

**Partnership for Reform in Science and Mathematics
(PRISM)**

**Five-Year Strategic Plan
2003-2008**

**National Science Foundation
Math and Science Partnership (MSP)
EHR-0314953**

Principal Investigator:

Jan Kettlewell
Associate Vice Chancellor for P-16 Initiatives
University System of Georgia

Project Partners:

**University System of Georgia
Georgia Department of Education
Georgia's Education Coordinating Council
Atlanta-Metro P-16 Council
Georgia State University
Atlanta Public School District
East Central P-16 Council
Georgia Southern University
Bulloch, Effingham, Evans, Liberty, and Screven School Districts
Northeast Georgia P-16 Council
University of Georgia
Georgia Perimeter College
Clarke, Jackson, and Oconee School Districts
Southeast P-16 Council
Armstrong Atlantic State University
Coastal Georgia Community College
Bryan, Camden, Chatham, and Glynn School Districts**

PRISM Five-Year Strategic Plan 2003-2008

Table of Contents

Project Summary	3
PRISM Vision, Goals and Benchmarks	4
Strategic Actions	8
• Teacher Quality, Quantity, and Diversity	22
• Challenging Courses and Curricula	24
• Institutional Change and Sustainability	26
• Evidence-based Outcomes	27
Year 1 Implementation Plan	28
Management Plan	48
Evaluation Plan	54
Baseline Data	66

PROJECT SUMMARY

PRISM is an initiative of the Board of Regents of the University System of Georgia in partnership with the Georgia Department of Education, six University System colleges and universities, and 13 school districts. PRISM seeks to increase science and mathematics (SM) achievement through providing challenging SM curricula; increasing and sustaining the number, quality, and diversity of P-12 teachers teaching SM (particularly in high need schools); and increasing the responsiveness of higher education to the needs of schools. To increase student achievement, changes in practice are emphasized within four regional partnerships. PRISM also features scholarship, which is woven into implementation as partners chronicle what works, for whom, under what conditions, and why it works. Lessons learned in particular contexts will be brought to the level of generalizability and replicated. Ultimately the evidence garnered from joint researcher- practitioner implementation strategies will be used to impact policies to support proven practices.

PRISM strategies are designed to give pre-service teachers, in-service teachers, and higher education faculty the tools, knowledge, skills and policy support they need to facilitate change at the school, district, regional, and state level to improve student achievement in SM. Through P-16 learning communities, school and university faculty will serve as critical friends supporting and challenging each other to seek to understand, to chronicle, and to bridge three largely discrete realms—knowledge building (the purview of SM researchers), teacher professional knowledge (taught in colleges of education), and teacher craft knowledge (as used in school classrooms). Through collaboration, faculty will develop professional knowledge that is scientifically based, that is taught to prospective teachers, and that informs practice in school classrooms.

PRISM will reach over 10,000 teachers of SM in the 277 schools within the thirteen partner school districts in four regions of Georgia. This will impact the 170,000 plus P-12 students in the core partner school districts, with great potential to impact the 1.4 million P-12 students in Georgia.

PRISM Goals and Quantitative Benchmarks

The University System of Georgia (USG) and the Georgia Department of Education (DOE) will partner with 6 University System institutions, 13 P-12 school districts, and Georgia’s Education Coordinating Council (ECC) to increase science and mathematics (SM) achievement for all P-12 students in order to improve readiness for post-secondary education and careers by enhancing teacher quality, raising expectations for all stakeholders, and closing the achievement gaps. PRISM has 3 major goals:

Goal 1: Raise expectations and achievement in SM in P-12 schools, while closing achievement gaps among demographic groups by:

- a) Providing challenging SM curricula and materials for all students.
- b) Raising the awareness of students, parents, and the community of the need for all P-12 students to complete challenging courses and curricula in SM.

	Benchmarks	2003-2004	2004-05	2005-06	2006-07	2007-08
	Implementation Benchmarks					
Strat. 8	Set P-14 standards in science and mathematics	Met				
	Revise Georgia Quality Core Curriculum (QCC) in SM to align with national standards	Met				
	Implement revised QCC in SM		Met			
Strat. 9	Implement public awareness campaign		Met			
Strat. 8	Implement “train the trainer” for teacher professional development on new standards and curriculum		Met			
	Outcome Benchmarks					
Outcomes 1, 2, 3	Percent of students successfully completing challenging SM courses will increase for all demographic groups	By 5%	By 5%	By 5%	By 5%	By 5%
Outcomes 1, 2, 3	Gaps will decrease among demographic groups in the percent taking challenging SM courses	By 5%	By 5%	By 5%	By 5%	By 5%
Outcomes 1, 2	Percent of students meeting or exceeding standards on the CRCT in SM will increase for all demographic groups	By 5%	By 5%	By 5%	By 5%	By 5%
Outcomes 1, 2	Gaps will decrease among demographic groups in percent of students meeting or exceeding standards on the CRCT	By 5%	By 5%	By 5%	By 5%	By 5%
Outcomes 1, 2	Percent of students passing the Georgia High School Graduation Tests (GHSGTs) in SM will increase for all demographic groups. (Note: this outcome will be replaced when the End-of-Course tests are implemented. New benchmarks will be set)	By 5%	By 5%	By 5%	By 5%	By 5%
Outcomes 1, 2	Gaps will decrease among demographic groups in the percent of students passing GHSGTs in SM	By 5%	By 5%	By 5%	By 5%	By 5%

Outcomes	Percent of students taking and successfully completing Algebra I	By 5%	By 5%	By 5%	By 5%	By 5%
----------	--	-------	-------	-------	-------	-------

1, 2, 3	in 8 th grade will increase for all demographic groups					
Outcomes 1, 2, 3	Percent of students successfully completing the SM college preparatory curriculum will increase for all demographic groups	By 5%	By 5%	By 5%	By 5%	By 5%
Outcomes 1, 2, 3	Public understanding increases about the benefits of challenging SM curricula for all students	By 5%	By 5%	By 5%	By 5%	By 5%
Outcomes 1, 2, 3	Public understanding increases about the consequences of SM curricular tracking	By 5%	By 5%	By 5%	By 5%	By 5%
Outcomes 1, 2, 3	Public aspirations increase about the importance of greater numbers of students majoring in SM in college	By 5%	By 5%	By 5%	By 5%	By 5%
Outcomes 1, 2, 3	The percent of students requiring Learning Support in college will decrease for all demographic groups	By 5%	By 5%	By 5%	By 5%	By 5%

Goal 2: Raise student achievement in SM in P-12 schools through increasing and sustaining the number, quality, and diversity of P-12 teachers teaching SM by:

- a) Providing high quality professional development to current P-12 teachers who teach SM.
- b) Strengthening the content and pedagogy in SM for pre-service teachers.
- c) Ensuring a sufficient pipeline of highly qualified and diverse SM teachers to meet demand.
- d) Providing incentives for teacher assignment and retention to ensure access to highly qualified and experienced SM teachers by students who need them most.

	Benchmarks	2003-04	2004-05	2005-06	2006-07	2007-08
	Implementation Benchmarks					
Strat. 1	Teachers will participate in PD in SM – Metro. Atlanta	300	500	700	900	1100
	Teachers will participate in PD in SM – NE GA	100	200	300	300	300
	Teachers will participate in PD in SM – East GA	100	200	300	300	300
	Teachers will participate in PD in SM – SE GA	500	700	900	950	950
Strat. 2	USG faculty consortia established	Met				
	Number of teachers obtaining math concentration		200	200	200	200
	Number of teachers obtaining science concentration		200	200	200	200
Strat. 3	Number of USG faculty participating in Learning Communities/by discipline	10	10	10	10	10
	Number of P-12 faculty participating in Learning Communities by grade level and subject	40	40	40	40	40
	Number of published papers, articles (per partner region)	0	2	2	2	2
Strat. 4	Institute on the Teaching and Learning of Science and Mathematics established	Met				
	Number of faculty participating in Institute by discipline	80	80	80	80	80

Strat. 5	New policy requiring a 12-semester hour science sequence for elementary teachers			Met		
Strat. 6	New policies in place to improve SM teaching in P-12 schools		Met			
Strat. 7	Number of students participating in Advanced Academies for Future Teachers (Atlanta Metro Region).		30	30	30	30
	Number of undecided arts and sciences majors recruited into teaching (Northeast Region)		50	50	50	50
Outcomes Benchmarks						
Outcome 4	Percent of elementary teachers teaching SM with less than an academic concentration in both M&S will decrease	By 5%	By 5%	By 5%	By 5%	By 5%
Outcome 4	Percent of middle grades teachers teaching SM out-of-field will decrease	By 5%	By 5%	By 5%	By 5%	By 5%
Outcome 5	Percent of teachers using inquiry-based instruction will increase	By 5%	By 5%	By 5%	By 5%	By 5%
Outcome 5	Percent of teachers teaching to standards will increase	By 5%	By 5%	By 5%	By 5%	By 5%
Outcome 5	Percent of teachers implementing best practices will increase	By 5%	By 5%	By 5%	By 5%	By 5%
Outcomes 6, 7	Number of elementary majors with science concentration will increase			By 100%		
Outcomes 6, 7, 8	Number of middle grades majors with concentrations in mathematics and/or science will increase for all demographic groups	By 5 per region per group in M&S	By 5 per region per group in M&S	By 5 per region per group in M&S	By 5 per region per group in M&S	By 5 per region per group in M&S
Outcomes 6, 7, 8	Number of high school mathematics teachers prepared will increase for all demographic groups	By 5 per region per group	By 5 per region per group	By 5 per region per group	By 5 per region per group	By 5 per region per group
Outcomes 6, 7, 8	Number of science teachers prepared will increase (all categories) for all demographic groups	By 3 per region per group science field	By 3 per region per group science field	By 3 per region per group science field	By 3 per region per group science field	By 3 per region per group science field
Outcomes 6, 7, 8	Pass rates on all Praxis II SM exams will increase	By 5%	By 5%	By 5%	By 5%	By 5%
Outcomes 6, 7, 8	The gap in pass rates on all Praxis II SM exams will close for all demographic groups.	By 5%	By 5%	By 5%	By 5%	By 5%
Outcome 7	Percent of SM faculty members using inquiry-based instruction will increase	By 5%	By 5%	By 5%	By 5%	By 5%
Outcome 9	Number of SM teachers retained will increase for all demographic groups	By 5% per group	By 5% per group	By 5% per group	By 5% per group	By 5% per group
Outcome 9	The number of SM teachers hired and retained in hard-to-staff schools will increase for all demographic groups	By 5% per group	By 5% per group	By 5% per group	By 5% per group	By 5% per group

Goal 3: Raise student achievement in SM in P-12 schools through increasing the responsiveness of higher education to the needs of P-12 schools by:

- a) Increasing the participation of SM faculty in teacher preparation and professional development.
- b) Providing incentives for SM faculties to engage in research with P-12 schools on effective practices in science and mathematics.

	Benchmarks	200304	2004-05	2005-06	2006-07	2007-08
	Implementation Benchmarks					
Strat. 10	Documented evidence that reward structure is in place in all participating USG partners	Met				
	Network in place to support faculty change	Met				
	Revised QCC in SM implemented		Met			
	Outcomes Benchmarks					
Outcomes 10	Number of SM faculty involved in teacher preparation will increase (baseline data established by survey, 2003)		By 20%	By 25%	By 30%	By 35%
Outcomes 10, 11	Number of SM faculty working in P-12 schools will increase (baseline data established by survey, 2002-2003)		By 5%	By 10%	By 20%	By 25%
Outcomes 10, 11, 12	Number of SM faculty working with P-12 schools and teacher preparation who receive promotion and tenure will increase (baseline data established by survey, 2001-2002)		1 per region	2 per region	3 per region	4 per region
Outcomes 10, 11, 13	Number of paper presentations and publications of joint research between P-12 and SM faculties will increase	2 per region	20 per region	30 per region	40 per region	50 per region
Outcome 13	Evidence-based outcomes that contribute to understanding teaching and learning SM are identified	Met				
Outcome 13	Evidence-based outcomes that contribute to understanding teaching and learning SM are quantified	Met				
Outcome 13	Evidence-based outcomes that contribute to understanding teaching and learning SM are disseminated		Met			

Strategic Actions

Goal 1: Raise expectations and achievement in SM in P-12 schools, while closing achievement gaps among demographic groups by:

a. Providing challenging SM curricula and materials for all students.

Strategy	Activity	Timeline	Responsible Parties
Strategy 8: Raise and align SM student-learning standards and curriculum, pre-school through 2 years of college (P-14). (State Level)	Complete phase 1 of curriculum revision, development of P-14 standards	2002-2003	DOE and USG discipline groups
	Revise SM Quality Core Curriculum Standards (QCC) (Renamed Georgia Performance Standards (GPS))	2003-2004	DOE program specialists
	Train Regional Education Service Agency (RESA) personnel and district curriculum personnel to provide professional development to P-12 teachers in teaching to the new GPS	Summer 2004	DOE Curriculum Division
	Begin implementation of revised standards in SM (P-12)	Fall 2004	DOE Curriculum Division
	Provide ongoing PD related to revised GPS to P-12 teachers	Beginning Summer 2004 and continuing until GPS is completely implemented at all grade levels	DOE Curriculum Division, RESAs, and PRISM regions

Baseline data: see separate Baseline Data Section

CRCT, HSGRT, etc. test scores disaggregated by group.

HS Course taking patterns

Students completing the SM college preparatory sequence

Students requiring Learning Support in mathematics

Outcomes to be assessed (see evaluation plan):

P-14 SM standards developed

SM QCC revised

SM QCC professional development created and provided

SM QCC implemented

Student achievement in SM will increase

Achievement gaps in SM will decrease

College readiness in SM of high school graduates will increase

Goal 1: Raise expectations and achievement in SM in P-12 schools, while closing achievement gaps among demographic groups by:

b. Raising the awareness of students, parents, and the community of the need for all P-12 students to complete challenging courses and curricula in SM.

Baseline data: see separate Baseline Data Section

Strategy	Activity	Timeline	Responsible Parties
Strategy 9: Conduct a public awareness campaign of the need for all P-12 students to have access to, to be prepared for, and to succeed in challenging courses and curricula in SM. (State Level)	Recruit Public Awareness Campaign Director	January 2004	PI and Project Director
	Identify vendor to conduct benchmarking marketing survey and finalize the marketing plan and measurement protocol	Spring 2004	State Leadership Team and Campaign Director
	Formalize advertising and marketing partnership and compete the development of campaign materials	Winter and Spring 2004	State Leadership Team and Campaign Director
	Launch public awareness campaign (radio, TV, billboards, brochures, conferences, public forums, etc.)	Fall 2004	Campaign Director
	Conduct mid-point campaign assessment and modify focus as needed	2005	PRISM Evaluators
	Continue campaign efforts	2005-2008	Campaign Director
	Conduct final phase of marketing research measuring the outcomes of all public awareness campaign activities to determine effectiveness	Winter 2008	Campaign Director

CRCT, HSGRT, etc. test scores disaggregated by group.
 HS Course taking patterns
 Students completing the SM college preparatory sequence
 Students requiring Learning Support in mathematics

Outcomes to be assessed (see evaluation plan):

Public understanding increases about the:

- Benefits of challenging SM curricula for all students
- Consequences of SM curricular tracking
- Importance of more students majoring in SM in college

Goal 2: Raise student achievement in SM in P-12 schools through increasing and sustaining the number, quality, and diversity of P-12 teachers teaching SM by:

a. Providing high quality professional development to current P-12 teachers who teach SM.

Strategy	Activity	Timeline	Responsible Parties
Strategy 2: Provide academic concentration in SM for current P-8 teachers through two new USG faculty consortia. (State Level)	Appoint SM Consortia members	2002	PRISM Associate Director
	Hold Consortia meetings to develop a P-5 Endorsement in Mathematics and one in Science <ul style="list-style-type: none"> • Mathematics Courses: Numbers and Operations, Algebra, Geometry, and Data Analysis (each course is a 3-semester hour course) • Science Courses: Physical Science, Life Science, and Earth/Space Science (each course is a 4-semester hour course) 	2002-2004	PRISM Associate Director
	Offer P-5 Endorsement Courses to PRISM elementary teachers	2004-2008	SM faculty
	Continue to offer SM Middle Grades Endorsement Courses previously approved by the Professional Standards Commission in 2000 <ul style="list-style-type: none"> • Number Sense, Geometry, Probability and Statistics, Algebra (each courses is a 3-semester hour course) • Physical Science, Earth and Space Science, Life Science, Science Special Case (each course is a 3-semester hour course) 	2003-2008	SM faculty
	Each region will offer 1 math course	Summer 2004	SM faculty
	Each region will offer 2 science and 2 math courses during fall and spring semesters, and 4 science and 4 math courses during summer semester	Fall 2004 – 2008	SM faculty
	Other USG institutions will offer courses across the state as needed	Summer 2004-2008	SM faculty

Baseline data: see separate Baseline Data Section

NA for P-5 Endorsement

Outcomes to be assessed (see evaluation plan):

SM Endorsement Programs created and implemented

Number of elementary teacher teaching SM with less than an academic concentration will decrease

Number of middle grades teachers teaching out-of-field will decrease

A minimum of 800 teachers will obtain either a P-5 or middle grades endorsement in science

A minimum of 800 teachers will obtain either a P-5 or middle grades endorsement in mathematics

Goal 2: Raise student achievement in SM in P-12 schools through increasing and sustaining the number, quality, and diversity of P-12 teachers teaching SM by:

a. Providing high quality professional development to current P-12 teachers who teach SM.

Strategy	Activity	Timeline	Responsible Parties
Strategy 1: Provide high quality professional development to P-12 teachers teaching SM. (Regional Level)	<u>Atlanta-Metro P-16 – Georgia State University and Atlanta Public Schools</u>		
	Identify round 1 participating schools and develop schedule of school participation for duration of project	Fall 2003	Regional Leadership Team
	Create and deliver professional development <ul style="list-style-type: none"> • Gather and disseminate information about existing professional development opportunities in SM • Integrate new professional development opportunities within existing staff development framework • Develop and provide, as needed, ongoing professional development services in addition to established programs 	Winter 2004	Regional Leadership Team
	Offer Middle Grades Mathematics and Science courses	Summer 2004 - 2008	SM faculty
Offer P-5 Mathematics and Science endorsement courses	Winter 2005 - 2008	SM faculty	

Baseline data:

CRCT, HSGRT, etc. test scores disaggregated by group
 HS course taking patterns
 Students completing the SM college preparatory sequence
 Students requiring Learning Support in mathematics

Outcomes to be assessed (see evaluation plan):

P-12 faculty participation in professional development
 Instructional Practices in SM
 Quality of work assigned to students
 Student achievement (CRCTs, HSGRTs)
 Student course taking patterns

Goal 2: Raise student achievement in SM in P-12 schools through increasing and sustaining the number, quality, and diversity of P-12 teachers teaching SM by:

a. Providing high quality professional development to current P-12 teachers who teach SM.

