

LEARNING TO LEAD LEADING TO LEARN

JACKSONVILLE URBAN SYSTEMIC INITIATIVE - JUSI

DUVAL COUNTY PUBLIC SCHOOLS
JACKSONVILLE, FLORIDA

URBAN SYSTEMIC INITIATIVE

The National Science Foundation (NSF) launched the Urban Systemic Initiative (USI) program in 1993. The program was developed for large urban school districts with a large percentage of historically underserved minority students. From 1993 through 1999, 22 districts received multimillion dollar grants to implement their USI projects. The goal of the program was systemic reform targeted toward the improvement of the mathematics and science educational infrastructure including standards-based curriculum and instruction, aligned assessment, professional development for teachers, convergence of resources, and community partnerships.

NSF developed a theoretical structure for systemic reform built around "Six Drivers of Systemic Reform":

1. Standards-based Curriculum, Instruction, and Assessment
2. Policy Support for High Quality Learning and Teaching
3. Convergence of Educational Resources
4. Partnerships and Leadership: Broad-based Support
5. Measures of Effectiveness Focused on Student Outcomes
6. Achievement of All Students, Including Those Historically Underserved

All of the USI projects used the drivers as a basis for the design and implementation of their reform efforts.

In 1998 Duval County Public Schools was awarded a \$15 million cooperative agreement to establish the Jacksonville Urban Systemic Initiative (JUSI).

¹ NSF is a federal agency created by Congress "to promote the progress of science, to advance the national health, prosperity, and welfare; and to secure the national defense..." For more information please refer to www.nsf.gov



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Written and Designed by Systemic Research, Inc.
for Dr. M. Carolyn Girardeau, Director of JUSI
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As the journey continues and I find myself teaching undergrads at the University of North Florida, I appreciate the USI opportunities which have opened so many doors for me personally and professionally. As the layers of the USI journey continue to unfold over the next several years, I know that our district will be enhanced by those who continue to bloom and grow.

Diane Landschoot

DCPS Science Resource Teacher

JUSI provided me with the opportunity to acquire the tools and gain the experience necessary to address educational disparity at the individual, classroom and district level. Armed with those tools I gained confidence in myself and in the ability of an institution to change. Now I have the courage to address those disparities and collaborate with others as we try to prove what I have always known, that all children can learn.

Marge Hayden

District Science Resource Teacher

Being a Science Teacher Leader... was extremely enjoyable and gratifying. It allowed me to grow professionally on so many levels. It was an experience for which I will always be grateful.

Donna Elkins

Science Teacher Leader

Working with JUSI was a wonderful experience. As a high school technology education teacher it was refreshing to be included in the lead teacher program. JUSI not only provided local in service opportunities, but also national instructors, to me and my students. Being able to share my program, by presenting, at the International Technology Educators, National Science Teachers, and Florida Technology Educators conferences allowed me to network and share with colleagues locally, nationally, and internationally. Funding for travel to see and learn, from other programs, around the country was valuable for me and my program. JUSI was the first program, that I ever experienced that was truly a program to fund teachers to be better teachers.

Bill Pugh

Technology Education, Englewood High School

The Duval County Public Schools (DCPS) in Jacksonville, Florida sought and received a grant from the National Science Foundation in 1998 to establish the Jacksonville Urban Systemic Initiative (JUSI). JUSI's goal was to reform mathematics and science education through teacher professional development that focuses on an inquiry-based, standards-aligned curriculum and instructional model.

JUSI was the driving force for policy changes in science and mathematics education in DCPS. More students are passing the state assessment test and increasing numbers of students are enrolling in and successfully completing higher level and Advanced Placement mathematics and science courses. Achievement gaps between underserved minority and white students have been narrowed.

Major accomplishments of JUSI include:

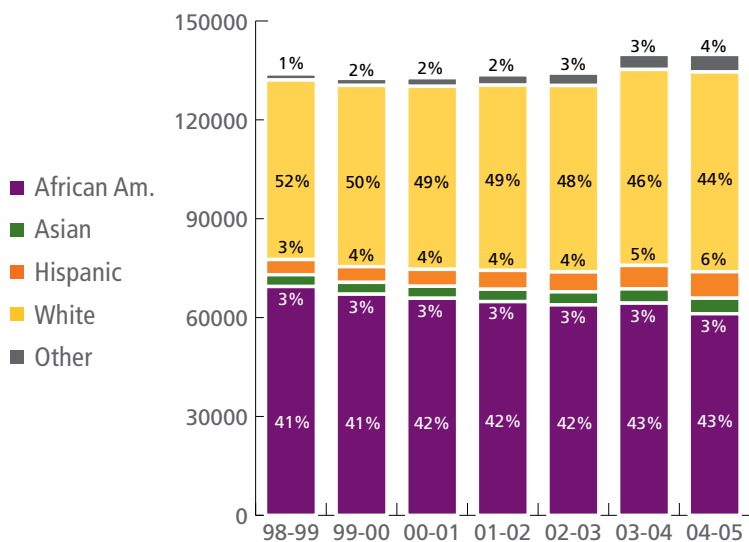
- The establishment of the Science and Mathematics Teacher Leadership Model
- The science and mathematics departments revised curricula to be inquiry-based, standards-based, and research-validated. The curricula are aligned with state and national standards.
- Partnerships were established with institutions of higher education, the community, and business
- More rigorous graduation requirements were implemented to include Algebra I, Geometry, Biology, and two physical science courses
- Beyond-the-school-day programs to support students by providing enrichment and/or intervention were established
- DCPS earned a district-wide grade of B from the state for 2005, a letter-grade increase and the largest increase in points of any school district in the state; DCPS also earned the distinction as the only district in Florida with no grade F school



