questions about the general test direction may be answered by the ESOL teacher in the student's native language. For the mathematics sections on a test, specific questions about a word or phrase may be explained in the student's native language.

With respect to special education programs, Pinellas County practices full inclusion. Approximately 18-20 percent of their students are enrolled in a special education program. Special education students are afforded the opportunity to participate in the testing programs. Students who are exempted are those who function at the trainable or mentally handicapped level. Testing accommodations include flexible scheduling and setting; recording of answers; mechanical aids; and revised format, such as visual reading and tactile reading.

Professional development training programs in Pinellas County are based upon the district's school improvement plan. However, teachers have the opportunity to self-select professional development activities from a training catalog. Some programs that have an SMT focus follow: college-level courses in oceanography; a masters degree program for elementary science and mathematics; and inservice workshops, such as using graphing calculators. Of note, the Suncoast Area Center for Educational Enhancement hired a K-12 Director in March 1997. This director hopes to work with Pinellas County Schools on professional development programs.

Schools within the county have adopted a destination plan in order to identify school-to-work tracks. Pinellas has a mentoring program known as the 500 Role Model

Program. In its second year of existence, this program targets young, African American males in an effort to boost their self-image, social skills, and academic performance by motivating them to interact with respected and successful African American men. The district seeks to enroll 500 role models; as of the publication date of this report, 140 volunteers have enrolled. The program's goal is to decrease by 50 percent the dropouts, violence, crime, suspensions, and referrals

to alternative programs among the students in the program. Role models are trained by community personnel. Upon completion of their training, the role models participate bi-monthly in school visitation seminars. Their task is to meet with their assigned students and discuss an assigned topic. There are several topics, beginning with cultural understanding. Other topics include mutual respect/character development, personal responsibility, teacher/parent expectations,

TABLE 10 PINELLAS COUNTY SCHOOLS' MAGNET PROGRAMS

- *Center for Advanced Technologies (CAT)* at Lakewood High School - a four-year program designed for students who are talented in mathematics, the sciences, and computer technology.
- *Center for Wellness and Medical Professions* at Boca Ciega High School and Palm Harbor University High School - prepares students for careers in all levels of the healthcare field.
- *Criminal Justice Academy* at Pinellas Park High School - offers students an overview of the criminal justice system and specific study to ready them for careers in the field.
- *Early Graduation Option (EGO)* at Osceola High School - allows students to attend school year-round for three years and graduate at the end of the third year.
- *International Baccalaureate (IB)* at St. Petersburg High School and Palm Harbor University High School - provides a rigorous liberal arts curriculum for highly-motivated, college-bound students.
- *Pinellas County Center for the Arts (PCCA)* at Gibbs High School - offers concentrated study in dance, music, theater, visual arts, and literary arts for students who are artistically talented.
- *21st Century Learning Center* at Largo High School - designed to help students learn how to access, manipulate and apply information to critical thinking and problem-solving.
- *Teaching Arts Academy* at Largo High School - offers field experience as well as classroom instruction students interested in becoming educators.

Middle school students may choose the *Center for Advancement of the Sciences and Technology* at Bay Point Middle School or the *Center for the Arts & International Studies* at Sixteenth Street Middle School (temporarily located at Osceola High School). The *Mathematics Education for Gifted Secondary School Students (MEGSSS)* and *Integrated Math and Science Technology (IMAST)* programs for gifted students are at Bay Point, Kennedy, Safety Harbor, and Seminole Middle Schools. Southside Fundamental and Tyrone Middle Schools have the IMAST program only.

The magnet programs for elementary school students are the *Center for the Arts & International Studies* at Perkins Elementary School, the *Center for Advancement of the Sciences and Technology* at Bay Point Elementary School and the *Center for Gifted Studies* at Ridgecrest Elementary School.

Source: Pinellas County Schools, August 1996.

■ ■ ■
focus/identification of goals, visualization, affirmation, integration of curriculum and home, a passion for excellence, empowerment, and building dreams.

The county also offers a variety of dropout-prevention programs for grades four through 12. Some examples detailed in the Pinellas County Schools brochure follow: fourth- and fifth-graders at risk of dropping out may attend one of two challenge schools, students identified as at-risk in sixth through ninth grade may attend one of two discovery schools, at-risk high school students may enroll in the Graduation Options: Alternatives to Leaving School program in seven high schools. In addition, the Pinellas Technical Education Center and Seminole Vocational Education Center serve high school

students through the Technical Education Academic Model Program. Students who are also parents may attend the Teenage Parenting Program.

Turning to parent/community outreach, several schools sponsor Family Math and Family Science programs such as Parent Support in Math and Science, Math Mania, and parent training for science fair research (see Table 11). It is up to each individual district school to organize such activities. Pinellas has appointed an ombudsman to oversee this task and to pay particular attention to involving the African American community. In addition, the district has a large group of community volunteers who assist with various programs and activities within the schools.

TABLE II PARENT SUPPORT IN MATHEMATICS AND SCIENCE (PSIMAS)

What is PSIMAS?

1. Purpose/Description

PSIMAS is the acronym, pronounced *SIMAS*, for “Parent Support in Math and Science,” a program that was developed by the Florida Department of Education and sponsored by Pinellas County Schools. The program is designed to inform parents of students from multicultural backgrounds (Afro-American, Asian, Hispanic, etc.) as well as parents of female students of all ethnic groups of the need to motivate their children to excel in mathematics, science, and technology and the ways in which parents can support their children both in school and in the home setting.

The program includes:

- presentation of the reasons for under-representation in math and science among students and opportunities for discussion on ways to develop a family/school partnership.
- opportunities to meet persons who have careers in science/health, math, and technology.
- on-site hands-on science and math activities that involve both parents and students.
- science and math take-home activities.

2. Program Implementation

The program was implemented in May 1990. Since that time more than 2,100 highly enthusiastic parents and children have participated.

3. Program

The program targets parents/students of grades K-12 and:

- a. focuses on high achievement in mathematics, science, and technology
- b. Informs parents about K-12 math and science programs
- c. assists their children in developing a science project
- e. implements a Family Math/Science workshop
- f. informs parents about the availability of free tutorial programs
- g. takes families on math/science and health-related field trips
- h. assists parents in identifying available scholarships, achievement, and recognition programs
- j. provides a family science/health and technology showcase that consists of:
 - (1) parents and students receiving training in using scientific methods and in developing and presenting science/health and mathematics projects.
 - (2) students researching and completing a written biographical sketch of a famous multicultural scientist or mathematician.
 - (3) students developing and exhibiting a science/health or mathematics investigation or project. The student will be expected to orally explain the related science concepts in a noncompetitive setting.

The showcase is held annually.

It has a great potential to motivate students to achieve in science, mathematics, and technology. Students will learn science concepts and develop research, written, and oral skills. More important, parents and children will strengthen positive family relationships.

Source: Pinellas County Schools, 1990.

TABLE 12 FLORIDA DEPARTMENT OF EDUCATION GRADE TEN ASSESSMENT TEST (GTAT) STATE AND DISTRICT RESULTS, SPRING 1996

District	Reading Comprehension					Mathematics				
	1-25	26-50	51-75	76-100	Median NPR	1-25	26-50	51-75	76-100	Median NPR
National Sample	25%	25%	25%	25%	50	25%	25%	25%	25%	50
Statewide Results	26%	28%	21%	24%	47	22%	27%	25%	25%	54
Osceola	32%	33%	19%	16%	40	27%	31%	26%	16%	45
Palm Beach	27%	26%	20%	28%	49	22%	24%	25%	29%	57
Pinellas	23%	27%	22%	29%	53	20%	27%	26%	28%	54

Source: Florida Department of Education, Student Assessment Services Section, <http://www.firn.edu/doe/sas/gtathome.htm>

National Percentile Rank: A national percentile rank (NPR) score indicates the percentage of students in the national norm group whose scores in that subject fell below a particular student's raw score. State or district percentile ranks are based on the performance of students statewide or in a group or district. The percentile rank, reported in units that range from 1 percent through 99 percent, is perhaps the most readily understandable score: it describes performance in units that are meaningful because they clearly state performance relative to the norm group.

Median NPR: the median NPR is the NPR of the middle student when all of the NPRs are listed from lowest to highest. By definition, the national median NPR is 50.

NPRs are commonly placed into four NPR Groups: 1-25, 26-50, 51-75, and 76-100. For the nation, exactly 25% of the students are in each group.

The Florida Department of Education discontinued using the GTAT in Spring, 1996.

TABLE 13 FLORIDA DEPARTMENT OF EDUCATION GRADUATION RATE BY DISTRICT 1992-93 THROUGH 1996-97

	1992-93 School Year	1993-94 School Year	1994-95 School Year	1995-96 School Year	1996-97 School Year
Osceola	86.57%	85.31%	80.86%	75.57%	73.31%
Palm Beach	80.03%	79.55%	66.17%	74.86%	67.18%
Pinellas	77.96%	83.54%	75.11%	75.08%	78.39%

Source: Florida Department of Education web page, State of Florida Graduation Rates 1992-93 through 1996-97.

TABLE 14 FLORIDA DEPARTMENT OF EDUCATION DROPOUT RATE BY DISTRICT 1992-93 THROUGH 1996-97

	1992-93 School Year	1993-94 School Year	1994-95 School Year	1995-96 School Year	1996-97 School Year
Osceola	4.58%	4.95%	6.56%	4.61%	6.62%
Palm Beach	5.22%	6.07%	5.78%	4.24%	5.21%
Pinellas	5.05%	6.51%	4.22%	4.16%	4.56%

Source: Florida Department of Education web page, State of Florida Dropout Rates 1992-93 through 1996-97.



Michigan



About the Michigan Statewide Systemic Reform

Lessons Learned

Profiles:

Baldwin Community Schools

Buena Vista School District

City of Saginaw School District

Covert Public Schools

School District of the City of Saginaw



About the Michigan Statewide Systemic Reforms

Michigan is implementing a strategic and comprehensive reform of mathematics and science education for all K-12 students. The state has a revised school code that requires local school districts to develop, adopt, and implement a core academic curriculum; this curriculum includes mathematics and science for all students. The Michigan Department of Education has developed a new curriculum framework, which is entitled the *Michigan Curriculum Framework*. This *Framework* is a three-tier process. The first tier is an actual document that covers curriculum standards and benchmarks for mathematics, science, social studies, and English language arts as well as sections on planning, teaching and learning, assessment, and professional development. Tier two is composed of documents that serve as toolkits (e.g., discrepancy analysis, equity analysis, assessment, and professional development). Tier three consists of resources available on the Internet and in hardcopy for teachers, so they can implement the new *Framework* as well as clarify the curricula development processes described in the first two tiers. With respect to mathematics and science, the 1997 *Michigan Curriculum Framework* contains updated mathematics content standards and benchmarks. (As of May 1997 the *Essential Goals and Objectives for Mathematics Education* (1988) is still in use since pupil assessment in mathematics is based on this material. However, by the year 2000, pupil assessment in mathematics will be based on the *Framework*.)

The science component of the *Framework* has not been updated; the science benchmarks and standards

are repeated verbatim from the *Essential Goals and Objectives for Science Education* (1991).

