UNC Center for School Leadership Development

Fourth Annual Report
On
Professional Development

Submitted to

The North Carolina State Board of Education

By

The University of North Carolina Board of Governors

September 2004 through August 2005

UNC Center for School Leadership Development
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UNC Center for School Leadership Development

Fourth Annual Report on Professional Development
September 2004 through August 2005

EXECUTIVE SUMMARY

Since 2001 the Board of Governors of the University of North Carolina has approved and presented an annual report of the professional development activities of the eight programs comprising the UNC Center for School Leadership Development, as well as NC QUEST. For the first three years the Center's report was developed and presented as required by the existing language of G.S. 116-11(12a) and utilized a format devised and agreed upon by staff from the North Carolina General Assembly, the North Carolina Department of Public Instruction and the UNC Center for School Leadership Development. This fourth annual report is the most recent, and final, report utilizing this format. Changes in G.S. 116-11(12a) and G.S. 115C-12(26), made by the 2005 session of the General Assembly, will result in a different format for future reports.

During the period September 2004 through August 2005, the eight programs comprising the UNC Center for School Leadership Development provided professional development activities to more than 39,000 participants. These participants included current employees from all 115 local school systems throughout North Carolina and a majority of the 97 charter schools in North Carolina. These participants also included individuals enrolled in pre-service teacher/administrator training offered as part of the UNC CSLD programs. The full report contains a listing of each CSLD-sponsored event (by program), a description of the activity, the number of participants served, the LEA's and charter schools served, the activity's link to the State Board of Education priorities and goals and, when available, an evaluation of the activity.

The North Carolina Center for the Advancement of Teaching (NCCAT), the North Carolina Mathematics and Science Education Network (NC-MSEN), the North Carolina State Improvement Project/North Carolina Restructuring Initiative in Special Education (NCSIP/NC RISE), the North Carolina Teacher Academy (NCTA), the Principals' Executive Program (PEP) and North Carolina Quality Educators through Staff Development (NC QUEST) provide in-service professional development to teachers and administrators currently employed in North Carolina's public schools. The North Carolina Model Teacher Education Consortium (NCMTEC), the North Carolina Teachers of Excellence for All Children (NC TEACH) and the North Carolina Principal Fellows Program (PFP) sponsor pre-service training for aspiring public school teachers and school-based administrators.

While these professional development activities address all five of the State Board of Education's Strategic Priorities, the two priorities receiving the most attention are Priority 1: High Student Performance and Priority 3: Quality Teachers, Administrators and Staff. Under Strategic Priority 1, the goals most often addressed are 1.2 Rigorous and relevant academic standards and assessment systems for every student, 1.3 Every student masters

essential knowledge and skills, and 1.5 Every student a life long learner and ready for work. Under Strategic Priority 3, the goals most often addressed are 3.1 Professional preparation aligned with state priorities, 3.4 A system to ensure high performance of teachers, administrators, and staff, 3.5 A system of continuous learning and professional development to support high performance of all employees, and 3.6 High ethical and professional standards for all employees.

Beginning with the 2005-06 school year the UNC Board of Governors (and the North Carolina State Board of Education) will follow a new progression of coordinated steps regarding professional development for public school personnel. This new progression of steps, as specified in the 2005 changes to G.S.116-11(12a) (and G.S. 115C-12(26)) is:

1. The State Board of Education, in collaboration with the Board of Governors of The University of North Carolina, identifies and makes recommendations regarding meaningful professional development programs for professional public school employees. (G.S.115C-12(26))
2. The Board of Governors implements, administers, and revises programs for meaningful professional development for professional public school employees based upon the evaluations and recommendations made by the State Board of Education. (G.S.116-11(12a))
3. These recommendations and professional development programs are aligned with State education goals and directed toward improving student academic achievement. (both G.S.115C-12(26) and G.S.116-11(12a))
4. The Board of Governors submits to the State Board of Education an annual report evaluating the professional development programs administered by the Board of Governors. (G.S.116-11(12a))
5. The State Board annually evaluates and, after consultation with the Board of Governors, makes recommendations regarding professional development programs based upon reports submitted by the Board of Governors. (G.S.115C-12(26))

Next year the annual report specified in step #4 will replace the annual report that has been submitted for the 4 prior years. In previous years the prescribed report included only professional development activities provided by the Center for School Leadership Development. Now the report simply addresses "the professional development programs administered by the Board of Governors". It is to be determined what this terminology encompasses. The format for the new report, which has not been developed, will depend upon the criteria used for evaluating the professional development programs and the information needed by both the Board of Governors and the State Board of Education.

UNC Center for School Leadership Development

Professional Development Services

September 2004 – August 2005

Fourth Annual Report

Introduction

Since 2001 the Board of Governors of the University of North Carolina has compiled and presented an annual report of the professional development activities of the programs comprising the UNC Center for School Leadership Development. For the first three years the Center's report was developed and presented as required by the existing language of G.S. 115C-12(26) and G. S. 116-11(12a). In August 2005 these statutes were amended and now require that, "The Board of Governors of The University of North Carolina shall implement, administer, and revise programs for meaningful professional development for professional public school employees based upon the evaluations and recommendations made by the State Board of Education under G.S. 115C-12(26). The programs shall be aligned with State education goals and directed toward improving student academic achievement. The Board of Governors shall submit to the State Board of Education an annual report evaluating the professional development programs administered by the Board of Governors." Further, "The State Board of Education, in collaboration with the Board of Governors of The University of North Carolina, shall identify and make recommendations regarding meaningful professional development programs for professional public school employees. The programs shall be aligned with State education goals and directed toward improving student academic achievement. The State Board shall annually evaluate and, after consultation with the Board of Governors, make recommendations regarding professional development programs based upon reports submitted by the Board of Governors under G.S. 116-11(12a)."

This document is the annual report of the professional development programs offered through the eight programs in the UNC Center for School Leadership Development for the period September 2004 through August 2005.

UNC Center for School Leadership Development – Mission

The UNC Board of Governors created the University of North Carolina Center for School Leadership Development (CSLD) in 1997. The Center was created in order to extend the resources of higher education to the public schools by offering a comprehensive selection of professional development opportunities designed for educators, ranging from novice teachers to veteran administrators and teacher-leaders. Professional development programs conducted within the Center are aligned with the State Board of Education

goals that incorporate the belief that every student is entitled to competent, caring administrators and teachers (see Appendix A).

The UNC Center for School Leadership Development's mission, in alignment with the strategic priorities of the University and the public schools, is to promote a community of individual and collective learners who meet the leadership challenges of advancing student and school success in North Carolina. The Center does this through the design and delivery of premier professional development for public school educators and contributions to school-based research providing evidence of best practices.

In keeping with this mission during the 2004-05 school year the Center programs continued to offer outstanding professional development opportunities to their various clients. The North Carolina Math Science Education Network, through NC PIMS, provided 12 eastern North Carolina school districts an opportunity to engage their teachers in broadening their knowledge of mathematics content and developing teacher leadership skills. The Principals' Executive Program developed instructional leadership, data analysis and technology utilization skills in more than 1,100 principals and assistant principals. The North Carolina Teacher Academy provided multiple staff development sessions to 33 schools in the 16 high priority school districts, and made 6,552 teacher contacts in the areas of literacy, technology, school leadership, classroom management and differentiated instruction across the state. The North Carolina Center for the Advancement of Teaching continued to focus on retaining highly qualified teachers and was awarded a grant from the Wachovia Foundation to serve and retain beginning teachers in low wealth, high need school systems. North Carolina Teachers of Excellence for All Children prepared over 350 new teachers and continues to prepare more secondary mathematics and science teachers than any single teacher preparation program in North Carolina. The North Carolina Model Teacher Education Consortium made it possible for 1,486 participants to take 2,148 reduced-tuition courses in pursuit of their initial teaching license. The Principal Fellows Program ushered 71 members of their 12th Class through their first year of coursework in Masters in School Administration Programs at 11 UNC campuses and provided 74 members of Class 11 with a yearlong, fulltime administrative internship in public schools across the state. These are only a few examples of the multitude of opportunities cataloged in this report.

UNC Center for School Leadership Development – History

In 1993 the legislative Educational Leadership Task Force recommended the creation of a state Leadership Academy to serve the needs of all school administrators statewide. In 1995 the State Board of Education (SBE) adopted a resolution urging the General Assembly to enact appropriate legislation to support the full list of recommendations from the Educational Leadership Task Force. The SBE also recommended the creation of a Leadership Academy that would incorporate the Principals' Executive Program. In 1995 the General Assembly passed legislation (House Bill 29) requiring the UNC Board of Governors to conduct a study and to develop a plan for ongoing professional development and continuing education for all public school teachers and administrators. Four of the current programs which comprise the UNC Center for School Leadership

Development were identified to be part of the plan developed by the Board of Governors: the NC Center for the Advancement of Teaching, the Teacher Academy, the Principals' Executive Program and the NC Mathematics-Science Education Network.

In 1997, the president of the University of North Carolina recommended to the University Committee on Educational Planning, Policies and Programs the establishment of an inter-institutional center, the UNC Center for School Leadership Development. The Center was to be established by March 30, 1997 and included the following programs: an Executive Academy for superintendents, the Principals' Executive Program, the Principal Fellows Program, the NC Center for the Advancement of Teaching, the NC Center for the Prevention of School Violence, the NC Mathematics-Science Education Network and the NC Teacher Academy. In subsequent years the NC Model Teacher Education Consortium, NC Teachers of Excellence for All Children, and NC State Improvement Project/NC Restructuring Initiative in Special Education were added to the roster of programs under the umbrella of the UNC-CSLD. The Executive Academy has not been developed. The NC Center for the Prevention of School Violence was transferred from the Center to the Department of Juvenile Justice in 2000.