Strategy	Activity	Timeline	Responsible Parties
<p>Strategy 1: Provide high quality professional development to P-12 teachers teaching SM. (Regional Level)</p>	<p><u>East Central P-16 – Georgia Southern University and Bryan, Effingham, Evans, Liberty and Screven Districts</u> Identify PRISM schools in each school district for start-up and succeeding years</p> <p>Revise system-level improvement plans and professional learning plans to include appropriate SM goals/objectives</p> <p>Identify needs and develop a needs-based program of professional development with all partner districts</p> <p>Develop and deliver professional development to P-12 teachers based on PRISM needs assessments and school/system improvement and professional learning plans</p> <p>Higher education SM faculty provide professional development to SM teachers based on expertise in the discipline and/or in strategies to teach the content using inquiry-based approaches</p> <p>Develop and implement weekend college to deliver P-5 endorsement in mathematics and science</p>	<p>December 2003</p> <p>February-June 2004</p> <p>February-June 2004</p> <p>March 2004- 2008</p> <p>March 2004- 2008</p> <p>Summer 2004 - 2008</p>	<p>Co-PI, P-12 Coordinator, school and system leadership teams</p> <p>Co-PI, P-12 Coordinator, school and system leadership teams</p> <p>Co-PI, P-12 Coordinator, school and system leadership teams</p> <p>Co-PI, P-12 Coordinator, school and system leadership teams, University faculty, RESA representatives</p> <p>Co-PI, P-12 Coordinator, University Deans</p> <p>Co-PI, P-12 Coordinator, school and system leadership teams, University faculty, RESA representatives</p>

Baseline data: see separate Baseline Data Section
 CRCT, HSGRT, etc. test scores disaggregated by group
 HS course taking patterns
 Students completing the SM college preparatory sequence
 Students requiring Learning Support in mathematics
Outcomes to be assessed (see evaluation plan):
 P-12 faculty participation in professional development
 Instructional Practices in SM
 Quality of work assigned to students
 Student achievement (CRCTs, HSGRTs)
 Student course taking patterns

Goal 2: Raise student achievement in SM in P-12 schools through increasing and sustaining the number, quality, and diversity of P-12 teachers teaching SM by:

a. Providing high quality professional development to current P-12 teachers who teach SM.

Strategy	Activity	Timeline	Responsible Parties
<p>Strategy 1: Provide high quality professional development to P-12 teachers teaching SM. (Regional Level)</p>	<p><u>Northeast P-16 – University of Georgia, Georgia Perimeter College, and Clarke, Jackson and Oconee Districts</u> Develop a unified and coherent program of professional development within and across all partner school systems -Identify PRISM schools in each school district for start-up and succeeding years -Identify Lead Teachers and Teacher Support Specialists Develop school-based learning communities and identify professional development needs for SM teachers Develop and deliver professional development</p> <p>Develop and implement SM district improvement plans in each PRISM partner school district</p> <p>Provide support for new and pre-service teachers within each partner school within already existing school and district-based mentoring programs</p> <p>Develop a process for coordination and communication across all Northeast PRISM school districts</p> <p>Offer Middle Grades Mathematics and Science courses</p> <p>Offer P-5 Mathematics and Science endorsement courses (contingent on development)</p>	<p>Winter 2004</p> <p>Spring 2004 and ongoing January 2004 and ongoing Winter 2004 and ongoing</p> <p>Winter 2004 and ongoing</p> <p>January 2004 and ongoing</p> <p>Summer 2004 and ongoing Summer 2005 and ongoing</p>	<p>Co-PI, P-12 Coordinator, and leadership in schools</p> <p>Co-PI, P-12 Coordinator, and leadership in schools Co-PI, P-12 Coordinator, and leadership in schools Co-PI, P-12 Coordinator, and leadership in schools</p> <p>Co-PI, P-12 Coordinator, and leadership in schools</p> <p>Co-PI, P-12 Coordinator, and leadership in schools</p> <p>Higher Education Faculty Higher Education Faculty</p>

Baseline data: see separate Baseline Data Section
 CRCT, HSGRT, etc. test scores disaggregated by group
 HS course taking patterns
 Students completing the SM college preparatory sequence
 Students requiring Learning Support in mathematics
Outcomes to be assessed (see evaluation plan):
 P-12 faculty participation in professional development
 Instructional Practices in SM
 Quality of work assigned to students
 Student achievement (CRCTs, HSGRTs)
 Student course taking patterns

Goal 2: Raise student achievement in SM in P-12 schools through increasing and sustaining the number, quality, and diversity of P-12 teachers teaching SM by:

a. Providing high quality professional development to current P-12 teachers who teach SM.

Strategy	Activity	Timeline	Responsible Parties
<p>Strategy 1: Provide high quality professional development to P-12 teachers teaching SM. (Regional Level)</p>	<p><u>Southeast P-16 - Armstrong Atlantic State University, Coastal Georgia Community College, & Bryan, Camden, Chatham, and Glynn Districts</u></p> <p>Establish the organizational structure for the region</p> <ul style="list-style-type: none"> • Identify first year PRISM schools in each system • Develop selection criteria and process to identify and recruit lead teachers and facilitators • Select lead teachers and facilitators • Conduct PRISM retreats in all systems <p>Establish communication lines among all PRISM constituents</p> <ul style="list-style-type: none"> • Develop PRISM web-site • Create a regional PRISM newsletter • Establish PRISM list-serve <p>Create and deliver professional development</p> <ul style="list-style-type: none"> • Gather and disseminate information about existing professional development opportunities in SM • Integrate new professional development opportunities within existing staff development framework • Develop and provide, as needed, ongoing professional development services in addition to established programs 	<p>Fall 2003</p> <p>January 2004</p> <p>Spring 2004 and continuing through Spring 2008</p>	<p>Co-PI and P-12 Coordinator</p> <p>Co-PI and P-12 Coordinator</p> <p>Regional Leadership Team, Learning Communities, Co-PI and P-12 Coordinator</p>

Baseline data: see separate Baseline Data Section

CRCT, HSGRT, etc. test scores disaggregated by group

HS course taking patterns

Students completing the SM college preparatory sequence

Students requiring Learning Support in mathematics

Outcomes (see evaluation plan):

P-12 faculty participation in professional development

Instructional Practices in SM

Quality of work assigned to students

Student achievement (CRCTs, HSGRTs)

Student course taking patterns

Goal 2: Raise student achievement in SM in P-12 schools through increasing and sustaining the number, quality, and diversity of P-12 teachers teaching SM by:

a. Providing high quality professional development to current P-12 teachers who teach SM.

Strategy	Activity	Timeline	Responsible Parties
<p>Strategy 3: Engage higher education and P-12 faculty in learning communities (Regional Level and State Level)</p>	<p>State: Provide needed training/professional development for regional learning community implementation</p> <p>Atlanta-Metro P-16:</p> <ul style="list-style-type: none"> • Create learning communities bringing together higher education and school faculty to coordinate research and scholarship activities <p>East Central P-16:</p> <ul style="list-style-type: none"> • Develop and implement school-based PRISM Advisory Committees • Create and implement ECG regional learning communities for each of the 5 districts • Create a small grants program for faculty, teachers, graduate students, and others, as integrated learning communities to research and document various PRISM innovations <p>Northeast P-16:</p> <ul style="list-style-type: none"> • Develop school-based Learning Communities and identify professional development needs for SM teachers • Identify A&S, COE faculty interested in participating (members may also be part of the Institute) • Work with school-based Learning Communities to coordinate needs and expertise 	<p>Spring 2004</p> <p>Summer 2004 and ongoing</p> <p>December 2003 and ongoing</p> <p>January 2004 and ongoing</p>	<p>State Leadership Team</p> <p>Atlanta Metro RCC</p> <p>Co-PI, P-12 Coordinator, leadership from all partners</p> <p>Co-PI, P-12 Coordinator, and leadership in schools and universities</p>

Baseline data: see separate Baseline Data Section

CRCT, HSGRT, etc. test scores disaggregated by group

HS course taking patterns

Students completing the SM college preparatory sequence

Students requiring Learning Support in mathematics

Outcomes (see evaluation plan):

P-12 faculty participation in professional development

Instructional Practices in SM

Quality of work assigned to students

Student achievement (CRCTs, HSGRTs)

Student course taking patterns

Higher education faculty participation in learning communities.

Goal 2: Raise student achievement in SM in P-12 schools through increasing and sustaining the number, quality, and diversity of P-12 teachers teaching SM by:

a. Providing high quality professional development to current P-12 teachers who teach SM.

Strategy	Activity	Timeline	Responsible Parties
<p>Strategy 3: Engage higher education and P-12 faculty in learning communities (Regional Level and State Level)</p>	<p>Northeast P-16 continued:</p> <ul style="list-style-type: none"> • Encourage faculty to submit TQE grants in partnership with PRISM P-12 schools • Develop a trading places/team shadowing program to understand, build collaboration, and cooperation. • Reinvigorate the Franklin College of Arts and Sciences school outreach program in science and mathematics • Create a resource library of teaching ideas, professional development collaborations, and materials for P-12 outreach instruction • Create a small grants program for faculty, teachers, graduate students, and others, as integrated learning communities to research and document various PRISM innovations. <p>Southeast P-16:</p> <ul style="list-style-type: none"> • Establish participation in the Institute on the Teaching and Learning of SM • Collaborate with the office of faculty development and the Center for Teaching and Learning to develop criteria and incentives for higher education faculty to engage in PRISM activities • Create learning communities bringing together higher education and school faculty to brainstorm on, research, and help evaluate PRISM activities offered in the region • Create grant opportunities, seminars and outreach programs to bring together P-12 faculty, higher education faculty and community through PRISM activities 	<p>January 2004</p> <p>Summer 2004 and ongoing</p> <p>Summer 2004 and ongoing</p> <p>January 2004 and ongoing</p> <p>Fall 2004 and ongoing</p> <p>January 2004 and ongoing</p>	<p>Co-PI, P-12 Coordinator, and leadership in schools</p> <p>A&S and COE faculty</p> <p>A&S faculty</p> <p>A&S and COE faculty</p> <p>Co-PI and P-12 Coordinator in collaboration with SM faculty</p>

Baseline data: see separate Baseline Data Section

See page 15

Outcomes (see evaluation plan):

See page 15

Goal 2: Raise student achievement in SM in P-12 schools through increasing and sustaining the number, quality, and diversity of P-12 teachers teaching SM by:

b. Strengthening the content and pedagogy in SM for pre-service teachers.

Strategy	Activity	Timeline	Responsible Parties
Strategy 4: Influence the quality of teacher preparation through changing how SM are taught to future teachers. (State Level)	Design the Institute on the Teaching and Learning of SM	2003-2004	Institute Coordinator and SM faculty in four regions
	Assess current practices in SM instruction used in introductory courses	Spring 2004	Institute Coordinator
	Offer Institute professional development to higher education faculty, high school faculty, and administrators with focus in Phase I on introductory SM courses	Summer 2004 and ongoing	Institute Coordinator
	Develop plans at RCCs in response to assessment of current practices to assist departments and/or faculty interested in learning alternative instructional strategies	2004	Institute Coordinator and SM administrators in 4 regions
	Assess current practices in SM instruction used in content courses for P-5 and 6-8 teachers and in courses in the major taken by high school teachers	Spring 2005	Institute Coordinator
	Offer Institute professional development to higher education faculty, high school faculty, and administrators with focus in Phase 2 on content courses for P-5 and 6-8 teachers	Summer 2005 and ongoing	Institute Coordinator
	Offer Institute professional development to higher education faculty, high school faculty and administrators with focus in Phase 3 on courses to in the major taken by high school teachers	Summer 2006 and ongoing	Institute Coordinator

Baseline data: see separate Baseline Data Section
 Student pass rates in core curriculum courses in SM.

Outcomes to be assessed (see evaluation plan):

- Faculty participation in SM
- Instructional Practices in SM
- Quality of work assigned to students
- Student grades in core curriculum courses
- College students' attitudes toward SM
- College students' perception of SM as a career

Goal 2: Raise student achievement in SM in P-12 schools through increasing and sustaining the number, quality, and diversity of P-12 teachers teaching SM by:

b. Strengthening the content and pedagogy in SM for pre-service teachers.

Strategy	Activity	Timeline	Responsible Parties
<p>Strategy 5: Revise the Regents' <i>Principles for the Preparation of Educators for the Schools</i> to include a 12 semester hour integrated science sequence for elementary teachers (State Level)</p>	<p>Draft recommendations for inclusion of the P-5 Science Endorsement courses to be added to the current Early Childhood program</p> <p>Recommendations developed and sent to the Educator Preparation Academic Advisory Committee</p> <p>Recommendations sent to the Vice Presidents for Academic Affairs Committee</p> <p>Recommendations sent to the Board of Regents for policy adoption</p>	<p>January 2005</p> <p>Winter 2005</p> <p>Spring 2005</p> <p>Summer 2005</p>	<p>Associate Director and Science Consortium</p> <p>Associate Director and Science Consortium</p> <p>Associate Director and Science Consortium</p> <p>Associate Director and PI</p>

Baseline data:
Not applicable

Outcomes:
Enrollment in early childhood education after policy is implemented

Goal 2: Raise student achievement in SM in P-12 schools through increasing and sustaining the number, quality, and diversity of P-12 teachers teaching SM by:

c. Ensuring a sufficient pipeline of highly qualified and diverse SM teachers to meet demand.

Strategy	Activity	Timeline	Responsible Parties
<p>Strategy 7: Implement regional strategies to recruit SM teachers. (Regional Level)</p>	<p>Atlanta Metro P-16:</p> <ul style="list-style-type: none"> • Develop the components of the Metro Atlanta Advanced Academy for Future Teachers • Implement the Metro Atlanta Advance Academy for Future Teachers <p>Northeast P-16:</p> <ul style="list-style-type: none"> • Organize a recruitment advisory group • Develop a “pre-education” advising program for undecided A&S students • Develop a student ambassadors program • Implement program to promote teaching as a career to UGA and GPC A&S students • Implement a program to promote teaching as a career to P-12 partner schools at career fairs 	<p>Spring 2004</p> <p>Fall 2004 and ongoing</p> <p>Spring 2004 Winter 2005 Spring 2004</p> <p>Fall 2004</p> <p>Fall 2005 and ongoing</p>	<p>Regional Co-PI and P-12 Coordinator</p> <p>Regional Co-PI and P-12 Coordinator</p> <p>Recruitment director and advisors</p>

Baseline data: see separate Baseline Data Section

Outcomes to be assessed (see evaluation plan):

Number of A&S students choosing teaching as a career increases

Number of P-12 students in Teacher Cadet and Future Teachers of America increases

Goal 2: Raise student achievement in SM in P-12 schools through increasing and sustaining the number, quality, and diversity of P-12 teachers teaching SM by:

- d. Providing incentives for teacher assignment and retention to ensure access to highly qualified and experienced SM teachers who need them most.

Strategy	Activity	Timeline	Responsible Parties
Strategy 6: Initiate new policies that provide incentives and improved working conditions for teaching SM in P-12 schools. (State Level)	Analyze salary disparities between SM teachers and other related fields	January 2004	Director and Associate Dir.
	Conduct 16 teacher focus groups (4 per RCC) to gather input into development of promising strategies for teacher incentives in SM	Spring-Summer 2004	Director, Associate Dir., Co-PIs and Regional P-12 Coord.
	Create a Teacher Incentives Forum consisting of 50 teachers to develop possible “incentive” packages for pilot implementation in the 4 regions	Fall 2004	Director and Associate Dir.
	Incentive packages piloted in Atlanta-Metro, Northeast, East Central and Southeastern regions	2005-2007	Regional Co-PIs and Regional P-12 Coordinators
	Incentive policy developed by Teacher Incentives Forum and presented to PRISM Leadership Team	Summer 2007	Director
	Policy recommendations sent to appropriate state education agencies	Fall 2007	PI

Baseline data: see separate Baseline Data Section

Not applicable

Outcomes to be assessed (see evaluation plan):

Documentation of policy changes

Teachers’ perceptions of working conditions

Goal 3: Raise student achievement in SM in P-12 schools through increasing the responsiveness of higher education to the needs of the P-12 schools by:

- a. Increasing the participation of SM faculty in teacher preparation and professional development.
- b. Providing incentives for SM faculty members to engage in research with P-12 schools on effective practices in science and mathematics.

Strategy	Activity	Timeline	Responsible Parties
Strategy 10: Provide a reward structure in universities to encourage faculty members to sustain involvement in improving SM teaching and learning in P-12 schools. (State Level)	Appoint Reward Structure Committee	February 2004	USG Vice Chancellor for Academic, Faculty, and Student Affairs
	Recommendations for incentives for sustained involvement created by Reward Structure Committee	September 2004	USG Vice Chancellor for Academic, Faculty, and Student Affairs
	Recommendations discussed and consensus reached by faculty attending the Higher Education SM Faculty Retreat	Winter 2005	USG Vice Chancellor for Academic, Faculty, and Student Affairs
	Recommendations sent to the USG Administrative Committee on Academic Affairs for policy approval and development	Winter 2006	USG Vice Chancellor for Academic, Faculty, and Student Affairs
	Policy recommendations sent to the Board of Regents for approval	Winter 2007	USG Vice Chancellor for Academic, Faculty, and Student Affairs

Baseline data: see separate Baseline Data Section

Not applicable

Outcomes to be assessed (see evaluation plan):

Documentation of changes in reward structure

Documentation changes of promotion and tenure decisions

Teacher Quality, Quantity and Diversity

Quality: Teacher quality is specifically addressed in strategies 1-5.

Strategies 1-3 (pages 10-16): The PRISM design features three forms of P-12 teacher development: 1) participation in professional learning communities—within schools, districts, and regionally with university partners (P-16), 2) customized, self-managed professional development, and 3) completion of discipline-based SM courses.

Each PRISM region will establish a schedule for school participation during the next 5-years ensuring participation the 10,132 in-service teachers of SM and administrators in the 277 schools in professional development and learning communities. While a school is officially participating in PRISM, all SM teachers will receive a minimum of 50 hours of SM professional development through participation in learning communities. Additional hours will be earned by teachers through completion of discipline-based SM courses, and/or participation in customized, self-managed professional development. While schools will participate at different times, all PRISM teachers will be eligible and encouraged to take SM professional development courses throughout the entire program.

A basic premise of the PRISM design is that teachers must take responsibility for their own **professional development**. Each P-12 teacher in a participating school will complete an individual self-assessment, which will allow teachers to assess and determine their own professional development needs. Once the assessment is completed, any needed professional development will be provided for all participating teachers each year.

PRISM is both a scholarly and an implementation agenda. There will be a significantly increased presence of higher education SM and SM education faculty in P-12 schools. Through P-16 **learning communities**, school and university faculty will serve as critical friends supporting and challenging each other to seek to understand, to chronicle, and to bridge three largely discrete realms – knowledge building (the purview of SM researchers), teacher professional knowledge (taught in colleges of education), and teacher craft knowledge (as used in school classrooms). Through collaboration, faculty will develop professional knowledge that is scientifically based, that is taught to prospective teachers and informs practice in school classrooms. Scholarship will be woven into implementation as partners chronicle what works, for whom, under what conditions, and why it works. Lessons learned will be generalized and replicated. Within schools and districts, each learning community will consist of SM teachers, PRISM Lead Teachers, principals, and at least one university faculty member. Each school level learning community will develop a plan for improving SM student achievement that aligns with the School's Improvement Plan. These plans will serve as the context for customized teacher professional development.

Districts will provide ways for collective learning among similar schools, create opportunities for high needs schools to work with high achieving schools, and offer support in rearranging use of time so schools are supported. Lessons learned at the regional, district, and school levels will be studied and shared among all schools within the district.

Georgia's Professional Standards Commission (PSC) has developed standards for two new **P-5 endorsement programs**, one in Mathematics, and one in Science, which qualify current P-5

teachers to add an endorsement(s) to their existing teacher certification as science and/or mathematics specialists. P-5 teachers in the core partner schools will be encouraged to complete 12 hours of college level coursework in science and/or mathematics if triggered by the self-assessment.

The Mathematics Consortium will offer four 3-semester-hour courses based upon national standards with content-specific pedagogical skills, contributions from diverse cultures, and inquiry-based instruction integrated throughout. The four courses are *Number Sense and Operations*, *Geometry*, *Algebra*, and *Data Analysis*. The Science Consortium will offer three 4-semester-hour courses. The three courses are *Earth/Space Science*, *Life Science*, and *Physical Science* and will also have content-specific pedagogical skills, contributions from diverse cultures, and inquiry-based instruction integrated throughout.