Michigan administers its own statewide tests through the office of the Michigan Education Assessment Program (MEAP). In addition to MEAP, each school district administers other tests—for example, the Iowa test, the Stanford test, the Metropolitan test, and the Comprehensive Tests of Basic Skills.

For further information on student performance in our five Michigan SERA school districts, five tables—16-21—can be found at the end of the Michigan profiles section.

The first SERA publication outlined Michigan's school accreditation process; that process is being reviewed by the state legislature.

In terms of professional development requirements, according to a 1996 Council of Chief State School Officers (CCSSO) report, Michigan requires six semester credits every five years or the equivalent in state board continuing education units.

In 1988 the Michigan Legislature provided targeted support for the reformation and improvement of mathematics and science learning and teaching by establishing the Mathematics and Science Centers Program. The funding for these centers goes through the State Legislature each year. As of this document's printing, there are 25 mathematics and science centers and eight satellite centers that work with local school districts. In short, the centers serve as catalysts for change and improvement of mathematics and science learning, providing basic services which extend beyond those available within local districts.

■
■
■

Lessons Learned: The Michigan Association of African American Superintendents on the Systemic Reform of Mathematics and Science Education

Gwendolyn M. Taylor, Ph.D., Coordinator, MSSSI Models of Effective Learning & Focus District Senior Program Officer

Since 1993, the AAAS/SERA project has supported several efforts of the Michigan Statewide Systemic Initiative (MSSI) to address issues of equity and underrepresentation in mathematics and science education. Among these efforts is the continuing support of the Models of Effective Learning Program (one component of MSSI) to work with the Michigan Association of African American Superintendents (MAAAS). In February 1995, AAAS/SERA co-sponsored an Equity Strategic Planning meeting with the MSSI Models Program and Western University's Office of the Vice President for Research. The overall purpose of the meeting was to provide an opportunity for MAAAS representatives to develop a strategic plan for addressing student underachievement within a systemic context and to begin the development of a NSF planning grant.

Although a major catalyst for the initial meeting was the possible acquisition of funds for ultimately improving student achievement, it was not long before the meeting took on a different focus. Representatives shared the need for developing and sustaining a dialogue on the systemic reform of LEAs' teaching and learning. They began raising a series of questions: What support is needed to build a high-quality infrastructure to support overall district reform, capacity-building, community involvement, a shared vision, and other attending factors required for a high performing, equitable teaching and learning environment? How does the district build the leadership capacity of superintendents responsible for educating significant numbers of underachieving students? What does it take to construct and sustain effective change in districts with significant numbers of students who are at risk on a myriad of high-risk variables?

AAAS/SERA continues to provide support for MSSI Models Program to work with the MAAAS and/or subsets of districts in the association. A series of

dialogues, professional development opportunities, and other forums have provided superintendents and district leadership teams with the opportunity to share effective strategies, to network, and to co-learn.

In Michigan, the work of the African American Superintendents' Association is greatly influenced by the state's vision for mathematics and science: "Mathematical Power and Scientific Literacy for ALL." While LEA representatives who are members of MAAAS value this vision, the real challenge lies in making the vision a reality.

Michigan has a total of 17 African American superintendents (the second highest number of African American superintendents in the nation) who are collectively responsible for managing the education of more than 75 percent of the state's minority and poor student population. Seven of the 16 districts headed by African American superintendents participate as Focus Districts in the MSSI Models of Effective Learning program, and five of these districts participate in the AAAS/SERA equity-focused LEA initiative. These superintendents face the formidable task of educating students who have increasingly more complex and challenging circumstances surrounding their lives. An overwhelming proportion of MAAAS districts are characterized by

- disproportionate numbers of low underachieving students;
- low standardized test scores;
- large poor and minority student populations; and
- a host of other social and economic barriers that negatively effect students' success in school—i.e., poor health conditions, including high infant mortality rates and substance abuse, violence, crime, and poverty.

Against this backdrop, MAAAS superintendents engage in ongoing dialogues and forums focused on

- increasing academic achievement in mathematics and science;
- developing and improving district plans to reform mathematics and science instruction;
- developing robust, high-stakes, equitable curricula using state and national standards;
- addressing issues of equity and underrepresentation;
- developing and improving professional development opportunities;
- defining effective measures for assessing teaching and learning; and
- defining models for evaluating instructional practices and educational outcomes.

These superintendents and district teams continue to report many “lessons learned” from participating in MSSI, including the following examples.

- Structuring time for focused dialogue and networking is essential for local district reform. Time for dialogue, reflection, and inquiry has to be a priority, and time for this priority must be planned. Although districts share many common characteristics, each district brings to the table a unique perspective about challenges encountered and possible strategies to address challenges.
- Creating an expectation for excellence and for continuous improvement must be a basic guiding principle for developing, implementing, and sustaining mathematics and science education reform. Program direction and reform strategies are benchmarked against this expectation. Teachers, administrators, and other staff need to have opportunities to engage in activities that allow them to better understand the effectiveness of their current practices and expand their repertoire of skills in ways that will result in improved teaching and learning. Professional development is not an event. It is a way of life, and it is inextricably linked to student performance and overall district and school improvement goals.
- These dialogue sessions benefit from consistent technical assistance. These sessions are not workshops. Technical assistance support challenges school personnel to work collaboratively to identify ongoing, intensive techniques that integrate professional learning experiences with daily work experiences. There is an obvious need to facilitate

regular and substantive communication and interaction.

- Stating that all students can and should learn challenging mathematics and science is much easier than transforming the system to make the assertion a reality. Understanding what it means for *all* to learn and develop competency remains a significant challenge.
- Understanding the implications of what structural changes need to occur is a significant challenge.
- Educators at all levels of the school district system will probably have to change their ideas about who can learn and what it means to teach and to learn mathematics and science in order for major school reform to occur.
- To ensure that the needs of students are adequately addressed, the broader community must be involved.
- Alternatives to traditional models of professional development must engage teachers in the pursuit of learning in ways that transform their perspective and their practice.
- Professional development must offer meaningful intellectual, social, and emotional engagement with ideas, materials, and colleagues, both in and out of education.
- Professional development must place classroom practice within the larger context of continuing education and real-world career exploration and opportunity.
- Districtwide improvement of professional development is dependent upon developing ambitious models that reflect the principle of engagement with ideas, context, and sustained inquiry.

Building the capacity of instructional leaders is paramount to addressing issues of student performance. The Michigan Association of African American Superintendents recognizes that far too many poor and minority students continue to exit their secondary academic experiences miseducated and underprepared for the work world of the 20th century. These students are not entering colleges and universities, nor are they entering technical training and apprenticeship programs. What is their fate? What are their professional options?

■ ■ ■

MAAAS is committed to ensuring that the cycle of underachievement and diminished options comes to an end. Poor and minority students are not expendable. *All* is the operative term in Michigan's vision for mathematics and science reform. MAAAS is working to ensure that

- districts evolve effective strategies to end fragmentation throughout the local district educational institution system;
- strategies emerge to support teaching and learning, strategies that are systemic and are consistent with state and national standards;
- effective community coalitions are built to support local district mathematics and science reform initiatives;

- effective professional development opportunities for teachers and administrators are developed that support standards-based teaching and learning and that recognize and honor cultural diversity and developmental stages; and
- decisions are data-driven, and emerging strategies are based on sound research.

MAAAS is building a learning community. As such, this community of learners holds great promise for all those interested in the principles of equity and strategies for building high-quality educational enterprises. Within Michigan, SERA awarded mini-grants to five school districts. Details on these districts follow.

Baldwin Community Schools

Introduction

A high at-risk district—anywhere from 75 to 80 percent—as well as being in the bottom five of socio-economic statistics, Baldwin serves approximately 785 students, 30 percent of whom are minority. Baldwin has four school buildings: one high school, one middle school, one elementary school (grades 2-5), and an early elementary school (K-1). In addition to the MEAP test, Baldwin uses the Comprehensive Tests of Basic Skills. Lastly, Baldwin works with a local Math/Science Center by sending their “top” students to the Center in order to participate in enhancement programs.

Current Status/Future Plans

Although 30 percent of Baldwin’s student body is minority, the district does not have any LEP students at this time. Consequently, they do not offer any type of LEP programs; it is not clear how and when the district will implement a plan for instructing LEP students if their student body make-up changes. With respect to special education students, Baldwin has a high percent (13-16 percent) of special education students, with a very small number of students with physical disabilities. All of the special education students are mainstreamed. For emotionally impaired students unable to be mainstreamed, there is a full-time classroom. Accommodations, such as extended time or tape versions of the test(s), are made as necessary. Of note, Baldwin is in the process of reviewing its entire special education program. The district’s main objective is to investigate alternatives to special education placement.

With respect to the new *Framework*, Baldwin last did curriculum work in 1995. Their goal is to incorporate the new *Framework* into the existing curriculum in the

1998 school year. Turning to professional development, Baldwin surveyed its 60 teachers—through the Michigan Statewide Systemic Initiative (MSSI)—regarding inservices needed. A MSSI consultant, who is based at the Michigan State University, assisted with the implementation and analysis of this survey. The spin-off from this survey was five half-days of teacher inservice. Much of this inservice was devoted to MEAP techniques. For the upcoming school year, the district plans to request that inservice be increased to 10 half-days. The plan is to focus inservice on the new *Framework* as well as on MEAP.

In terms of school-to-work programs, Baldwin has a high school program that is run in conjunction with the local community college. Beginning in the 9th grade, students can take courses such as college math and college science at the college. Thus, the high school student is taking some classes at the Baldwin high school and some classes at the college. In order to participate in this program, students are required to submit an application—complete with references—and undergo interviews with college staff. Unfortunately, this can be quite burdensome for the students as the local community college is located 35 miles away from the high school. However, the district does provide transportation to and from the high school and community college on a daily basis. Nevertheless, there is a low participation rate among the students.

In terms of parent/community involvement, Baldwin encourages parents and community members to provide input and suggestions on school improvement.

Buena Vista School District

Introduction

Located in southeastern Saginaw County, east of the City of Saginaw, the Buena Vista School District serves 1,817 students from Head Start through the 12th grade. The district's demographic breakdown is as follows: 83 percent African American; 10 percent Hispanic; and 7 percent white. The school district includes five buildings: a PreK through 1st grade child development center, a grades 2-3 elementary school, a grades 4-5 elementary school, a middle school, and a high school. As noted in the district's annual report, "the mission of the Buena Vista School District is to assure relevant learning experiences through the development of basic skills and attitudes fundamental to the maximizing of individual student achievement."

Buena Vista works with a Math/Science Center for assistance with curriculum development and revision, professional development, and for science programs and materials.

Current Status/Future Plans

With respect to mathematics and science, 1997 is the third year of the district's five-year plan, known as Project 2009 of the MSSSI, to reform science and mathematics. In short, the purpose of Project 2009 is to achieve scientific literacy and mathematical power for all students, to bring about systemic change through coalition building, and to increase underrepresented groups' interest in mathematics and science careers.

Buena Vista offers several state and federally funded programs to meet the needs of identified children. Several examples, taken from the district's annual report, follow:

- Title I funding provides for teacher/paraprofessional/program support at all grade levels. Some samples of programs include Title I labs; Title I Replacement Classrooms; and Conflict Student Manager Training.