In October 2001 a new UNC-CSLD facility was completed and opened for business. Along with the UNC Vice-President for University-School Programs and the Professional Development Coordinator, the facility houses five of the Center's eight programs: the North Carolina Mathematics and Science Education Network (NC-MSEN), North Carolina Teachers of Excellence for All Children (NC TEACH), Principals' Executive Program (PEP), North Carolina Principal Fellows Program (PFP), and the North Carolina State Improvement Project/North Carolina Restructuring Initiative in Special Education (NCSIP and NC RISE). The Center's Professional Development Coordinator directs the federally-funded North Carolina Quality Educators through Staff Development and Training (NC QUEST).

The other three CSLD programs are located in offices outside the CSLD. The North Carolina Model Teacher Education Consortium (NC MTEC) has offices in Raleigh. The North Carolina Center for the Advancement of Teaching (NCCAT) is located in Cullowhee. The North Carolina Teacher Academy (NCTA) has offices in Durham.

The CSLD facility also houses the James B. Hunt, Jr. Institution for Education Leadership and Policy and LEARN NC. These two organizations are not included in the eight programs that operate as part of the CSLD.

Additional information, including links to all of the Center's programs and affiliated partners, can be accessed through the CSLD web site at csld.northcarolina.edu.

The Report

The following pages detail the professional development provided statewide by NC QUEST and the eight programs comprising the UNC-CSLD. The NC QUEST activities are summarized in brief narratives. The activities of the eight programs are

presented in table format with a table for each program. Each table includes a brief description of each program activity along with dates, the number of participants and Local Education Agencies (LEA's) served, the connection to the SBE's priorities and strategic goals and, when applicable, participant rating of the activity. The tables are arranged in alphabetical order by the name of the program.

NC QUEST – NC Quality Educators through Staff Development and Training

The UNC-CSLD Professional Development Coordinator serves as principal investigator for the ESEA Title II-A funds for NC institutions of higher education. Responsibilities include administering the competitive grant process for partnerships between higher education institutions and high need LEA's and monitoring the professional development projects funded by the grants. These Improving Teacher Quality State Grants aim to increase the academic achievement of all students by helping schools and school districts improve teacher and principal quality and ensure that all teachers are highly qualified by the required deadline of 2005-06.

Under the competitive grant process, nine awards were made in Cycle II around the state to fund projects focused on math/science pedagogical competence, instructional leadership, mentoring, and reading. These awards totaled $1,604,567 and the majority of the project activities took place during the 2004-05 school year. The following descriptions identify the IHE's and the LEA's involved in this high-quality professional development:

- Appalachian State University and Alleghany County Schools – This grant focused on assisting content area teachers in increasing content and pedagogical skills and enhancing instruction through technology.
- Fayetteville State University and Weldon City Schools – This project focused on increasing the number of highly qualified K-3 elementary teachers who are knowledgeable and proficient in K-3 reading instruction.
- The University of North Carolina at Greensboro and Guilford County Schools – This project focused on improving reading comprehension and student achievement in science and mathematics at the middle and high school levels.

- The University of North Carolina at Pembroke, Hoke County and Robeson County Schools – This grant focused on developing a comprehensive induction program for middle school math/science teachers, improving math/science instruction, and assisting math/science teachers in acquiring appropriate credentials.

The following partnerships received grants to continue projects begun during Cycle I of NC QUEST:

- Elizabeth City State University, Bertie, Edenton-Chowan, Edgecombe, Halifax and Perquimans County Schools as well as SERVE – This grant continued the work of increasing the knowledge and pedagogical skills of middle school math/science teachers focusing on those teaching out-of-field.
- North Carolina State University and Vance County Schools – This project continued the work of broadening the knowledge and skills of teacher mentors with a focus on mentoring lateral entry and newly licensed teachers.
- The University of North Carolina at Charlotte, Charlotte-Mecklenburg, Anson County, Newton-Conover City and Richmond County Schools – This grant continued the work of improving instructional leadership and collaboration skills of second and third year principals and assistant principals.
- The University of North Carolina at Wilmington, Brunswick County, Columbus County, Sampson County and Clinton City School systems – This project continued to increase the knowledge of content and pedagogical skills of middle school math/science teachers as well as increase the skills of their teacher mentors.
- Western Carolina University, Asheville City, Cherokee County, Clay County, Madison County and Swain County Schools and the North Carolina Center for the Advancement of Teaching – This grant continued the work of broadening the knowledge and skills of teacher mentors working with beginning teachers.

UNC-CSLD Professional Development Activities

September 2004 – August 2005

Program Name: North Carolina Center for the Advancement of Teaching (NCCAT)

Professional Development Activity	Date(s) offered	Number of Participants & LEAs Served	Brief Description of activity including intended audience	Supports/directly relates to SBE priorities and/or SCOS	Participant evaluation of activity
Beaches: Yesterday, Today, and Tomorrow	Sept. 13-17, 2004	#23 Beaufort, Buncombe, Cabarrus, Caldwell, Chatham, Cherokee, Davidson, Forsyth, Guilford, Kings Mountain, Rowan- Salisbury, Swain, Union, Wake	**Audience:** All North Carolina public school teachers **Description:** In this seminar teachers explored the world of barrier islands. **Participant implementation**: The NCCAT 2003-2004 Impact Survey measured the impact of NCCAT professional development experiences. Teachers indicated that as a result of the NCCAT experience they a) contributed significantly to high student achievement, b) had a recharged interest in teaching, c) acquired knowledge from the seminar they could apply to teaching, d) varied teaching strategies more often, and e) were more reflective of their teaching practices. Principals indicated as a result of their teachers attending NCCAT that teachers a) were provided the necessary resources to attend NCCAT, b) had a recharged interest in teaching, c) had a renewed commitment to remain in teaching, d) acquired knowledge from the seminar and e) acquired skills from the seminar that they could apply in their teaching. End-of Seminar Evaluations (2003-2004) revealed that 98% or more teachers perceived that NCCAT seminars were intellectually stimulating and effective learning experience providing valuable knowledge and skills. Teachers indicated that the experiences were renewing, had elements they could use in their teaching, and reaffirmed their commitment to education. **Results:** A recent analysis of teachers who attended an NCCAT seminar from July 1, 2000	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts Guidance Healthful Living Curriculum Information Skills Mathematics Science Social Studies	4.80

			– June 30, 2003 revealed that 96% remain in education in North Carolina's public schools. This compares to 88% for North Carolina and 84% nationally.		
Holistic Health	Sept. 13-17, 2004	#23 Cabarrus, Camp Lejeune, Chapel Hill-Carrboro, Charlotte/Mecklenburg, Duplin, Durham, Montgomery, Stanly, Wake, Wayne, Wilson	**Audience:** All North Carolina public schools teachers. **Description:** In this seminar, participants examined a variety of alternative approaches that can lead to a more holistic lifestyle. Emphasis was placed on preventative practices that help reduce stress and control potentially debilitating illnesses. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Healthful Living; Grade Level K-12 Competency Goal 1 Competency Goal 2 Competency Goal 5 Competency Goal 11 Guidance; Grade Level K-12 Competency Goal 1 Competency Goal 7 Information Skills; Grade Level K-12 Competency Goal 5 English Language Arts; Grade Level K-12 Competency Goal 4	4.89
Songs and Tales of Whales and Sails	Sept. 13-20, 2004	#22 Cabarrus, Caldwell, Catawba, Charlotte/ Mecklenburg, Cumberland, Durham, Forsyth, Franklin, Lee New Hanover, Wake	**Audience:** All North Carolina public schools teachers. **Description:** This seminar explores the life, history, stories, and songs of 18th century sailors. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts Information Skills Mathematics Science Social Studies	4.88
Stargazing: Majesty and Mystery of the Night Sky	Oct. 11-15, 2004	#23 Alexander, Buncombe, Cabarrus, Catawba,	**Audience:** All North Carolina public schools teachers. **Description:** In this seminar teachers studied practical stargazing, the celestial sphere, how	SBE Priority 1&3 SCOS: Arts Education	4.95

		Craven, Davidson, Guilford, Harnett, Lenoir, Nash-Rocky Mount, New Hanover, Onslow, Randolph, Vance, Wake, Wilkes	the sky seems to move and change, how to identify stars and constellations, the cycles of the moon and planets, and more. Participants learned how to create and find additional resources to further learning and teaching about sky phenomena. **Participant implementation**: See first entry. **Results:** See first entry.	Computer/Technology English Language Arts Guidance Healthful Living Curriculum Information Skills Mathematics Science Social Studies	
The Cherokee Way	Oct. 11-15, 2004	#21 Ashe, Burke, Chatham, Cherokee, Craven, Durham, Graham, Guilford, Harnett, McDowell, Nash-Rocky Mount, Roanoke Rapids, Rowan-Salisbury, Wake	**Audience:** All North Carolina public schools teachers. **Description:** This seminar focused on the Eastern Band of the Cherokee in the mountains of western North Carolina and their efforts to retain their unique way of life in the midst of a rapidly changing world. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education English Language Arts Guidance Mathematics Science Social Studies	4.95
A Place of Refuge: The Great Smoky Mountain National Park	Oct. 18-22, 2004	#22 Beaufort, Caldwell, Chatham, Craven, Forsyth, Fort Bragg, Harnett, Hickory City, Iredell-Statesville, Jackson, Johnston, Orange, Randolph, Wake, Wilkes	**Audience:** All North Carolina public schools teachers. **Description:** This seminar studied the writings of Horace Kephart and the photographs of George Masa and their contributions in helping preserve the Great Smoky Mountain National Park. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education English Language Arts Guidance Mathematics Science Social Studies	4.92