Instead of endorsement programs for **middle grade teachers** (4-8), PSC now requires all current SM middle grades teachers to complete 12 hours of discipline courses in order to teach these subjects to students in grades 4-8. Through PRISM, higher education faculty will offer *Modeling in Algebra*, *Geometry*, *Number Sense*, and *Probability and Statistics* for mathematics, and *Earth and Space Science*, *Physical Science*, *Life Science*, and *Science Special Case* for science.

Through PRISM, any **high school teacher** teaching SM will be supported in completion of sufficient university disciplinary courses in the sciences or in mathematics to meet certification requirements in these fields.

The evaluation plan provides the methodology for measuring the changes brought about by PRISM strategies and activities in the P-12 classroom. See pages 56-59 for specifics.

Strategy 5 (page 18): Georgia's pre-service P-5 teachers currently complete a 12-hour academic concentration in mathematics, taught by mathematics faculty in addition to the required core curriculum mathematics course. Through PRISM, a 12-hour concentration in science will be added for P-5 teachers and will be based upon what they need to know, what knowledge they bring to the experience, and upon the needs of their P-5 students. The content of this proposed addition of a 12-hour requirement in science would correspond to that described for the P-5 science endorsement described above.

The evaluation plan provides the methodology for measuring the changes in pre-service teacher content knowledge in science. See page 61 for specifics.

Strategy 4 (page 17): The Institute for Teaching and Learning of SM will help higher education faculty members find appropriate ways to redesign their courses around the many active learning, teaching strategies that capitalize on understandings related to "how people learn". SM faculty will increase their sophistication in using best practices in teaching of introductory SM courses taken by all P-12 pre-service teachers. Initially the focus will be on redesign of introductory SM courses. At a later stage, all SM courses in which pre-service teachers are prepared will be evaluated and redesigned, if necessary. While some SM courses for pre-service teachers are already delivered using best practices, all pre-service teachers need to take courses from faculty who employ best practices, so they will be able to use them in their future P-12 classrooms. "Best practices" are defined in PRISM as strategies - such as guided inquiry, cooperative learning, contextual teaching and learning, conceptual change, and problem

solving/decision making - that produce significant learning for certain students in a specific classroom setting. Through the Institute for the Teaching and Learning of SM and through participation in learning communities with the schools at least 80 faculty members per year will gain new insights into the relationship between content knowledge and best practices in SM courses.

The evaluation plan provides the methodology for measuring the changes in the higher education classroom. See pages 60-61 for specifics.

Quantity and Diversity: Teacher quantity and diversity are addressed in Strategies 6 and 7.
Strategy 6 (page 20): 160 PRISM teachers will participate in focus group sessions to determine incentives needed to improve teacher retention. Upon completion of the focus groups a 50-member teacher incentives task force will create a set of incentive packages to be piloted in the four PRISM regions. Lessons learned will be shared with the Education Coordinating Council to help shape any needed policy changes in Georgia.

The evaluation plan provides the methodology for measuring current working conditions and effectiveness of policies implemented. See page 62 for specifics.

Strategy 7 (page 19): While the primary focus of this project is focused on improved professional development and content knowledge of current SM teachers and the improved content knowledge of pre-service teachers, we will engage in specific activities designed to address increasing quantity and diversity*. Northeast Georgia will focus on recruiting 200 teachers to the profession from 1) current Arts & Sciences majors on the campuses of the University of Georgia and Georgia Perimeter College, and 2) second career individuals wishing to become teachers. Atlanta Metro will focus on recruiting teachers to the profession by establishing the Metro Atlanta Advanced Academy for Future Teachers for students from PRISM high schools. Lessons learned will be shared throughout the Georgia P-16 Network.

The evaluation plan provides the methodology for measuring the success of teacher recruitment in two regions of Georgia. See pages 62-63 for specifics.

*Work is currently underway to recruit teachers through non-traditional routes in Georgia through the University System of Georgia Teacher Recruitment Initiative. All four regions are receiving federal funding through the Transition to Teaching program. PRISM will connect with this effort to increase the number of qualified SM teachers.

Challenging Courses and Curricula

Challenging courses and curricula are addressed in Strategies 8 and 9

Strategy 8 (page 8): In early 2003, Georgia completed Phase I of the SM Standards and Quality Core Curriculum Revision. During Phase I P-14 standards were developed in SM. Work is currently underway to revise the current SM curriculum for K-12 students. Higher education faculty and administrators through partnerships with P-12 faculty and administrators will support the Department of Education's curriculum revision and provide input as needed. PRISM K-12

teachers will receive professional development (through Strategy 1) as needed during the revised curriculum phase in for Phase 2.

The evaluation plan provides the methodology for measuring changes in P-12 student achievement in SM and changes in course taking patterns. See pages 63-64 for specifics.

Strategy 9 (page 9): A public awareness campaign will be launched to raise educational aspirations in science and mathematics in Georgia and to garner community support for all P-12 students to complete challenging SM curricula. The campaign will target: Parents, P-14 students, guidance counselors, P-12 teachers, principals, superintendents, and college science and mathematics faculty. It will emphasize:

- The benefits of: Students meeting high P-14 student learning standards at grades K, 3, 5, 8, 12 and 14 in science and mathematics in order to be promoted to the next grade level, to graduate from high school, and to complete two-years of college; students being “college ready” when they meet the Level 12 standards; requiring all middle and high school students to complete challenging science and mathematics curricula so that they will be adequately prepared for college success; having support systems in place and providing extra time to students who need them to reach the high P-14 student learning standards; providing every student (beginning in 4th grade) with a “school to career” plan that includes college exploration and post-secondary planning activities and programs in science and mathematics; and information on college admissions tests, registration dates, how to prepare for, and how test scores are used.
- The consequences of: Curricular tracking in science and mathematics that results in a disproportionate number of low-income and minority students placed into low-end courses in high school, ability groups in elementary school, and special education; assigning less prepared and the newest science and mathematics teachers to the P-12 students who need them most; and assigning teachers to teach science and mathematics who are not prepared in those fields.

A director will be hired to develop and manage the PRISM Public Awareness Campaign (search underway). The Director will report to the Principal Investigator of PRISM. Major responsibilities of the Director include:

1. Develop and implement the design for the public awareness campaign.
2. Solicit bids from outside vendors and select vendor team.
3. Oversee benchmark-marketing research as to current perceptions/attitudes and behaviors to develop thematic messages and program elements.
4. Develop collaterals and messages to be pilot tested statewide.
5. Develop marketing partners to support and to participate in the campaign.
6. Develop a statewide, integrated marketing plan and measurement protocol.
7. Direct the implementation of the campaign with the key goal of impacting the behavior and perception of key audiences regarding P-12 students’ access to and preparation for challenging science and mathematics courses.
8. Write progress reports as to the strategies, audiences, and impact of the public awareness campaign for reports to the National Science Foundation.
9. Serve on the State Leadership Team for PRISM to ensure coordination between the public awareness campaign and other PRISM strategies.

10. Solidify strategies for institutionalizing the most successful practices of the campaign.
11. Ensure coordination of the PRISM public awareness campaign with any related work in the P-16 Office of the University System.

The evaluation plan provides the methodology for measuring changes in attitude toward SM of students, parents, and teachers. See pages 64-65 for specifics.

Institutional Change and Sustainability

Institutional change and sustainability are addressed in Strategies 6 and 10

Strategy 6 (page 20): This strategy addresses the incentive policy changes needed to retain SM teachers. Upon completion of the pilots in the PRISM regions, a set of policy recommendations will be sent to the Education Coordinating Council.

Strategy 10 (page 21): The involvement of higher education with P-12 schools will require policy changes in the faculty reward system. Through PRISM, a committee of upper-level University System administrators and faculty will be convened to recommend changes to university rewards criteria. System-wide faculty committees, and approximately 100 PRISM faculty members, will consider these recommendations in context of institutional mission. Policy changes in promotion and tenure will then be recommended for all 34 University System institutions.

In addition to the specific strategies focusing on change and sustainability, PRISM includes built-in structures and supports to ensure sustainability of proposed innovations toward increasing SM student achievement. At the state level, key DOE and USG leaders serve on the PRISM Leadership Team with positional authority to develop needed policy changes in P-12 standards and curriculum, teacher preparation, and professional development. The Education Coordinating Council decides policy changes that cut across P-12 and higher education. Over the next five years, PRISM activities will be reported to the ECC, which will inform and support the development of cross-sector educational policies needed to support and sustain PRISM. Additionally, the public awareness campaign will increase awareness throughout Georgia as to the consequences of some of the present practices that lead to under-achievement in SM.

Through Georgia's existing P-16 structure, mechanisms are in place for sustaining and scaling-up best practices. Within each of the PRISM regions there is an existing P-16 council. These regional P-16 councils provide an already established forum for sharing PRISM best practices in the teaching and learning of SM with all school systems and higher education institutions within each region. At the state level, the existence of the P-16 Network (15 regional P-16 Councils) provides an established vehicle for sharing PRISM best practices in the teaching and learning of SM across the state.

The evaluation plan provides specifics for measuring changes in the higher education reward structure. See page 65 for specifics.

Evidence-based Outcomes

Through PRISM, established P-16 learning communities in SM will experiment with and refine sets of best practices on the teaching and learning of SM and then to implement these best practices in work at both school and collegiate levels. Through a dual focus on scholarship and implementation, learning community participants will discover the critical intermediate benchmarks between implementing a program (input) and increasing student achievement (intended outcome); they will use these benchmarks to monitor progress toward reaching the PRISM outcomes for the P-12 students in a particular PRISM region (implementation, to bring a scientific character to the identification and verification of best practices (scholarship), and to create professional knowledge that can inform practice in P-12 schools and in teacher preparation in higher education for sharing statewide and in the MSP Learning Network.

PRISM Year 1 (October 2003 – September 2004) Implementation Plan

Goal 1: Raise expectations and achievement in SM in P-12 schools, while closing achievement gaps among demographic groups by:
 b. Providing challenging SM curricula and materials for all students.

Strategy	Activity	Timeline	Responsible Parties
Strategy 8: Raise and align SM student-learning standards and curriculum, pre-school through 2 years of college (P-14). (State Level)	Complete phase 2 of Georgia’s Curriculum Revision	Fall 2004	DOE sponsored Teacher/Advisory Teams
	Georgia Performance Standards (GPS)* posted on the Georgia Learning Connections website	January 2004	DOE Curriculum Division
	Public review and feedback collection of the GPS	January-March 2004	DOE Curriculum Division
	Assemble a group of SM specialists (P-12 and higher education faculty) to review the GPS and provide feedback to GaDOE	March 31, 2004	PRISM Regions
	Host a series of 9 regional workshops entitled “GPS Initiation Training” for school districts and RESA personnel	February-March 2004	DOE Curriculum Division
	Analysis of feedback by content specialists and reconvene Teacher/Advisory Teams for final revision of the GPS	April 2004	DOE Curriculum Division
	Submit GPS revisions to the State Board of Education for approval	May 2004	DOE Curriculum Division
	Print and distribute GPS document to school systems	June 2004	DOE Curriculum Division
	Complete development of instructional packets for content specific training and publish training dates	June 1, 2004	DOE Curriculum Division
	Host a series of 2-day sessions for content specific training across the state	Summer 2004	DOE Curriculum Division
	Analyze curriculum, standards, and test data to determine curriculum needs and professional development needs related to revised GPS	Summer 2004	PRISM Regions
	Implement GPS at the following levels: <ul style="list-style-type: none"> • Mathematics – grade 6 • Science – grades 6, 7, 9, 10, 11, 12 	Fall 2004	PRISM Regions

*The Georgia Quality Core Curriculum (QCC) has been renamed. The new name is Georgia Performance Standards (GPS)

Goal 1: Raise expectations and achievement in SM in P-12 schools, while closing achievement gaps among demographic groups by:
 b. Raising the awareness of students, parents, and the community of the need for all P-12 students to complete challenging courses and curricula in SM.

Strategy	Activity	Timeline	Responsible Parties
Strategy 9: Conduct a public awareness campaign of the need for all P-12 students to have access to, to be prepared for, and to succeed in challenging courses and curricula in SM. (State Level)	Recruit Public Awareness Campaign Director	January 2004	State Leadership Team
	Design PRISM initiative logo	February 2004	Campaign Director
	Hire a Marketing Research Firm to evaluate/document current perceptions, attitudes and behaviors.	March 2004 – May 2004	State Leadership Team & Campaign Director
	Identify graphic design/printing/publishing vendor team and audiovisual and photography vendor teams	March 2004 – May 2004	State Leadership Team & Campaign Director
	Create and Launch “Statewide” Educator newsletter (for regional use)	March 2004	Campaign Director
	Create PRISM region business, community, civic and religious contact lists; begin preliminary contacts and attend select meetings	March 2004	Campaign Director and PRISM RCCs
	Identify PSA spokesperson(s) & student models for brochures, posters, ads	April 2004	Campaign Director
	Design “community” PRISM website	April -September 2004	Campaign Director
	Develop campaign themes, messages, overall initiative image	June 2004	Campaign Director & State Leadership Team
	Design Brochures, Pamphlets and Fact Sheets for 4-regions Testing	May-July 2004	Campaign Director
	Identify wire agency to create appropriate media list, distribute releases and monitor media coverage—online, print and broadcast	July 2004	Campaign Director
	Begin PRISM region Public Awareness Campaign Message Testing	August -September 2004	State Leadership Team
Pilot test Public Awareness Campaign Messages	August -September 2004	PRISM Regions	

Goal 2: Raise student achievement in SM in P-12 schools through increasing and sustaining the number, quality, and diversity of P-12 teachers teaching SM by:

a. Providing high quality professional development to current P-12 teachers who teach SM.

Strategy	Activity	Timeline	Responsible Parties
<p>Strategy 2: Provide academic concentration in SM for current P-8 teachers through two new USG faculty consortia. (State Level)</p>	<p>Mathematics Consortium:</p> <ul style="list-style-type: none"> • Complete course development for P-5 Endorsement Program • Apply for program approval to offer courses to the Professional Standards Commission • Identify P-8 Mathematics Consortium Director • Provide faculty development for instructors of P-5 and/or Middle Grades Endorsement Programs for all USG institutions • Begin review of current middles grades endorsement courses <p>Science Consortium:</p> <ul style="list-style-type: none"> • Evaluate on-line courses developed by Jason Academy • Hold Science Consortium meetings to develop P-5 courses • Complete course development for P-5 Endorsement Program <p>PRISM Regions:</p> <ul style="list-style-type: none"> • Offer mathematics course (either P-5 or middle grades) • Continue participation in SM Consortia • Develop a schedule of sequences of courses to be offered in years 2-5 <p>Statewide:</p> <ul style="list-style-type: none"> • Offer P-5 or middle grades mathematics endorsement courses 	<p>December 2003</p> <p>January 2004</p> <p>Spring 2004</p> <p>Summer 2004</p> <p>Summer 2004</p> <p>February-March 04</p> <p>March-May 2004</p> <p>September 2004</p> <p>Summer 2004</p> <p>Summer 2004</p>	<p>PRISM Associate Director</p> <p>Professional Education Unit from each institution</p> <p>Mathematics Consortium</p> <p>Consortium Director</p> <p>PRISM Associate Director and Mathematic Consortium</p> <p>PRISM Associate Director</p> <p>PRISM Associate Director</p> <p>PRISM Associate Director</p> <p>PRISM Institutions</p> <p>All other USG institutions</p>

Goal 2: Raise student achievement in SM in P-12 schools through increasing and sustaining the number, quality, and diversity of P-12 teachers teaching SM by:

a. Providing high quality professional development to current P-12 teachers who teach SM.

Strategy	Activity	Timeline	Responsible Parties
<p>Strategy 1: Provide high quality professional development to P-12 teachers teaching SM. (Regional Level)</p>	<p>Atlanta-Metro P-16: Make informed decisions- analyze existing structures, organizations and stakeholders:</p> <ul style="list-style-type: none"> a. Identify PRISM schools in each district for participation in Year I professional development. Determine these schools by a criteria based on strong rationale- either grade-band, transition grades, CRCT data, or GPS rollout. Involve the APS Instructional Leadership Team in the process of selecting schools. b. Determine teacher needs through pre-assessments in APS. Each teacher in the selected schools will answer online surveys c. Support development of individualized teacher professional development plans- begin database of PD plans for selected teachers. d. Determine and analyze resources available for teacher involvement in PD. e. Brainstorm incentives for teacher involvement in PD f. Provide opportunities for every participating school to select teachers to participate in the NSTA National Conference in April g. Devise a plan for teachers attending NSTA to provide share-shops with other teachers. <p>Develop Communication Avenues:</p> <ul style="list-style-type: none"> a. Provide NSTA share-shops for teachers. b. Develop Regional Website and WebCT online communication for RCC c. Determine key people in APS and GSU to inform the LC of changes/news/updates. 	<p>March 2004</p> <p>3/04-5/04</p> <p>3/04-8/04 and ongoing</p> <p>“</p> <p>“</p> <p>April-Mar 04</p> <p>“</p> <p>May-Aug 2004</p> <p>May-Sept 2004</p> <p>May-Sept 2004</p>	<p>RCC and APS Administrators</p> <p>P-12 Coordinator</p> <p>Regional Co-PI/GRA</p> <p>P-12 Coordinator</p> <p>RCC</p> <p>P-12 Coordinator</p> <p>RCC</p> <p>P-12 Coordinator</p> <p>Regional Co-PI</p> <p>RCC</p>

Goal 2: Raise student achievement in SM in P-12 schools through increasing and sustaining the number, quality, and diversity of P-12 teachers teaching SM by:

a. Providing high quality professional development to current P-12 teachers who teach SM.

Strategy	Activity	Timeline	Responsible Parties
<p>Strategy 1: Provide high quality professional development to P-12 teachers teaching SM. (Regional Level)</p>	<p>Atlanta-Metro P-16 continued: Create and deliver appropriate professional development experiences to APS teachers:</p> <p>a. Provide professional development for 30 P-12 teachers in Year 1 schools according to needs survey. Involve GSU faculty in PD offering either online or 1 week workshop or other venue as decided by RCC.</p> <p>b. Have full day professional development workshop for school administrators on supporting mathematics instruction based on evaluation of GPS.</p> <p>Analyze success of Year 1 school initiatives through both quantitative and qualitative methods.</p> <p>Develop list of schools in each district for participation in Years 2-5 based on the results of the Year 1 rationale, analysis and criteria, and according to the expansion framework of the proposal.</p>	<p>May-September 04</p> <p>“</p> <p>August-September 04</p> <p>September 04</p>	<p>GSU faculty/RCC</p> <p>RCC</p> <p>RCC/Evaluation Team</p> <p>RCC</p>

Goal 2: Raise student achievement in SM in P-12 schools through increasing and sustaining the number, quality, and diversity of P-12 teachers teaching SM by:

a. Providing high quality professional development to current P-12 teachers who teach SM.