DUVAL COUNTY PUBLIC SCHOOLS

JUSI serves students and educators in the Duval County Public School in Jacksonville, Florida. As a result of Jacksonville's municipal development the school system expanded from approximately 134,000 students in 146 schools (SY 1998-99) to more than 142,000 students in 152 schools (SY 2004-05). During JUSI's implementation the ethnic composition of the school system's student body shifted slightly; the number of African American students increased two percentage points from 41% to 43% of the student population, the number of Hispanic students increased 3pp from 3% to 6%, and the number of White students decreased eight percentage points from 52% to 44%.

Total Number of DCPS Students



SY 2004-05

Total Number of Students	142,229*
African American	43% (60,614)
Asian	3% (4,709)
Hispanic	6% (8,044)
White	44% (64,168)
Other	4% (5,316)
Female	49%
Male	51%

Number of Students Enrolled in:

Elementary School	47% (67,017)
Middle School	24% (34,381)
High School	29% (40,831)

Number of Schools 152

Elementary School (K-G5)	105
Middle School (G6-8)	28
High School (G9-12)	19

Number of Mathematics and Science Teachers 4,426

Elementary School Teachers	3,219
Middle School Mathematics Teachers	304
High School Mathematics Teachers	315
Middle School Science Teachers	325
High School Science Teachers	263

* Cumulative total of students enrolled at any time during the school year.



All Students Learn
Science and Mathematics

Improve Science and Mathematics
Close the Achievement Gap

Student Support Programs

- Saturday Stars
- Math and Science Camp
- TEAM-UP
- SECME Competitions
- Aviation Camp (FCCJ)

Professional Development

Provided Via:

- Training Sessions and Mentoring
 - » Content Knowledge
 - » Research on Best Instructional Practices
 - » Curriculum Development
- Graduate Level Coursework
- Attendance and Presentations at National Conferences

Provided To:

- Administrators
- District Resource Teachers
- Teacher Leaders
- Classroom Teachers
- Parents

Standard-Based Curriculum,
Instruction, and Assessment

- Curricula Reform
- Inquiry-based Instruction
- Curriculum framework based on Understanding by Design (UbD by ASCD)
- Instructional material for college prep math courses

Policy Support

- More rigorous graduation requirements
- Increased promotion requirements
- Comprehensive education plan
- Individual intervention assistance

Convergence of Resources

- Title I
- Title II
- Title V
- DCPS Operating Budget
- Bill and Melinda Gates Foundation
- Schultz Center for Teaching and Leadership
- Higher Education Consortium

Partnerships and Learning Communities

- SECME, INC.
- Family Education Collaboration
- NEW PALS: Parent Training
- Jacksonville Community Council, Inc.
- Passport Program for parents
- Early College High School
- Sigma Pi Phi Fraternity - Annual High Potential Youth Recognition Program
- Florida A&M U. - Science and Math Teacher Exchange Program

JUSI, implemented from September 1, 1998 through June 30, 2006, focused on teacher professional development; standards-based curriculum, instruction, and assessment; student support programs; policy support; convergence of resources; partnerships; and learning communities. The components worked together toward the realization of the goal; all students learn science and mathematics.

PROFESSIONAL DEVELOPMENT

Professional development was the driving force of JUSI from the beginning. Intense professional development in curriculum development, content knowledge, and instruction was provided by District Resource Teachers for administrators, teacher leaders, and all science and mathematics classroom teachers.

District Resource Teachers were selected based on their teaching experience, skills, and content knowledge. They were released from regular teaching assignments so they could devote all of their time to providing professional development to classroom teachers. During the first year of JUSI implementation, these experienced and skilled teachers attended sessions on content, instructional practices, and curriculum development from the district mathematics supervisor, science coordinator, and professors from the University of North Florida (UNF) and Jacksonville University (JU). Training in coaching skills were provided by UNF staff, and outside consultants provided specialized training in other areas such as presentation skills and adult learning.

As a result of the training, District Resource Teachers became experts in the following areas:

- In-depth knowledge of the Sunshine State Standards and how they are the basis of the curriculum

- In-depth knowledge of the Sunshine State Standards and how they are the basis of the curriculum
- Classroom follow-up utilizing training in coaching and mentoring



- Development of research based curriculum that reflects the strategic plan for DCPS
- Presentation skills that are appropriate for the adult learner, convey content area knowledge, and are applicable to the classroom
- Classroom follow-up utilizing training in coaching and mentoring
- Organization and facilitation of large and small group activities

This team of outstanding professionals brought a capacity of leadership to the district that made a lasting impact on the educational knowledge base.

Classroom science and mathematics teachers were given release time during school hours to attend professional development workshops led by District Resource Teachers. During Year 5 (SY 2002-03), 100% of the secondary mathematics and science teachers received professional development focused on revised curricula and instruction. During Years 6 and 7, attention was concentrated on enhancing and expanding professional development for Teacher Leaders and other highly-qualified teachers, as well as making sure new teachers were oriented to the district mathematics and science programs. JUSI was the bridge between university experts and classroom teachers.