The Heart of Teaching	Oct. 22-24, 2004	#17 Alamance-Burlington, Asheville City, Buncombe, Charlotte/ Mecklenburg, Cleveland, Davidson, Durham, Gaston, Guilford, Hickory City, Newton-Conover, Polk, Randolph, Stanly	**Audience:** All North Carolina public schools teachers. **Description:** This is a two-year program of sustained exploration of the heart and soul of teaching. During four weekend mini-seminars each year, a group of dedicated colleagues reflect on their personal and professional lives, through the inspiration of poetry and the arts. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education English Language Arts Guidance	NA
Mountain Ghosts & Other Curious Tales of Appalachia	Oct. 18-22, 2004	#23 Catawba, Clay, Fort Bragg, Guilford, Johnston, Onslow, Randolph, Richmond, Robeson, Thomasville City, Yancey	**Audience:** All North Carolina public schools teachers. **Description:** This seminar helped teachers understand how to capitalize on students' natural curiosity about strange events, integrating storytelling, reading, writing, and North Carolina history and geography. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: English Language Arts; Goal 1 Goal 2 Goal 3 Goal 4 Goal 5 Science; Goal 3 Goal 4 Arts Education (Music) Goal 1	4.86
Teaching the Holocaust: Resources and Reflections	Oct. 31-November 5, 2004	#23 Cabarrus, Gaston, Greene, Guilford, Jackson, Montgomery, Mooresville City, Newton-Conover, Onslow, Polk, Richmond, Robeson, Union	**Audience:** All North Carolina middle and secondary public school teachers **Description:** The aim of this seminar was to gain an understanding of the precursors, events, and consequences of the Holocaust and to grapple with the problem of how best to convey this history and its meaning to students. This seminar was held in Washington, DC in collaboration with the US Holocaust Memorial Museum. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Healthful Living; Grade Level K-12 Competency Goal 1 Competency Goal 2 Competency Goal 5 Competency Goal 11 Guidance; Grade Level K-12 Competency Goal 1 Competency Goal 7	4.84

				Information Skills; Grade Level K-12 Competency Goal 5 English Language Arts; Grade Level K-12 Competency Goal 4	
Biltmore House: Its People and Impact	Nov. 8-12, 2004	#24 Avery, Charlotte/ Mecklenburg, Chatham, Clinton City, Forsyth, Fort Bragg, Haywood, New Hanover, Pitt, Rowan-Salisbury, Thomasville City, Union, Watauga, Wayne Wilson	**Audience:** All North Carolina public schools teachers. **Description:** This seminar focused on the Biltmore Estate and its impact on North Carolina heritage. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education English Language Arts Guidance Mathematics Science Social Studies	4.84
Seeking Your Inner Vision	Nov. 1-5, 2004	#21 Burke, Chapel Hill-Carrboro, Charlotte/ Mecklenburg, Cumberland, Davidson, David, Durham, Forsyth, Iredell-Statesville, Lee, Lincoln, Vance, Wake	**Audience:** All North Carolina public schools teachers. **Description:** This seminar explores our lifelong habits and how we respond to daily stress. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 Arts Education Guidance Healthful Living English Language Arts Information Skills Social Studies Visual Arts	4.97
Celebrating Diversity Through Children's Literature	Nov. 15 19, 2004	#22 Ashe, Catawba, Chapel Hill-Carrboro, Charlotte/ Mecklenburg, Cleveland, Guilford, Harnett, Iredell-Statesville, Montgomery, Stanly, Union, Wake	**Audience:** All North Carolina public school teachers **Description:** This seminar explores multicultural children's literature though fiction, nonfiction, folk tales, fairy tales, legends, and poetry. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Social Studies Science Information Skills Arts Education, Music, Grades K-12	4.95

				Music, Grades K-12 English Language Arts	
Finding My Place: Inclusive Classrooms	Nov. 15-19, 2004	#21 Charlotte/ Mecklenburg, Cumberland, Fort Bragg, Gaston, Greene, Guilford, Iredell-Statesville, Nash-Rocky Mount, Onslow, Pasquotank, Person	**Audience:** All North Carolina public school teachers **Description:** Evolutionary change through time has intrigued scientists and inspired writers for centuries. This seminar explored many perspectives of evolution through the ages. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Anthropology; Goal 2 Goal 3 History; Goal 6 Goal 7 Psychology; Goal 12 Sociology; Goal 2 Goal 8	4.94
Hurricanes: In the Eye of the Storm	Nov. 15-19, 2004	#21 Carteret, Chapel Hill, Durham, Forsyth, Mitchell, Moore, Rowan-Salisbury, Surry, Transylvania, Union Wilson, Yancey	**Audience:** All North Carolina public school teachers **Description:** The seminar focuses on hurricanes and their formation and impact on ecology and the economy. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 English Language Arts Healthful Living Mathematics Science Social Studies	4.76
Teacher Scholars in Residence	Nov. 8-12, 2004	#18 Buncombe, Charlotte/ Mecklenburg, Forsyth, Pasquotank, Person, Union, Wake	**Audience:** All North Carolina public school teachers **Description:** The Teacher-Scholar program offers educators a short-term residential experience for study and research. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3	4.93
National Board Support Seminar	Sept. – Nov. 2004	#194 Alexander, Beaufort, Buncombe, Cabarrus, Caldwell, Carteret, Catawba, Chapel Hill-Carrboro, Charlotte/ Mecklenburg,	**Audience:** All North Carolina public schools teachers. **Description:** These five-day seminars provided the professional support that candidates need to reflect on their teaching practices and begin preparing the portfolio presentation required by the National Board for Professional Teaching Standards.	SBE Priority 1&3	4.97 4.96 4.97 4.89

		Cleveland, Clinton City, Craven, Cumberland, Davidson, Davie, Durham, Edenton/Chowan, Edgecombe, Gaston, Granville, Guilford, Harnett, Henderson, Hoke, Iredell-Statesville, Jackson, Kings Mountain, Lee, Lenoir, Lincoln, Macon, McDowell, Mitchell, Moore, Nash-Rocky Mont, New Hanover, Northampton, Orange, Pasquotank, Randolph, Robeson, Rockingham, Rowan-Rutherford, Salisbury, Rutherford, Scotland, Shelby City, Stanly, Surry, Union, Vance, Wake, Wayne, Whiteville City, Wilkes, Wilson	**Activity follow-up** Facilitators and NCCAT staff continue to support candidates throughout the process. We focus on stressing the lessons learned during the candidates' intensive week at NCCAT. Further, emphasis is placed on the immediate benefits for teaching practice—and most importantly student learning—gained by critical reflection on a teacher's day-to-day teaching techniques. **Participant Implementation** Many NCCAT NB support seminar participants establish support programs and networks to foster a culture of success in their own counties. This helps colleagues the following year to use the best practices in working vigorously towards achievement and improvement in their own teaching methods. NCCAT staff serves as a resource to newly National Board Certified Teachers to launch support programs and assistance networks. **Results** NCCAT is helping to close the achievement gap and improving student performance by assisting North Carolina teachers achieve National Board Certification. An independent study confirms the effectiveness of National Board Certification. This expansive study of 600,000 North Carolina students shows that students make greater academic gains when taught by a National Board Certified Teacher. From 1996-2002, 72% of the 1,538 candidates attending a NCCAT National Board Support Seminar achieved certification as compared to approximately 50% statewide and 46% nationally.		4.91 4.96 4.97 4.95 4.98 4.96
Connections	Sept. 2004 – Nov. 2004	#94 Burke, Duplin, Edgecombe, Henderson, Hoke, Martin, Montgomery, Johnston	**Audience:** Beginning teachers **Description:** This is a year-long program designed for first-year teachers to encourage them to stay in the teaching profession. Topics covered include classroom management, assessment, differentiated instruction, team building, brain-based research, total quality tools, diverse student populations, and other	SBE Priority 1&3	To be determined at the completion of the program.

			general concerns of beginning teachers. **Participant implementation**: Reflective evaluations indicate that participants implement skills gained in each session. **Results:** NCCAT has been extremely successful in contributing to the retention of initially licensed teachers. From 2000-2003, 95% of initially licensed teachers who have participated in an NCCAT beginning teachers program remained in teaching in a North Carolina public school – as compared to 67% nationally. Many of the remaining 5% have relocated to another state and are teaching there. Thus, the attrition rate for beginning teachers who have participated in an NCCAT beginning teachers program is 5%. This compares to the national rates: 33% leave teaching within the first 3 years and 46% leave teaching in the first 5 years.		
K-3 Literacy Mebane Grant	Sept. – Nov. 2004	#28 Asheville City, Davie County, Lexington City	**Audience:** K-3 teachers from 3 identified systems. **Description:** This 4-year program is designed to increase the effectiveness of teaching reading in grades K-3. **Activity follow-up:** This is a 4 year project which involves multiple programs and e-mail group activities. **Participant implementation:** System coordinators delineate specific steps taken to strengthen student achievement. In Asheville, seminar participants led the system in an in-depth study and revision of the reading program; Davie County teachers met quarterly to establish literacy benchmarks and an alignment of the benchmarks with report cards; Lexington City teachers completed comprehensive integrated units to guide instruction in all schools. **Results:** Teachers and their system leaders report a high degree of satisfaction with the work they have completed.	SBE Priority 1&3 SCOS: English Language Arts; (K-3) Goal 1 Goal 2 Goal 3 Goal 4 Goal 5	4.78
Conferences and Meetings	Sept. – Nov. 2004	# 312 Buncombe, Charlotte/ Mecklenburg, Gaston,	**Audience:** Educators **Description:** School faculty and staff members, school system administrators, and other educational institutions and groups may	SBE Priority 1&2	NA

		Jackson, Montgomery, Roanoke Rapids City, Robeson, Wake, Winston-Salem/Forsyth	schedule short-term conference or day-meetings at the NCCAT facility, when space is available.		
Best Practices for Motivating African American Students	Nov. 30 – Dec. 4, 2004	#23 Beaufort, Buncombe, Cabarrus, Caldwell, Chatham, Cherokee, Davidson, Forsyth, Guilford, Kings Mountain, Rowan- Salisbury, Swain, Union, Wake	**Audience:** All North Carolina public school teachers **Description:** In this seminar teachers explored the most effective strategies for motivating African American students. Plans were also developed to help "close the gap" in their own school. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts Guidance Healthful Living Curriculum Information Skills Mathematics Science Social Studies	4.80
Smoky Mountain Winter Traditions	Nov. 30- Dec. 4, 2004	#23 Cabarrus, Camp Lejeune, Chapel Hill-Carrboro, Charlotte/ Mecklenburg, Duplin, Durham, Montgomery, Stanly, Wake, Wayne, Wilson	**Audience:** All North Carolina public school teachers. **Description:** In this seminar participants examined the rich culture and history of winter in the Great Smokies. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Healthful Living; Grade Level K-12 Competency Goal 1 Competency Goal 2 Competency Goal 5 Competency Goal 11 Guidance; Grade Level K-12 Competency Goal 1 Competency Goal 7 Information Skills; Grade Level K-12 Competency Goal 5 English Language Arts; Grade Level K-12 Competency Goal 4	4.89