Strategy	Activity	Timeline	Responsible Parties
<p>Strategy 1: Provide high quality professional development to P-12 teachers teaching SM. (Regional Level)</p>	<p>East Central P-16:</p> <p>Conduct instructional scan of math and science instruction in each school and identify professional development needs related to inquiry-based <i>instruction</i>.</p> <ul style="list-style-type: none"> ○ Identify research-based best practices/strategies for teaching math and science ○ Coordinate institutional scan activity with on-going RESA efforts ○ Select an assessment instrument for use in instructional scans of school SM instruction (such as adapted Intensive School Improvement Instrument.) Modify the instrument to be based on standards established in new GPSs and research-based strategies. ○ Scan each school for baseline ‘state of SM instruction’ <p>Analyze curriculum, content standards, and test data to determine curriculum needs and professional development needs related to <i>curriculum</i>.</p> <ul style="list-style-type: none"> ○ Analyze math/science test data for each school/system ○ Review current math and science curriculum in conjunction with available test data ○ Review new GPSs and expected roll-out timeline and identify basic impacts on curriculum changes ○ Develop matrices showing curriculum alignment with the math and science standards (new GPSs) and selected curriculum materials ○ Identify standards/topics that require teacher-developed curriculum ○ Identify professional development needs related to use of curriculum materials (existing and new) and to the development of curriculum (i.e. integrated units, experiential learning activities) 	<p>2/04 - 5/04</p> <p>5/04 - 9/04</p> <p>2/04 - 4/04</p>	<p>Co-PI, P-12 Coordinator, School & System Leadership, RESA representative, PSC area consultant, Georgia Center for Educational Renewal staff</p> <p>Co-PI, P-12 Coordinator, School & System Leadership, Teams, RESA Representative, PSC area consultant</p>

Goal 2: Raise student achievement in SM in P-12 schools through increasing and sustaining the number, quality, and diversity of P-12 teachers teaching SM by:

a. Providing high quality professional development to current P-12 teachers who teach SM.

Strategy	Activity	Timeline	Responsible Parties
<p>Strategy 1: Provide high quality professional development to P-12 teachers teaching SM. (Regional Level)</p>	<p>East Central P-16 continued:</p> <p>Identify professional development needs related to <i>content</i> in math and science disciplines/topics.</p> <ul style="list-style-type: none"> ○ Review GPS SM matrices, test score summaries, and instructional scans, to identify content needs for SM teachers in each school ○ Survey teachers and principals for content needs (i.e., endorsement programs, PLU courses, higher ed courses) ○ Identify sources of professional development courses/endorsements and initiate scheduling and registration 	2/04 - 4/04	Co-PI, P-12 Coordinator, School & System Leadership Teams Math/Science faculty, Math and Science Education Faculty
	<p>Develop system/school and teacher SM professional learning plans for Years 1-3</p>	5/04	Co-PI, P-12 Coordinator, School & System Leadership Teams Math/Science faculty, Math and Science Education Faculty
	<p>Develop and deliver professional development</p> <ul style="list-style-type: none"> ○ Review school and system level plans for school improvement and professional learning, as modified to reflect PRISM science/math objectives and prioritize professional development activities for each school, system and across systems. ○ Develop, modify, and/or find existing professional development resources based on needs assessment data, school instructional scans etc. (These include but not limited to Teacher Quality Grants, due mid-January annually.) ○ Expand existing partner school/university faculty exchange program to include PRISM schools. ○ Coordinate with RESA to provide professional development in science/math ○ Recruit GASOU faculty and others to provide professional development. 	3-10/04	Co-PI, P-12 Coordinator, School & System Leadership Teams, RESA representatives, PSC area consultant

Goal 2: Raise student achievement in SM in P-12 schools through increasing and sustaining the number, quality, and diversity of P-12 teachers teaching SM by:

a. Providing high quality professional development to current P-12 teachers who teach SM.

Strategy	Activity	Timeline	Responsible Parties
<p>Strategy 1: Provide high quality professional development to P-12 teachers teaching SM. (Regional Level)</p>	<p>East Central P-16 continued:</p> <ul style="list-style-type: none"> ○ Offer SM endorsement programs, as needed ○ Furnish appropriate release time or other rewards for educators who will provide professional development services to other teachers in their building. ○ Work with principals and other school system leadership to find ways for endorsed teachers to provide in-service and other leadership services within their schools and across districts. <p>Provide Summer SM Institutes for in-service, pre-service teachers and higher ed faculty</p> <ul style="list-style-type: none"> ○ Year 1—Focus on identified system needs 	<p>6/04</p>	<p>Co-PI, P-12 Coordinator, School & System Leadership Teams, RESA representatives, PSC area consultant</p>

Goal 2: Raise student achievement in SM in P-12 schools through increasing and sustaining the number, quality, and diversity of P-12 teachers teaching SM by:

a. Providing high quality professional development to current P-12 teachers who teach SM.

Strategy	Activity	Timeline	Responsible Parties
<p>Strategy 1: Provide high quality professional development to P-12 teachers teaching SM. (Regional Level)</p>	<p>Northeast P-16: Identify PRISM schools in each school district for start-up.</p>	1/04	Regional Co-PI and P-12 Coordinator and School Leadership
	<p>Select and develop P-12 District Teams in each PRISM school district to identify and study issues related to improving SM student achievement, including vertical and horizontal curriculum alignment.</p>	2/04	School Leadership
	<p>Identify PRISM Lead Teachers in each PRISM school.</p>	2/04	School Leadership
	<p>Develop PRISM <u>district improvement work plans</u> for each school district.</p>	2/04 – 4/04	P-12 District Team
	<p>Develop PRISM <u>school improvement work plans</u> for each school.</p>	2/04 – 4/04	School-based learning community
	<p>Identify professional development needs for SM teachers.</p>	3/04 - ongoing	Regional P-12 Coordinator
	<p>Deliver professional development</p>	3/04 – ongoing	UGA, Georgia Perimeter College, and Districts
	<p>Provide support for new and pre-service teachers within each partner school within already existing school and district-based mentoring programs.</p>	6/04 – ongoing	Regional P-12 Coordinator and School Leadership
<p>Develop a process for coordination and communication across all Northeast Georgia PRISM school districts to include both formal and informal communication systems across school districts and UGA and Georgia Perimeter College.</p>	11/03 – ongoing	Regional Co-PI and P-12 Coordinator and partners	

Goal 2: Raise student achievement in SM in P-12 schools through increasing and sustaining the number, quality, and diversity of P-12 teachers teaching SM by:

a. Providing high quality professional development to current P-12 teachers who teach SM.

Strategy	Activity	Timeline	Responsible Parties
<p>Strategy 1: Provide high quality professional development to P-12 teachers teaching SM. (Regional Level)</p>	<p>Southeast P-16: Sub-strategy A. Establish the organizational structure in the region. - <u>Recruit</u> members of the RCC, including each district superintendent, math and science coordinators, teacher leaders and higher education faculty. - <u>Identify</u> first year PRISM schools in each county. - <u>Develop</u> selection criteria and process to identify and recruit lead teachers and/or lead teacher coordinators. - <u>Select</u> lead teachers and employ district lead teacher coordinators. - <u>Conduct</u> county-wide retreats for introducing PRISM initiative, county leaders, and establishing the charge of the county learning communities, to include: gather professional development data, examine and use existing needs assessment, school improvement plans, requirements for NCLB, use all assessment information to develop individual professional development plans for all PRISM teachers.</p>	<p>Fall 2003</p> <p>01-04/2004 01-05/2004</p>	<p>Co-PI and P-12 Coordinator</p>
	<p>Sub-strategy B. Establish effective lines of communication among all PRISM constituents. - <u>Develop</u> a regional PRISM web-site. This site will facilitate grant submission, conference/workshop organization, sharing of best practices and instructional materials. This site will be an ongoing source of communication and information related to all PRISM activities. - <u>Create</u> a regional PRISM newsletter highlighting PRISM activities. - <u>Establish</u> a PRISM list-serve.</p>	<p>Spring 2004</p>	<p>Co-PI and P-12 Coordinator</p>
	<p>Sub-strategy C. Create and deliver professional development. - <u>Support and expand</u> existing relationships between higher education faculty and schools in crisis to enhance SM instruction while regional and district infrastructure is being put into place. - <u>Gather and disseminate</u> information about existing professional development efforts in teaching of SM.</p>	<p>Fall and Spring 2004</p>	<p>RCC and A&S faculty members</p>
	<p>- <u>Brainstorm</u> upon ideas for enhancing existing opportunities for professional development based upon teacher needs assessments.</p>	<p>Spring 2004 Spring 2004 and ongoing</p>	<p>RCC, district and school learning communities</p>

Goal 2: Raise student achievement in SM in P-12 schools through increasing and sustaining the number, quality, and diversity of P-12 teachers teaching SM by:

a. Providing high quality professional development to current P-12 teachers who teach SM.

Strategy	Activity	Timeline	Responsible Parties
<p>Strategy 1: Provide high quality professional development to P-12 teachers teaching SM. (Regional Level)</p>	<p>Southeast P-16 continued: - <u>Integrate</u> new professional development activities within the existing staff development framework. - <u>Furnish</u> appropriate release time and other rewards for individuals who provide professional development services. - <u>Develop and provide</u>, as needed, ongoing professional development services in addition to those initial programs already described in strategy 3. - <u>Offer</u> PSC approved mathematics endorsement course in the region. - <u>Offer Professional Development</u> opportunity on AASU campus, a marine chemistry research experience for pairs of teacher/student scholars.</p>	<p>Spring 2004 and ongoing</p> <p>Summer 2004</p>	<p>Communities and Administration Learning Communities and RCC AASU and CGCC faculty and Co-PI</p> <p>AASU Chemistry faculty</p>

Goal 2: Raise student achievement in SM in P-12 schools through increasing and sustaining the number, quality, and diversity of P-12 teachers teaching SM by:

a. Providing high quality professional development to current P-12 teachers who teach SM.

Strategy	Activity	Timeline	Responsible Parties
<p>Strategy 3: Engage higher education and P-12 faculty in learning communities (Regional Level and State Level)</p>	<p>State: Provide “Leading Learning Communities” professional development for regional learning community leadership and implementation during Institute launch</p> <p>Atlanta Metro: At least 50 Atlanta Metro Region P-12 teachers and higher education faculty will participate in organized Learning Communities that focus on both professional development and scholarship.</p> <ul style="list-style-type: none"> • Identify the need for learning communities between APS and GSU. • Define and describe existing LC in APS. Put together a concept map/ org chart of the LC in APS and how GSU can intersect. • Initiate and evaluate one Learning Community at the district level. Look at rationale, resources, goal attainment, benefits and challenges. • Initiate and support one Learning Community at the regional level- this will be the RCC and invited others- depending on the rationale of the Year 1 schools/teachers. • Hold monthly RCC Learning Community meetings to redefine, redirect and support the RCC. • Share Learning Community work at regional and state level- at State leadership meetings. <p>East Central P-16: Create ECG regional Learning Communities for the science and math disciplines.</p> <ul style="list-style-type: none"> • Co-PI and P-12 Coordinator for ECG receives training to lead regional Learning Communities • Co-PI and P-12 Coordinator organize and offer regional Learning Community institutes for each of the science and math disciplines (based on state designations and/or RCC plans). • Include College of Science and Technology and College of Education SM faculty and P-12 Lead Teachers and other SM teachers from participating schools/ systems 	<p>April 2004</p> <p>March 2004 March 2004</p> <p>January 2004 and ongoing February-April 2004</p> <p>February-September 2004 “</p> <p>1/04-5/05</p>	<p>Institute for the Teaching and Learning of SM</p> <p>RCC Regional Co-PI</p> <p>P-12 Coordinator RCC</p> <p>RCC Regional Co-PI and P-12 Coordinator</p> <p>Co-PI, P-12 Coordinator, School & System Leadership, RESA representative, PSC area consultant</p>

Goal 2: Raise student achievement in SM in P-12 schools through increasing and sustaining the number, quality, and diversity of P-12 teachers teaching SM by:

a. Providing high quality professional development to current P-12 teachers who teach SM.

Strategy	Activity	Timeline	Responsible Parties
<p>Strategy 3: Engage higher education and P-12 faculty in learning communities (Regional Level and State Level)</p>	<p>East Central P-16 continued:</p> <ul style="list-style-type: none"> • Conduct an annual orientation and continuing focus on PRISM goals, current challenges and opportunities • Address discipline-based issues related to inquiry-based instruction, curriculum, content development, and learner needs and achievement • Provide appropriate incentives and rewards for involvement of participating faculty and teachers <p>Northeast P-16: Develop school-based Learning Communities consisting of P-12 teachers, P-12 administrators, and higher education faculty</p> <p>Organize a Northeast Georgia PRISM Institute consisting of discipline-based and project-based learning communities whose purpose is to improve instruction for all students.</p> <p>Create a small grants program for higher education faculty, P-12 teachers, graduate students, and others, as integrated learning communities to research and document various PRISM innovations.</p> <p>Partner with higher education faculty, P-12 teachers, and community members to develop and coordinate resources to enrich effective SM teaching and learning strategies.</p> <ul style="list-style-type: none"> • Create and mobilize a Connecting Resources Team • Identify and compile list of resources for improving P-12 outreach instruction including UGA and Georgia Perimeter College faculty expertise and projects, P-12 project/programs, materials, and supplies, and community projects and programs. • Analyze resources from higher education, P-12 schools, and community to begin to develop or connect programs and projects for improving SM P-12 student achievement. • Develop processes and protocols for requesting and providing SM resources. 	<p>2/04 – 9/04</p> <p>2/04 – 9/04</p> <p>Fall 2004</p> <p>Spring 04</p>	<p>Co-PI, P-12 Coordinator and partner schools</p> <p>Co-PI, P-12 Coordinator and partners</p> <p>Co-PI, P-12 Coordinator</p> <p>Regional Coordinating Committee and Connecting Resources Team</p>

Goal 2: Raise student achievement in SM in P-12 schools through increasing and sustaining the number, quality, and diversity of P-12 teachers teaching SM by:

a. Providing high quality professional development to current P-12 teachers who teach SM.

Strategy	Activity	Timeline	Responsible Parties
<p>Strategy 3: Engage higher education and P-12 faculty in learning communities (Regional Level and State Level)</p>	<p>Northeast P-16 continued:</p> <ul style="list-style-type: none"> Assist in the alignment of all outreach projects, programs, and field trips to classroom lesson objectives, Georgia Performance Standards, etc. Identify incentives for participants. <p>Southeast P-16:</p> <p>Sub-strategy A. Establish AASU/CGCC participation with the Institute on the Teaching and Learning of SM.</p> <ul style="list-style-type: none"> <u>Identify</u> core members of SM higher education faculty to participate in the institute via group and individual visits with SM faculty. <u>Coordinate</u> a dinner meeting to share information about PRISM. <u>Establish</u> a connection with AASU center for Teaching and Learning as well as the office of Faculty Development and develop a set of criteria for naming higher education faculty PRISM associates. <u>Select</u> participants for higher education institute leadership team. <u>Participate</u> in the launch of the higher education institute. <p>Sub-strategy B. Organize and charge school, district and regional learning communities.</p> <ul style="list-style-type: none"> <u>Select</u> learning community leaders. <u>Conduct</u> learning community workshop. <u>Conduct</u> monthly learning community meetings. <p>Sub-strategy C. Create programs to connect P-12 and higher education faculty and the community.</p> <ul style="list-style-type: none"> <u>Create SCOPE</u> (Southeast Counties Outreach Program for Education): A resource pool of higher education faculty and staff, community leaders and others available for P-12 SM classroom enrichment. <ul style="list-style-type: none"> Identify and recruit participants from AASU, CGCC and the community. Compile and disseminate list of SCOPE participants to P-12 faculty. Recognize and celebrate SCOPE participants. 	<p>01-05/ 2004</p> <p>03/2004</p> <p>01/2004</p> <p>Spring 2004</p> <p>Spring 2004</p> <p>Spring 2004</p> <p>Summer 2004</p> <p>August 2004 and on August 2004</p>	<p>Co-PI and P-12 Coordinator</p> <p>Co-PI</p> <p>Co-PI, P-12 Coor and faculty</p> <p>Co-PI and P-12 Coordinator</p> <p>RCC</p> <p>Co-PI and P-12 Coordinator</p> <p>Learning Community leaders</p> <p>Co-PI and P-12 Coordinator in collaboration with SM faculty.</p>

Goal 2: Raise student achievement in SM in P-12 schools through increasing and sustaining the number, quality, and diversity of P-12 teachers teaching SM by:

b. Strengthening the content and pedagogy in SM for pre-service teachers.

Strategy	Activity	Timeline	Responsible Parties
<p>Strategy 4: Influence the quality of teacher preparation through changing how SM are taught to future teachers. (State Level)</p>	Create the Institute Steering Team to design the Institute on the Teaching and Learning of SM	Fall 2003	Institute Coordinator
	Hold Institute Steering Team meetings	Winter 2004	Institute Coordinator
	Identify college and P-12 faculty to participate in the Institute	Winter 2004	PRISM RCCs
	Host Institute Launch for PRISM regions <ul style="list-style-type: none"> • Attendees will consist of A&S, Education, and high school SM faculty members • Launch will focus on higher education introductory courses in SM 	April 23-24, 2004	Institute Steering Team
	Assess current practices in SM instruction used in introductory courses	Spring 2004	PRISM Evaluation Team
	Develop regional plans in response to assessment of current practices to assist departments and/or faculty interested in learning alternative instructional strategies	Spring-Summer 2004	Institute Steering Team and SM administrators in PRISM regions
	Offer Institute professional development with focus on introductory SM courses	June-September 2004	Institute Coordinator

Goal 2: Raise student achievement in SM in P-12 schools through increasing and sustaining the number, quality, and diversity of P-12 teachers teaching SM by:

b. Strengthening the content and pedagogy in SM for pre-service teachers.

Strategy	Activity	Timeline	Responsible Parties
<p>Strategy 5: Revise the Regents' <i>Principles for the Preparation of Educators for the Schools</i> to include a 12 semester hour integrated science sequence for elementary teachers (State Level)</p>	<p>Implementation begins year 2</p>		

Goal 2: Raise student achievement in SM in P-12 schools through increasing and sustaining the number, quality, and diversity of P-12 teachers teaching SM by:

c. Ensuring a sufficient pipeline of highly qualified and diverse SM teachers to meet demand.

Strategy	Activity	Timeline	Responsible Parties
<p>Strategy 7: Implement regional strategies to recruit SM teachers. (Regional Level)</p>	<p>Atlanta-Metro P-16: Organize a task force to discuss the goals of the American Association of Future Teachers (AAFT), the current status and enrollment in AAFT and devise plans to expand and improve AAFT at Washington HS.</p> <p>Design recruiting program for high school students</p> <ul style="list-style-type: none"> • The program will be designed collaboratively with GSU science faculty and may involve internships in the science labs or math courses, tutoring of underclassmen, and other activities that will bring HS students closer to understanding the role and importance of teaching. <p>Northeast P-16: Design and implement a recruitment program in SM</p> <ul style="list-style-type: none"> • Target undecided arts and sciences majors already on the UGA campus and second career individuals wishing to become teachers. Within these groups target the recruitment of diverse individuals into teaching SM. • Begin recruitment in freshman science and mathematics classes. • Work with education and arts and science advisors to design special advising programs for undergraduates and second career individuals • Hire a special “pre-education” advisor to be housed in the A&S advising office. • Develop a cadre of science and mathematics undergraduate student ambassadors to offer events to promote teaching as a career. • Develop a series of undergraduate “first year seminars” related to teaching. Ask Student Ambassadors or recruitment director to present at seminar during one class. • Develop special “pre-teaching” early community experiences for those thinking of teaching science and math. • Aggressively market alternative teacher education programs in SM. 	<p>February 2004</p> <p>June-September 2004</p> <p>Spring – Fall 04</p> <p>Fall 04 Fall 04</p> <p>Fall 04</p> <p>Spring 04</p> <p>Fall 04 – ongoing</p> <p>Spring 04</p> <p>Fall 04</p>	<p>APS Model Teacher Leaders</p> <p>AAFT Task Force</p> <p>Co-PI and RCC</p>

Goal 2: Raise student achievement in SM in P-12 schools through increasing and sustaining the number, quality, and diversity of P-12 teachers teaching SM by:

- d. Providing incentives for teacher assignment and retention to ensure access to highly qualified and experienced SM teachers who need them most.