Several District Resource Teachers co-taught undergraduate and graduate level education classes with professors at UNF and at JU. Professional development and mentoring support were provided to nontraditional teachers who did not attend a college of education or who were in second careers after business or

the military. District Resource Teachers worked in schools to deepen classroom teachers' content knowledge and translate research into instructional practice.

Teacher Leaders provided additional classroom support at the school level. Teacher Leaders were identified by the District Resource Teachers in collaboration with district science and mathematics supervisors. Workshops were held to train Teacher Leaders in content, curriculum, instruction, coaching, and leadership. JUSI, in partnership with UNF, offered a graduate course addressing action research by Teacher Leaders. The class has been completed by 58 teachers.

The primary responsibilities of school-based Teacher Leaders are:

- Planning, modeling, co-teaching, and assessing student work with other classroom teachers
- Facilitating horizontal and vertical articulation meetings
- Working in study groups
- Utilizing student data to inform instruction
- Conducting book talks
- Conducting science or mathematics family nights
- Conducting after-hours professional development for teachers/staff

The successful JUSI professional development model has been presented at National Science Teachers Association (NSTA) conferences. In addition to the presentations at NSTA, the JUSI model was presented at the following conferences:

- April 2002 National Council for Supervisors of Mathematics
- October 2002 Florida Association of Science Teachers
- April 2002 National Association for Research in Science Teaching
- March 2003 National Science Association
- Also featured in ENC¹ Focus Magazine Volume 9, Number 1, 2002 issue

Number of Teachers Receiving Professional Development

		Year 1 98-99	Year 2 99-00	Year 3 00-01	Year 4 01-02	Year 5 02-03	Year 6 03-04	Year 7 04-05
Elementary School Teachers		663 (22%)	1471 (48%)	1792 (58%)	1722 (54%)	1831 (55%)	1729 (50%)	1089 (34%)
Middle School Teachers	Mathematics	230 (77%)	291 (78%)	322 (97%)	270 (83%)	278 (100%)	292 (83%)	235 (77%)
	Science	229 (80%)	261 (75%)	254 (83%)	283 (100%)	281 (100%)	293 (100%)	183 (56%)
High School Teachers	Mathematics	125 (34%)	241 (62%)	215 (61%)	141 (44%)	227 (100%)	253 (72%)	210 (67%)
	Science	111 (32%)	202 (54%)	250 (72%)	200 (72%)	202 (100%)	212 (99%)	155 (59%)
Total Teachers		1358 (32%)	2466 (55%)	2833 (64%)	2616 (60%)	2819 (65%)	2779 (60%)	1872 (42%)

(%) Percentage of total teachers

¹Eisenhower National Clearinghouse for Mathematics and Science Education

STANDARDS-BASED CURRICULUM, INSTRUCTION, AND ASSESSMENT

DCPS science and mathematics curricula are based on state-mandated Sunshine State Standards that are aligned with national standards. Under the direction of JUSI, the science and mathematics curricula were revised to include fewer topics and more in-depth concepts, utilizing guidelines from the Third International Mathematics and Science Study recommendations. The district adopted Understanding by Design (UbD) as the framework to revise all secondary curricula. The science curriculum was a model in the approach to incorporate UbD into the curricula, instruction, and assessment process.

Standards-based, inquiry materials in mathematics and science are used throughout the district. The *Connected Mathematics Program* was adopted for use in middle schools as was

Investigations in Number, Data, and Space in elementary schools.

Most of the elementary schools implement *Knowing Mathematics*, an intervention program developed for students who are two or more years below grade level in mathematics. *College Preparatory Mathematics* (CPM) was introduced 2001-02 for high school Algebra I and Geometry. CPM was adopted for Algebra II classrooms during 2004-05. Calculators and relevant software are provided to mathematics classrooms.

High schools implement one or more science inquiry programs: *Chemistry in the Community*, *Active Physics*, and *Earth System Science in the Community*.

Since 2001-02, *Science and Technology for Children* inquiry kits have been provided for grades 1 and 2 ("Life Cycle of Butterflies" and "Weather," respectively), following teacher training. In addition, inquiry kits for measuring and observing were purchased for kindergarten teachers who participated in science workshops beginning in June 2005. Selected inquiry kits for grades 3-5 were introduced in 2006-07. The school district has made significant progress toward the goal of providing

all students with inquiry-based curriculum and instruction in science. The Florida Department of Education mandates statewide student assessment in mathematics for all students in grades 3-10 and science in grades 5, 8, and 11 through the Florida Comprehensive Assessment Test. It contains two basic components: 1) measuring selected benchmarks from the Sunshine State Standards, and 2) measuring each student's performance against national norms.



STUDENT SUPPORT PROGRAMS

Student support programs provide academic support to help students meet the expectations of challenging curricula. Enrichment programs stimulate interest and promote student engagement. JUSI initiated and supported several programs.

TEAM-UP is a school-site, after-school program for students who need support to attain high achievement in mathematics and science. JUSI District Resource Teachers, university professors, and district mathematics and science supervisors developed a curriculum to reinforce concepts taught in the classrooms. District Resource Teachers provided professional development and instructional support for teachers in individual schools. Florida Community College at Jacksonville (FCCJ) professors and students provided on-site tutoring for students.