- A bilingual program is offered to enhance the education of LEP students scoring below the 45th percentile on the Iowa Test of Basic Skills and for students who are non-English speakers.
- A migrant program provides paraprofessional instructional support and offers a Portable Assisted Study Sequence program which offers high school students the opportunity to gain credit toward graduation.
- Eisenhower funds provide funding for mathematics and science professional development that meets the needs of an at-risk student population, to include opportunities for Family Math and Family Science training.
- Gifted and Talented funding provides assistance to the school district for the development of a comprehensive program for students of high academic ability.
- An Early Childhood Development program provides instructional services for at-risk, educationally disadvantaged four-year-olds.

As noted above, Buena Vista offers a bilingual program for LEP students. With respect to special education students, accommodations are made whenever possible. Buena Vista has a special education director on staff who works with teachers and students in order to enforce a full inclusion policy. As an example, a 5th grade classroom is divided by a vinyl divider; one side houses special education students, the other side houses a smaller group of general 5th grade students. Contingent upon classroom activities, the divider is removed and students are brought together and taught as one class. The district also participates in a countywide hearing impaired program, which is operated by the Saginaw School District and Chester Miller & North Intermediate Schools. This program provides learning services and a systematic development of language and academic skills. The Buena Vista

School District's 1995-96 annual report describes the goals of this program in the following fashion:

- to develop competence in understanding the English language
- to develop competence in using English grammar and syntax in spoken/sign/written communication
- to develop the use of language in conversation
- to develop the ability to speak intelligibly
- to develop specialized or alternative communication strategies and devices.

With respect to professional development, activities are not self-selected by the teachers, but they are based upon the district's school improvement plan. Currently, the district's plan has 18 half-days of inservice. The district provides activities focusing on writing across the curriculum, administering the Iowa test, multiage classrooms, year-round schools, training in using technology in the classroom, and strategies for school improvement. Workshops focusing on addressing the needs of the urban learner; instructional strategies;

classroom management; and curriculum alignment (e.g., incorporating and aligning their curriculum with the new *Framework*) were also held.

Regarding school-to-work programs, Buena Vista's high school is involved with the school-to-work initiative, with a focus on child care and fine arts, as well as the following school-to-work programs:

- an educational employment development plan for all students
- a graduate survey
- job shadowing
- an initiative to develop a countywide database for educational study experience.

In addition, Buena Vista retains two guidance counselors on staff to assist students with career and educational choices. As for parent/community outreach, Buena Vista's teachers have been trained at the University of Michigan in Family Math and Family Science. Both of these activities take place approximately two to four times a year.

City of Saginaw School District

Introduction

With approximately 1,400 students—60 percent of whom are minority—this school district has 24 elementary, five middle, and two high schools. In addition, per the Saginaw Public Schools Superintendent’s 1995-96 annual report, the following buildings fall under the district’s domain:

- the Saginaw Career Complex—where juniors and seniors can participate in hands-on career and technical education
- the Ruben Daniels Lifelong Learning Center—which provides adult high school, adult basic education, adult enrichment, English as a second language, and GED preparation
- the Arthur Eddy Community Center—offers educational, enrichment, and recreational programs for adults and youth
- the Hillier Education Center—a special education program for emotionally impaired students who have not been able to function desirably in a school based emotionally impaired program
- the parent resource center—provides services to every family and staff member in the school district through newsletters, information packets, and use of their library
- the Center for the Arts and Sciences—a gifted and talented program that is designed to meet the individual needs of exceptionally bright and talented middle and senior high school students.

Many of the district’s students attend activities such as Super Saturday, which is offered by the local math/science center. Staff members also attend math/science courses provided by the center.

Current Status/Future Plans

The City of Saginaw’s SERA coordinator is developing a curriculum for the school district that centers around the new *Michigan Curriculum Framework* in all of the core areas and is making such curriculum grade-specific. As for professional development activities, the City of Saginaw surveyed its teachers—via the MSSSI—on mathematics and science professional development. Survey results are outlined in Table 15.

Up until 1997, the district had professional growth units and teachers self-selected such units. The district also offered something known as 5M trainings. (5M trainings refer to Article Five of the teachers’ master contract; teachers are required to attend these professional development activities.) As of 1997, a new master contract eliminated the professional growth units. Currently, the 5M trainings are the only offerings available to district teachers. When asked why the growth units were eliminated, the SERA coordinator explained that teachers were choosing to participate in activities that were not apt to help them grow professionally.

With respect to the 1995-96 school year, professional development activities focused on cooperative learning, technology education, elementary multiaged grouping, process writing, MEAP math and science preparation, and hands-on science. Lastly, the City of Saginaw has been experiencing a severe substitute teacher shortage. Although there are funds to compensate substitute teachers, there is an insufficient pool of individuals to call upon.

At this time, the City of Saginaw has no LEP students. Consequently, the district is not offering any ESOL programs. It is not clear how the district will adapt their curriculum should an LEP student enroll in their school system. As for special education students, an inclusion philosophy is practiced in grades K-12.

The City of Saginaw School District operates a countywide hearing program that provides learning services and a systematic development of language and academic skills.

Turning to school-to-work, “a comprehensive career and educational planning process was developed for all high school students entering the 11th and 12th grades and adopted by the Board of Education in February, 1995,” according to the Superintendent’s 1995-96 report. To explain further,

the course offerings are [were] organized into six career clusters—arts and communications, business services technology, education and human services, environmental technologies, health services, and technical and engineering services....Students take [took] classes related to their career path at both high schools, the Saginaw Career Complex, and the Center for the Arts and Sciences.

In addition, all courses—beginning at the elementary level—in the City of Saginaw School District are geared to school-to-work. To quote the report, “students learn best when there is a link between what they learn in school and the real world...by selecting a career path, students are able to relate their course work and job training to a career goal....You are, for example, not just learning math for math’s sake, or to get a passing grade in class. You are learning math in the context of a career.”

As for parent/community involvement, as noted in the Superintendent’s 1995-96 annual report, “each

school will develop opportunities for parent involvement that increase the level of parent participation and reflect the needs of the school. A parent involvement framework (known as the Parents Lending Us Support—PLUS—program) will be posted and disseminated at all schools.” PLUS was implemented in the spring of 1995 and held its first summit in November of that same year; more than 150 parents attended.

What is the premise of PLUS? In brief, PLUS is designed to assist parents in developing skills to work with their children at home as well as lending assistance in the school classroom. Figures listed in the Superintendent’s 1995-96 report indicated that Saginaw’s 24 elementary schools averaged 94 percent attendance at fall and spring conferences. At the middle school level, attendance rates varied from 36 to 89 percent; at the high school level, the range was 60 to 83 percent.

The “Parenting for a Lifetime” conference was held in March 1997; approximately 75-100 individuals were in attendance. During that conference, hands-on learning in mathematics and science education were discussed as well as programs on reading, surfing the Internet, puberty, and health issues. In addition, individual school buildings host Family Math activities.

TABLE 15 CITY OF SAGINAW: MSSI MATHEMATICS AND SCIENCE PROFESSIONAL DEVELOPMENT SURVEY

Activity (Indicate title plus "M" = mathematics emphasis or "S" = science emphasis, where appropriate)	Half day or less	Full Day (one)	Series	Planned Follow-up	Approx. # attending from your district	Perceived Impact?	Measured Impact?
Science Kits Trainings, Gr. K-5, 8 sessions	x		x		250	H	M
MEAP Elementary Science Investigation	x				50	H	M
MEAP Middle School Science Investigation	x				10	H	L
Water Testing Training "S"	x				6	H	H
Science Kits Review Trainings - 16 sessions	x		x		48	H	M
Graphing Calculator Workshop	x				15	H	M
Measurement Workshop "M"	x				20		
Pentominoes & Problem Solving	x				20	H	
Probability/Statistics	x				20	H	L
Problem Solving with Graphing Calculators	x				10	H	
Grade Level Math Assessment	x				300	H	H
Introduction to CMP - "M"	x				24	H	H
Core-Plus Follow-Up - "M"	x				8	H	H

H=High M=Medium L=Low

- Based on my own experiences and observations, professional development that improves instruction has the following features:
 - Objectives are clearly stated and understood.
 - Presentations and activities are well organized.
 - Participants are motivated.
 - Participants are engaged in the sessions.
 - Evaluation opportunities are given.
 - Clear links to curriculum or classroom environment exist.
 - It connects assessment to the students' understanding of mathematics/science.
 - It represents mathematics and science as ongoing human activity.
 - It creates learning environments that support and encourage scientific and mathematical reasoning.
 - It engages teachers in mathematical/scientific discourse.
 - It encourages teachers to take intellectual risks in doing mathematics/science.
 - It enhances mathematical/science discourse through the use of a variety of tools and resources.
 - It uses multiple representations of mathematical concepts and procedures.
- Based on my own experiences and observations, professional development that has little effect on instruction has the following features:
 - No active participation.
 - Lecture format.
 - Given after the school day ends.
 - Mandatory attendance.
 - No connection to curriculum.
 - Teacher-driven activities.
 - Does not connect mathematical concepts to procedure.
 - Does not use multiple representations for concepts and procedures.

Source: The data gathered in this table are the results from a professional development survey entitled "Michigan Statewide Systemic Initiative: Models of Effective Learning," developed by the Michigan Statewide Systemic Initiative. Using 1995-96 school year data, this survey of the district's mathematics and science professional development activities was compiled by the City of Saginaw School District.

Covert Public Schools

Introduction

A small rural school located in Van Buren County in southwestern Michigan, Covert has one elementary school (K-6) and one high school (7-12) serving approximately 800 students. Covert also has a child care center that is physically attached to the elementary school for easier access. As noted in Covert's brochure, the child care center provides child care for the community and staff; it is integrated into the child care curriculum for high school students; and it provides child care for teen mothers and teaches them parenting skills. The district's demographic breakdown is as follows: 60.9 percent African American; 30.4 percent European American, and the balance Hispanic and Native American.

Covert receives support from the math and science consultants at the math/science center in Kalamazoo, Michigan.

Current Status/Future Plans

Covert's staff are very familiar with the new *Michigan Curriculum Framework*. In fact, many of the district's professional development activities have focused on the new *Framework*. Professional development at Covert is conducted in a number of ways. The district sets up goals for the year—cognitive and affective (culture and climate for the school building)—and matches such goals with the school improvement plan. Staff are surveyed regarding inservice activities. Data from standardized test scores are also reviewed to ascertain if what the district thinks and what the staff perceive match. In addition, the teachers devise three personal goals: a cognitive goal, an affective goal, and a professional development goal (what they need to improve on, what they need to explore, etc.). After this process, the district's administrative staff meet, analyze the inputs received from staff, and devise a professional development calendar. How are these teachers

evaluated? The district uses two forms of teacher evaluation. One is ongoing: teachers and presenters are surveyed after their professional development experience. The second form of evaluation occurs at the end of the school year when the district evaluates the teachers' goals to see if they have been achieved.

With respect to LEP students, appropriate personnel have been hired, and a bilingual consultant has been retained to work with the bilingual students. All students participate in classes as well as activities. Covert encourages parents to speak their native language at home. Materials in the classroom are labeled in the students' native tongue. Students are also matched with a student interpreter. (Due to the demographic population in the county, it is relatively easy to find an appropriate interpreter.) Covert is making a concerted effort to incorporate and include all students.