Kaleidoscope: Order, Symmetry, and Change	Dec. 6-10, 2004	#20 Beaufort, Bladen, Buncombe, Cabarrus, Charlotte/ Mecklenburg, Duplin, Granville, Guilford, Harnett, Johnston, Montgomery, Surry, Union, Wake, Wayne,	**Audience:** All North Carolina public school teachers. **Description:** The seminar combined the hands-on experience of constructing kaleidoscopes, the practicality of how kaleidoscopes can be used educationally, and an exploration of how order springs forth from chaos. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education Healthful Living; Grade Level K-12 Competency Goal 1 Competency Goal 2 Competency Goal 5 Competency Goal 11 Guidance; Grade Level K-12 Competency Goal 1 Competency Goal 7 Information Skills; Grade Level K-12 Competency Goal 5 English Language Arts; Grade Level K-12 Competency Goal 4 Science	4.92
Contemporary Potters of Western North Carolina	Dec. 13-17, 2005	#20 Alamance-Burlington, Buncombe, Caldwell, Carteret, Catawba, Charlotte/ Mecklenburg, Craven, Currituck, Dare, Guilford, Lee, Union, Wake, Watauga, Yadkin	**Audience:** All North Carolina public school teachers. **Description:** In this seminar teachers studied the craft history of North Carolina. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts Guidance Healthful Living Curriculum Information Skills Mathematics Science Social Studies	4.89

The Heart of Teaching	Jan. 14-16, 2005	#19 Alamance-Burlington, Asheville City, Buncombe, Charlotte/ Mecklenburg, Cleveland, Davidson, Durham, Gaston, Guilford, Hickory City, Newton-Conover, Polk, Randolph, Stanly	**Audience:** All North Carolina public school teachers. **Description:** This is a two-year program of sustained exploration of the heart and soul of teaching. During four weekend mini-seminars each year, a group of dedicated colleagues reflect on their personal and professional lives, through the inspiration of poetry and the arts. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education English Language Arts Guidance	NA
True-Life Storytelling	Jan. 24-28, 2005	#16 Alamance-Burlington, Ashe, Buncombe, Charlotte/ Mecklenburg, Cherokee, Davidson, Elkin City, Johnston, Montgomery, Orange, Rockingham, Rowan-Salisbury, Stokes	**Audience:** All North Carolina public school teachers. **Description:** In this seminar teachers examined the tradition of storytelling in North Carolina. Participants were encouraged to tell and write stories from their own lives, history, and the world around them. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts Guidance Healthful Living Curriculum Information Skills Mathematics Science Social Studies	4.90
Young, Black, and Male in America	Jan. 24-28, 2005	#22 Halifax, Hyde, Johnston, Montgomery, Northampton, Pasquotank, Pitt, Robeson, Vance, Wake	**Audience:** All North Carolina public school teachers. **Description:** In this seminar teachers examined the dilemmas faced by African American boys and young men and what can be done to provide options, skills, and support. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education English Language Arts Guidance Healthful Living	4.86

				Information Skills Mathematics Science Social Studies	
NASCAR: Science on the Race Track	Jan. 31-Feb. 4, 2005	#24 Buncombe, Burke, Catawba, Cumberland, Duplin, Henderson, Hoke, Iredell-Statesville, Lee, Lincoln, McDowell, Onslow, Pitt, Randolph, Rockingham, Sampson, Wayne, Wilson	**Audience:** All North Carolina public schools teachers. **Description:** In this seminar participants explored the history of the National Association for Stock Car Auto Racing as well as how math and physics work together on the racetrack. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education English Language Arts Guidance Mathematics Science Social Studies	4.87
Gathering of Holocaust Educators	Feb. 4-6, 2005	#36 Buncombe, Cabarrus, Chatham, Davidson, Fort Bragg, Gaston, Guilford, Halifax, Henderson, Hickory City, Iredell/Statesville, Lenoir, Lincoln, New Hanover, Newton-Conover, Onslow, Person, Pitt, Polk, Randolph, Robeson, Scotland, Swain, Wake, Wayne, Winston Salem/Forsyth, Union	**Audience:** All North Carolina middle and secondary public school teachers **Description:** The aim of this seminar was to gain an understanding of the precursors, events, and consequences of the Holocaust and to grapple with the problem of how best to convey this history and its meaning to students. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Healthful Living; Grade Level K-12 Competency Goal 1 Competency Goal 2 Competency Goal 5 Competency Goal 11 Guidance; Grade Level K-12 Competency Goal 1 Competency Goal 7 Information Skills; Grade Level K-12 Competency Goal 5 English Language Arts; Grade Level K-12 Competency Goal 4 Social Studies	4.93

Left Behind: Children in Poverty	Feb. 7-11, 2005	#22 Asheboro City, Avery, Buncombe, Cabarrus, Caldwell, Charlotte/ Mecklenburg, Greene, Guilford, Haywood, Mooresville City, Pitt, Thomasville City, Wake, Winston Salem/Forsyth	**Audience:** All North Carolina public school teachers. **Description:** This seminar examines the No Child Left Behind Act of 2001 and the changes it brought to our nation's education system. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education English Language Arts Guidance	4.90
The Great American Circus	Jan. 30-Feb. 3, 2005	#21 Cabarrus, Clay, Davidson, Guilford, Hoke, Kannapolis City, Onslow, Pender, Transylvania, Wake, Winston Salem/Forsyth ,	**Audience:** All North Carolina public school teachers. **Description:** Participants learned about the performing arts, circus stars, and their occupations. Early historical origins of the circus are also studied. **Description:** This seminar focused on the Eastern Band of the Cherokee in the mountains of western North Carolina and their efforts to retain their unique way of life in the midst of a rapidly changing world. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education English Language Arts Guidance Mathematics Science Social Studies	4.95
The Harlem Renaissance	Feb. 7-11, 2005	#20 Buncombe, Cabarrus, Chapel Hill-Carrboro, Cumberland, Duplin, Fort Bragg, Granville, Greene, Guilford, Jones, Onslow, Orange, Pender, Rockingham, Wake, Winston Salem/Forsyth	**Audience:** All North Carolina public school teachers. **Description:** This seminar focused on African American culture which bloomed with extraordinary vitality in the early 1900s, particularly in the 1920s. The residents of Harlem, pumped new life into literature, art, music, dance, and social awareness **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: English Language Arts; Goal 1 Goal 2 Goal 3 Goal 4 Goal 5 Social Studies Arts Education (Music) Goal 1	4.80

New Neighbors: Latinos in North Carolina	Feb. 21-25, 2005	#23 Catawba, Charlotte/ Mecklenburg, Montgomery, Robeson, Thomasville City, Wake, Winston Salem/Forsyth	**Audience:** All North Carolina public school teachers. **Description:** This seminar examined the rising Latino student population in North Carolina and ways to better serve them. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Healthful Living; Grade Level K-12 Competency Goal 1 Competency Goal 2 Competency Goal 5 Competency Goal 11 Guidance; Grade Level K-12 Competency Goal 1 Competency Goal 7 Information Skills; Grade Level K-12 Competency Goal 5 English Language Arts; Grade Level K-12 Competency Goal 4	4.93
Ventures in Leadership	Feb. 25-27, 2005	#11 Gaston, Guilford, Iredell/Statesville, Orange	**Audience:** All North Carolina public school teachers. **Description:** This seminar examined the leadership roles within educational systems. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: English Language Arts; Goal 1 Goal 2 Goal 3 Goal 4 Goal 5 Social Studies Arts Education (Music) Goal 1	NA
National Board Support Seminar	Dec. 2004 – Feb. 2005	#244 Alamance-Burlington, Alexander, Anson, Asheboro City, Asheville City, Avery, Beaufort, Bertie, Buncombe, Burke, Brunswick, Cabarrus, Caldwell, Camden,	**Audience:** All North Carolina public school teachers. **Description:** These five-day seminars provided the professional support that candidates need to reflect on their teaching practices and begin preparing the portfolio presentation required by the National Board for Professional Teaching Standards. **Activity follow-up** Facilitators and NCCAT staff continue to	SBE Priority 1&3	4.95 4.85 4.96 4.94 4.87

		Carteret, Caswell, Catawba, Chapel Hill/Carrboro, Chatham, Charlotte/ Mecklenburg, Cherokee, Clay, Cleveland, Clinton City, Craven, Cumberland, Currituck, Dare, Davidson, Davie, Durham, Duplin, Edenton/Chowan, Edgecombe, Forsyth, Franklin, Gaston, Gates, Granville, Greene, Guilford, Harnett, Haywood, Henderson, Hickory City, Hoke, Iredell-Statesville, Jackson, Johnston, Kannapolis City, Kings Mountain, Lee, Lenoir, Lexington City, Lincoln, Macon, Madison, Marin, McDowell, Mitchell, Moore, Mooresville City, Nash-Rocky Mont, New Hanover, Newton-Conover, Northampton, Orange, Pasquotank, Randolph, Pender, Person, Pitt, Richmond, Robeson, Rockingham, Rowan-Salisbury, Rutherford, Sampson, Scotland, Shelby City, Stanly, Stokes, Surry, Swain, Thomasville City, Transylvania, Union, Vance, Wake, Washington, Watauga, Wayne, Whiteville City, Wilkes, Wilson, Yadkin, Yancey	support candidates throughout the process. We focus on stressing the lessons learned during the candidates' intensive week at NCCAT. Further, emphasis is placed on the immediate benefits for teaching practice—and most importantly student learning—gained by critical reflection on a teacher's day-to-day teaching techniques. **Participant Implementation** Many NCCAT NB support seminar participants establish support programs and networks to foster a culture of success in their own counties. This helps colleagues the following year to use the best practices in working vigorously towards achievement and improvement in their own teaching methods. NCCAT staff serves as a resource to newly National Board Certified Teachers to launch support programs and assistance networks. **Results** NCCAT is helping to close the achievement gap and improving student performance by assisting North Carolina teachers achieve National Board Certification. An independent study confirms the effectiveness of National Board Certification. This expansive study of 600,000 North Carolina students shows that students make greater academic gains when taught by a National Board Certified Teacher. From 1996-2002, 72% of the 1,538 candidates attending a NCCAT National Board Support Seminar achieved certification as compared to approximately 50% statewide and 46% nationally.		4.95 4.89 4.94 4.88
Connections Beginning	Dec.2004 – Feb. 2005	#94	**Audience:** Beginning teachers **Description:** This is a year-long program	SBE Priority 1&3	To be determined