Saturday Stars targeted sixth through tenth graders. Two four-week sessions were held per year. District Resource Teachers developed the curriculum reinforcing DCPS curriculum, taught Saturday classes, and provided professional



development to classroom teachers teaching Saturday sessions. UNF provided PASSport and other parent workshops to parents who attended with their children. JUSI Team Leaders coordinated the sessions with FCCJ professors, who also taught Saturday sessions held on a FCCJ campus utilizing their laboratories and technology.

Mathematics Science and Engineering Camp was held during the summer on the UNF campus in the technology laboratory. The camp served up to 200 students in grades 6 through 10 annually. JUSI Team Leaders coordinated with UNF professors to develop this four-week program to give the students a head start on concepts that would be presented in their classrooms the following school year. JUSI resource teachers and Teacher Leaders developed curriculum, taught classes, and provided on-site support.

JUSI worked with FCCJ to implement an annual **Aviation Camp**. Students in grades 7-10 spend two weeks learning the history of aviation and technical aspects of flying. A trip to NASA at Cape Canaveral is part of the curriculum. The students and instructors actually fly a plane at the end of the camp. JUSI science and mathematics Teacher Leaders served as instructors.

Students were supported by JUSI staff and funding for **SECME district competitions** and school-based activities, Botball robotics, Raines Mathematics Club and other enrichment opportunities.

POLICY SUPPORT

JUSI was an agent of change in DCPS focusing on standards-based mathematics, science, and technology reform. The impact of the reform efforts are long-term and reach beyond mathematics, science, and technology education. Policy changes with the most significant impact on JUSI goals were those addressing promotion and graduation requirements. The graduation requirements were strengthened to three credits in mathematics including Algebra I and Geometry, as well as Biology and two physical science courses. Students must also attain a minimum score on mathematics and science FCAT sub-tests. Students in grades 4 to 8 must pass mathematics and science to be promoted to the next grade level. Individualized intervention assistance during the school year replaced remedial summer school.

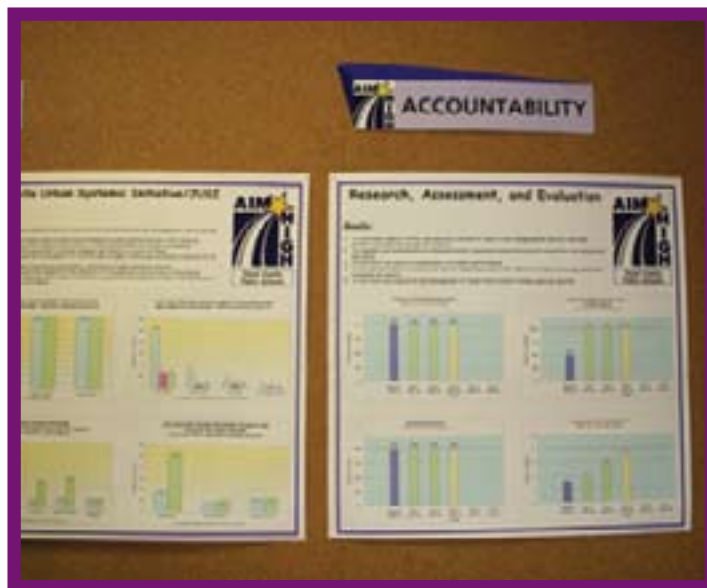
CONVERGENCE OF RESOURCES

A variety of funding sources received from federal, state, and corporate agencies were utilized to sustain and expand the JUSI programs that further achievement in mathematics, science, and technology. Federal Title I and II support attendance

at professional development sessions, additional staffing, and professional meetings. Title V provides instructional and professional development materials for Teacher Leaders' use in model/demonstration classrooms.

The district is committed to furthering the JUSI science and mathematics Teacher Leadership at school sites. As part of the DCPS Five Year Strategic Plan, district-level Science and Mathematics Teacher Leaders are included in the District Operating Budget. The district currently funds Teacher Leader release time and after-school stipends for professional development activities.

SECME Inc.'s program and monetary support through the Bill & Melinda Gates Foundation made the establishment of the Early College High School (ECHS) program possible in DCPS. In 2005, the second ECHS site was established at Ribault High School. DCPS and local institutions of higher education have earmarked funding and program support to sustain and expand this program to include an ECHS site in each of the five geographic regions.



The Schultz Center for Teaching and Leadership was established in 2001. Located in Jacksonville it provides a state-of-the-art facility for educators in the northeast region of Florida. The center was financed through state funds matched with locally raised private donations and grants. The Schultz Center has expanded to include not only the technology and space for seminars, but also a registration and database system for attendees of professional development sessions.

PARTNERSHIPS AND LEARNING COMMUNITIES

The JUSI Consortium was a valuable body of advisors from the district, institutions of higher education, businesses, and the community that gave guidance and support in the areas of policy and community support. Through the process of Asset Mapping, the Consortium identified many organizations and individuals who became instrumental in furthering the JUSI efforts.

The relationship with UNF has been strong for many years and contributed to the success of JUSI from the inception. Joint efforts to advance student achievement in science and mathematics include the following:

- Development of a Masters Program in secondary science
- Development of a Masters Program in elementary education with emphasis in science and mathematics
- Development of a graduate-level Teacher Leadership course, co-taught by an UNF professor and the JUSI Director
- Co-teaching of elementary mathematics methods classes by professor and JUSI resource teachers
- Partnership for Excellence in Mathematics: a state funded year-long Friday-Saturday program focusing on higher-level mathematics content for high school mathematics teachers. Teachers from four

high schools and JUSI resource teachers were attendees.