In terms of special education students, a few students at Covert have physical disabilities; accommodations are made for these students, and a paraprofessional is assigned to work with them. In addition, each building has a special education teacher. According to the SERA coordinator, 100 percent of Covert's students are mainstreamed for most of the day; certain students may work with a special education teacher during selected school hours. However, no student is restricted to a special education class for more than 50 percent of the day. Special education students receive the support specified in their IEPs. By linking with the local Lion's Club, Covert was able to form a joint fundraising campaign to raise funds for the purchase of sophisticated Braille equipment for one of its students.

Turning to school-to-work programs, a member of the Covert counseling department and a member from the student services department jointly coordinate school-to-work activities. For example, students participate in an in-district co-op program, which is a

■ ■ ■

job shadowing/internship program. Some senior students participate in the school-to-work program beyond school hours; other students participate in this program as part of their school day.

In terms of parent/community outreach, according to the SERA coordinator, “Covert is like a community

center that is a school district.” There are several community clubs that function jointly with the school. In addition, since Covert has an active core of senior citizens, the seniors are called upon to participate in career days as well as work as substitute teachers.



School District of the City of Pontiac

Introduction

Located about 25 miles northwest of Detroit, the School District of the City of Pontiac has 15 elementary schools, four junior high schools—which are in transition to middle schools—and two high schools. There are approximately 13,000 students: 65 percent African American, 10 percent Hispanic and Asian, and 25 percent white. In addition to the listed schools, there are one adult education center, three special education centers, and one county vocational center in the Pontiac School District. As noted in the district's 1995-96 annual report, descriptions of several of the specialized schools follow.

- Oakland Tech Center offers students training in such areas as building trades, small-engine repair, cosmetology, child care, robotics, and computer science.
- Math/Science Tech Academy offers students specialized academics in technological fields.
- Oak Park/Pontiac Adult Education Consortium provides high school, GED, and basic education for students ages 16 and up who want to continue their education.
- Special education programs furnish specialized education for those students who are physically, mentally, or otherwise health-impaired.
- Special schools are also found within the district such as one ungraded primary (K-2), two year-round elementaries, and one K-8 school.

Seventy percent of the professional staff have Master's degrees, and over 85 percent have 10 or more years of experience. According to the district's 1995-96 annual report, "the mission of the School District of the City of Pontiac, in partnership with students, parents, and community, is to create a learning/teaching environment that ensures quality and equity for all to succeed in a rapidly changing world."

Current Status/Future Plans

The *Michigan Curriculum Framework* will be the focus of upcoming professional development activities. The staff development director has recommended that this *Framework* be adopted in fall 1997 and that teacher inservice be targeted toward this program. The SERA coordinator noted that the City of Pontiac is an old district and not very quick to change. For example, the SERA coordinator noted that none of the school buildings are wired for technology. The districts' goal is to offer professional development activities on technology. In fact, the school district in the City of Pontiac has formed a technology committee to design an appropriate professional development plan. The district has also designated 30 percent of their budget towards professional development—including exploratory time—to integrate technology into all areas of the curriculum.

Many teachers participate in a plethora of professional development activities. In fact, Title I funding has provided a chunk of money to each building for staff development. Staff development has not been conducted in a systemwide way in this district. The district's long-term goal is to coordinate all of its professional development activities.

In terms of LEP students, two of the primary languages are Spanish and Hmong. The district is offering bilingual classes and is working on developing additional LEP programs. In short, the district is striving to do whatever is necessary—dealing with each student on an individual basis—in order to solve any and all problems and devise the necessary solutions. As for special education students, the district develops an IEP for each student, with the goal being to mainstream students as much as feasible.

As noted earlier, there are three centers that focus on specific educational needs in the District. One is devoted to special needs children, ages 12 and up;

■ ■ ■

another is an elementary school that houses PreK-5 special needs children; the third center houses emotionally impaired students. In addition, the district has special needs classrooms; students are mainstreamed as much as possible. Students that are trainables interact with other students in as many classes as feasible.

With respect to school-to-work programs, the district employs a director who oversees this function. The director is working with the junior and senior high schools. In addition, high school students can elect to attend technical classes offered by the Oakland Technical Center. Students complete a survey in 8th grade as well as an application, complete with recommendations. The county reviews the applications and then ranks them. From that ranking, an invitation is sent to the students who have been selected.

Individual school buildings operate their own school-to-work programs. Some examples follow: Project Galaxy, a General Motors-sponsored pilot program at two elementary schools; the General Motors Technical Academy in which 15 to 16 senior high school students are exposed to the pre-engineering world, with a focus on design; and summer academies, in which students are provided with a two-summer, pre-high school graduation experience in the world of science and technology. These academies are also sponsored by General Motors.

Of particular interest, the School District of the City of Pontiac tracks its Points of Pride: special accomplishments, awards, and/or special celebrations. During the 1995-96 school year, several Points of Pride noted in the district's annual report follow:

- All elementary schools are participating in the New Zealand Beginning School Math* program in conjunction with Oakland University.

- Student advocates have been added to all of the secondary schools. They are responsible for counseling at-risk students and providing academic and social support.
- Two schools (Owen and Crofoot) are beginning their third year of year-round education with very favorable comments from staff, parents, and students.
- Title I reauthorization has led to the addition of curriculum leaders in all elementary and junior high schools. They assist in the implementation of school improvement plans and facilitate instructional needs.

In terms of parent/community involvement, many of the schools have sponsored Family Fun Nights and Family Brainstorming sessions, which were all well attended.

* As noted in a 1995 Association for Supervision and Curriculum Development *Curriculum Handbook*, this program is a cooperative approach to improving mathematics education in the primary grades. Oakland University School of Education and Human Services developed the project with the cooperation of educators and the Ministry of Education in New Zealand. This project is a team-based approach to curriculum development in mathematics education that has two general components: teaching-learning concepts, strategies, and materials; and a staff development and support program.

TABLE 16 STATE AVERAGE DISTRICT DATA - MICHIGAN SCHOOL REPORT

Sch Year	F & R Lunch%	Enrl	Pupils/ Teachers	Foundation Allowance	Expense Per Pupil	Revenue Per Pupil	Teacher Salary
96-97	31.6	2664	23.0	5,878			
95-96	30.5	2754	22.7	5,683	6,242	6,743	46,715
94-95	30.4	2889	23.0	5,492	5,940	6,435	46,258

MEAP

Sch Year	% Satisfactory						% Proficient					
	Math 4th	Math 7th	Read 4th	Read 7th	Math 11th	Read 11th	Science			Writing		
							5th	8th	11th	5th	8th	11th
96-97	60.5	51.4	49.0	40.4	52.9	41.1			38.5			30.3
95-96	63.1	55.0	49.9	42.3	47.7	40.2	26.9	21.5	32.0	55.6	69.1	34.4
94-95	61.6	48.9	43.6	35.7								

Sch Year	Drop Rate	Grad Rate	Accred-itation Status	Schools of Choice Enroll	Public Sch Acad Enroll
96-97				38	170
95-96	7.7	73.1			
94-95	5.2	81.4			

Source: <http://www.mde.state.mi.us/reports/msr>

TABLE 17 BALDWIN COMMUNITY SCHOOLS - MICHIGAN SCHOOL REPORT

Sch Year	F & R Lunch%	Enrl	Pupils/ Teachers	Foundation Allowance	Expense Per Pupil	Revenue Per Pupil	Teacher Salary
96-97	79.8	792	18.3	5,621			
95-96	80.6	814	18.0	5,466	7,470	7,726	39,798
94-95	76.4	848	18.3	5,313	6,661	7,069	36,878

MEAP

Sch Year	% Satisfactory						% Proficient					
	Math 4th	Math 7th	Read 4th	Read 7th	Math 11th	Read 11th	Science			Writing		
							5th	8th	11th	5th	8th	11th
96-97	50.0	22.0	36.4	16.0	20.5	37.2			18.2			17.4
95-96	28.3	26.4	28.1	20.8	36.4	31.3	4.2	1.7	29.4	32.7	53.4	6.1
94-95	46.6	7.9	35.8	7.9								

Sch Year	Drop Rate	Grad Rate	Accred- itation Status	Schools of Choice Enroll	Public Sch Acad Enroll
96-97					
95-96	15.6	57.3			
94-95	14.8	52.1			

Source: <http://www.mde.state.mi.us/reports/msr>

TABLE 18 BUENA VISTA SCHOOL DISTRICT - MICHIGAN SCHOOL REPORT

Sch Year	F & R Lunch%	Enrl	Pupils/ Teachers	Foundation Allowance	Expense Per Pupil	Revenue Per Pupil	Teacher Salary
96-97	64.7	1677	20.4	6,507			
95-96	64.0	1663	18.6	6,352	8,451	8,469	41,330
94-95	63.8	1704	22.1	6,199	7,371	8,094	45,416

MEAP

Sch Year	% Satisfactory						% Proficient					
	Math 4th	Math 7th	Read 4th	Read 7th	Math 11th	Read 11th	Science			Writing		
							5th	8th	11th	5th	8th	11th
96-97	15.0	12.9	12.5	16.4	17.9	22.6			9.6			2.7
95-96	18.9	5.6	17.1	9.6	13.6	13.8	5.3		4.5	24.5	72.3	8.2
94-95	21.2	27.5	18.2	11.9								

Sch Year	Drop Rate	Grad Rate	Accred-itation Status	Schools of Choice Enroll	Public Sch Acad Enroll
96-97				20	
95-96	3.8	99.9			
94-95	0.8	95.9			

Source: <http://www.mde.state.mi.us/reports/msr>

TABLE 19 COVERT PUBLIC SCHOOL - MICHIGAN SCHOOL REPORT

Sch Year	F & R Lunch%	Enrl	Pupils/ Teachers	Foundation Allowance	Expense Per Pupil	Revenue Per Pupil	Teacher Salary
96-97	88.3	770	17.9	8,195			
95-96	74.6	762	18.7	8,040	9,898	9,735	43,956
94-95	93.5	799	20.0	7,887	7,970	9,385	44,750

MEAP

Sch Year	% Satisfactory						% Proficient					
	Math 4th	Math 7th	Read 4th	Read 7th	Math 11th	Read 11th	Science			Writing		
							5th	8th	11th	5th	8th	11th
96-97	40.7	15.8	46.3	15.8	28.0	23.8			13.8			
95-96	46.3	29.7	20.5	21.6	39.4	18.2	3.9		15.2	16.0	52.2	
94-95	70.3	17.2	43.8	8.6								

Sch Year	Drop Rate	Grad Rate	Accred- itation Status	Schools of Choice Enroll	Public Sch Acad Enroll
96-97				2	
95-96					
94-95	2.8	88.8			

Source: <http://www.mde.state.mi.us/reports/msr>

TABLE 20 PONTIAC CITY SCHOOL

Sch Year	F & R Lunch%	Enrl	Pupils/ Teachers	Foundation Allowance	Expense Per Pupil	Revenue Per Pupil	Teacher Salary
96-97	66.4	12778	26.9	5,692			
95-96	63.2	12649	28.4	5,537	6,177	7,071	48,876
94-95	62.0	12813	28.9	5,384	5,980	6,578	52,344