Teachers Program		Burke, Duplin, Edgecombe, Henderson, Hoke, Martin, Montgomery, Johnston	designed for first-year teachers to encourage them to stay in the teaching profession. Topics covered include classroom management, assessment, differentiated instruction, team building, brain-based research, total quality tools, diverse student populations, and other general concerns of beginning teachers. **Participant implementation**: Reflective evaluations indicate that participants implement skills gained in each session. **Results:** NCCAT has been extremely successful in contributing to the retention of initially licensed teachers. From 2000-2003, 95% of initially licensed teachers who have participated in an NCCAT beginning teachers program remained in teaching in a North Carolina public school – as compared to 67% nationally. Many of the remaining 5% have relocated to another state and are teaching there. Thus, the attrition rate for beginning teachers who have participated in an NCCAT beginning teachers program is 5%. This compares to the national rates: 33% leave teaching within the first 3 years and 46% leave teaching in the first 5 years.		at the completion of the program.
Conferences and Meetings	Dec. 2004 – Feb. 2005	# 81 Jackson, Macon, Robeson, Watauga	**Audience:** North Carolina Educators **Description:** School faculty and staff members, school system administrators, and other educational institutions and groups may schedule short-term conference or day-meetings at the NCCAT facility, when space is available.	SBE Priority 1&2	NA
Music, Media, And Violence	Feb. 28- March 4, 2005		**Audience:** All North Carolina public school teachers **Description:** In this seminar teachers explored the violence in music and media and how to effectively deal with aggression and hostility in non-violent ways. **Participant implementation**: The NCCAT 2003-2004 Impact Survey measured the impact of NCCAT professional development experiences. Teachers indicated that as a result of the NCCAT experience they a) contributed significantly to high student achievement, b)	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts Guidance Healthful Living Curriculum Information Skills	4.82

			had a recharged interest in teaching, c) acquired knowledge from the seminar they could apply to teaching, d) varied teaching strategies more often, and e) were more reflective of their teaching practices. Principals indicated as a result of their teachers attending NCCAT that teachers a) were provided the necessary resources to attend NCCAT, b) had a recharged interest in teaching, c) had a renewed commitment to remain in teaching, d) acquired knowledge from the seminar and e) acquired skills from the seminar that they could apply in their teaching. End-of Seminar Evaluations (2003-2004) revealed that 98% or more teachers perceived that NCCAT seminars were intellectually stimulating and effective learning experience providing valuable knowledge and skills. Teachers indicated that the experiences were renewing, had elements they could use in their teaching, and reaffirmed their commitment to education. **Results:** A recent analysis of teachers who attended an NCCAT seminar from July 1, 2000 – June 30, 2003 revealed that 96% remain in education in North Carolina's public schools. This compares to 88% for North Carolina and 84% nationally.	Mathematics Science Social Studies	

Zoos: The Modern Ark	Feb. 28- March 4, 2005		**Audience:** All North Carolina public schools teachers. **Description:** In this seminar participants explored the vital role zoos play in maintaining biodiversity, educating the public and scientists and providing a spark for children to gain appreciation of the biological sciences. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: SBE Priority 1&3 SCOS: Arts Education English Language Arts Healthful Living Curriculum Information Skills Mathematics Science Social Studies	4.85
Is There a Children's Book In You?	March 7-11, 2005	#22 Burke, Charlotte/ Mecklenburg, Chatham, Craven, Dare, Davidson, Guilford, Jackson, Lee, Surry, Wayne, Wilkes, Winston-Salem/Forsyth	**Audience:** All North Carolina public schools teachers. **Description:** This seminar explores writing creatively for children and young adults. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts Guidance Information Skills Mathematics	4.75
Best Practices for Motivating African American Students	March 14-18, 2005	#23 Cabarrus, Charlotte/ Mecklenburg, Chatham, Granville, Guilford, Hertford, Lee, New Hanover, Person, Richmond,	**Audience:** All North Carolina public schools teachers. **Description:** In this seminar teachers explored effective strategies to close the achievement gap. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts Guidance Healthful Living Curriculum Information Skills	4.80

		Stanly, Union, Vance		Mathematics Science Social Studies	
In the Company of Animals	March 20-24, 2005	#22 Buncombe, Carteret, Caswell, Charlotte/ Mecklenburg, Davie, Franklin, Gaston, Guilford, Jackson, Randolph, Robeson, Rowan-Salisbury, Stanly, Wake, Watauga, Wayne	**Audience:** All North Carolina public schools teachers. **Description:** This seminar examines the role animals play in aspects of human life. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education English Language Arts Guidance Healthful Living Curriculum Information Skills Science	4.88
Books: Bound to Be Read	March 20-24, 2005	#24 Alamance-Burlington, Brunswick, Charlotte/ Mecklenburg, Craven, Gaston, Granville, Guilford, Lincoln, Person, Rockingham, Rowan-Salisbury, Sampson, Stanly, Wilkes	**Audience:** All North Carolina public schools teachers. **Description:** In this seminar teachers examined the history of books and how literature can enhance all areas of classroom study. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts Guidance Healthful Living Curriculum Information Skills Mathematics Science Social Studies	4.91

Let Freedom Ride!: Traveling the Road to Civil Rights in America	March 28-April 3, 2005	#22 Asheville City, Buncombe, Cherokee, Durham, Granville, Harnett, Lenoir, Richmond, Robeson, Wake, Wayne, Wilkes, Winston-Salem/Forsyth, Yadkin	**Audience:** All North Carolina public schools teachers. **Description:** In this seminar teachers examined sites where the struggle for civil rights made history and how best to convey this to their students. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education English Language Arts Guidance Healthful Living Curriculum Information Skills Mathematics Science Social Studies	4.96
Awakening the Giant Within	April 11-15, 2005	#24 Ashe, Buncombe, Cabarrus, Caldwell, Durham, Elkin City, Guilford, Henderson, Montgomery, New Hanover, Sampson, Vance, Wake, Wilson, Winston-Salem/Forsyth	**Audience:** All North Carolina public schools teachers. **Description:** In this seminar participants examined ways to re-ignite the spark that moves you to feel more passionate about dreams and how to help students better focus on the academic and career goals. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts Guidance Healthful Living Curriculum Information Skills Mathematics Science Social Studies	4.83

To Love the Land: Sustainable Development in the Mountains	April 4-8, 2005	#20 Buncombe, Catawba, Chapel Hill-Carrboro, Davie, Durham, Guilford, Iredell-Statesville, Lee, Onslow, Pitt, Wake, Winston-Salem/Forsyth	**Audience:** All North Carolina middle and secondary public school teachers **Description:** In this seminar, participants examined all aspects of development while maintaining environmental excellence. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts Guidance Healthful Living Curriculum Information Skills Mathematics Science Social Studies	4.81
The Age of Sail	April 11-15, 2005	#23 Ashe, Avery, Brunswick, Buncombe, Caldwell, Carteret, Charlotte/Mecklenburg, Cleveland, Davidson, Guilford, Henderson, Lee, Onslow, Union, Wake, Winston-Salem/Forsyth, Yancey	**Audience:** All North Carolina public schools teachers. **Description:** Participants in this seminar learned songs and language of the sea, examined nautical artifacts, and studied maritime history. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education English Language Arts Guidance Information Skills Mathematics Science Social Studies	4.91
Bringing Back The Wild: Wildlife Recovery in North Carolina	April 18-22, 2005	#21 Brunswick, Chapel Hill-Carrboro, Charlotte/Mecklenburg, Lincoln, Macon, Montgomery,	**Audience:** All North Carolina public schools teachers. **Description:** This seminar focused on the history of wildlife management in the United States. **Participant implementation**: See first entry.	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts	4.91

		Mooresville City, Nash-Rocky Mount, Pitt, Wake, Wayne, Winston-Salem/Forsyth	**Results:** See first entry.	Guidance Healthful Living Curriculum Information Skills Mathematics Science Social Studies	
Crime Scene Investigator: The New Sherlock Holmes	April 18-22, 2005	#20 Burke, Caldwell, Catawba, Charlotte/ Mecklenburg, Cumberland, Dare, Fort Bragg, Guilford, Harnett, Mooresville City, New Hanover, Robeson, Sampson, Union, Wilson, Winston-Salem/Forsyth	**Audience:** All North Carolina public schools teachers. **Description:** Participants in this seminar examined the impact of forensic science on criminal investigations. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts Guidance Healthful Living Curriculum Information Skills Mathematics Science Social Studies	4.90
Appalachian Spring Wildflowers	April 25-29, 2005	#22 Brunswick, Cabarrus, Charlotte/ Mecklenburg Davidson, Durham, Guilford, Iredell-Statesville, Martin, Pender, Pitt, Rockingham, Union, Winston-Salem/Forsyth	**Audience:** All North Carolina public schools teachers. **Description:** Participants in this seminar explored wildflower habitats native to Western North Carolina. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts Guidance Healthful Living Curriculum Information Skills Mathematics	4.90