- Curriculum development in science and mathematics
- Coaching and mentoring sessions for JUSI resource teachers facilitated by UNF professors



- Establishment, oversight, and involvement in the ECHS program
- Design and implementation of summer camp for students grades six through nine focusing on science, mathematics, and technology
- Collaboration and assistance in Saturday Stars program for students grades six through nine

The following includes programs that were implemented in collaboration with FCCJ:

- Design and implementation of the Saturday Stars program for students in grades six through nine
- Assistance and on-site tutoring in the TEAM-UP after school program
- Establishment, oversight, and involvement in the ECHS program, including use of facilities and involvement of faculty
- Development of the summer Aviation Camp involving students grades seven through ten. JUSI Teacher Leaders serve as instructors at the camp.
- Teaching of Earth Science course to certify secondary science teachers
- Collaboration for the dual enrollment program with DCPS

DCPS and JU have had a long standing partnership. The initial organizational meeting of the JUSI team was held at the JU campus. Resource teachers co-taught technology classes at JU and professors assisted in the revision of the science curriculum. JU professors designed short courses to present content knowledge to Science Resource Teachers. Another course was designed to prepare science classroom teachers for the state chemistry in-field certification examination.



The Schultz Center for Teaching and Leadership facilitates professional development for teachers and administrators. The Center assisted JUSI by providing facilities, logistics, and funding of Teacher Leadership Academies, Principals' Institutes, community meetings, professional development sessions, and guest speakers.



The JUSI / Jacksonville Housing Authority (JHA) Family Education Collaboration was established to strengthen communication among schools, families and communities. Workshops using The Quality Education for Minorities Network's NEW PALS¹ curriculum provided 36 hours of inquiry science and mathematics content to parents, enabling them to work with their children. Select students from JHA attend Aviation Camp each summer.

Examples of other partners are WJCT and the Jacksonville Community Council, Inc. WJCT is a local TV station which sponsored annual Saturday sessions by master teachers, many of whom are JUSI Teacher Leaders. The station executives worked with JUSI in several grant proposals and other projects. The Jacksonville Community Council, Inc. is a think-tank of community, business, and education leaders. They identified barriers, explored solutions, and made recommendations for reducing the achievement gap.



¹Neighborhood Education Watch: Creating Parents Advocates and Leaders

STUDENT SUCCESS

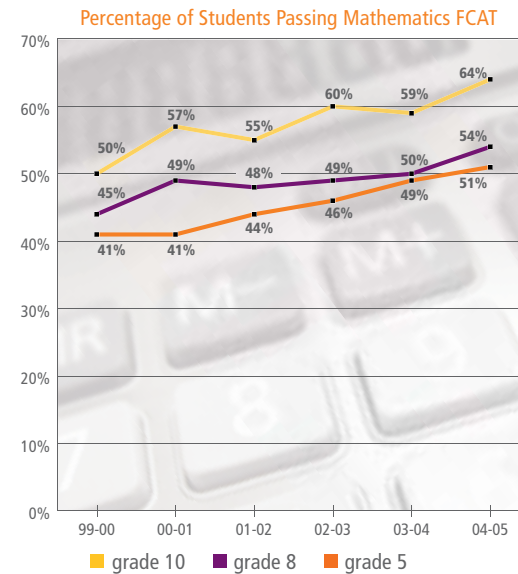
The measure of JUSI's goal to reform mathematics and science education is the achievement of DCPS students. Some measures of success are the number of students passing FCAT, and the number of 8th grade and high school students enrolling in and completing gate-keeping and advanced placement mathematics and science courses. In addition to the improvement of all students, the narrowing of the achievement gap between underserved minority and white students was a JUSI objective. Selected examples of achievement are presented.

MATHEMATICS FCAT RESULTS

The statewide student assessment in mathematics is the Florida Comprehensive Assessment Test (FCAT). The mathematics FCAT is administered in grades 3-10. Scoring at Level 3 and above is considered passing.

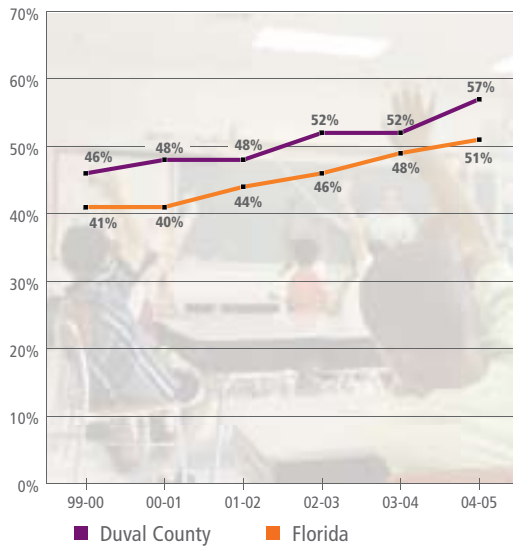
- Grade 5 – students scoring Level 3 and above increased ten percentage points from 41% in SY 1999-00 to 51% in SY 2004-05 (3,924 to 4,489)
- Grade 8 – students scoring Level 3 and above increased nine percentage points from 45% in SY 1999-00 to 54% in SY 2004-05 (3,824 to 4,987)
- Grade 10 – students scoring Level 3 and above increased 14 percentage points from 50% in SY 1999-00 to 64% in SY 2004-05 (3,063 to 5,206)

The achievement of DCPS grade 5 students in SY 99-00 can be followed to grade 8 in SY 02-03 and grade 10 in SY 04-05 where the passing rate improved from 41% to 49% to 64% respectively (not accounting for student mobility). As scores increased, the achievement gap between African-American and White students narrowed in grades 5 (three percentage points from 34pp to 31pp) and 10 (six percentage points, from 39pp to 33pp). The achievement gap remained at 35pp in grade 8.