MEAP

Sch Year	% Satisfactory			% Proficient								
	Math 4th	Math 7th	Read 4th	Read 7th	Math 11th	Read 11th	Science 5th	Science 8th	Science 11th	Writing 5th	Writing 8th	Writing 11th
96-97	38.4	19.7	31.0	39.1	17.4	25.8			9.7			17.9
95-96	43.8	29.7	29.3	40.0	23.0	23.4	11.1	7.2	9.2	42.8	54.4	14.2
94-95	38.2	17.0	19.9	16.1								

Sch Year	Drop Rate	Grad Rate	Accred- itation Status	Schools of Choice Enroll	Public Sch Acad Enroll
96-97				3	
95-96	12.0	60.7			
94-95	12.3	60.5			

Source: <http://www.mde.state.mi.us/reports/msr>

TABLE 21 SAGINAW CITY SCHOOL

Sch Year	F & R Lunch%	Enrl	Pupils/ Teachers	Foundation Allowance	Expense Per Pupil	Revenue Per Pupil	Teacher Salary
96-97	61.2	13226	23.3	5,791			
95-96	60.0	13452	24.6	5,636	6,812	7,593	47,446
94-95	57.4	13550	25.9	5,483	6,642	7,193	49,529

MEAP

Sch Year	% Satisfactory						% Proficient					
	Math 4th	Math 7th	Read 4th	Read 7th	Math 11th	Read 11th	Science			Writing		
							5th	8th	11th	5th	8th	11th
96-97	49.5	29.3	30.8	24.1	27.2	31.3			20.5			18.1
95-96	46.3	27.4	33.4	22.3	23.8	24.8	9.2	7.3	13.5	42.6	55.9	16.8
94-95	48.8	24.0	25.9	19.0								

Sch Year	Drop Rate	Grad Rate	Accred- itation Status	Schools of Choice Enroll	Public Sch Acad Enroll
96-97				189	
95-96	9.1	65.3			
94-95	12.0	59.3			

Source: <http://www.mde.state.mi.us/reports/msr>



South Dakota



About the South Dakota Statewide Systemic Reform

Lessons Learned

Profiles:

Douglas School District 51-1

Meade District 46-1

Crazy Horse School

Pine Ridge School

Tiospa Zina Tribal School

About the South Dakota Statewide Systemic Reform

The South Dakota SEA is driven by the belief that all students in grades K-postsecondary should be able to fully participate in a society that is changing dramatically as a result of rapid, significant advances in SMT. Its mission, as noted on the Internet, is to facilitate the delivery of statewide educational and cultural services and promote efficient, appropriate, and quality educational opportunities for all persons residing in South Dakota.

In June 1996, the State Department of Education and Cultural Affairs adopted the *South Dakota Content Standards*, which cover nine subject areas; they have been mailed to the superintendent of each school district in South Dakota.

South Dakota has 176 public school districts that are governed by locally elected school boards. The state grants each of those districts a great deal of local control over education, but each are required to abide by state laws and regulations governing education. For example, school districts are required to abide by state laws and regulations in order to be accredited, such as laws on a minimum school calendar, certified staff, and high school graduation requirements. In addition, South Dakota has non-public schools, including private, religiously-affiliated schools, and schools operated by both the Bureau of Indian Affairs and/or tribal governments. All non-public schools have the option to choose to be accredited. If a school district opts to be accredited, then it is subject to state rules and regulations governing education.

In the following profile section we have separated the SERA school districts by type of school. Douglas School District 51-1 and Meade District 46-1 are South Dakota public schools. Crazy Horse is a BIA school, Pine Ridge is a BIA school, and Tiospa Zina is a tribal

government school; all are accredited by the state of South Dakota. Selected information on American Indians in education can be found at the end of the South Dakota SERA school district profile section, in tables 28-31.

The Division of Education Services and Resources is in the process of revamping the South Dakota state content standards in the core subject areas—mathematics, language arts/communication, social studies, and science. A target date of late - January, 1998, for completion of the first draft of mathematics and language arts/communication, is anticipated.

With respect to assessment, the South Dakota Legislature in 1997 passed legislation (SB 170) that requires schools to have content standards in place and that students will be tested at grades 2, 4, 8 and 11. In addition a writing performance examination will be administered to students in grades 5 and 9. This program will be phased in as follows: Grades 4, 8 and 11 will begin the new testing program in the spring of 1998. Grades 5 and 9 will begin the new writing assessment in the fall of 1998. Grade 2 will be added to the program in the spring of 1999. For further information on student performance, please refer to the tables at the end of each school district profile.

With respect to professional development, “because of passage of Senate Bill 170, the Department of Education and Cultural Affairs will continue to provide professional development seminars through the year 2000. The seminars are voluntary; they will give districts the opportunity to engage in quality staff development to help them develop and implement local curriculum aligned with the state *Content Standards*.” In addition, according to a 1996 CCSSO report, teachers are required to take six semester credits every five years.

■
■
■

*Lessons Learned:
A Look at the South Dakota SERA Project*

**Janet Martin, Education Program Representative,
Office of Technical Assistance, South Dakota
Department of Education & Cultural Affairs**

South Dakota's SERA project was one piece of the larger South Dakota Statewide Systemic Initiative funded by the National Science Foundation. Educational reform in science and mathematics education included a focus on equity issues. Participation in SERA made it possible to bring equity issues to the forefront when working on all other aspects of systemic reform in the state of South Dakota.

Progress Made To Date

With the assistance of national experts, South Dakota SERA participants examined reform issues as they affect young Native American, minority, and female students in schools across the state. A strategic planning committee with statewide participation guided the development of the plan, and an action committee was formed to carry out the plan. The equity goal established by the action team was to promote equal opportunities for learning science, mathematics and technology by removing inequities based on gender, race, socioeconomic status, ethnicity, disabilities, rural isolation, and other factors that may affect students learning and self esteem.

As a result of the work of the SERA action committee, the *South Dakota Equity Standards in Education* were developed and disseminated across the state. An accompanying South Dakota Equity Toolkit will be available for distribution to schools and other educational programs by summer, 1997. *The Equity Standards* and Toolkit focus on all aspects of the school program to ensure that the needs of all students are addressed in the delivery of quality education. The *Equity Standards* document is a companion piece to the *South Dakota Content Standards*. The setting of high standards through the *South Dakota Content Standards* provides a focus on learning and assessment. The emphasis on teaching hands-on, inquiry-based learning

and thinking skills should increase academic achievement for all.

The dissemination of the *South Dakota Equity Standards in Education* along with the *South Dakota Content Standards* reached teachers who would not have otherwise been reached. A greater focus on the use of the *Equity Standards* must be incorporated into the professional development opportunities provided to schools so they can develop standards-based curriculum. Specific awareness and professional development opportunities need to be created so that the standards and the accompanying Toolkit will be used at the local level. Within South Dakota, SERA awarded mini-grants to five school districts. Highlights on these school districts follow.

Measurable Changes/Impact

From the South Dakota SSI project evaluation report (December 1995), several findings regarding equity are worth noting.

- There is a heightened awareness of gender equity issues among local faculties as a result of inservice training.
- Technology supports a more individualized approach to instruction that can better address the needs of members of special populations.
- Teachers indicated that they chose programs and practices that they believe meet the needs of all students, i.e., Math Their Way.
- Approximately 18 percent of teachers reported increased enrollment of females in mathematics, science, and technology courses. Most teachers indicated that while there were more opportunities for females to participate in mathematics and science classes, the schools made only limited efforts to encourage their participation beyond those made to the student body at large. Few specific programs that encouraged and supported

the participation of special populations in science and mathematics were cited.

- Special education and disabled students are generally included in the schools' regular science and math classes. It was felt that the students benefited from the use of technology; hands-on, performance-based learning and assessment; and cooperative learning groups.

Barriers to Reform

Systemic reform is a process bound by a common vision of the participants. The dynamic nature of systemic change necessitates that opportunities for inclusion and expansion of the collective effort are continually and constantly being sought. All the players involved in systemic change need to demonstrate a commitment to the implementation of the vision.

The lack of commitment to the vision became a barrier to change in some instances. While many schools involved with the South Dakota SSI were committed to improving their science and mathematics programs, infusing equitable learning strategies into these programs was not part of their vision. Efforts to address any form of equity were not viewed as necessary to achieve systemic math and science reform.

Therefore, more proactive approaches to promote equity in schools are needed to reach a greater number

of underserved students. Local programs need to be established to provide access for special populations and ongoing support to teachers, administrators, students, and families.

As with many reform efforts, the time available to devote to equity at the K-12 level has been limited. The current Department of Education staff member from the Division of Education Services and Resources who is assigned to the SERA project has a number of other job duties. While other staff members have equity responsibilities, the fact that they are in the Division of Career and Workforce Preparation has made joint efforts difficult due to the scope of each division's mission and responsibilities.

In the long run, the work of the SERA project and the SSI in South Dakota will have a lasting impact. *The Equity Standards* will continue to be linked with the *South Dakota Content Standards* as schools develop standards-based curriculum for each of the disciplines. The assessment issues addressed in the *Equity Standards* frame the ongoing examination of the state testing system, Title I assessment requirements, and the development of additional assessment resources linked to the *South Dakota Content Standards*.

Douglas School District 51-1

Introduction

The Douglas School District 51-1 has a K-12 student population of approximately 1,800 students housed in six buildings. A South Dakota public school, Douglas is adjacent to the Ellsworth Air Force Base in Box Elder. Fifty-six percent of the students are from military families; 44 percent are local residents. Its demographic breakdown follows: 2 percent Native American, 82 percent white, 12 percent Hispanic, and 4 percent Asian. Thirteen percent of the students at Douglas are classified as special education students; the district is well known within the military for its special education programs.

The Douglas curriculum is based on the *South Dakota Content Standards*. Title I tutors and aides work with students to master these *Standards*. As for assessment, the Douglas School District 51-1 uses the Stanford Achievement Test. (For further information on student performance, please refer to tables 22, 23, and 24.)

Current Status/Future Plans

As of this document's publication, the Douglas School District has two ESOL students (Spanish is their native language); accommodations are provided as necessary. It is district policy to provide assistance as needed. As an example, this school year Douglas has retained Spanish-speaking tutors to work with the two ESOL students.

Douglas has a high percentage of special education students. The district practices a full-inclusion philosophy with these students. Some examples of special programs follow:

- the Accelerated Reader program—An English language arts program, Accelerated Reader allows all student to work at their own rate.

- Industrial Tech Module Units—These units allow students to work and learn together in teams.