Strategy	Activity	Timeline	Responsible Parties
<p>Strategy 6: Initiate new policies that provide incentives and improved working conditions for teaching SM in P-12 schools. (State Level)</p>	Analyze salary disparities between SM teachers and other related fields	January 2004	Project Director and Associate Project Director
	<p>Pilot the Georgia Teacher Working Conditions Survey* in the 13 PRISM school districts. This survey is designed to:</p> <ol style="list-style-type: none"> 1) To provide information at the school and district level to teachers, administrators, parents, local boards of education, and county commissioners so they can work together and target their resources to improve working conditions at their schools; 2) To provide policymakers at the state level with hard data on what teachers believe to be the critical components of improving their working conditions; 3) To mobilize communities to improve teacher working conditions through strategic action plans; 4) To promote policy change for improved teacher working conditions at the state level. 	April 2004	Project Director and P-16 Teacher Quality Director
	Conduct 16 teacher focus groups (4 per region) to gather input into development of promising strategies for creating teacher incentives and implementing improved working conditions in SM	Spring-Summer 2004	Project Director and Associate Project Director
	Create a Teacher Incentives Forum consisting of 50 teachers to develop possible “incentive” packages for pilot implementation in the PRISM regions	August 2004	Project Director and Associate Project Director
	Hold Teacher Incentive Forum meeting	September 2004	Project Director and Associate Project Director

*Contingent upon successful completion of contract agreement with vendor

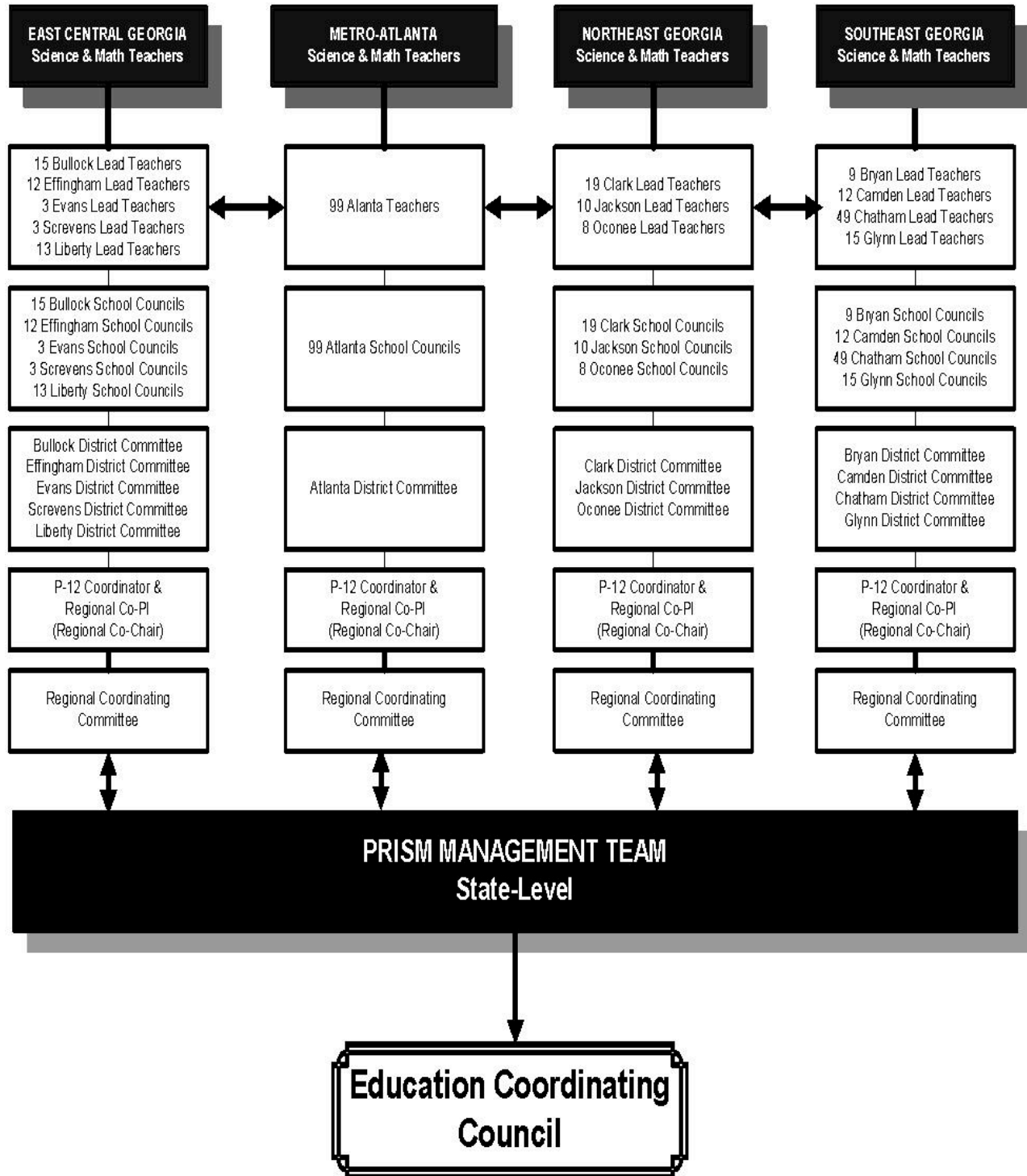
Goal 3: Raise student achievement in SM in P-12 schools through increasing the responsiveness of higher education to the needs of the P-12 schools by:

- a. Increasing the participation of SM faculty in teacher preparation and professional development.
- b. Providing incentives for SM faculty members to engage in research with P-12 schools on effective practices in science and mathematics.

Strategy	Activity	Timeline	Responsible Parties
<p>Strategy 10: Provide a reward structure in universities to encourage faculty members to sustain involvement in improving SM teaching and learning in P-12 schools. (State Level)</p>	<p>Appoint Reward Structure Committee consisting of: 2 VPAA's, 1 SM Dean, 1 S/M Department Chair, 1 S/M faculty member, 2 T&P Committee Chairs, 1 cultural anthropologist faculty member, 1 organizational development faculty member</p>	<p>February 2004</p>	<p>USG Vice Chancellor for Academic, Faculty, and Student Affairs and Associate Project Director</p>
	<p>Host a series of meetings to create recommendations for incentives for sustained involvement in P-12 schools</p>	<p>March – June 2004</p>	<p>USG Vice Chancellor for Academic, Faculty, and Student Affairs and Associate Project Director</p>
	<p>Finalize recommendations for incentives needed</p>	<p>September 2004</p>	<p>USG Vice Chancellor for Academic, Faculty, and Student Affairs, Associate Project Director, and Reward Structure Committee</p>

Management Plan

Management of PRISM starts at the P-12 classroom level, moves to the school and district levels, then to the region, and finally to the state level. PRISM is designed to fit within existing school structures.



Classroom: Each PRISM classroom teacher in the 277 partner schools serves as a manager of SM instruction to help each student achieve at higher levels, and of his/her professional development. Through professional development the classroom teacher gains increased understanding of content knowledge and research strategies for testing what works, with whom, under what conditions, and why it works so she/he can implement best practices in the classroom to improve student learning and achievement.

School: All PRISM Lead Teachers serve in a leadership role with teachers of SM in that building (a structure designed to be sustained beyond the grant). Each lead teacher works closely with the school administration to promote the development of teacher capacity to increase SM learning and achievement of the 170,000 plus students in partner schools. The Lead Teachers serve as members of the PRISM Teacher Advisory Committee. Every school in Georgia has a school council (principal, teachers, parents, and business leaders) that serves as an advisory committee on curriculum, budget, and performance of education personnel. The lead teacher and the principal will work with the school council to develop best practices for that school. The Principal serves as an advocate for PRISM, a communication link between the school and district, and ensure linkages between PRISM and the school improvement plan. PRISM Superintendents serve on their Regional Coordinating Committee, ensure linkages between PRISM and the district improvement plan, assist school administrators in PRISM activities, and facilitate communication between the school district and the RCC.

Regional: PRISM is coordinated by four Regional Coordinating Committees (RCCs), which include superintendents, principals, teachers, SM faculty and SM education faculty. Regional Co-PIs (one from each core university) chair the RCCs. A P-12 SM teacher (full time release from teaching duties) serves as the Regional P-12 Coordinator. The Regional Co-PI and Regional P-12 Coordinator ensure two-way communication between these schools/universities and the RCCs. Monthly meetings are held to keep the work focused and on track across core partner school districts and universities. The Project Director serves as liaison with the four RCCs. The Project Director attends RCC meetings and serves to unify work between the regions and the state level. The Evaluation Team periodically attends meetings of the RCCs to provide feedback on work underway.

Regional Coordinating Committee Membership Roster

**Atlanta Metro P-16
Regional Coordinating Council for PRISM**

Lead Institution: Georgia State University (GSU)

Name	Title	Institution/System
Nydia Hanna	Assistant Professor, Science Education and Co-PI	GSU, College of Education
Adrian Epps	Regional P-12 Coordinator	Atlanta Public Schools
Dianne Ash	Mathematics Coordinator	Atlanta Public Schools
Lela Blackburn	Science Coordinator	Atlanta Public Schools
Pauline Washington	Model Teacher Leader	Atlanta Public Schools
Craig Ogden	Model Teacher Leader	Atlanta Public Schools
Rosa Roberts	Model Teacher Leader	Atlanta Public Schools
Lorrie Green	K-8 Science and Mathematics	Atlanta Public Schools
Milicent McCaskill	Model Teacher Leader	Atlanta Public Schools

Sharyn Briscoe	Model Teacher Leader	Atlanta Public Schools
Yolanda Chaplin Brown	Model Teacher Leader	Atlanta Public Schools
Ernestine Hogan	High School Mathematics	Atlanta Public Schools
Leotine Howard	Model Teacher Leader	Atlanta Public Schools
Kayren Hughley	Model Teacher Leader	Atlanta Public Schools
Jacqueline Townsend	Model Teacher Leader	Atlanta Public Schools
Esther Weems	Model Teacher Leader	Atlanta Public Schools
Will Todd	Model Teacher Leader	Atlanta Public Schools
Deneen McBeanWarner	Model Teacher Leader	Atlanta Public Schools
Andrea Smith	Model Teacher Leader	Atlanta Public Schools
Aminata Umoja	Model Teacher Leader	Atlanta Public Schools
Arica Johnson	K-8 Science and Mathematics	Atlanta Public Schools
Willie Mae McLeod	High School Mathematics	Atlanta Public Schools
Olivia Waller-Hall	K-8 Science and Mathematics	Atlanta Public Schools
Boon Boonyapat	Model Teacher Leader	Atlanta Public Schools
Edi Guyton	P-16 Coordinator	GSU, College of Education
Olga Jarrett	Associate Professor, Science Education-ECE	GSU, College of Education
Neva Rose	Assistant to the Project Director, APS	Georgia Institute of Technology
Paul Ohme	Director- CEISMC	Georgia Institute of Technology
Draga Vidakovic	Assistant Professor, Mathematics	GSU, College of Arts & Sciences
Rod Nave	Associate Professor, Physics	GSU, College of Arts& Sciences
Clara Nosegbe-Okoka	Assistant Professor, Math Education	GSU, College of Education
Barbara Baumstark	Professor, Biology	GSU, College of Arts& Sciences
Christine Thomas	Associate Professor, Math Education	GSU, College of Education
Lynn Hart	Associate Professor, Math Education-ECE	GSU, College of Education

East Central P-16
Regional Coordinating Council for PRISM
Lead Institution: Georgia Southern University (GASOU)

Name	Title	Institution/System
Laura Hoyle	High School Science Teacher	Screven County High School
James M. LoBue	Assistant Professor of Chemistry	Georgia Southern University
Marti L. Schriver	Assoc. Professor MG and Sec. Science Ed.	Georgia Southern University
Patia Crump	Middle School Math Teacher	Southeast Bulloch Middle School
Daniel V. Hagan	Regional Co-PI, and Prof. of Biology	Georgia Southern University
Jennifer Smith	Elementary School Teacher	Screven County Elementary
Gregory Arnsdorff	Director of Instruction and Technology	Effingham County Schools
Gregory Chamblee	Assistant Prof., MG and Sec. Math Ed.;	Georgia Southern University
Elizabeth Zipperer	Director of Personnel & Staff Development	Evans County Schools
Steve Wilmoth	Superintendent	Liberty County Schools
J. Michael Moore	Superintendent	Effingham County Schools
Jessie S. Strickland	Superintendent	Bulloch County Schools
Paula O. Raley	Superintendent	Evans County Schools
Whitney Meyers	Superintendent	Screven County Schools
Penny T. Sikes	Regional P-12 Coordinator	Bulloch Co./ Georgia Southern Univ.
Anny Morrobel-Sosa	Dean of College of Science and Technology	Georgia Southern University
Lissa M. Leege	Assistant Prof., of Biology	Georgia Southern University
Li Ma	Assistant Professor of Physics	Georgia Southern University
Pranoti M. Asher	Associate Professor of Geology	Georgia Southern University
David R. Stone	Professor of Mathematics	Georgia Southern University
Susan Halligan	RESA Assoc. Director	First District RESA

**Northeast Georgia P-16
Regional Coordinating Council for PRISM**

Lead Institution: University of Georgia (UGA)

Name	Title	Institution/System
Shannon Adams	Superintendent	Oconee County School District
Lisa Anderson	Middle School Science Teacher	Oconee County School District
Sandy Blount	High School Mathematics Teacher	Clarke County School District
Jose Boza	Exec. Director of Instructional Services	Clarke County School District
Beth Bray	Elementary Assistant Principal	Jackson County School District
Anderson Byers	Superintendent	Jackson County School District
Dava Coleman	Regional P-12 Coordinator	Clarke County School District
Miriam Dittmann	Professor and Chair, Science	Georgia Perimeter College
Heather Edelblute	Program Specialist Educator Partnerships	UGA, College of Education
Bradford Findell	Professor, Mathematics Education	UGA, College of Education
Lewis Holloway	Superintendent	Clarke County School District
Thomas Koballa	Department Head, Science Education	UGA, College of Education
Charles Kutal	Assoc. Dean, Chemistry Professor	UGA, Arts & Sciences
Nancy Vandergrift	NE GA P-16 Coordinator	UGA, College of Education
Paul Wenston	Mathematics Professor	UGA, Arts & Sciences
Mike Padilla, Chair	Assoc. Dean, Educator Partnerships and Co-PI	UGA, College of Education
Alta Allen	Curriculum Director	Clarke County School
Charles Atwood	Professor, Chemistry Department	UGA, Arts and Sciences
Ellen Cowne	Curriculum Director	Oconee County Schools
Shelley Dickinson	Math Support Teacher	Jackson County Schools
Larry Hardy	Math Professor	Georgia Perimeter College
Mary Leuzinger	Curriculum Director	Jackson County Schools
Dorothy White	Professor of Math Education	UGA, College of Education
William Whitman	Professor of Microbiology	UGA, College of Arts and Sciences
Elliot Gootman	Professor of Mathematics	UGA, College of Arts and Sciences
David Knauft	Associate Dean	UGA, College of Agriculture and Environmental Sciences
Denise Mewborn	Professor of Math Education	UGA, College of Education
Marshall Darley	Professor of Plant Biology	UGA, College of Arts and Sciences
Marcus Fechheimer	Professor of Cellular Biology	UGA, College of Arts and Sciences
Steve Oliver	Professor of Science Education	UGA, College of Education
Stanley Grimes	Chemistry and Physics Teacher	Oconee County Schools
Amy Rolleri	Community Representative	
Pam Smith	Director of Assessment	Clarke County Schools
Paola Sztajn	Professor of Math Education	UGA, College of Education
Deborah Tippins	Professor of Science and Elementary Ed.	UGA, College of Education
Kim Lord	Resource Specialist	Oconee County Schools

**Southeast Georgia P-16
Regional Coordinating Council for PRISM**

Lead Institution: Armstrong Atlantic State University (AASU)

Name	Title	Institution/System
Sabrina Hessinger	Associate Professor of Mathematics and Co-PI	AASU, A&S
Ron Lambert	Regional P-12 Coordinator	AASU
Dotti Overstreet	Assistant Academic Services Officer – Instructional Support	Savannah Chatham Schools
Mary Jones	Professor of Mathematics	Coastal Georgia Community College

John Oliver	Associate Superintendent of Schools	Bryan County Schools
Gene Barber	Director of Brunswick Center	Coastal Georgia Community College
Rex Demers	High School Mathematics Teacher	Johnson High School
Michael Owens	Chemistry Teacher	Bryan County Schools
Sabrita Brush	Professor, Chemistry Education	AASU, COE
Susan Ouzts	Assistant Professor, Mathematics	AASU, A&S
Jon Miller	Curriculum Director	Camden County Schools
Rebecca Gillette	Curriculum Coordinator	Camden County Schools
Ann McKinney	Director of Curriculum, 6-12	Glynn County Schools
Hilda Ortiz	Chief Academic Officer	Savannah Chatham Schools
Venetia Butler	Student Achievement Specialist- Science	Savannah Chatham Schools
Catherine Shealy	Student Achievement Specialist- Math	Savannah Chatham Schools
Chris Schubert	Assistant Professor, Geology	AASU, Arts & Sciences and COE
Donna Mullenax	Instructor of Physics	AASU
Ed Wheeler	Dean of A&S, Mathematics	AASU

State: At the state level, the PRISM Leadership Team meets monthly to keep work at the regional and state levels integrated and focused on goals and outcomes. The PRISM PI chairs the leadership team. Membership includes the Director, Associate Director, RCC CO-PIs, RCC P-12 Coordinators, representatives from the University System of Georgia, the Georgia Department of Education, the Evaluation Team, as well as the Presidents of the state P-12 SM Teacher organizations.

PRISM State Leadership Team Roster

Chair and PI: Jan Kettlewell, Associate Vice Chancellor for P-16 Initiatives, University System
Co-PI: Ron Henry, Provost/Vice President of Academic Affairs, Georgia State University

Atlanta Metro Region:

Co-PI: Nydia Hanna, Professor of Science, Georgia State University

P-12 Coordinator: Adrian Epps, Project Director, Atlanta Public Schools and Neva Rose, Atlanta Public Schools

East Central Region:

Co-PI: Daniel Hagan, Professor of Biology, Georgia Southern University

P-12 Coordinator: Penny Sikes, Mathematics teacher, Bulloch County Schools

Northeast Region:

Co-PI: Mike Padilla, Associate Dean for Educator Partnerships, University of Georgia

P-12 Coordinator: Dava Coleman, Chemistry Teacher, Clarke County Schools

Southeast Region:

Co-PI: Sabrina Hessinger, Mathematics Professor, Armstrong Atlantic State University

P-12 Coordinator: Ron Lambert, retired- Savannah-Chatham Schools

Georgia Department of Education:

Stuart Bennett, Deputy School Superintendent

Martez Hill, Director of Policy

Eloise Barron, Director of Curriculum and Instruction

Stephen Pruitt, Science Program Specialist

Carolyn Baldree, Mathematics Program Specialist

Board of Regents of the University System of Georgia:

Sheila Jones, Project Director of PRISM, Executive Director for P-16 Programs

Frank Butler, Vice Chancellor of Academics, Faculty and Student Affairs

Dorothy Zinsmeister, Associate Project Director of PRISM, Senior Associate for Academic Affairs

Rosalind Barnes, Public Awareness Campaign Director

Tonya Kilpatrick, Special Assistant to the Associate Vice Chancellor

Evaluators:

Judy Monsaas, Internal Evaluator, Director of P-16 Assessment and Evaluation

David Payne, External Quantitative Evaluator

Mary Jo Brown, External Qualitative Evaluator

State Teacher SM Associations:

Tom Ottinger, President, Georgia Council Teachers of Mathematics

Karol Stephens, President, Georgia Science Teachers Association

Supporting Partners: The core partnership of PRISM is comprised of 13 school districts and six higher education institutions. In addition to the SM faculties of the higher education institutions, this project will also draw upon the resources of the University of Georgia's Center for Proficiency in Teaching Mathematics (CPTM); Georgia Institute of Technology's Center for Education Integrating Science, Mathematics, and Computing (CEISMC); and Georgia's Leadership Institute (GLI). These three collaborating partners will play the following roles in the project:

University of Georgia Center for Proficiency in Teaching Mathematics (CPTM) – CPTM was formed through a NSF grant in 2002. The principal aim of the Center is to contribute to help build the capacity of the system of professional education for pre-service and practicing teachers of mathematics. This is accomplished through the development of ideas, prototypes, and examples of materials and approaches for teachers' learning. The Center's organization and focus are deliberately designed to join practice, research, and professional development to build resources and capacity for the preparation of teachers of mathematics.