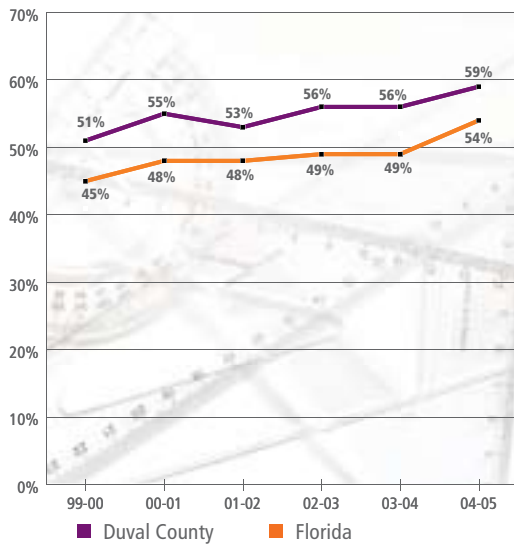


Comparing DCPSs' student Mathematics FCAT passing rates to the State of Florida reveal that the gap between DCPS and Florida was narrowed in grades 8 and 10; in grade 10 DCPS passing rates were higher than the state average.

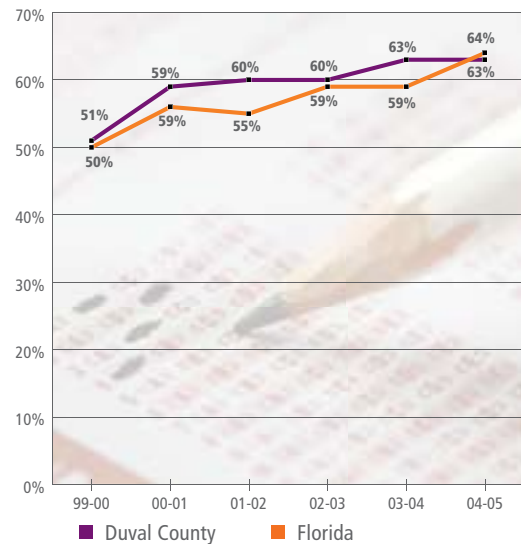
Mathematics FCAT Grade 5
Percent of Students Scoring Level 3 and Above



Mathematics FCAT Grade 8
Percent of Students Scoring Level 3 and Above



Mathematics FCAT Grade 10
Percent of Students Scoring Level 3 and Above

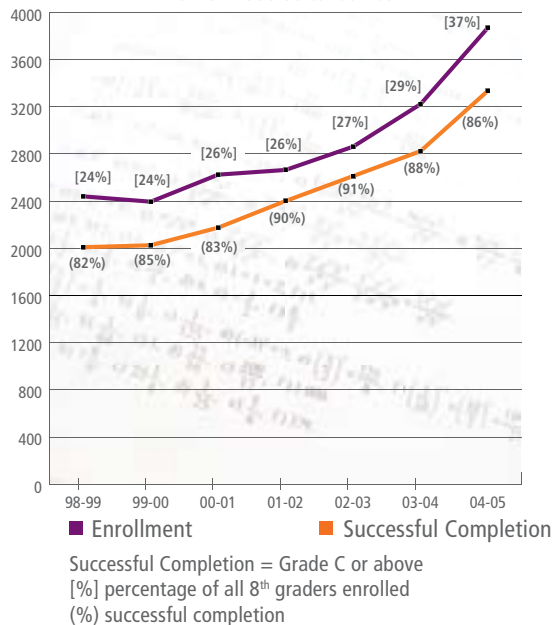


ALGEBRA I IN 8TH GRADE ENROLLMENT AND SUCCESSFUL COMPLETION

Students that complete Algebra I in 8th grade have the opportunity to enroll in four upper level mathematics courses in high school. DCPS enrollment of students in Algebra I in 8th grade increased 59% from 2,440 to 3,869 students between SY 1998-99 and SY 2004-05, compared to an overall 8th grade enrollment increase of only 3%. In SY 1998-99 the percentage of the 8th grade student population enrolled in Algebra I increased 13 percentage points from 24% to 37%. Further, the rate of 8th grade students successfully completing Algebra I with a grade of "C" or better increased four percentage points from 82% to 86%.

The number of underserved minority (URM) students enrolled in Algebra I in 8th grade increased 95% from 786 in SY 1998-99 to 1,535 in SY 2004-05 while total 8th grade URM enrollment increased 11% during the same time period. As a percentage of the 8th grade URM enrollment, URM students' enrollment in Algebra I increased 12 percentage points from 17% to 29%. Students successfully completing Algebra I increased three percentage points from 80% to 83%.