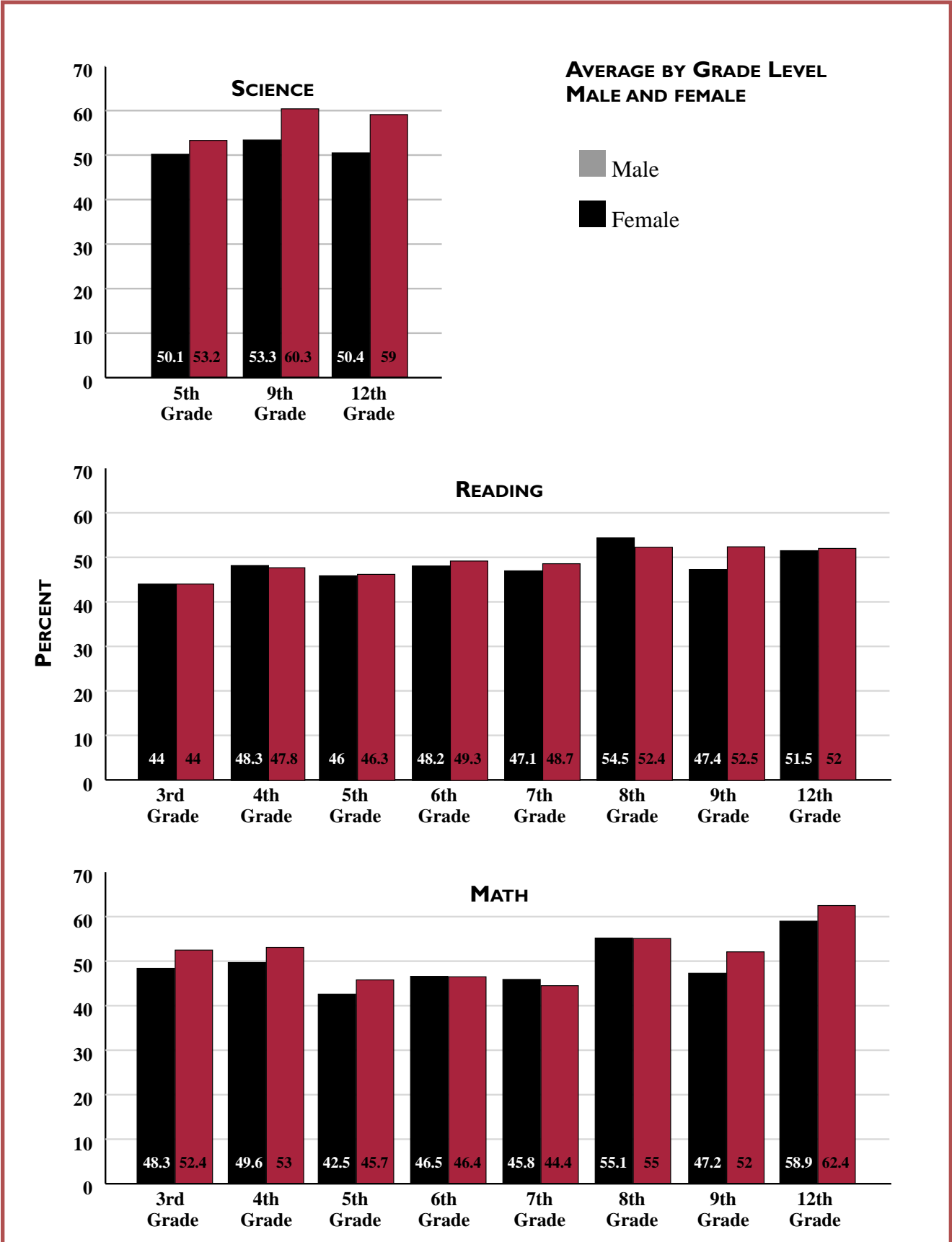
The district budgets general funds to support staff inservices and professional development, such as national and/or state math and science conferences and workshops. To ascertain the areas in which the teachers feel they need professional development, the district surveys its staff. With respect to SMT, teacher inservice workshops have been held that focused on math and science curriculum materials. Upon completion of their professional development, teachers are expected to share the knowledge they have gained with their colleagues. Such exchange occurs at biweekly grade-level meetings.

With respect to school-to-work programs, Douglas has a career clusters program; such career clusters are identified by the South Dakota Department of Labor. Douglas is currently using several new math series: MacMillan/McGraw Hill in grades K-6; Southwestern's Mathematics Series in 7th and 8th grades and their 9th grade Algebra series; and CORD's Applied Mathematics. These series are in alignment with the career clusters. Speakers—via funding from the South Dakota Department of Education and Cultural Affairs—are brought into the school to discuss careers and career opportunities with students.

In addition, Douglas is working on a special school-to-work grant with two other schools: Meade County and Black Hills Cooperative, an alternative school. The goal of this grant is to establish a model for replication across the state and the nation.

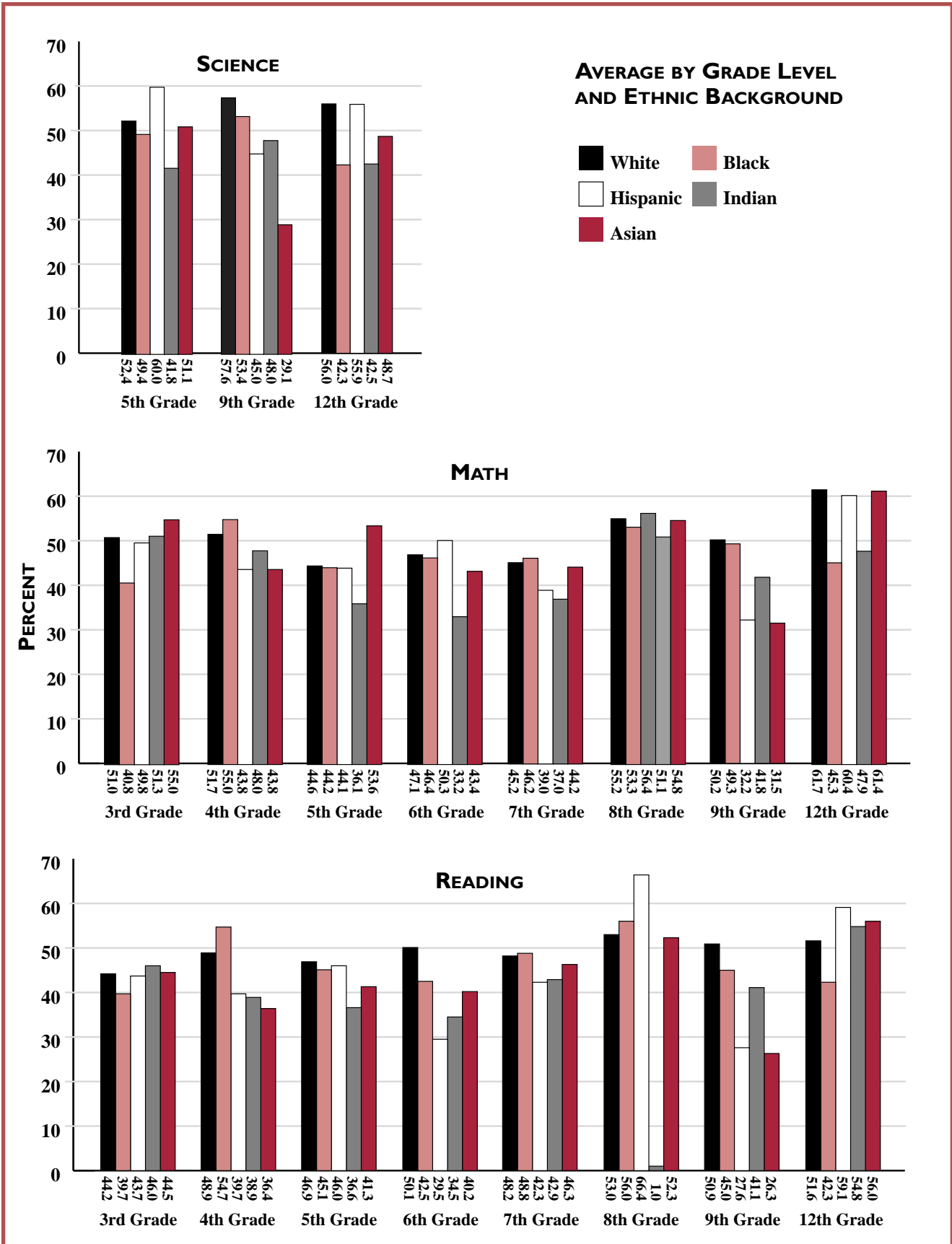
Of note, each of the elementary schools within the Douglas School District have a goal of increasing parental as well as community involvement. Each school building has a School Community Improvement Council. Each Council focuses on involving both parents and the community in school activities.

TABLE 22 DOUGLAS SCHOOL DISTRICT 51-1



Source: Douglas School District 51-1, Box Elder, SD, Spring 1996.

TABLE 23 DOUGLAS SCHOOL DISTRICT 51-1



Source: Douglas School District 51-1, Box Elder, SD, Spring 1996

TABLE 24 | 1996-97 PROFILE OF DOUGLAS SCHOOL DISTRICTY 5 | I - SCHOOL LEVEL INFORMATION

School Level Information													
School Name, Grade Level	1996 K-12 Fall Enrollment	Dropout Percent	Attendance Rates	Otis-Lennon Percentile	Otis-Lennon Number Tested	Stanford(s) Metropolitan(M) Percentile	ACT Composite	ACT Number Tested	Number Graduates	Average School Salary	Average Class Size	Certified Classroom Teachers	
												FTE's	Classroom Teachers
Badger Clark/Carrousel El, PK-1	500	0.0%	95.1%	NA	NA	NA	-	-	-	\$27,680	21.2 to 1	23.6	
Francis Case Elementary, 2-3	459	0.0%	95.9%	NA	NA	NA	-	-	-	\$29,469	20.0 to 1	23.0	
Vandenberg Elementary, 4-5	449	0.0%	95.8%	35	228	44 S	-	-	-	\$25,945	22.5 to 1	20.0	
Douglas Middle School, 6-8	546	0.0%	94.9%	55	147	51 S	-	-	-	\$32,111	16.7 to 1	32.6	
Douglas HI School, 9-12	594	2.9%	94.4%	62	122	60 S	21.4	58	95	\$32,752	16.5 to 1	36.0	

Source: State of South Dakota Department of Education and Cultural Affairs
<http://www.state.sd.us/deca>

Meade School District 46-1

Introduction

Located in a fairly isolated region of the state, a region in which 26 percent of the population live below the poverty level, the Meade District 46-1 consists of 23 school sites. Eleven of these sites are one or two-room school buildings. Meade has a student body population of 3,200 students, 7 percent of whom are Native American. Nine percent of the student body at Meade qualify for special education services.

Staff are familiar with the *South Dakota Curriculum Framework* and for assessment purposes, the district uses the Stanford Achievement Test Form 8. Of note, Meade is making a concerted effort to promote equity in all phases of its work. Some examples follow.

- Awareness activities for staff—e.g., reports, videos, bulletin announcements—are at each administrative site at least once each quarter.
- Projects—e.g., diversity discussions, selection of all materials and programs with careful regard to equity issues, bulletin boards, presentations—are undertaken in each classroom during the school year.

For further information on student performance in Meade, please refer to table 25.

Current Status/Future Plans

Although Meade has a special education population of 9 percent, the district practices a full-inclusion policy limited only by special need as indicated on IEPs or as requested by parents. Special needs students receive testing accommodations, such as having the test read to the student, when necessary. The district currently has no ESOL students.