PRISM partners will benefit from the work of the Center through involvement in three strands of activity:

- Building models for groups to use for professional development of teachers of mathematics.
- Providing faculty development for mathematics faculty through institutes and workshops.
- Conducting research on proficiency in teaching and learning mathematics as well as on the character and effectiveness of various efforts in teacher education and professional development.

Georgia Institute of Technology's Center for Education Integrating Science, Mathematics, and Computing (CEISMC) –CEISMC was created as a unifying support system for core undergraduate courses in science, math, and computing on the campus of the Georgia Institute of Technology in the early 1990s. With the backing and support of the Georgia Institute of Technology, the National Science Foundation, corporate partners, and other groups, CEISMC then began initiating or co-sponsoring a coordinated set of programs at the pre-college level.

CEISMC will support PRISM activities by:

- Arranging for scientists, mathematicians and engineers (40-50 per year) from Georgia Institute of Technology faculty to bring cutting edge research, scientific tools and content depth to teachers and students.
- Arranging for Georgia Institute of Technology students to serve as mentors for P-12 students.
- Utilizing program staff at CEISMC to conduct workshops and other professional development experiences for teachers, develop web-based curriculum, manage database systems and provide technical assistance to school systems.

Georgia's Leadership Institute (GLI) – In 2001 Georgia created the Leadership Institute for School Improvement as an incubator for policy change and as a unique provider of preparation and development programs for educational leaders. The Georgia Leadership Institute is a public/private collaborative focused on using proven business-oriented models to equip and support Georgia's educational leaders to drive change for student success. The Leadership Institute focuses concurrently on leadership development, policy influence, and research and analysis.

GLI will provide leadership professional development for the 10 partner school district superintendents and other key school system personnel that have not yet participated in the Institute. Two partner school systems have already participated and a third is currently scheduled for training.

Evaluation Plan

The purpose of the evaluation is to determine whether or not the overall goals and benchmarks of PRISM are being met. Additionally, both formative and summative evaluations will be conducted to provide feedback and determine the effectiveness of the 10 PRISM strategies. The major focus of the evaluation is of professional development for faculty members who teach mathematics and/or science at the K-12 and college levels. The evaluation of professional development includes data gathering on:

1. Inputs. Who participated in professional development? What was the nature of the professional development?
2. Short-term outcomes. Did the participants acquire the intended knowledge and skills? Did the participants use the intended knowledge and skills in the classroom?
3. Long-term outcomes. Did P-12 student achievement improve? Did the gaps in achievement decrease?

A statewide evaluation team has been assembled and meets monthly. The attached work plan is an outcome of one of these meetings. The evaluation team includes two external quantitative evaluators, two external qualitative evaluators, and two internal evaluators. They are:

1. David Payne, retired professor in the Dept. of Research, Evaluation, Measurement and Statistics, University of Georgia, and author of evaluation and measurement textbooks and experienced quantitative evaluator.

2. Chad Ellett, retired professor of Educational Administration and Educational Research Methodology, Louisiana State University, and experienced evaluator specializing in classroom observation measures.
3. Mary Jo McGee Brown, Qualitative Research and Evaluation for Action, highly respected qualitative evaluator who has recently led a qualitative evaluation of Science Olympiad funded by NSF and has evaluated programs in P-12 schools throughout the southeast.
4. Charles Martin, Professor of Early Childhood and Middle Grades Education, Georgia College and State University, has worked on teams evaluating science and mathematics programs including the NSF funded Georgia Initiative for Mathematics and Science (GIMS) and NSF funded evaluation of Science Olympiad.
5. Judith Monsaas, Director of P-16 Assessment and Evaluation, (evaluation team leader), University System of Georgia, has been the lead evaluator for the various P-16 initiatives in Georgia and has extensive experience in assessment, evaluation, and statistics.
6. Mark Pevey, Director of P-16 Data Management, University System of Georgia, is currently developing a series of statewide P-16 Data Marts linking K-12 (DOE), university system and certification databases. His role is to develop databases of PRISM participants and programs and link them to state databases.

One of the external evaluators (called a state evaluation site coordinator in the work plan) will have primary responsibility for working with each regional partner to ensure accurate data collection. The regional Co-PI, or a regional evaluation representative, will facilitate data gathering in the local schools. These regional evaluation representatives have yet to be identified.

PRISM Evaluation Work Plan

Strategy 1. Provide high quality professional development to P-12 teachers teaching SM.

Evaluation Questions	Instruments	Sample/Data Source	State/regional Contact Person(s)	Timeline for reporting
Faculty Participation	Rosters of participants Attendance Rosters Agendas Participant logs Quarterly regional reports	All Participants	State evaluation site coordinator/ Regional Co-PI	Ongoing, at least quarterly
What is the nature of the Professional Development?	Document collection, e.g., Reading lists Agendas Participant logs	All participants	State evaluation site coordinator/ Regional Co-PI	Ongoing, at least quarterly
	Interviews	Purposeful sample of participants	Brown, Martin	Reports quarterly to PRISM Leadership Team and Regional teams.
Did the participants acquire the intended knowledge and skills?	Content Knowledge Instruments to be tailored to professional development content	Sample of projects funded either by PRISM or teacher quality enhancement funds.	Monsaas	On-going
	Math Instructional Practices Survey; Science Instructional Practices Survey	Sample of participants and non-participants	Payne, Ellett	Based on timeline for delivering professional development.
	Open-ended questionnaire	Sample of participants and non-participants	Brown, Martin	Ongoing, at least quarterly
	Interviews	Purposeful sample of participants	Brown, Martin	Reports quarterly to PRISM Leadership Team and Regional teams.

Evaluation Questions	Instruments	Sample/Data Source	State/regional Contact Person(s)	Timeline for reporting
Did the participants use the acquired knowledge and skills in the classroom?	Reformed Teaching Observation Protocol (RTOP)	Sample of participants	Ellett	On-going
	Teacher work sample with a rubric (to be developed)	Sample of participants	Ellett	On-going
	Math Instructional Practices Survey; Science Instructional Practices Survey (<i>see above</i>)			
	Open-ended questionnaire (<i>see above</i>)			
Did P-12 student achievement improve?	Classroom, school and district level achievement tests in SM (CRCTs; GHSGTs; EOCTs)	DOE Assessment Database	Pevey	August, annually
	M.S. & H.S. Student course taking and pass rates in challenging SM courses	DOE Student Record	Pevey	September, annually

Strategy 2. Provide academic concentrations in SM for P-8 teachers through two new USG faculty consortia.

Evaluation Questions	Instruments	Sample/Data Source	State/regional Contact Person(s)	Timeline for reporting
Participation of higher education faculty in SM course development	Course syllabi Number of faculty offering courses	College faculty participating in course development and teaching	Monsaas	Quarterly
Participation of P-8 faculty in four-course sequence	Course rosters Course completion information Concentration completion rates	All teachers participating in course sequence	Monsaas	Quarterly

Evaluation Questions	Instruments	Sample/Data Source	State/regional Contact Person(s)	Timeline for reporting
Did the participants acquire the intended knowledge and skills?	Content Knowledge Instrument for each course	Developed by faculty members teaching the courses	Monsaas	Quarterly
	Math Instructional Practices Survey; Science Instructional Practices Survey	State internal evaluator works with faculty members teaching courses to collect data	Monsaas	Quarterly
	Open-ended questionnaire	Sample of participants	Qualitative Evaluator works with coordinator of consortia to disseminate questionnaires	Reports quarterly to PRISM Leadership Team
	Interviews	Sample of participants	Qualitative Evaluator works with coordinator of consortia to set up interviews	Reports quarterly to PRISM Leadership Team
Did P-8 student achievement improve?	Classroom, school and district level achievement tests in SM (CRCTs)	DOE databases	Pevey	August, annually
	M.S. Student course taking, and pass rates in challenging SM courses	DOE Student Record	Pevey	September, annually

Strategy 3. Engage higher education faculty and P-12 faculty in learning communities.

Evaluation Questions	Instruments	Sample/Data Source	State/regional Contact Person(s)	Timeline for reporting
Faculty Participation (P-12 and higher education)	Rosters of participants Attendance Rosters Agendas Participant logs Quarterly regional reports	All Participants	State evaluation site coordinator/Regional Co-PI	On-going, at least quarterly

Evaluation Questions	Instruments	Sample/Data Source	State/regional Contact Person(s)	Timeline for reporting
What is the nature of the learning communities?	Document collection, e.g., Reading lists Agendas Participant logs	All participants	State evaluation site coordinator/Regional Co-PI	On-going, at least quarterly
	Interviews	Purposeful sample of participants	Brown, Martin	Reports quarterly to PRISM Leadership Team and Regional teams
Did the participants acquire the intended knowledge and skills?	Math Instructional Practices Survey; Science Instructional Practices Survey	Sample of participants and non-participants	Payne, Ellett	Based on timeline for implementing and “delivering” professional learning communities
	Open-ended questionnaire	Sample of participants and non-participants	Brown Martin	On-going, at least quarterly
	Interviews	Purposeful sample of participants	Brown, Martin	Reports quarterly to PRISM Leadership Team and Regional teams
Did the participants use the acquired knowledge and skills in the classroom?	Reformed Teaching Observation Protocol (RTOP)	Sample of participants	Ellett	On-going
	Teacher work sample with a rubric (to be developed)	Sample of participants	Ellett	On-going
	Math Instructional Practices Survey; Science Instructional Practices Survey (<i>see above</i>)			
Did P-12 student achievement improve?	Classroom, school and district level achievement tests in SM (CRCTs; GHSGTs; EOCTs)	DOE databases	Pevey	August, annually

Strategy 4. Influence the quality of teacher preparation through changing how SM are taught to future P-12 teachers.

Evaluation Questions	Instruments	Sample/Data Source	State/regional Contact Person(s)	Timeline for reporting
Faculty Participation	Rosters of participants Attendance Rosters Agendas Participant logs Quarterly regional reports	All participants	State evaluation site coordinator/Regional Co-PI for regional meetings; Monsaas for state meetings	On-going, at least quarterly
What is the nature of the Institute’s professional networks?	Document collection, e.g., Reading lists Agendas Participant logs	All participants	State evaluation site coordinator/Regional Co-PI; Monsaas for state meetings	On-going, at least quarterly
	Interviews	Purposeful sample of faculty	Brown, Martin	Reports quarterly to PRISM Leadership Team and Regional teams
Did the participants acquire the intended knowledge and skills?	Math Instructional Practices Survey; Science Instructional Practices Survey (college version)	Sample of participants and non-participants	Payne, Ellett	Based on timeline for implementing the institute
Did the participants use the acquired knowledge and skills in the classroom?	Reformed Teaching Observation Protocol (RTOP)	Sample of participants	Ellett	On-going
	Teacher work sample with a rubric (to be developed)	Sample of participants	Ellett	On-going
	Math Instructional Practices Survey; Science Instructional Practices Survey (college version)	Sample of participants and non-participants	Payne, Ellett	Based on timeline for implementing the institute
	Student survey of faculty instructional practices	Sample of classes	Ellett	On-going
	Interviews	Purposeful sample of faculty	Brown, Martin	Reports quarterly to PRISM Leadership Team and Regional teams

Evaluation Questions	Instruments	Sample/Data Source	State/regional Contact Person(s)	Timeline for reporting
Did college student achievement improve?	Student grades and pass rates in core curriculum courses	USG database	Pevey	Every semester
	DWF rates	USG database	Pevey	Every semester
Did college students' attitudes toward SM and perceptions of SM teaching as a career improve?	Attitudes and perceptions and self-efficacy instruments to be determined/developed.	Sample of classes	Payne	
	Interviews (focus groups) with students in core curriculum classes	Sample of classes	Brown, Martin	

Strategy 5. Revise the Regents' Principles for the Preparation of Educators to include a 12+ semester hour integrated science sequence for elementary teachers.

Evaluation Questions	Instruments	Sample/Data Source	State/regional Contact Person(s)	Timeline for reporting
New policy implemented	Policy document		Monsaas	Annual report on progress
Did the new policy have any unintended consequences? (e.g., reduced enrollment)	Open-ended survey		Monsaas with help from Brown	Annual report after policy implemented
	Course enrollment; major production data	USG Teacher Database	Pevey	Every semester, after policy implemented

Strategy 6. Initiate new policies that provide incentives and improved working conditions for teaching SM in P-12 schools.

Evaluation Questions	Instruments	Sample/Data Source	State/regional Contact Person(s)	Timeline for reporting
Are policies initiated	Policy documents; meeting minutes		Monsaas	Annual report on progress
What are current working conditions for teachers in GA public schools?	North Carolina Working Conditions for Teachers instrument	Sample of P-12 teachers in four regions.*	Monsaas	Annual

*Discussions are underway with SERVE and the Georgia Department of Education to administer a version of the North Carolina Working Conditions for Teachers to all teachers in the state.

Strategy 7. Implement regional strategies to recruit teachers.

Evaluation Questions	Instruments	Sample/Data Source	State/regional Contact Person(s)	Timeline for reporting
What strategies are being implemented to recruit and retain teachers?	Document analysis, e.g., Course syllabi/seminar materials Recruitment materials Advising information	All participants	Monsaas/Regional Co-PI	On-going
How many high school students are participating in the Advanced Academy for Teachers?	Rosters of participants	All participants	Monsaas/Regional Co-PI for Metro Atlanta	Quarterly
How many AAT students choose teaching as a major and as a career?	USG Student Database	All Participants	Pevey	Annually, after Fall 2006
	DOE CPI database	All participants	Pevey	Annually, after Fall 2008

Evaluation Questions	Instruments	Sample/Data Source	State/regional Contact Person(s)	Timeline for reporting
How many undecided SM majors choose teaching as a career?	Surveys	Undecided SM majors identified by UGA	Monsaas	Bi-annually
	USG Student Database	Undecided SM majors identified by UGA	Pevey	Annually, after Fall 2004
How many SM majors teach in a public school in Georgia?	USG Student Database DOE CPI database	UGA SM (or SM education) majors	Pevey	Annually, after Fall 2005

Strategy 8. Raise and align SM student learning standards and curriculum P-14.

Evaluation Questions	Instruments	Sample/Data Source	State/regional Contact Person(s)	Timeline for reporting
Are more rigorous, aligned standards in SM adopted?	Rating of state curricula, e.g., Fordham, Education Daily, CCSO.	Quality Counts, <u>Education Week</u> 's annual report; Align to Achieve exemplary standards; CCSO reports; Fordham Foundation Other curriculum "grades"	Monsaas	Annually
Are high school students taking more rigorous coursework in high school?	M.S. and H.S. student course taking and pass rates in challenging SM courses	DOE Student record	Pevey	September, annually

Evaluation Questions	Instruments	Sample/Data Source	State/regional Contact Person(s)	Timeline for reporting
Are students more prepared for college?	College going rates	USG High School Feedback Report	Pevey	September, annually
	Learning Support (remediation) rates in college	USG High School Feedback Report	Pevey	November, annually
	College preparation curriculum (CPC) deficiencies in SM	USG Database	Pevey	September, annually
	1 st year retention rates	USG Database	Pevey	November, annually
	HOPE recipients that retain HOPE scholarship into second year.	USG Database	Pevey	September, annually
	SM College credits (AP, PSO, etc.) prior to entry into college.	USG Database, DOE Student Record; AP Test Database	Pevey	September, annually

Strategy 9. Conduct a public awareness campaign of the need for all P-12 students to have access to, to be prepared for, and to succeed in challenging courses and curricula in SM.

Evaluation Questions	Instruments	Sample/Data Source	State/regional Contact Person(s)	Timeline for reporting
Is the public awareness campaign being implemented across the four regions?	Document analysis		Monsaas	Quarterly

Evaluation Questions	Instruments	Sample/Data Source	State/regional Contact Person(s)	Timeline for reporting
Are attitudes being changed for all constituencies (parents, P-14 students, guidance counselors, p-12 teachers, principals, superintendents and higher education faculty)?	Surveys	Relevant samples across levels	Monsaas	Quarterly

Strategy 10. Provide a reward structure in universities to encourage faculty members to sustain involvement in improving SM teaching and learning in P-12 schools.

Evaluation Questions	Instruments	Sample/Data Source	State/regional Contact Person(s)	Timeline for reporting
Has the reward structure changed in participating universities?	Promotion and tenure policy documents		Monsaas	On-going
	Interviews	Deans, department chairs, faculty members in A&S departments	Monsaas	Bi-annual
Are faculty members receiving promotion and tenure, and merit raises for working with P-12 schools?	Promotion and tenure documents		Monsaas	On-going
	Interviews	Deans, department chairs, faculty members in A&S departments	Monsaas	Bi-annual

BASELINE DATA

Summary of Student Performance Results in Science and Mathematics by Core Partner P-12 School District and State, Disaggregated By Race/Ethnicity And Grade

The following tables show the demographic breakdown and pass rates on Georgia state assessments in science and mathematics for each of the core partner school districts and the entire state. The baseline data for PRISM is the 2001-2002 school year. Those data are included here. There are several reasons for the choice of 2001-2002 school year as the baseline year for PRISM.

1. The disaggregated student achievement data will not be available for 2002-2003 school years until January 2004. Scoring problems, late reporting of test results to local districts and use of DOE resources to determine Adequate Yearly Progress for local schools, delayed the reporting of disaggregated results in school report cards.
2. Irregularities in test form construction invalidated Criterion Referenced Competency Test (CRCT) scores at several grade levels in 2002-2003. The decision was made not to report test results for those grades. The 2001-2002 school year is the last year with complete science and mathematics test results at all applicable grade levels.
3. Using an earlier baseline year provides the opportunity to have more than one year of baseline data in several schools. For those grades where CRCT results are available for 2002-2003, an opportunity exists to have two years of baseline/trend data before PRISM is implemented. PRISM will be implemented in participating districts over the five-year period, permitting multiple baseline years for some schools. This will lead to more reliable baseline data; annual spikes and troughs will be leveled out.

Test scores and demographic data for the 2001-2002 school year are on the Office of Student Achievement (OSA) website. Additional student achievement data disaggregated by gender, SES and disability are available for the state and participating districts on the OSA website. The data are disaggregated by race/ethnicity here. Percents of racial/ethnic categories are not included when the sample size is too small. Baseline data have been obtained for all 277 schools within the partner districts, but in the interest of economy, only district level data are reported.