				Science Social Studies	
Salty Dogs and the Lore of the Sea	April 25-29, 2005	#24 Alamance-Burlington, Asheville City, Burke, Caldwell, Guilford, Haywood, Onslow, Pitt, Rockingham, Rowan-Salisbury, Stanly, Surry, Wake, Wilson, Winston-Salem/Forsyth	**Audience:** All North Carolina public schools teachers. **Description:** Participants in this seminar explored the history and culture of North Carolina's Outer Banks. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts Guidance Healthful Living Curriculum Information Skills Mathematics Science Social Studies	4.92
The Rainforest and Story of Chocolate	May 2-6, 2005	#23 Avery, Brunswick, Charlotte/ Mecklenburg, Cleveland, Craven, Currituck, Dare, Guilford, Johnston, Moore, Pitt, Polk, Rockingham, Rutherford, Wake, Wilkes, Winston-Salem/Forsyth	**Audience:** All North Carolina public schools teachers. **Description:** This seminar focused on rainforest, its plants, animals, and the implications of its destruction to our planet. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts Guidance Healthful Living Curriculum Information Skills Mathematics Science Social Studies	4.85

Rainbows and Tornados: Nature's Beauty and Fury	May 9-13, 2005	#13 Carteret, Chapel Hill-Carrboro, Charlotte/ Mecklenburg, Cumberland, Durham, Fort Bragg, Gaston, Person, Stokes, Union, Wake,	**Audience:** All North Carolina public schools teachers. **Description:** This seminar examined meteorology and its impact of life. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts Guidance Healthful Living Curriculum Information Skills Mathematics Science Social Studies	4.66
The Ecology of Barrier Islands	May 9-13, 2005	#22 Catawba, Charlotte/ Mecklenburg, Cumberland, Guilford, Iredell-Statesville, Lee, Macon, Moore, Onslow, Onslow, Person, Polk, Wake	**Audience:** All North Carolina public school teachers **Description:** This seminar explored North Carolina's barrier islands and the fragile geological and ecological systems. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts Guidance Healthful Living Curriculum Information Skills Mathematics Science Social Studies	4.98
Turners and Burners; Folk Potters of North Carolina	May 9-13, 2005	 Alamance-Burlington, Brunswick, Buncombe, Burke, Carteret, Charlotte/	**Audience:** All North Carolina public school teachers **Description:** Participants in this seminar examine the history and impact of the folk potter's in North Carolina.	SBE Priority 1&3 SCOS: Arts Education Computer/Technology	4.92

		Mecklenburg, Cleveland, Davidson, Durham, Guilford, Lee, Lincoln, Pitt, Rockingham, Stanly, Wake	**Participant implementation**: See first entry. **Results:** See first entry.	English Language Arts Guidance Healthful Living Curriculum Information Skills Mathematics Science Social Studies	
Horace Kephart and our Southern Highlands	April 25-29, 2005	#7 New Hanover, Watauga, Wake	**Audience:** All North Carolina public schools teachers. **Description:** This seminar explored the life, literature, and time of Horace Kephart. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts Guidance Healthful Living Curriculum Information Skills Science Social Studies	5.0
The Heart of Teaching	April 22-24, 2005	#18 Alamance-Burlington, Asheville City, Buncombe, Charlotte/Mecklenburg, Cleveland, Davidson, Durham, Gaston, Guilford, Hickory City, Newton-Conover, Polk, Randolph, Stanly	**Audience:** All North Carolina public schools teachers. **Description:** This is a two-year program of sustained exploration of the heart and soul of teaching. During four weekend mini-seminars each year, a group of dedicated colleagues reflect on their personal and professional lives, through the inspiration of poetry and the arts. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education English Language Arts Guidance	NA

The Birth of Rock-n-Roll Alumni Seminar	March 4-6, 2005	# 215 Alamance-Burlington, Asheboro City, Avery, Beaufort, Bertie, Brunswick, Buncombe, Burke, Cabarrus, Camp Lejeune, Catawba, Chapel Hill-Carrboro, Charlotte/ Mecklenburg, Cleveland, Columbus, Cumberland, Dare, Davidson, Davie, Durham, Edgecombe, Fort Bragg, Gaston, Guilford, Halifax, Harnett, Hertford, Hyde, Johnston, Lee, Martin, McDowell, Montgomery, Moore, Mount Airy City, Nash-Rocky Mount, New Hanover, Onslow, Pasquotank, Pitt, Randolph, Robeson, Rockingham, Rowan-Salisbury Surry, Union, Vance, Wake, Wayne, Wilkes, Wilson, Winston-Salem/Forsyth	**Audience:** All North Carolina public school teachers **Description:** Participants in this seminar examined the birth and history of rock music and its impact on America's culture. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education English Language Arts Guidance Information Skills Mathematics Social Studies	NA

National Board Support Seminar	March-May 2005	#43 Alexander, Asheville City Buncombe, Caldwell, Catawba, Cleveland, Cumberland Elkin City Franklin, Guilford, Haywood, Henderson, Hickory City Hyde, Jackson, Johnston, Lincoln, Macon, Madison, McDowell, Nash-Rocky Mount, Northampton, Orange, Polk, Randolph, Richmond, Stanly, Surry, Swain, Transylvania,	**Audience:** All North Carolina public schools teachers. **Description:** These five-day seminars provided the professional support that candidates need to reflect on their teaching practices and begin preparing the portfolio presentation required by the National Board for Professional Teaching Standards. **Activity follow-up** Facilitators and NCCAT staff continue to support candidates throughout the process. We focus on stressing the lessons learned during the candidates' intensive week at NCCAT. Further, emphasis is placed on the immediate benefits for teaching practice—and most importantly student learning—gained by critical reflection on a teacher's day-to-day teaching techniques. **Participant Implementation** Many NCCAT NB support seminar participants establish support programs and networks to foster a culture of success in their own counties. This helps colleagues the following year to use the best practices in working vigorously towards achievement and improvement in their own teaching methods. NCCAT staff serves as a resource to newly National Board Certified Teachers to launch support programs and assistance networks. **Results** NCCAT is helping to close the achievement gap and improving student performance by assisting North Carolina teachers achieve National Board Certification. An independent study confirms the effectiveness of National Board Certification. This expansive study of 600,000 North Carolina students shows that students make greater academic gains when taught by a National Board Certified Teacher.	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts Guidance Healthful Living Curriculum Information Skills Mathematics Science Social Studies	4.94 4.88

			From 1996-2002, 72% of the 1,538 candidates attending a NCCAT National Board Support Seminar achieved certification as compared to approximately 50% statewide and 46% nationally.		
Teacher Scholars	April 11-15, 2005	#20 Chapel Hill-Carrboro, Charlotte/Mecklenburg, Pender, Stanly, Wake, Watauga, Winston-Salem/Forsyth	**Audience:** All North Carolina public school teachers. **Description:** This seminar offers participants short-term residential experience for study and research. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts Guidance Healthful Living Curriculum Information Skills Mathematics Science Social Studies	
Conferences and Meetings	March-May 2005	# 239 Buncombe, Gaston, Jackson, McDowell, Winston-Salem/Forsyth	**Audience:** Educators **Description:** School faculty and staff members, school system administrators, and other educational institutions and groups may schedule short-term conference or day-meetings at the NCCAT facility, when space is available.	SBE Priority 1&2	NA
Cowboy Life and Legend	June 6-11, 2005	#19 Cabarrus, Cleveland; Cumberland, Gaston, Guilford, Lee, Nash-Rocky Mount, New Hanover, Person, Rowan Salisbury, Wake	**Audience:** All North Carolina public school teachers **Description:** Participants in this seminar examined the history and impact of cowboy life and cowboy myth on the development of our national culture. **Participant implementation**: The NCCAT 2004-2005 Impact Survey measured the impact of NCCAT professional development experiences. Teachers indicated that as a result of the NCCAT experience they a) contributed	SBE Priority 1&3 SCOS: Arts Education English Language Arts Guidance Information Skills Mathematics	4.88

			significantly to high student achievement, b) had a recharged interest in teaching, c) acquired knowledge from the seminar they could apply to teaching, d) varied teaching strategies more often, and e) were more reflective of their teaching practices. Principals indicated as a result of their teachers attending NCCAT that teachers a) were provided the necessary resources to attend NCCAT, b) had a recharged interest in teaching, c) had a renewed commitment to remain in teaching, d) acquired knowledge from the seminar and e) acquired skills from the seminar that they could apply in their teaching. End-of Seminar Evaluations (2003-2004) revealed that 99.5% or more teachers perceived that NCCAT seminars were intellectually stimulating and effective learning experience providing valuable knowledge and skills. Teachers indicated that the experiences were renewing, had elements they could use in their teaching, and reaffirmed their commitment to education. **Results:** A recent analysis of teachers who attended an NCCAT seminar from July 1, 2001 – June 30, 2004 revealed that 97.5% remain in education in North Carolina's public schools. This compares to 87.5% for North Carolina and 84.3% nationally.	Science Social Studies	
Natural Rhythms of the River	June 6-10, 2005	#20 Caldwell, Carteret, Catawba, Chatham, Cumberland, Fort Bragg, Guilford, Iredell-Statesville, Robeson, Union, Wake, Washington, Wilkes, Wilson	**Audience:** All North Carolina public schools teachers. **Description:** In this seminar participants examined the role of rivers in the development of human culture and studied how people have worked with rivers to improve the quality of their lives. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: SBE Priority 1&3 SCOS: Arts Education English Language Arts Healthful Living Curriculum Information Skills Mathematics Science	4.92