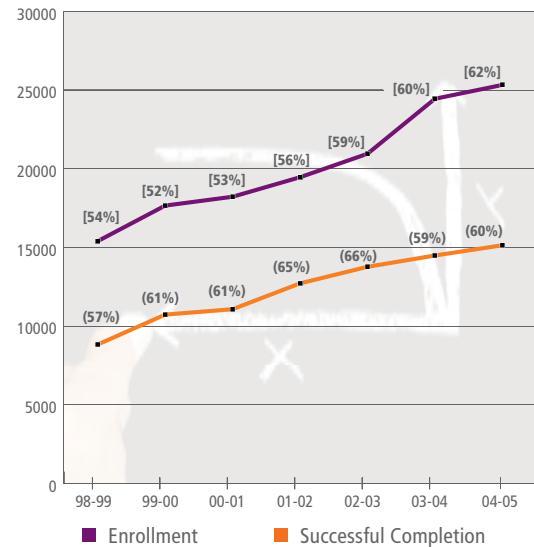
Algebra I in 8th Grade Enrollment and Successful Completion from SY 1998-99 to 2004-05



GATE-KEEPING AND HIGHER LEVEL MATHEMATICS AND SCIENCE COURSE ENROLLMENT AND SUCCESSFUL COMPLETION

Mathematics gate-keeping and higher level courses are defined as grade 9 to 12 Algebra I, Algebra II, Algebra II Honors, Geometry, Geometry Honors, and Calculus. Mathematics gate-keeping course enrollment increased 64% from 15,396 students in SY 1998-99 to 25,324 in SY 2004-05. The student population in grades 9-12 grew 42% during the same time period, resulting in an increase in the percentage of students enrolling in these courses from 54% to 62%. The rate of successful completion of the courses increased three percentage points from 57% to 60% (8,829 to 15,135 students).

Grade 9-12 Gate-Keeping and Higher Level Mathematics Course Enrollment and Successful Completion from SY 1998-99 to 2004-05



Mathematics Courses include Algebra I, II, II Honors, Geometry (Honors) and Calculus

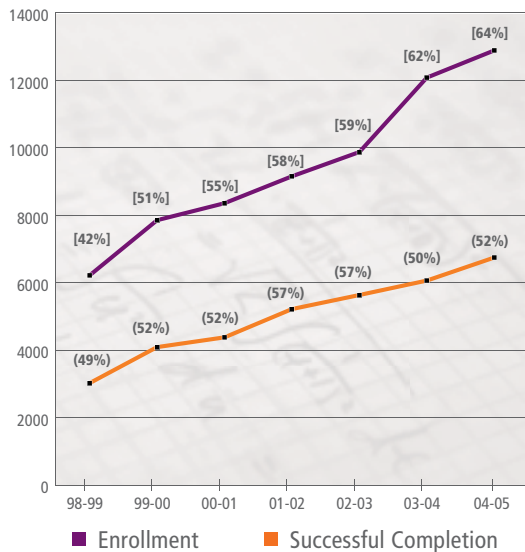
Successful Completion = Grade C or above
 [%] percentage of all 9th to 12th graders enrolled
 (%) successful completion

Underserved minority students showed even greater gains. From SY 1998-99 to SY 2004-05, the number of underserved minority students enrolling in gate-keeping mathematics courses more than doubled from 6,218 to 12,889. The passing rate also increased, from 50% to 63%.

Science gate-keeping and higher level courses are defined as grade 9-12 Biology, Biology I Honors, Chemistry, Chemistry I Honors, Physics and Physics I Honors.

The achievement gap between African-American and White students was narrowed in enrollment and completion of science gate-keeping courses from SY 1998-99 to SY 2004-05. The enrollment gap was narrowed from eight to four percentage points (African-American 33% to 51%, and White 41% to 55%). For successful completion of science gate-keeping courses, the achievement gap fell from 16 percentage points to 14 percentage points (African-American 61% to 65%, and White 77% to 79%).

Grade 9-12 Gate-Keeping and Higher Level Mathematics Course Enrollment and Successful Completion of Underserved Minority Students from SY 1998-99 to 2004-05



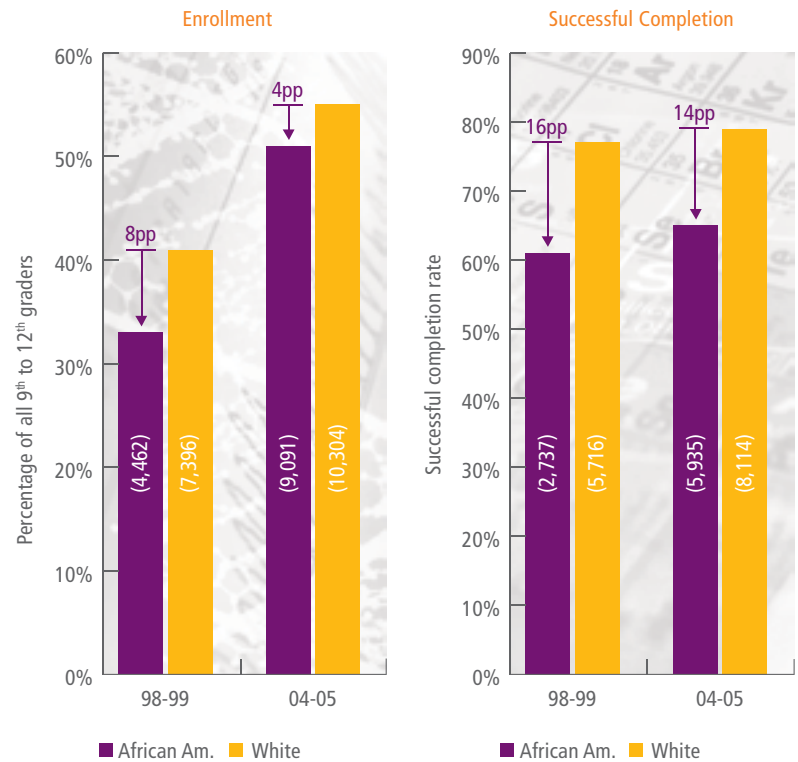
Successful Completion = Grade C or above