With respect to professional development, the district's central school office develops a matrix detailing pre-school/inservice opportunities for staff. Approximately four to six half-days per school year are devoted to professional development activities. Returning to the theme of equity that Meade promotes,

all professional development activities include consideration of equity in addition to a focus on content. Staff also attend a variety of regional and state workshops. For example, Family Math workshops were held at six school sites this year.

In regard to school-to-work programs, a complete activities booklet was developed in-house and published in January 1997. This publication supplements the national award-winning K-12 school-to-work program that has been in existence in the high school for three years. The new publication provides an overview of the six career clusters—business contact, business operations, technical, science, arts, and social service—used by the state of South Dakota. It also includes an American College Testing “world of work map” of career clusters that link courses taken in school to their appropriate career path sample jobs; details on the classes a student must take in order to pursue such a career; upcoming career events; and most important, activities to be used by teachers and students in the classroom. The K-12 school-to-work program counseling component received both the South Dakota and National “Planning for Life” awards this year. As with all of its other programs, Meade District makes every effort to ensure that all school-to-work activities and counseling sessions address students of both genders and all ethnicities.

In addition, the district holds an annual health fair—featuring women and minority professionals as speakers—to make students aware of careers in the health industry. In short, science, math, and technology careers are explored at all grade levels.

With respect to parent/community involvement, Meade looks to the community in a variety of ways. Several examples follow.

- Meade has contacted a variety of women's organizations in order to elicit their support as mentors to students.

- SMT workshops are held during the summer and after school for interested students.
- The district has also reached out to the community-at-large by holding parent/teacher conferences, public meetings, and conducting family outreach events.
- The district has a plethora of committees—a prevention committee; a law-related education committee; Meade 2000 (a school-community improvement council); and a business advisory council—that serve in an advisory capacity on issues ranging from school-to-work programs to drug, alcohol, and violence prevention.

TABLE 25 | 1996-97 PROFILE OF MEADE SCHOOL DISTRICTY 46-1 - SCHOOL LEVEL INFORMATION

School Name, Grade Level	1996 K-12 Fall Enrollment	Dropout Percent	Attendance Rates	Otis-Lennon Number Tested	Otis-Lennon Percentile	Stanford(s) Metropolitan(M) Percentile	ACT Composite	ACT Number Tested	Number Graduates	Average School Salary	Average Class Size	Certified Classroom Teachers (FTE's)
Sturgis Elementary, K-4	626	0.0%	96.1%	96	56	62 S	-	-	-	\$27,611	18.5 to 1	33.8
Whitewood Elementary, K-6	132	0.0%	95.4%	19	51	51 S	-	-	-	\$25,327	22.0 to 1	6.0
Piedmont/Stagebarn Elementary, K-6	463	0.0%	96.4%	65	54	59 S	-	-	-	\$26,304	22.6 to 1	20.5
Alkali Elementary, K-8	9	0.0%	95.6%	4 < 10, 8 < 10	NA	NA	-	-	-	\$24,300	6.0 to 1	1.5
Hereford Elementary, K-8	13	0.0%	97.8%	4 < 10, 8 < 10	NA	NA	-	-	-	\$24,050	4.3 to 1	3.0
Enning Elementary, K-8	43	0.0%	96.5%	4 < 10, 8 < 10	NA	NA	-	-	-	\$23,500	12.3 to 1	3.5
Hope Elementary, K-8	11	0.0%	96.9%	4 < 10, 8 < 10	NA	NA	-	-	-	\$21,300	11.0 to 1	1.0
Stoneville Elementary, K-8	13	0.0%	94.6%	4 < 10, 8 < 10	NA	NA	-	-	-	\$20,300	13.0 to 1	1.0
Lakeside Elementary, K-8	13	0.0%	97.7%	4 < 10, 8 < 10	NA	NA	-	-	-	\$23,550	4.3 to 1	3.0
Elm Springs Elementary, K-8	24	0.0%	93.5%	4 < 10, 8 < 10	NA	NA	-	-	-	\$20,300	12.0 to 1	2.0
Opal Elementary, K-8	23	0.0%	95.5%	4 < 10, 8 < 10	NA	NA	-	-	-	\$23,075	11.5 to 1	2.0
Sulphur Creek Elementary, K-8	13	0.0%	94.9%	4 < 10, 8 < 10	NA	NA	-	-	-	\$26,300	13.0 to 1	1.0
Atall Elementary, K-8	6	0.0%	95.3%	4 < 10, 8 < 10	NA	NA	-	-	-	\$29,350	6.0 to 1	1.0
Union Center Elementary, K-8	15	0.0%	96.2%	4 < 10, 8 < 10	NA	NA	-	-	-	\$25,575	7.5 to 1	2.0
Williams Middle School, 5-8	738	0.0%	95.3%	256	59	55 S	-	-	-	\$27,971	16.5 to 1	44.7
Brown Hi School, 9-12	906	5.6%	93.7%	191	66	61 S	20.5	97	177	\$28,942	17.9 to 1	50.6

Source: State of South Dakota Department of Education and Cultural Affairs
<http://www.state.sd.us/deca>

Crazy Horse School

Introduction

Crazy Horse is a one-building K-2 school with approximately 400 Native American students and approximately 45 teachers. Crazy Horse provides instructional services to students from a broad geographic area encompassing parts of two reservations. English is the first language for the majority of its students. For assessment purposes, the school uses the MAT 7 test.

In the 1995-96 school year, Crazy Horse underwent a change in school administration and consequently experienced an 85 percent turnover rate of teachers. (For further information, refer to Tables 26 and 27.)

Current Status/Future Plans

As stated earlier, English is the primary language of the majority of students at Crazy Horse. Consequently, in an effort to preserve the Lakota language, Crazy Horse provides Lakota language classes and integrates the language and culture into the curriculum as appropriate. Of note, most students are considered LEP based on low test scores as well as having a second language spoken in the home; however, no LEP students are exempt from testing. Special education students may be exempt from taking the MAT 7 test if they are unable to complete the test within its stated guidelines. If they do not take the MAT 7, they are administered an individual achievement test.

Crazy Horse has a Title I program; it is used primarily to provide classroom aides. Such aides assist teachers and students with curriculum work.

Professional development activities are limited and focus mainly on reading and writing. However, staff at Crazy Horse are working with staff at Oglala Lakota College to organize a technology workshop that will be held in the summer of 1997. Teachers from Crazy Horse School, along with other teachers on the Pine Ridge Reservation and the Rosebud Reservation, will have the opportunity to participate in a week-long class to learn how to integrate various forms of technology into the classroom.

Due to its remote location, as well as a lack of business/industry in the area, Crazy Horse does not offer any school-to-work programs. The school does retain a guidance counselor on staff to assist students with educational and career planning.

In terms of parent/community involvement, Crazy Horse hosts monthly parent nights. The school also offers a parenting class one day a week for 10 weeks. Participation in this program has been low.

TABLE 26 CRAZY HORSE SCHOOL: STUDENT STATISTICS

Grade	Girls	Boys
Kindergarten	14	9
1st Grade	14	18
2nd Grade	20	18
3rd Grade	13	14
4th Grade	22	16
5th Grade	16	17
6th Grade	14	13
7th Grade	16	22
8th Grade	22	15
9th Grade	16	21
10th Grade	12	18
11th Grade	4	6
12th Grade	7	3

Source: Crazy Horse School, April 1997.

TABLE 27 OVERVIEW OF CRAZY HORSE SCHOOL

Chief Crazy Horse

Crazy Horse School is named after Chief Crazy Horse, a respected Oglala Lakota leader. Crazy Horse was one of the last to acknowledge the supremacy of the government and, to use an old phrase, “come in to the fort.” Crazy Horse went to Ft. Robinson, in what is now the state of Nebraska. In September of 1877, he was killed there while fighting for what he believed in and resisting being locked up in a guardhouse. Crazy Horse was known to be of strong character and independent nature. He believed in the Lakota way, walked a spiritual path, and excelled at being a leader in a warrior society. His spiritual beliefs were said by some to give him special protection in battle. Crazy Horse possessed those qualities cherished by many Americans today— a strong sense of independence, the freedom to make choices, responsibility for his people, and a vision for the future.

Crazy Horse School stands today, symbolic of this great man whose values we wish to uphold: freedom from governmental oppression, the right to make our own choices, a leadership role, and a strong sense of responsibility for the Lakota people so that they might be able to determine their own destiny and become economically independent in the complex world of the future.

The History of Wanblee and Crazy Horse School

The beginning of Wanblee history goes back to 1880 when Pute Lip and his band settled on the east side of Pass Creek, which is about 15 miles east of the present site of Wanblee. In 1885 Lip’s people hauled lumber from Cody, Nebraska, by oxen to build a school house. The school was opened in 1885, and construction of a community church soon followed. Red Dog Tracks, Lip’s brother, talked to Lip’s band about a new site, a place where the land was better, there were creeks for people to live on, and the terrain was not as rough as the land they were presently on. In 1904 the church and school buildings at Lip’s camp were torn down and moved to the present site of Wanblee. Most of the people of the band also moved to homesites along the creeks near Wanblee.

In 1935 after a community meeting, Robert Two Elk was selected to go to Washington to urge the federal government to build a new and larger day school. In the spring of 1937, a site for the school was surveyed and construction began. The school population began to grow in the 1950s and the school building became overcrowded. In 1958, the Bureau of Indian Affairs (BIA) put an addition onto the building. More additions were made to the school between 1960-1972 as enrollment continued to increase. The expanding enrollment and lack of space led the community and staff of the school to request another all new and modern school building. After many meetings with officials and the BIA and years of planning, it was decided to build a completely new K-12 educational system for Wanblee and the surrounding area. The new school was completed in 1974. In 1975 students were moved from the old school located on the northwestern end of the small community. The students selected the name “Crazy Horse School” as they felt Chief Crazy Horse was a good model and great leader.

In 1983 the community voted by referendum to have local control over the school. The school currently operates under the direction of a locally elected seven-member school board. Approximately 400 students are enrolled. The school receives ISEP (Indian Schools Equalization Program) funds for students, which is generally funded at a level less than the South Dakota state average for public school students.

Crazy Horse School Vision

Our vision for Crazy Horse School is for children who are “wakan” to know and practice Lakota values (respect, generosity, courage, and wisdom); to communicate openly and honestly; and to become accountable and responsible. It is important for them to learn and grow to their fullest potential, to become positive contributors to society (on and off the reservation).

Priorities will include maintaining high expectations for all students; teachers and students becoming technologically literate; students graduating at grade level with job skills, life skills, and communication skills; and community involvement in all steps of the process.

It is important that our students develop a love of learning that will remain with them for the rest of their lives and that will make those lives healthy and productive.

Source: Crazy Horse School, 1996.



Pine Ridge School

Introduction

As noted in Pine Ridge's brochure, Pine Ridge School is accredited by the North Central Association and the State of South Dakota. This BIA operated school is located on the southeast corner of the Pine Ridge Reservation, the second largest reservation in the United States. With an estimated population of 20,806, Pine Ridge School has a student body comprised completely of Native Americans from the Oglala Lakota Sioux Tribe. It encompasses a K-8 boarding school with approximately 350 students; a 9-12 school with approximately 380 students; two dormitory facilities; two gymnasiums; a teacher/parent resource center; a special education building that houses severely and profoundly physically handicapped students; and a cafeteria building. Most of the student population is Chapter One; Title I funds are used schoolwide.