				Social Studies	
Growing Healthy	June 13-18, 2005	#24 Buncombe, Cabarrus, Carteret, Chapel Hill-Carrboro, Cleveland, Durham, Gaston, Guilford, Henderson, Iredell-Statesville, Nash-Rocky Mount, New Hanover, Pender, Pitt, Rowan-Salisbury, Surry, Wake Wilkes	**Audience:** All North Carolina public schools teachers. **Description:** This seminar examined the healing qualities of nature and the impact of a healthy person in the classroom and the community. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education English Language Arts Guidance Healthful Living Information Skills Mathematics Science Social Studies	4.85
If Quilts Could Speak: Storytelling with a Needle	June 20-24, 2005	#24 Alexander, Asheboro City, Brunswick, Cleveland, Durham, Gaston, Hickory City, Nash-Rocky Mount, Onslow, Pamlico, Pitt, Surry, Wake, Winston-Salem/Forsyth, Yancey	**Audience:** All North Carolina public schools teachers. **Description:** In this seminar teachers explored the art of quilting and the stories quilts tell. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education English Language Arts Guidance Information Skills Mathematics Science Social Studies	4.92
Caught Up in the Current: Traveling with Lewis and Clark	June 24-July 1, 2005	#24 Buncombe, Burke, Caldwell, Chapel Hill-Carrboro, Cleveland, Cumberland, Davidson, Gaston, Granville, Haywood, Johnston, Lincoln, Macon, Onslow, Richmond,	**Audience:** All North Carolina public schools teachers. **Description:** In this seminar teachers explored the diaries and letters of Lewis and Clark while traveling down the Missouri River along the route of the Corps of Discovery. **Participant implementation**: See first entry.	SBE Priority 1&3 SCOS: Arts Education English Language Arts Guidance Healthful Living Curriculum	4.93

		Sampson, Union, Wake Yancey	**Results:** See first entry.	Information Skills Science Social Studies	
Wonders of the Appalachian Trail	June 26-30, 2005	# 22 Catawba, Charlotte/Mecklenburg, Currituck, Fort Bragg, Gaston, Granville, Hickory City, Lincoln, Pamlico, Rockingham, Rowan-Salisbury, Sampson, Wake, Warren Watauga	**Audience:** All North Carolina public schools teachers. **Description:** In this seminar teachers explored the history, flora and fauna, geology, and writings of the Appalachian Trail. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education English Language Arts Guidance Healthful Living Curriculum Information Skills Mathematics Science Social Studies	4.91
Leadership, Creativity, and Change	June 26-30, 2005	#21 Avery, Caldwell, Chapel Hill-Carrboro, Charlotte/Mecklenburg, Chatham, Cleveland, Craven, Dare, Franklin, Gates, Guilford, Haywood, Hickory City, Johnston, Mooresville City, Newton-Conover, Pamlico, Robeson, Rockingham, Scotland, Stokes	**Audience:** All North Carolina public schools teachers. **Description:** In this seminar, specially designed for Teachers of the Year, participants shared their leadership style and developed processes to explore educational leadership. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education English Language Arts Guidance Healthful Living Curriculum Information Skills Mathematics Science Social Studies	4.99

Waterfalls: The Beauty and Power of Flowing Water	July 11-15, 2005	#23 Chapel Hill-Carrboro, Charlotte/Mecklenburg, Craven, Cumberland, Date, Johnston, Nash-Rocky Mount, Onslow, Pitt, Rowan-Salisbury, Union, Wake, Wayne	**Audience:** All North Carolina public school teachers **Description:** In this seminar, participants explored how waterfalls are formed, as well as the botanical communities that surround them. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts Guidance Information Skills Mathematics Science Social Studies	4.90
Habitat for Humanity: Building and Sharing	July 11-16, 2005	# 21 Catawba, Chapel Hill-Carrboro, Davidson, Henderson, Lincoln, Pitt, Robeson, Rockingham, Rowan-Salisbury, Sampson, Transylvania, Wake, Watauga	**Audience:** All North Carolina public schools teachers. **Description:** Participants in this seminar learned the history, philosophy, and economics of Habitat for Humanity as well a participated in a Habitat project. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education English Language Arts Computer/Technology Guidance Information Skills Mathematics Science Social Studies	4.93
I Love This Game! America's Passion for Sports	July 18-22, 2005	#18 Alamance-Burlington, Brunswick, Catawba, Davidson, Elizabeth City/Pasquotank, Hickory City, Lincoln, Mooresville City, Person, Rockingham, Sampson, Wake	**Audience:** All North Carolina public schools teachers. **Description:** This seminar focused on the history, politics, and economics of America's love for sports. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts Guidance	4.83

				Healthful Living Curriculum Information Skills Mathematics Science Social Studies	
Made by Hand: Craft Traditions of North Carolina	July 18-22, 2005	# 21 Chatham, Cleveland, Currituck, Iredell-Statesville, Johnston, Newton-Conover, Onslow, Rockingham, Wake, Wilkes, Winston-Salem/Forsyth	**Audience:** All North Carolina public schools teachers. **Description:** Participants in this seminar examined the culture, traditions, and economics of North Carolina's craft community. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts Guidance Healthful Living Curriculum Information Skills Mathematics Science Social Studies	4.91
Holistic Health	July 25-29, 2005	#23 Caldwell, Camp Lejeune, Carteret, Catawba, Charlotte/Mecklenburg, Gaston, Guilford, Harnett, Pender, Pitt, Randolph, Roanoke Rapids City, Robeson, Rockingham, Union, Watauga, Wayne	**Audience:** All North Carolina public schools teachers. **Description:** Participants in this seminar examined a variety of healthful approaches that can lead to a more holistic lifestyle. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts Guidance Healthful Living Curriculum Information Skills Mathematics	4.90

				Science Social Studies	
Celebrating Diversity Through Children's Literature	July 25-29, 2005	# 19 Charlotte/Mecklenburg, Gaston, Martin, Nash-Rocky Mount, New Hanover, Newton-Conover, Polk, Robeson, Stanly, Surry, Winston-Salem/Forsyth	**Audience:** All North Carolina public schools teachers. **Description:** Participants in this seminar explored multicultural children's literature through fiction, nonfiction, folk tales, fairy tales, legends, and poetry. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education English Language Arts Guidance Healthful Living Curriculum Information Skills Mathematics Science Social Studies	4.92
Motown Music: A Rhythm for the Generations	August 1-5, 2005	#22 Alexander, Brunswick, Catawba, Cherokee, Cumberland, Duplin, Guilford, Haywood, Johnston, Martin, Nash-Rocky Mount, Pender, Union, Wake, Wilson, Yadkin	**Audience:** All North Carolina public schools teachers. **Description:** This seminar explored the lyrics and choreography of Motown music and chronicled its history. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts Guidance Healthful Living Curriculum Information Skills Mathematics Science Social Studies	4.73

On Broadway!	August 8-12, 2005	#25 Cabarrus, Camp Lejeune, Catawba, Charlotte/Mecklenburg, Cherokee, Craven, Cumberland, Davidson, Durham, Gaston, Guilford, Haywood, Henderson, Lenoir, Macon, Onslow, Pitt, Union, Wake	**Audience:** All North Carolina public schools teachers. **Description:** This seminar explored the world of theater in New York City. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts Guidance Healthful Living Curriculum Information Skills Mathematics Science Social Studies	4.94
People, Places, and Plots: Writing with a Purpose	August 8-12, 2005	#17 Carteret, Cumberland, Davidson, Guilford, Haywood, Henderson, Lenoir, Lincoln, Moore, Onslow, Wake, Wilkes, Yadkin	**Audience:** All North Carolina public school teachers. **Description:** Participants examined and participated in the art of writing. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts Guidance Healthful Living Curriculum Information Skills Social Studies	4.94
The Chattooga River: Reality and Myth	August 8-12, 2005	#21 Buncombe, Chapel Hill-Carrboro, Charlotte/Mecklenburg, Cleveland, Cumberland, Guilford, Hickory City, Lenoir, Nash-Rocky Mount, New Hanover, Orange, Wake, Yadkin	**Audience:** All North Carolina public school teachers. **Description:** This seminar explored the flora, fauna, socioeconomic, and environmental impact of the Chattooga River. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts Guidance	4.93

				Healthful Living Curriculum Information Skills Mathematics Science Social Studies	
The Heart of Teaching	July 6-8, 2005	#19 Asheville City, Buncombe, Charlotte/Mecklenburg, Cleveland, Davidson, Durham, Gaston, Guilford, Hickory City, Newton-Conover, Polk, Randolph, Stanly, Wake, Watauga	**Audience:** All North Carolina public schools teachers. **Description:** This was the last segment of a two-year program of sustained exploration of the heart and soul of teaching. During four weekend mini-seminars each year, a group of dedicated colleagues reflect on their personal and professional lives, through the inspiration of poetry and the arts. **Participant implementation**: See first entry. **Results:** See first entry.	SBE Priority 1&3 SCOS: Arts Education English Language Arts Guidance	4.92
National Board Support Seminar	June-July 2005	#20 Beaufort, Burke, Dare, Edgecombe, Lenoir, Lexington City, Moore, Nash-Rocky Mount, Pasquotank, Pitt, Rowan-Salisbury, Stanly, Union, Wake, Wilson, Winston-Salem/Forsyth, Yancey	**Audience:** All North Carolina public schools teachers. **Description:** These five-day seminars provided the professional support that candidates need to reflect on their teaching practices and begin preparing the portfolio entries required by the National Board for Professional Teaching Standards. **Activity follow-up** Facilitators and NCCAT staff continue to support candidates throughout the process. We focus on stressing the lessons learned during the candidates' intensive week at NCCAT. Further, emphasis is placed on the immediate benefits for teaching practice—and most importantly the impact on student learning—gained by critical reflection on a teacher's day-to-day teaching techniques.	SBE Priority 1&3 SCOS: Arts Education Computer/Technology English Language Arts Guidance Healthful Living Curriculum Information Skills Mathematics Science Social Studies	4.92

			Participant Implementation Many NCCAT NB support seminar participants establish support programs and networks to foster a culture of success in their own counties. This helps colleagues the following year to use the best practices in working vigorously towards achievement and improvement in their own teaching methods. NCCAT staff serves as a resource to newly National Board Certified Teachers to launch support programs and assistance networks. **Results** NCCAT is helping to close the achievement gap and improving student performance by assisting North Carolina teachers achieve National Board Certification. An independent study confirms the effectiveness of National Board Certification. This expansive study of 600,000 North Carolina students shows that students make greater academic gains when taught by a National Board Certified Teacher. From 1996-2002, 72% of the 1,538 candidates attending a NCCAT National Board Support Seminar achieved certification as compared to approximately 50% statewide and 46% nationally.		
Teaching Fellows	July 15-17, 2005 July 22-24, 2005	#53 Alexander, Ashe, Brunswick, Buncombe, Cabarrus, Caldwell, Chapel Hill-Carrboro, Charlotte/Mecklenburg, Cleveland, Durham, Guilford, Hyde, Iredell-Statesville, Lenoir, Lincoln, Martin, Person, Randolph, Robeson, Rowan-Salisbury, Rutherford, Surry, Wake Wayne, Winston-Salem/Forsyth	**Audience:** All North Carolina public school teachers. **Description:** NCCAT alumnus assists Public School Forum in two programs for North Carolina Teaching Fellows. **Participant implementation**: See first entry. **Results:** See first entry.		