Demographic Data

The racial/ethnic and percent of students eligible for free/reduced price lunch are included. These data, from the Office of Student Achievement website, are for the 2001-2002 school year.

Criterion Referenced Competency Tests (CRCT)

The CRCTs have been administered in Georgia in reading, English/language arts and mathematics at grades 4, 6 and 8 for several years. During the 2001-2002 school year, these three CRCTs were administered in grades 1-8 and science and social studies were added at grades 3-8. Only mathematics and science CRCT scores are reported. See complete score reports at the Georgia Office of Student Achievement website (<http://www.gaosa.org/>).

Georgia High School Graduation Tests (GHS GT)

GHS GTs are administered in writing, English, mathematics, science and social studies. Students are required to pass all GHS GTs to receive a high school diploma. These tests will be

supplemented with End-of-Course Tests (EOCTs) in Fall 2003. It is anticipated that the EOCTs will be more rigorous than the GHSGTs. EOCTs will be administered in Algebra 1, Geometry, Ninth Grade Literature and Composition, American Literature and Composition, Physical Science, Biology, United States History and Economics.

Percent of Students Requiring Learning Support

The percent of 2000 high school graduates entering a University System of Georgia (USG) institution and requiring learning support (remedial programs) in reading, writing or mathematics in Fall 2000 is reported. This is not disaggregated but provides an indication of student readiness for college level work.

Gap Analysis

In addition to improving scores on state achievement tests, PRISM strategies target reducing the race/ethnicity gap in student achievement. The difference between Black and White students and the difference between Black and Hispanic students (where a sufficient number of Hispanic students exist) are included as baseline data.

Atlanta City Schools

Total Enrollment in 2001-2002 = 55,812

Percent of Students in Each Racial/Ethnic group and on Free/Reduced Price Lunch 2001-2002

Asian	Black	Hispanic	Amer. Ind.	White	Multiracial	Free/Reduced Price Lunch
1	89	3		6	1	80

Percent of Students Meeting or Exceeding Standards in **Mathematics** on the Georgia CRCT
By Race/Ethnicity 2001-2002

Grade	Asian	Black	Hispanic	White	Atlanta Total	State Total
1	100	85	89	97	86	85
2	92	79	84	97	80	83
3	90	71	79	95	72	82
4	100	53	49	93	56	66
5	90	63	62	95	65	77
6	79	47	59	88	50	69
7	82	52	60	90	53	73
8	86	44	55	91	46	65

Percent of Students Meeting or Exceeding Standards in **Science** on the Georgia CRCT
By Race/Ethnicity 2001-2002

Grade	Asian	Black	Hispanic	White	Atlanta Total	State Total
3	93	61	61	93	63	77
4	100	63	64	95	65	80
5	90	67	74	98	69	83
6	78	67	73	96	67	83
7	78	64	66	92	65	82
8	87	51	64	91	54	76

Percent of Students Meeting or Exceeding Standards in **Science and Mathematics** on the GHSGT by Race/Ethnicity 2001-2002

Subject	Asian	Black	Hispanic	White	Atlanta Total	State Total
Mathematics	82	79	87	90	81	91
Science	50	62	48	86	63	72

Of the **21% of 2000 Graduates of Atlanta Public Schools** entering USG institutions, **40% required learning support** in reading, writing, and/or mathematics.

The Gap in the Percent of Students Meeting or Exceeding Standards in Mathematics and Science on the Georgia CRCT, 2001-2002

Grade	Mathematics		Science	
	White - Black	White - Hispanic	White-Black	White - Hispanic
1	12	8	NA	NA
2	18	13	NA	NA
3	24	16	32	32
4	40	44	32	31
5	32	33	31	24
6	41	29	29	23
7	38	30	28	26
8	47	36	40	27

The Gap in the Percent of Students Meeting or Exceeding Standards in Mathematics and Science on the Georgia High School Graduation Tests, 2001-2002.

Grade	Mathematics		Science	
	White - Black	White - Hispanic	White-Black	White - Hispanic
High School	11	3	24	38

Bryan County Schools

Total Enrollment in 2001-2002 = 5237

Percent of Students in Each Racial/Ethnic group and on Free/Reduced Price Lunch 2001-2002

Asian	Black	Hispanic	Amer. Ind.	White	Multiracial	Free/Reduced Price Lunch
1	17	2	0	78	2	34

Percent of Students Meeting or Exceeding Standards in **Mathematics** on the Georgia CRCT By Race/Ethnicity 2001-2002

Grade	Asian	Black	Hispanic	White	Multiracial	Bryan Co. Total	State Total
1		84		94	90	92	85
2		76	90	90	83	87	83
3		69		88		82	82
4		38		73		67	66
5		68		83		80	77
6		41		71	64	64	69
7		60		86		81	73
8		57		80		76	65

Percent of Students Meeting or Exceeding Standards in **Science** on the Georgia CRCT By Race/Ethnicity 2001-2002

Grade	Asian	Black	Hispanic	White	Multiracial	Bryan Co. Total	State Total
3		65		88		83	77
4		73		87		85	80
5		78		89		88	83
6		69		90	82	86	83
7		68		91		86	82
8		65		88		85	76

Percent of Students Meeting or Exceeding Standards in **Science and Mathematics** on the GHSGT by Race/Ethnicity 2001-2002

Subject	Asian	Black	Hispanic	White	Multiracial	Bryan Co. Total	State Total
Mathematics		86		96		95	91
Science		61		86		79	72

Of the **40% of 2000 Graduates from Bryan County Schools** entering USG institutions, **7% required learning support** in reading, writing, and/or mathematics.

The Gap in the Percent of Students Meeting or Exceeding Standards in Mathematics and Science on the Georgia CRCT, 2001-2002

Grade	Mathematics		Science	
	White - Black	White - Hispanic	White-Black	White - Hispanic
1	10		NA	NA
2	14	0	NA	NA
3	19		23	
4	35		14	
5	15		11	
6	30		21	
7	26		23	
8	23		23	

The Gap in the Percent of Students Meeting or Exceeding Standards in Mathematics and Science on the Georgia High School Graduation Tests, 2001-2002.

Grade	Mathematics		Science	
	White - Black	White - Hispanic	White-Black	White - Hispanic
High School	10		25	

Bulloch County Schools

Total Enrollment in 2001-2002 = 8287

Percent of Students in Each Racial/Ethnic group and on Free/Reduced Price Lunch 2001-2002

Asian	Black	Hispanic	Amer. Ind.	White	Multiracial	Free/Reduced Price Lunch
1	38	1	0	59	1	52

Percent of Students Meeting or Exceeding Standards in **Mathematics** on the Georgia CRCT By Race/Ethnicity 2001-2002

Grade	Asian	Black	Hispanic	White	Multiracial	Bulloch Co. Total	State Total
1		85	94	95	100	91	85
2		78	90	93	85	88	83
3		78		92		86	82
4		59		83		73	66
5		67		91		82	77
6		59		82		75	69
7		63		89		79	73
8		63		79		69	65

Percent of Students Meeting or Exceeding Standards in **Science** on the Georgia CRCT
By Race/Ethnicity 2001-2002

Grade	Asian	Black	Hispanic	White	Multiracial	Bulloch Co. Total	State Total
3		77		92		85	77
4		84		93		89	80
5		82		96		89	83
6		80		92		87	83
7		79		92		87	82
8		67		77		80	76

Percent of Students Meeting or Exceeding Standards in **Science and Mathematics** on the GHSGT by
Race/Ethnicity 2001-2002

Subject	Asian	Black	Hispanic	White	Multiracial	Bulloch Co. Total	State Total
Mathematics		75		95		89	91
Science		43		81		70	72

Of the **33% of 2000 Graduates of Bulloch County Schools** entering USG institutions, **15% required learning support** in reading, writing, and/or mathematics.

The Gap in the Percent of Students Meeting or Exceeding Standards in Mathematics and Science on the Georgia CRCT, 2001-2002

Grade	Mathematics		Science	
	White - Black	White - Hispanic	White-Black	White - Hispanic
1	10	1	NA	NA
2	15	3	NA	NA
3	14		15	
4	24		9	
5	24		14	
6	23		12	
7	26		13	
8	16		10	

The Gap in the Percent of Students Meeting or Exceeding Standards in Mathematics and Science on the Georgia High School Graduation Tests, 2001-2002.

Grade	Mathematics		Science	
	White - Black	White - Hispanic	White-Black	White - Hispanic
High School	20		38	

Camden County Schools

Total Enrollment in 2001-2002 = 9464

Percent of Students in Each Racial/Ethnic group and on Free/Reduced Price Lunch 2001-2002

Asian	Black	Hispanic	Amer. Ind.	White	Multiracial	Free/Reduced Price Lunch
1	25	3	0	67	4	38

Percent of Students Meeting or Exceeding Standards in **Mathematics** on the Georgia CRCT
By Race/Ethnicity 2001-2002

Grade	Asian	Black	Hispanic	White	Multiracial	Camden Co. Total	State Total
1		77	90	91	85	87	85
2		74	91	93	91	88	83

Grade	Asian	Black	Hispanic	White	Multiracial	Camden Co. Total	State Total
3	91	76	83	90	87	86	82
4		64	81	84	93	80	66
5		86	89	94	96	92	77
6		59	72	81	92	76	69
7		72	66	86	96	82	73
8		63	84	83	83	77	65

Percent of Students Meeting or Exceeding Standards in **Science** on the Georgia CRCT
By Race/Ethnicity 2001-2002

Grade	Asian	Black	Hispanic	White	Multiracial	Camden Co. Total	State Total
3	91	73	74	89	87	84	77
4		81	94	95	100	92	80
5		80	94	96	90	92	83
6		73	80	93	100	88	83
7		82	86	93	100	90	82
8		73	79	90	96	85	76

Percent of Students Meeting or Exceeding Standards in **Science and Mathematics** on the GHSGT by Race/Ethnicity 2001-2002

Subject	Asian	Black	Hispanic	White	Multiracial	Camden Co. Total	State Total
Mathematics		88		98	100	94	91
Science		52		81	73	73	72

Of the **44% of 2000 Graduates of Camden County Schools** entering USG institutions, **15% required learning support** in reading, writing, and/or mathematics.

The Gap in the Percent of Students Meeting or Exceeding Standards in Mathematics and Science on the Georgia CRCT, 2001-2002

Grade	Mathematics		Science	
	White - Black	White - Hispanic	White-Black	White - Hispanic
1	14	1	NA	NA
2	19	2	NA	NA
3	14	7	16	15
4	20	3	14	1
5	8	5	16	2
6	22	9	20	13
7	14	20	11	7
8	20	-1	17	11

The Gap in the Percent of Students Meeting or Exceeding Standards in Mathematics and Science on the Georgia High School Graduation Tests, 2001-2002.

Grade	Mathematics		Science	
	White - Black	White - Hispanic	White-Black	White - Hispanic
High School	10		29	

Chatham County Schools
Total Enrollment in 2001-2002 = 33,555

Percent of Students in Each Racial/Ethnic group and on Free/Reduced Price Lunch 2001-2002

Asian	Black	Hispanic	Amer. Ind.	White	Multiracial	Free/Reduced Price Lunch
2	65	2	0	29	2	53

Percent of Students Meeting or Exceeding Standards in **Mathematics** on the Georgia CRCT
By Race/Ethnicity 2001-2002

Grade	Asian	Black	Hispanic	White	Multiracial	Chatham Co. Total	State Total
1	98	76	89	92	85	81	85
2	94	69	81	89	84	75	83
3	94	68	87	89	85	74	82
4	91	51	65	80	66	62	66
5	84	61	81	85	86	69	77
6	91	47	69	78	60	57	69
7	93	56	76	81	80	64	73
8	95	51	67	75	68	59	65

Percent of Students Meeting or Exceeding Standards in **Science** on the Georgia CRCT
By Race/Ethnicity 2001-2002

Grade	Asian	Black	Hispanic	White	Multiracial	Chatham Co. Total	State Total
3	92	65	88	88	77	72	77
4	96	67	85	91	71	75	80
5	97	72	88	90	85	79	83
6	97	64	68	90	73	72	83
7	98	68	77	86	85	73	82
8	95	57	69	85	84	67	76

Percent of Students Meeting or Exceeding Standards in **Science and Mathematics** on the GHSGT by
Race/Ethnicity 2001-2002

Subject	Asian	Black	Hispanic	White	Multiracial	Chatham Co. Total	State Total
Mathematics	97	78	95	97	92	85	91
Science	67	46	69	85	92	59	72

Of the **29% of 2000 Graduates of Chatham County Schools** entering USG institutions, **22% required learning support** in reading, writing, and/or mathematics.

The Gap in the Percent of Students Meeting or Exceeding Standards in Mathematics and Science on the Georgia CRCT, 2001-2002

Grade	Mathematics		Science	
	White - Black	White - Hispanic	White-Black	White - Hispanic
1	16	3	NA	NA
2	20	8	NA	NA
3	21	2	23	0
4	29	15	24	6
5	24	4	18	2
6	31	9	26	22
7	25	5	18	9
8	24	8	28	16

The Gap in the Percent of Students Meeting or Exceeding Standards in Mathematics and Science on the Georgia High School Graduation Tests, 2001-2002.

Grade	Mathematics		Science	
	White - Black	White - Hispanic	White-Black	White - Hispanic
High School	19	2	39	16

Clarke County Schools

Total Enrollment in 2001-2002 = 11,011

Percent of Students in Each Racial/Ethnic group and on Free/Reduced Price Lunch 2001-2002

Asian	Black	Hispanic	Amer. Ind.	White	Multiracial	Free/Reduced Price Lunch
3	57	11	0	27	2	62

Percent of Students Meeting or Exceeding Standards in **Mathematics** on the Georgia CRCT
By Race/Ethnicity 2001-2002

Grade	Asian	Black	Hispanic	White	Multiracial	Clarke Co. Total	State Total
1	100	65	69	93	77	74	85
2	96	56	58	91	82	76	83
3	100	61	56	89	87	68	82
4	97	44	38	82	59	55	66
5	92	51	51	86	84	62	77
6	100	47	49	85	52	59	69
7	100	44	39	85	63	57	73
8	95	37	32	80	69	52	65

Percent of Students Meeting or Exceeding Standards in **Science** on the Georgia CRCT
By Race/Ethnicity 2001-2002

Grade	Asian	Black	Hispanic	White	Multiracial	Clarke Co. Total	State Total
3	80	56	47	89	74	63	77
4	100	60	53	95	89	69	80
5	89	62	51	92	87	69	83
6	96	67	54	94	80	73	83
7	100	58	53	91	89	68	82
8	89	51	49	92	67	67	76

Percent of Students Meeting or Exceeding Standards in **Science and Mathematics** on the GHSGT by Race/Ethnicity 2001-2002

Subject	Asian	Black	Hispanic	White	Multiracial	Clarke Co. Total	State Total
Math	89	78	96	97		88	91
Science	89	40	76	89		63	72

Of the **33% of 2000 Graduates of Clarke County Schools** entering USG institutions, **10% required learning support** in reading, writing, and/or mathematics.

The Gap in the Percent of Students Meeting or Exceeding Standards in Mathematics and Science on the Georgia CRCT, 2001-2002

Grade	Mathematics		Science	
	White - Black	White - Hispanic	White-Black	White - Hispanic
1	28	24	NA	NA
2	35	33	NA	NA
3	28	33	33	42

Grade	Mathematics		Science	
	White - Black	White - Hispanic	White-Black	White - Hispanic
4	38	44	35	42
5	35	35	30	41
6	38	36	27	40
7	41	46	33	38
8	43	48	41	43

The Gap in the Percent of Students Meeting or Exceeding Standards in Mathematics and Science on the Georgia High School Graduation Tests, 2001-2002.

Grade	Mathematics		Science	
	White - Black	White - Hispanic	White-Black	White - Hispanic
High School	19	1	49	13

Effingham County Schools
Total Enrollment in 2001-2002 = 8,411

Percent of Students in Each Racial/Ethnic group and on Free/Reduced Price Lunch 2001-2002

Asian	Black	Hispanic	Amer. Ind.	White	Multiracial	Free/Reduced Price Lunch
1	16	1	0	82		31

Percent of Students Meeting or Exceeding Standards in **Mathematics** on the Georgia CRCT
By Race/Ethnicity 2001-2002

Grade	Asian	Black	Hispanic	White	Effingham Co. Total	State Total
1		74		92	89	85
2		68	91	92	88	83
3		78		91	90	82
4		57		81	77	66
5		68		92	89	77
6		63		80	77	69
7		46		85	79	73
8		49		77	72	65

Percent of Students Meeting or Exceeding Standards in **Science** on the Georgia CRCT
By Race/Ethnicity 2001-2002

Grade	Asian	Black	Hispanic	White	Effingham Co. Total	State Total
3		67		88	85	77
4		78		94	91	80
5		76		86	93	83
6		75		92	90	83
7		75		90	88	82
8		65		85	81	76

Percent of Students Meeting or Exceeding Standards in **Science and Mathematics** on the GHSGT by Race/Ethnicity 2001-2002

Subject	Asian	Black	Hispanic	White	Effingham Co. Total	State Total
Mathematics		73		96	92	91
Science		35		75	70	72

Of the **22% of 2000 Graduates of Effingham County Schools** entering USG institutions, **15% required learning support** in reading, writing, and/or mathematics.

The Gap in the Percent of Students Meeting or Exceeding Standards in Mathematics and Science on the Georgia CRCT, 2001-2002

Grade	Mathematics		Science	
	White - Black	White - Hispanic	White-Black	White - Hispanic
1	18		NA	NA
2	24	1	NA	NA
3	13		21	
4	24		16	
5	24		10	
6	17		17	
7	39		15	
8	28		20	

The Gap in the Percent of Students Meeting or Exceeding Standards in Mathematics and Science on the Georgia High School Graduation Tests, 2001-2002.

Grade	Mathematics		Science	
	White - Black	White - Hispanic	White-Black	White - Hispanic
High School	23		40	

Evans County Schools

Total Enrollment in 2001-2002 = 1896

Percent of Students in Each Racial/Ethnic group and on Free/Reduced Price Lunch 2001-2002

Asian	Black	Hispanic	Amer. Ind.	White	Multiracial	Free/Reduced Price Lunch
0	46	6	0	47	1	71

Percent of Students Meeting or Exceeding Standards in **Mathematics** on the Georgia CRCT By Race/Ethnicity 2001-2002

Grade	Asian	Black	Hispanic	White	Evans Co. Total	State Total
1		58	54	93	71	85
2		72	78	85	79	83
3		73	84	85	79	82
4		29	40	63	44	66
5		51	94	79	63	77
6		54	73	83	66	69
7		85		94	90	73
8		60		82	71	65

Percent of Students Meeting or Exceeding Standards in **Science** on the Georgia CRCT By Race/Ethnicity 2001-2002

Grade	Asian	Black	Hispanic	White	Evans Co. Total	State Total
3		61	50	79	63	77
4		47	50	78	59	80
5		63	88	81	73	83
6		77	82	89	82	83
7		69		91	79	82
8		49		83	67	76

Percent of Students Meeting or Exceeding Standards in **Science and Mathematics** on the GHSGT by Race/Ethnicity 2001-2002

Subject	Asian	Black	Hispanic	White	Evans Co. Total	State Total
Mathematics		75		95	84	91
Science		37		66	51	72

Of the **36% of 2000 Graduates of Evans County Schools** entering USG institutions, **28% required learning support** in reading, writing, and/or mathematics.