In addition, Oglala Lakota College is located on the Pine Ridge campus. This college offers degrees in elementary education, nursing, and social services.

Pine Ridge administers the Stanford Achievement Test on an annual basis.

Current Status/Future Plans

As noted above, all of the Pine Ridge students are Native American. Consequently, many of the students practice various forms of Lakota culture and traditions, and many are considered to be limited English proficient. LEP students are not required to take the Stanford Achievement Test. However, many of the students are not fluent in the Lakota language. In an effort to teach students the Lakota language as well as

preserve the Lakota culture, the school offers a bilingual program.

With respect to special education students, the severely and profoundly physically handicapped students are housed and taught in the special education building. Students who are considered learning disabled are mainstreamed as much as possible, limited only by special need as indicated on IEPs or as requested by parents. For example, as noted on the IEP, a student may work with a special education teacher in a special education class during certain class periods. However, the district is working towards a full-inclusion policy. All students are encouraged to participate in test-taking.

Turning to professional development programs, Pine Ridge teachers are given the opportunity to self-select their professional opportunities; the district offers workshops as well. For example, teachers participate in in-service technology workshops in order to enhance their computer aptitude. These classes are directed by Technology and Innovations in Education (TIE). Teachers also participate in summer workshops sponsored by the National Aeronautics and Space Administration (NASA).

Due to its remote geographical location and the lack of business/industry in the region, Pine Ridge does not offer any school-to-work programs at this time. However, a guidance counselor is on staff to assist students with educational and career planning.

As for parent/community involvement, Pine Ridge has a teacher/resource center. In addition, the Pine Ridge campus library is open to the community.

Tiospa Zina Tribal School

Introduction

Created as a result of several parents' dissatisfaction with the local public school system, Tiospa Zina opened its doors in April of 1981 with a student body of 12. Sixteen years later, Tiospa Zina is a K-12 school with approximately 500 students and 40 teachers. Nearly all of the students are members of the Sisseton Wahpeton Dakota Nation; the remainder of the students are from other tribes or are non-Native American.

In terms of assessment, Tiospa Zina uses the Metropolitan Achievement Test as one of the assessments in grades 4, 8, and 11; no student is exempt from the test-taking process. Of note, the school has developed overall student outcomes as well as a set of content standards—complete with accompanying benchmarks for grades 2, 5, 8, and 12—in communication, science, math, and social science. These content standards were developed using the *South Dakota Content Standards*, various national content standards, the *American Indian Standards* (produced by the Office of Indian Education Programs, Bureau of Indian Affairs), and various other public and commercial products. Tiospa Zina's standards include values, technology, Dakota culture, and overall student outcomes. In addition, the benchmarks are tied to a set of rubrics for exemplary, proficient, partially proficient, and in-progress.

The school uses Title I funds as part of a consolidated school reform plan through the Bureau of Indian Affairs.

Current Status/Future Plans

The majority of students are Native American. Approximately 20 percent of the students are considered LEP. Ten percent of the students are special education students; the majority are learning disabled. Tiospa Zina practices a full-inclusion philosophy.

With respect to professional development, the school has served as a Professional Development Center for the School of Education at the University of South Dakota

since 1987. Consequently, the Professional Development Center provides opportunities for intern and mentor teachers and also provides on-campus classes for Tiospa Zina staff. Classes are offered to staff each semester; professional development courses change, contingent upon the interests and needs of the teachers. In addition, teachers attend state and national conferences, many of which focus on mathematics and science. Of note, the school received an award from the Association for Teacher Educators in 1997 for its Professional Development Center.

In terms of school-to-work programs, Tiospa Zina has several activities that focus on careers: an annual career day and a "two + two" program with the Sisseton Wahpeton Community College. The program provides college courses to juniors and seniors who qualify. Tiospa Zina also provides a summer youth work program for approximately 12 students in cooperation with the Job Training and Partnership Act (JTPA) tribal program; participating students receive high school credit as well as a salary. Lastly, the school retains a guidance counselor on staff to assist students with education and career plans.

Tiospa Zina uses public forums—with a Committee of Elders and the school board—in order to solicit ideas from the community. The school provides many opportunities for parents to participate in field trips, social and academic activities such as Odyssey of the Mind, science fairs, and the science Olympiad. A Family Development Night is sponsored by the school. These development nights provide opportunities for families to access school equipment, materials, and supplies. For example, an adult and student could work on the computer(s), make a traditional outfit, or practice reading. The school also provides a weekly tutoring night for students.

TABLE 28 SELECTED INFORMATION ON AMERICAN INDIANS IN EDUCATION

Teacher qualifications and school characteristics	Bureau of Indian Affairs/tribal schools	Public Schools with 25% or more enrollment of American Indians	Public Schools with less than 25% enrollment of American Indians
Programs and Services Offered (Percent Distribution)			
English as a Second Language (ESL)	44.5	21.5	41.1
Bilingual education	63.5	30.1	18.6
Remedial Math	79.6	60.7	60.3
Gifted/talented	60.6	69.8	75.5
Chapter 1	100.0	82.5	6.2
Average years of instruction in discipline (numbers):			
Mathematics	2.7	2.3	2.4
Science	2.4	2.1	2.1
Schools that served 12th graders (in percentage):			
College prep program offered	54.0	54.9	76.2
Enrolled in college prep programs	37.6	49.3	52.0
Graduated from high school	81.7	91.3	93.5
Applied to college	32.6	43.0	56.1
Teacher qualifications			
Percent with major/minor in teaching area	66.9	71.2	71.5
Percent certified in teaching area	91.3	97.9	97.5
Mean years of teaching experience	10.1	12.8	15.2

Source: U.S. Department of Education/NCES. 1995. Characteristics of American Indian and Alaska Native Education: Results from the 1990-91 Schools and Staffing Survey. Washington, DC: U.S. Department of Education. From *Women, Minorities, and Persons with Disabilities in Science and Engineering: 1996*, page 129.

TABLE 29 COMPARISON OF INDIAN AND NATIVE STUDENT ENROLLMENTS FOR FY 1991-95

Type of School	1991	1992	1993	1994	1995
Public Schools	347,291	384,386	394,832	452,471	498,772
Private Schools	10,352	10,352	10,000	21,949	26,700
BIA-Funded Schools	40,841	41,707	43,700	45,185	46,556
Total	398,484	436,445	448,532	519,605	572,028

Note: The 1991, 1992, and 1993 data on Public and Private Schools were provided by the National Advisory Council on Indian Education (NACIE) in their Annual Reports. The 1994 data were provided by the U.S. Department of Education, National Center for Education Statistics for Public Schools and Private Schools. The 1995 data were based on estimates as no data were available from the NCES.

Source: *U.S. Department of the Interior Annual Education Report*. FY 1995, p. v.

TABLE 30 NUMBER OF CHILDREN WITH DISABILITIES AND TOTAL BIA SCHOOL-AGE POPULATION

Fiscal Year	Number of Disabled Students ^a	Total K-12 BIA School Population
1982	4,397.5	42,930
1983	4,576.0	42,535
1984	4,964.0	42,825
1985	6,027.0	41,991
1986	5,926.5	40,280
1987	6,205.0	39,911
1988	6,541.0	39,592
1989	6,762.0	39,381
1990	6,601.0	39,791
1991	6,627.0	40,841
1992	7,351.0	41,707
1993	7,993.0	43,700
1994	7,933.0	45,185
1995	8,324.0	46,556

^a The total number of students with disabilities includes students who receive speech and language therapy only.

Source: *U.S. Department of the Interior Annual Education Report*. FY 1995, p.32.

TABLE 31 OFFICE OF INDIAN EDUCATION PROGRAMS AND GOALS

The OIEP and BIA Goals 2000 Panel have developed the following goals and benchmarks:

- By the year 2011, 100% of students in BIA funded schools will be proficient or advanced in mathematics and language arts when assessed at three grade levels in regard to their learning of the new, more challenging content outlined in the national or state standards.
- One hundred percent of BIA funded schools will provide instruction based on challenging math and language arts content standards in school year 1997-98.
- One hundred percent of the BIA funded schools will have adopted challenging content standards in all core areas by the year 2000. These standards will include Indian culture and language content.
- After baseline data is gathered and it is determined how students performed as proficient, advanced or less than proficient on new authentic assessments, the percentage of students at the proficient and advanced levels will increase by at least 5% each year starting in school year 1996-1997.
- Starting with 4, 721 substance abuse incidents reported in school year 1994-1995, the number of such incidents will be decreased by 10% each year starting in school year 1996-1997.
- In 1996-1997, one hundred percent of the 187 Bureau funded schools have developed and submitted Goals 2000 Consolidated Reform Plans covering all Improving America's Schools Act programs and regular school programs.
- By the year 2000, challenging standards for all students in all core areas will be adopted.
- By the year 2000, 100% of BIA funded schools will have valid and reliable authentic assessment systems in place for reading/language arts and math at a minimum. The systems will be aligned with the school's content and performance standards and curricula.
- In school year 1994-95, the average daily attendance rate for BIA-funded schools was 90%. By the end of 1995-96, it was 91%. By the year 2000, will be 95% or higher.
- In school year 1994-95, the dropout rate was determined to be 15.6%. By the end of 1995-96, it was 14.6%. By the year 2000, it will be 10.6% or lower.
- In school year 1994-95, schools retained 93% of their October student count enrollment number from then until the end of the school year. This rate was 94% in 1995-96. By the year 2000, it will be 98% or higher.
- By the year 2000, 100% of BIA-funded schools will have restructured time, staff and resources as outlined.
- By the year 2000, all students in BIA-funded schools will have access to computers for instructional activities and will have access to information via the information highway.
- By the year 2000, all BIA-funded schools will have an increased emphasis on early childhood education and parent literacy evidenced by refocusing resources, coordinating with existing programs, and providing improved services to parents and children.
- One hundred percent of Bureau-funded schools will have implemented comprehensive staff development plans by the 1997-98 school year.
- All teachers in Bureau-funded schools will be trained in the appropriate assessment system so that it can be implemented in the year 2000.
- In 1994, 85% of students in Bureau-funded high schools reported having drunk alcohol. By reducing this rate by 5% each year, it will be 55% or lower by the year 2000.
- In 1994, 68% of students in Bureau-funded high schools reported having used marijuana. By reducing this rate by 5% each year, it will be 38% or lower by the year 2000.
- In 1994, 85% of students in Bureau-funded high schools reported having smoked cigarettes. By reducing this rate by 5% each year, it will be 60% lower by the year 2000.
- In 1994, 50% of students in Bureau-funded high schools reported having been in a physical fight during the year. By reducing this rate by 5% each year, it will be 20% or lower by the year 2000.
- In 1994, 26% of students in Bureau-funded high schools reported having carried a weapon during the month. By reducing this rate by 3% each year, it will be 8% or lower by the year 2000.
- By the year 2000, 100% of schools will meet their yearly local goals for reducing substance abuse and violence incidents.

Source: Bureau of Indian Affairs, Office of Indian Education Programs, <http://shaman.unm.edu/oiep/goals1.htm>