Mathematics Courses include Algebra I, II, II (Honors), Geometry (Honors) and Calculus

Underserved minority students include African American, American Indian, and Hispanic

[%] Percentage of all underserved 9th to 12th graders enrolled
 (%) Successful completion rate

Grade 9-12 Gatekeeping and Higher Level Science Enrollment and Successful Completion Comparison Between African American and White Students



Science courses include Biology (Honors), Chemistry (Honors), and Physics (Honors)

pp- percentage point
 (#) number of students

CHANGING LEADERSHIP, CONTINUED VISION

On November 17, 2005 Dr. Joseph Wise became Superintendent of Duval County Public Schools bringing a fresh approach to "create a platform for accelerating student achievement that builds upon the work of the previous administration."

He identified several guiding principles focusing on issues facing students, Board members, faculty/personnel, the business community, civic leaders, and parents. Six goals were consistent with these guiding principles. Goal 2 and Goal 3 are directly aligned with the work of JUSI.

Goal 2: Create a platform for accelerating student achievement that builds upon the work of the previous administration. These initiatives are most aligned with JUSI work and sustainability:

- The implementation of standards-based design will be expanded ensuring high standards and performance equitably across the district.
- Each high school is to develop and maintain a plan that would result in triple enrollment of students in AP courses among all subgroups.
- Use of technology will be expanded and a five-year refresh plan for technology will be developed.
- The Superintendent and Chief Academic Officer will review performance data on at-risk schools monthly.
- Expand pilot programs to recruit and retain high-quality teachers in challenged schools.
- Continue the early dismissal initiative and use it as a tool to enhance professional development opportunities for teachers.
- Develop a call-to-action: Math Challenge 2010.

The Math Challenge 2010 will potentially have the greatest impact on the work of the JUSI. It would result in the following:

- DCPS student body with greater than 80% proficiency mathematics in all levels tested
- Less than 7% achievement gap among all non-special-education subgroups and aggregate/average of all groups tested
- Less than 10% achievement gap among all special-education subgroups and aggregate/average of all groups tested
- Sixty-five percent of rising tenth graders successfully completing Algebra II with a grade of C or better
- Thirty-five percent of all seniors successfully completing at least one AP mathematics course
- DCPS Mathematics faculty reporting a greater than 80% satisfaction rating on their level of support received from principals, district staff, parents, and the community on matters identified as being critical to successful and meaningful teaching and learning in mathematics at all levels

Goal 3: Establish public trust and confidence through open, honest communication and positive relationships among groups. The impact of this goal will be felt community-wide as the district leadership strives to involve school administration, teachers, parents, students, school leaders, media, and community groups in interactive discussions and dialogue to improve education in Duval County. The JUSI made many strides in the area of partnership building and these partners will continue to be included in the process of improved communication.

Also closely aligned with the JUSI values is the Superintendent's focus on increasing number of DCPS teachers pursuing National Board Certification (NBC). Dr. Wise set a goal for every school with more than fifty teachers to have three teachers working together toward NBC and every school with fewer than fifty teachers having two teachers working toward NBC. He has called upon the principals for their support in this effort that will benefit both teachers and their students.

In February 2006, the Duval County School Board adopted nine core beliefs.

- The academic success of every student in Duval County is the top priority of the Duval County School Board.
- The Duval County School Board believes that our greatest strength as a school district is the racial, gender, ethnic, and socioeconomic diversity of our students and community.
- The achievement gap in Duval County can and must be eliminated.
- All DCPS children can be academically prepared to reach their dreams.
- All DCPS children can learn at grade level.
- Every school in Duval County can be a high-performing organization, both academically and operationally.
- High quality teachers, supported with high quality, on-going professional development, must drive our rigorous, intellectually and artistically challenging curriculum.
- Academic and operational resources can and must be adequately distributed throughout all DCPS schools.

- All schools can be safe learning environments where every student and adult is valued and respected.

As indicated in the goals, values, and commitments of the new administration, the JUSI mission will be continued and expanded in DCPS.





**Duval County
Public Schools**
Jacksonville, Florida

Jacksonville Urban Systemic Initiative

Principal Investigator

1998-2005 John C. Fryer, Jr.
2005-2006 Dr. Joseph Wise
Superintendent

Co-Principal Investigator

1998-2003 Dr. Charles Cline
2003-2006 Ed Pratt-Dannals
Associate Superintendent, Curriculum
& Instructional Services

General Director

1998-2000 Dr. William Fryar
2000-2006 Dr M. Carolyn Girardeau



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