The Gap in the Percent of Students Meeting or Exceeding Standards in Mathematics and Science on the Georgia CRCT, 2001-2002

Grade	Mathematics		Science	
	White - Black	White - Hispanic	White-Black	White - Hispanic
1	35	39	NA	NA
2	13	7	NA	NA
3	12	1	18	29
4	34	23	31	28
5	28	-15	18	-7
6	29	10	12	7
7	9		22	
8	22		34	

The Gap in the Percent of Students Meeting or Exceeding Standards in Mathematics and Science on the Georgia High School Graduation Tests, 2001-2002.

Grade	Mathematics		Science	
	White - Black	White - Hispanic	White-Black	White - Hispanic
High School	20		29	

Glynn County Schools

Total Enrollment in 2001-2002 = 11,724

Percent of Students in Each Racial/Ethnic group and on Free/Reduced Price Lunch 2001-2002

Asian	Black	Hispanic	Amer. Ind.	White	Multiracial	Free/Reduced Price Lunch
1	38	3		58		45

Percent of Students Meeting or Exceeding Standards in **Mathematics** on the Georgia CRCT By Race/Ethnicity 2001-2002

Grade	Asian	Black	Hispanic	White	Glynn Co. Total	State Total
1	90	71	64	92	83	85
2		70	64	90	81	83
3		69	70	89	76	82
4		39	52	74	58	66
5		62	80	87	77	77
6		51	63	80	69	69
7		61	73	87	75	73
8		51	61	81	68	66

Percent of Students Meeting or Exceeding Standards in **Science** on the Georgia CRCT
By Race/Ethnicity 2001-2002

Grade	Asian	Black	Hispanic	White	Glynn Co. Total	State Total
3		65	48	88	77	77
4		60	72	90	78	80
5		74	76	92	85	83
6		72	75	91	84	83
7		70	77	92	82	82
8		68	65	89	78	76

Percent of Students Meeting or Exceeding Standards in **Science and Mathematics** on the GHSGT by Race/Ethnicity 2001-2002

Subject	Asian	Black	Hispanic	White	Glynn Co. Total	State Total
Mathematics		87	80	99	95	91
Science		64	60	89	81	72

Of the **43% of 2000 Graduates of Glynn County Schools** entering USG institutions, **19% required learning support** in reading, writing, and/or mathematics.

The Gap in the Percent of Students Meeting or Exceeding Standards in Mathematics and Science on the Georgia CRCT, 2001-2002

Grade	Mathematics		Science	
	White - Black	White - Hispanic	White-Black	White - Hispanic
1	21	28	NA	NA
2	20	26	NA	NA
3	20	19	23	40
4	35	22	30	18
5	25	7	18	16
6	29	17	19	16
7	26	14	22	15
8	30	20	21	24

The Gap in the Percent of Students Meeting or Exceeding Standards in Mathematics and Science on the Georgia High School Graduation Tests, 2001-2002.

Grade	Mathematics		Science	
	White - Black	White - Hispanic	White-Black	White - Hispanic
High School	12	19	25	29

Jackson County Schools

Total Enrollment in 2001-2002 = 5179

Percent of Students in Each Racial/Ethnic group and on Free/Reduced Price Lunch 2001-2002

Asian	Black	Hispanic	Amer. Ind.	White	Multiracial	Free/Reduced Price Lunch
2	5	3	1	89	0	45

Percent of Students Meeting or Exceeding Standards in **Mathematics** on the Georgia CRCT
By Race/Ethnicity 2001-2002

Grade	Asian	Black	Hispanic	White	Jackson Co. Total	State Total
1		70	76	86	84	85
2	70	84	77	89	88	83
3		79	56	85	84	82

Grade	Asian	Black	Hispanic	White	Jackson Co. Total	State Total
4		68	44	72	71	66
5		77	62	84	82	77
6		57	50	75	72	69
7		62	73	79	76	73
8		64		73	73	65

Percent of Students Meeting or Exceeding Standards in **Science** on the Georgia CRCT

By Race/Ethnicity 2001-2002

Grade	Asian	Black	Hispanic	White	Jackson Co. Total	State Total
3		79	50	84	83	77
4		72	62	91	88	80
5		82	63	92	89	83
6		67	58	89	87	83
7		76	75	88	86	82
8		64		85	84	76

Percent of Students Meeting or Exceeding Standards in **Science and Mathematics** on the GHSGT

By Race/Ethnicity 2001-2002

Subject	Asian	Black	Hispanic	White	Jackson Co. Total	State Total
Mathematics				95	94	91
Science				79	73	72

Of the **31% of 2000 Graduates of Jackson County Schools** entering USG institutions, **31% required learning support** in reading, writing, and/or mathematics.

The Gap in the Percent of Students Meeting or Exceeding Standards in Mathematics and Science on the Georgia CRCT, 2001-2002

Grade	Mathematics		Science	
	White – Black	White - Hispanic	White-Black	White - Hispanic
1	16	10	NA	NA
2	5	12	NA	NA
3	6	29	5	34
4	4	28	19	29
5	7	22	10	29
6	18	25	22	31
7	17	6	12	13
8	9		21	

The Gap in the Percent of Students Meeting or Exceeding Standards in Mathematics and Science on the Georgia High School Graduation Tests, 2001-2002.

Grade	Mathematics		Science	
	White - Black	White - Hispanic	White-Black	White - Hispanic
High School				

Liberty County Schools

Total Enrollment in 2001-2002 = 11,097

Percent of Students in Each Racial/Ethnic group and on Free/Reduced Price Lunch 2001-2002

Asian	Black	Hispanic	Amer. Ind.	White	Multiracial	Free/Reduced Price Lunch
2	55	6		33	4	52

Percent of Students Meeting or Exceeding Standards in **Mathematics** on the Georgia CRCT
By Race/Ethnicity 2001-2002

Grade	Asian	Black	Hispanic	White	Multiracial	Liberty Co. Total	State Total
1	100	80	80	87	68	73	85
2	90	78	82	89	93	82	83
3	94	73	91	88	82	80	82
4	90	57	73	71	73	63	66
5	94	72	75	84	83	77	77
6	56	59	73	77	78	66	69
7	89	66	69	82	88	72	73
8	69	51	58	75	74	59	65

Percent of Students Meeting or Exceeding Standards in **Science** on the Georgia CRCT
By Race/Ethnicity 2001-2002

Grade	Asian	Black	Hispanic	White	Multiracial	Liberty Co. Total	State Total
3	87	72	85	84	73	78	77
4	90	76	79	85	78	80	80
5	100	81	90	93	88	86	83
6	83	81	82	92	96	85	83
7	83	78	88	90	90	83	82
8	77	64	65	85	84	71	76

Percent of Students Meeting or Exceeding Standards in **Science and Mathematics** on the GHSGT by Race/Ethnicity 2001-2002

Subject	Asian	Black	Hispanic	White	Multiracial	Liberty Co. Total	State Total
Mathematics	93	82	90	97	100	88	91
Science	57	56	70	83	96	65	72

Of the **34% of 2000 Graduates of Liberty County Schools** entering USG institutions, **20% required learning support** in reading, writing, and/or mathematics.

The Gap in the Percent of Students Meeting or Exceeding Standards in Mathematics and Science on the Georgia CRCT, 2001-2002

Grade	Mathematics		Science	
	White - Black	White - Hispanic	White-Black	White - Hispanic
1	7	7	NA	NA
2	11	7	NA	NA
3	15	-3	12	-1
4	14	-2	9	6
5	12	9	12	3
6	18	4	11	10
7	16	13	12	2
8	24	17	21	20

The Gap in the Percent of Students Meeting or Exceeding Standards in Mathematics and Science on the Georgia High School Graduation Tests, 2001-2002.

Grade	Mathematics		Science	
	White - Black	White - Hispanic	White-Black	White - Hispanic
High School	15	7	27	13

Oconee County Schools

Total Enrollment in 2001-2002 = 5,446

Percent of Students in Each Racial/Ethnic group and on Free/Reduced Price Lunch 2001-2002

Asian	Black	Hispanic	Amer. Ind.	White	Multiracial	Free/Reduced Price Lunch
2	7	3	0	87	1	16

Percent of Students Meeting or Exceeding Standards in **Mathematics** on the Georgia CRCT By Race/Ethnicity 2001-2002

Grade	Asian	Black	Hispanic	White	Oconee Co. Total	State Total
1		77	75	96	85	85
2		95	81	97	96	83
3		71		94	91	82
4	100	61	69	85	82	66
5	100	53	86	94	90	77
6		53	54	86	83	69
7	100	68	71	90	89	73
8	90	47	63	86	81	65

Percent of Students Meeting or Exceeding Standards in **Science** on the Georgia CRCT By Race/Ethnicity 2001-2002

Grade	Asian	Black	Hispanic	White	Oconee Co. Total	State Total
3		59		91	88	77
4	100	73	92	94	92	80
5	90	70	85	99	95	83
6		80	73	97	95	83
7	100	84	100	95	94	82
8	90	67	64	94	90	76

Percent of Students Meeting or Exceeding Standards in **Science and Mathematics** on the GHSGT by Race/Ethnicity 2001-2002

Subject	Asian	Black	Hispanic	White	Oconee Co. Total	State Total
Mathematics		90		98	98	91
Science		60		91	90	72

Of the **34% of 2000 Graduates of Oconee County Schools** entering USG institutions, **10% required learning support** in reading, writing, and/or mathematics.

The Gap in the Percent of Students Meeting or Exceeding Standards in Mathematics and Science on the Georgia CRCT, 2001-2002

Grade	Mathematics		Science	
	White - Black	White - Hispanic	White-Black	White - Hispanic
1	19	21	NA	NA
2	2	16	NA	NA
3	23		32	
4	24	16	21	2
5	41	8	29	14
6	33	32	17	24
7	22	19	11	-5
8	39	23	27	30

The Gap in the Percent of Students Meeting or Exceeding Standards in Mathematics and Science on the Georgia High School Graduation Tests, 2001-2002.

Grade	Mathematics		Science	
	White - Black	White - Hispanic	White-Black	White - Hispanic
High School	8		31	

Screven County Schools

Total Enrollment in 2001-2002 = 3053

Percent of Students in Each Racial/Ethnic group and on Free/Reduced Price Lunch 2001-2002

Asian	Black	Hispanic	Amer. Ind.	White	Multiracial	Free/Reduced Price Lunch
0	57	0	0	43	0	77

Percent of Students Meeting or Exceeding Standards in **Mathematics** on the Georgia CRCT
By Race/Ethnicity 2001-2002

Grade	Asian	Black	Hispanic	White	Screven Co. Total	State Total
1		79		95	85	85
2		83		96	88	83
3		73		91	81	82
4		47		81	62	66
5		57		82	67	77
6		59		74	65	69
7		63		82	72	73
8		44		77	59	65

Percent of Students Meeting or Exceeding Standards in **Science** on the Georgia CRCT
By Race/Ethnicity 2001-2002

Grade	Asian	Black	Hispanic	White	Screven Co. Total	State Total
3		59		82	69	77
4		70		91	78	80
5		60		84	70	83
6		85		94	89	83
7		74		91	82	82
8		66		85	75	76

Percent of Students Meeting or Exceeding Standards in **Science and Mathematics** on the GHSGT by Race/Ethnicity 2001-2002

Subject	Asian	Black	Hispanic	White	Screven Co. Total	State Total
Mathematics		94		96	93	91
Science		63		89	71	72

Of the **26% of 2000 Graduates of Screven County Schools** entering USG institutions, **22% required learning support** in reading, writing, and/or mathematics.

The Gap in the Percent of Students Meeting or Exceeding Standards in Mathematics and Science on the Georgia CRCT, 2001-2002

Grade	Mathematics		Science	
	White - Black	White - Hispanic	White-Black	White - Hispanic
1	16		NA	NA
2	13		NA	NA

Grade	Mathematics		Science	
	White - Black	White - Hispanic	White-Black	White - Hispanic
3	18		23	
4	34		21	
5	25		24	
6	15		9	
7	19		17	
8	33		19	

The Gap in the Percent of Students Meeting or Exceeding Standards in Mathematics and Science on the Georgia High School Graduation Tests, 2001-2002.

Grade	Mathematics		Science	
	White - Black	White - Hispanic	White-Black	White - Hispanic
High School	2		26	

HIGH SCHOOL COURSE TAKING PATTERNS FOR PARTICIPATING DISTRICTS

Data Provided by Local School Systems

2001-2002 school year

	Percent of 8 th Graders taking Algebra 1	Percent of HS Graduates Completing College Prep. Mathematics Sequence	Percent of HS Graduates Completing College Prep. Science Sequence
Clarke County	16%	62%	62%
Screven County	23%	42%	42%
Bulloch County	13%	57%	55%
Effingham County	16%	60%	60%
Jackson County	9%	48%	50%
Oconee County	20%	84%	84%
Evans County	20%	53%	53%
Atlanta City	46%	74%	74%
Camden County	12%	34%	34%
Glynn County	30%	55%	55%
Liberty County	15%	47%	47%
Chatham County	22%	56%	56%
Bryan County	17%	62%	62%

The college preparatory curriculum includes 4 mathematics classes through Algebra 2 and three science classes.

ADDITIONAL STUDENT ACHIEVEMENT DATA FOR GEORGIA

The core school district partners in PRISM are comparable to and below the norm state achievement tests. In some grades the participating districts are above the state pass rates. For comparison purposes, data comparing Georgia to the nation will be summarized to demonstrate that being “on target” in Georgia may mean that students are still below the nation.

The 2000 National Assessment of Educational Progress (NAEP), Georgia - Percent of Students Below Basic by Race/Ethnicity (www.gaosa.org)

	Black	Hispanic	White	All
Mathematics – Grade 4	62	57	25	42
Mathematics – Grade 8	70	66	27	45
Science – Grade 4	67	58	21	42
Science – Grade 8	75	68	29	48

SAT Quantitative Scores – Georgia
(Reflects most recent scores)

	Asian	Black	Hispanic	White	Total
Nation	558	424	456	531	512
Georgia	541	425	475	515	489
Atlanta City	474	414	457	580	428
Bryan		411		527	516
Bulloch		394		516	481
Camden		410		509	483
Chatham	532	415	476	514	463
Clarke	588	423		545	497
Effingham		398		492	478
Evans		392		490	441
Glynn	481	412		519	493
Jackson				492	484
Liberty	448	420	450	503	454
Oconee		447		531	518
Screven		432		507	472

COLLEGE READINESS

Percent of Students Requiring Learning Support (LS) in Mathematics

University System of Georgia, by Institution Type (Sector)

USG Office of Strategic Analysis and Research

First-Time Freshmen Fall 2000

Research Universities	.4%
Regional Universities	1.4%
State Universities	9.7%
State Colleges	25.4%
Two-year Colleges	31.5%

Notes: More USG students are required to take Learning Support in mathematics than in reading or English. More USG students volunteer to take Learning Support mathematics courses than in the other two areas.

Core Partner Universities:

Research Universities: University of Georgia and Georgia State University

Regional Universities: Georgia Southern University

State Universities: Armstrong Atlantic State University

COURSE GRADES IN MATH 1111 – COLLEGE ALGEBRA

Percent of Students Receiving C or Above, All USG Institutions

USG Office of Strategic Analysis and Research

1999-2000

Required LS in Mathematics	36%
Did not Require LS in Mathematics	50%

Comment: Students who required learning support in mathematics were less likely to successfully complete College Algebra.

TEACHER DATA

Teachers Prepared by Core Partner USG Institutions
Summer 2001- Spring 2002

Georgia State University						
	Black	White	Other*	Male	Female	Total
Elementary	29	61	6	5	91	96
MS Math	4	7	1	2	10	12
MS Science	4	11	0	3	12	15
Mathematics	3	3	2	1	7	8
Broad Field Sci.	5	21	1	4	23	27
Biology						0
Physics						0
Chemistry						0
University of Georgia						
	Black	White	Other*	Male	Female	Total
Elementary	3	87	2	6	86	92
MS Math	1	13	0	2	12	14
MS Science	1	14	0	1	14	15
Mathematics	2	26	1	7	22	29
Broad Field Sci.	1	17	2	7	13	20
Biology	0	9	1	3	7	10
Physics						0
Chemistry		1			1	1
Georgia Southern University						
	Black	White	Other*	Male	Female	Total
Elementary	22	92			114	114
MS Math	1	6		3	4	7
MS Science	1	6		2	5	7
Mathematics	2	4		1	5	6
Broad Field Sci.	1	10		5	6	11
Biology						0
Physics						0
Chemistry						0
Armstrong Atlantic State University						
	Black	White	Other*	Male	Female	Total
Elementary	8	63	3	5	69	74
MS Math	3	10		3	10	13
MS Science	4	18		7	15	22
Mathematics		1			1	1
Broad Field Sci.		1			1	1
Biology		2		1	1	2
Physics						
Chemistry						

Data were reported by the institutions. MS mathematics and MS science refer to middle school mathematics and science. At the middle school level, prospective teachers must complete two concentrations from the following four: English/language arts, mathematics, science and social studies. Students selecting mathematics and science as their concentrations are counted twice in the table.

*All other categories (Black, Hispanic, Asian, Multi-Racial and Other) were collapsed because of small sample sizes.

Praxis II Pass Rates in Mathematics and Science by Subject Test
By Participating Institution and for the State, 2001-2002

Disaggregated Data Not Available because of Small Sample Sizes for Most Tests

	AASU	GSU	G Southern	UGA	All Public
Elementary – Content	98%	98%	97%	97%	97%
MS Mathematics	65%	79%	*	100%	78%
MS Science	39%	73%	*	73%	54%
Mathematics: Content Knowledge	*	56%	69%	75%	65%
Mathematics: Proofs, Models, & Problems, Part I	*	60%	62%	80%	66%
Gen. Science: Content Knowledge	*	96%	90%	93%	91%
Gen. Science: Content Essays	*	92%	*	97%	86%
Biology: Content Knowledge	*	*	*	87%	69%
Biology: Content Essays	*	*	*	71%	58%
Chemistry: Content Knowledge	*	*	*	*	46%
Chemistry: Content Essays	*	*	*	*	50%
Physics: Content Knowledge					*

*Too few students tested to report results. Data Source: Georgia Office of Education Accountability 2001-2002 Annual Report Card on the Georgia Professional Standards Commission. (<http://www.ga-oea.org>)

Key: AASU – Armstrong Atlantic State University; GSU – Georgia State University; G Southern – Georgia Southern University; UGA – University of Georgia.

Pass Rates on Praxis II Tests for All Public and Private Institutions by Race/Ethnicity, 2001-2002

	White	Black	Other	Total
Mathematics	68%	8%	44%	53%
General Science	74%	50%	73%	70%

Note: Data collapsed across public and private institutions to obtain a sample large enough for disaggregation. Source: Georgia Professional Standards Commission.

Mathematics and Science Concentrations for Middle Grades Teaching Assignments

School System	2003		2004	
	Mathematics Concentration	Science Concentration	Mathematics Concentration	Science Concentration
Bryan County	6	6	7	1
Bulloch County	1	4	3	1
Camden County	13	13	17	21
Chatham County	13	10	61	38
Clarke County	3	6	3	9
Effingham County	1	8	1	5
Evans County	3	3	4	3
Glynn County	0	0	1	1
Jackson County	2	2	2	4
Liberty County	0	3	2	2
Oconee County	1	7	1	7
Screven County	1	0	1	0
Atlanta City	29	29	54	45
Total	73	91	157	137

Notes:

1. "Science concentration" includes the following certificate fields: Science 7-12; Biology 7-12; Physics 7-12; Chemistry 7-12; Earth/Space Science 7-12; Concentration - Science.
2. "Mathematics concentration" includes the following certificate fields: Mathematics 7-12; Concentration - Math.
3. Due to the small counts of mathematics and science concentrations for middle grades teaching assignments, race / ethnicity information is not presented. As the number of mathematics and science concentrations increase, disaggregation by race / ethnicity will be included.