Connections	June-August 2005	#147 Hoke, Montgomery	**Audience:** Beginning teachers from selected counties. **Description:** This is a year-long program designed for first-year teachers to encourage them to stay in the teaching profession. Topics covered include classroom management, assessment, differentiated instruction, team building, brain-based research, total quality tools, diverse student populations, and other general concerns of beginning teachers. **Participant implementation**: Reflective evaluations indicate that participants implement skills gained in each session. **Results:** NCCAT has been extremely successful in contributing to the retention of initially licensed teachers. From 2000-2003, 95% of initially licensed teachers who have participated in an NCCAT beginning teachers program remained in teaching in a North Carolina public school – as compared to 67% nationally. Many of the remaining 5% have relocated to another state and are teaching there. Thus, the attrition rate for beginning teachers who have participated in an NCCAT beginning teachers program is 5%. This compares to the national rates: 33% leave teaching within the first 3 years and 46% leave teaching in the first 5 years.	SBE Priority 1&3	NA
Conferences and Meetings	June–August, 2005	# 361 Alexander, Asheboro City, Asheville City, Cabarrus, Catawba, Chatham, Duplin, Charlotte/ Mecklenburg, Gaston, Jackson, Moore, Mt. Airy, Roanoke Rapids, Robeson, Rowan-Salisbury, Weldon City, Winston-Salem/Forsyth	**Audience:** Educators **Description:** School faculty and staff members, school system administrators, and other educational institutions and groups may schedule short-term conference or day-meetings at the NCCAT facility, when space is available.	SBE Priority 1&2	NA

UNC-CSLD Professional Development Activities

September 2004 – August 2005

Program: North Carolina Mathematics and Science Education Network (NC-MSEN)

Professional Development Activity **MATHEMATICS**	Date(s) Offered	Number of Participants and LEAs Served	Brief Description of Activity Including Intended Audience	Supports/Directly Relates to SBE Priorities and/or SCOS	Participant Evaluation of Activity
Algebra Thinking Course for Teachers (FSU)	October and November 2004	42 Participants 7 LEAs	Course develops foundational principles and pedagogical knowledge for teachers through active problem-solving, reflection, and analysis of student thinking. (continued from summer)	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Mathematics Methods Course (NCSU)	September - November 2004	18 Participants	Middle grades and high school mathematics methods course.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Metrolina AP Calculus Group Meetings (UNCC)	September - November 2004	56 Participants 19 LEAs	CMSTE in partnership with Charlotte-Mecklenburg Schools (CMS) offers a series of Metrolina AP Calculus group meetings. Topics covered: news from the College Board about the AP Exam, using the TI-89 in the AP Calculus classroom, teachers' favorite techniques in teaching local linearity, the derivative of a function, graphing, lesson sharing, related rates, and word problems.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
AP McSTATS Alliance Meeting (UNCC)	October and November 2004	29 Participants 6 LEAs	The use of the Fathom simulation software for instructional purposes. Also, Teaching Probability in AP Statistics, "Is it something they will probably get?" These presentations are part of the CMSTE's ongoing Statistics Master Teacher Lecture Series and are co-sponsored by the NC Association of Advanced Placement Statistics Teachers (NCA^{2}PST) and M^{C}Stats (Mecklenburg County Statistics Teachers support group).	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Revisiting Real Numbers (UNCCH)	September - November 2004	18 Participants 2 LEAs	Three semester-hour graduate course, first of four mathematics courses in a NCDPI-funded Math-Science Partnership with Durham Public Schools. **Participant implementation:** Class projects required classroom implementation.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	There was pre- and post-testing to evaluate the project; results not yet available.
Go Figure Series (WCU)	December 2004	50 Participants	Buncombe County workshop series of 6 sessions that focus on tasks related to Go Figure exhibit, problem solving, patterns, number sense, measurement, and geometry. **Participant implementation**: Task include data collection, representation and interpretation	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Becoming a More	September -	10 Participants	Purpose of two-day workshop was to help teachers	SBE Priority 3	

Powerful Teacher of Mathematics (ASU)	November 2004	3 LEAs	overcome their own mathematics anxiety. Activities included problem-solving, geometry, and measurement. Coping skills, breathing, and relaxation were also discussed.	Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Data Analysis and Probability (ASU)	September - November 2004	3 Participants	Graduate-level course designed for advanced data analysis and probability in the high school setting.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of teachers surveyed said that they would use this information in their classrooms.
AFM Teacher Collaboration (NCSSM)	September - November 2004	2 Participants 2 LEAs	**Activity follow-up:** Year-round direct support **Participant implementation**: Our lead teacher is in weekly contact as the AFM teacher implements the lessons. On occasion our teacher teaches the class.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Teaching For Meaning Workshop Part I (GAMSEC)	September 2004	10 Participants 3 LEAs	In-depth inquiry teaching that is relevant for the learners. (Also listed under Science)	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of teachers surveyed said that they would use this information in their classrooms and 100% agreed that the activity was valuable for their teaching.
Professional Development Activity **SCIENCE**	Date(s) Offered	Number of Participants and LEAs Served	Brief Description of Activity Including Intended Audience	Supports/Directly Relates to SBE Priorities and/or SCOS	Participant Evaluation of Activity
StarLab Presentation (ECU)	October and November 2004	418 Participants 2 LEAs	Portable Planetarium Astronomy lesson.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Solar System Presentation (ECU)	November 2004	12 Participants	Portable Planetarium Solar System lesson at NC School for the Deaf.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Genesis Mission Presentation and Saturn Presentations (ECU)	November 2004	74 Participants 1 LEA	Portable Planetarium Genesis Space Mission.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Environmental Education (Field Trip Earth) (UNCC)	September 2004	22 Participants 7 LEAs	This workshop was the first of a series of three that provides hands-on activities and field science education to science teachers in our region. This particular segment focused on the use of technology in science.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Environmental Education (Advanced Project Learning Tree) (UNCC)	October 2004	18 Participants 6 LEAs	This workshop was the second of a series of three that provides hands-on activities and field science education to science teachers in our region. One of primary foci of this workshop is to improve knowledge and understanding of environmental science.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	

AP Science Alliance Meeting (UNCC)	October 2004	28 Participants 4 LEAs	Dr. Steck, UNCC, spoke to AP Biology and environmental science teachers on the use of fluorescent *E. coli* in the Charlotte region to locate sources of contamination and leakage. Dr. Jay Lockman, Nationall Radio Astronomy Observatory, discussed the latest findings and discoveries in our Universe to AP Physics and Chemistry Teachers.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Middle School Science Alliance (UNCC)	November 2004	22 Participants 5 LEAs	CMSTE in partnership with CMS Schools offered the Middle School Science Alliance meeting on November 18th. Dr. Warren DiBiase discussed changes in the science course of study and the importance of science inquiry. Participants were able to participate in a great "make and take project" to take back to their students.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Worksheets Don't Grow Dendrites: 20 Instructional Strategies that Leave No Child Behind (UNCCH)	September 2004	67 Participants 7 LEAs	Workshop presented by Marcia L. Tate, a nationally known professional development consultant and author of the book with the same title as the workshop. **Activity follow-up / Participant implementation**: participants completed projects in their classrooms implementing the activity for renewal credit.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
North Carolina Science Olympiad Workshop (UNCCH)	October 2004	210 Participants Statewide LEAs	Workshop on 50 Science Olympiad events and activities.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
CORMP in the Classroom (UNCW)	September – November 2004	5 Participants	Coastal Ocean Research Monitoring Program (CORMP) **Activity follow-up:** Aug 1, 2004 – May 1, 2005 **Participant implementation**: Lesson plans, research projects, class materials **Results:** Provide middle and high school teachers with opportunities to observe how CORMP data was collected, and learn how to use the Data Visualization Tool using CORMP data streams to facilitate inquiry instruction in their classrooms.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
SMEC's Saturday Science Sessions (UNCW)	September and October 2004	28 Participants	Science Fair "How to…": Information on the change in rules and requirements for participating in science fairs beginning in 2005. **Participant implementation**: prepare students for local, county, and regional science fairs.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
StarLab Workshop in Columbus County (UNCW)	October 2004	33 Participants	Portable planetarium available for set-up in schools. **Participant implementation**: puts the universe within reach of school children. **Results:** Trained 33 teachers who are now able to use the Starlab in their schools.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	

Secondary Science Seminar (UNCW)	November 2004	4 Participants	Secondary Science Seminars: Cellular Respiration **Participant implementation**: how cellular processes affect complex, whole animal, phenotypic traits. **Results:** Improve teachers content and strategies for AP course (Biology).	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
GK-12 Fall 04 Professional Development (UNCW)	September – November 2004	7 Participants	NSF Graduate Teaching Fellows in K-12 Education fall 2004: Professional development for 6th grade science teachers aligning SCOS to activities and lessons developed by teachers with UNCW graduate students for implementation during the academic year. **Participant implementation**: Teachers will 1) develop activities and lessons in 6th grade science; 2) develop partnerships with science graduate students; 3) use the internet and computers as instructional tools for lesson development.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Chemistry/Physics Course (WCU)	September 2004	9 Participants	Chemistry/Physics Course **Activity follow-up:** semester course **Results:** Students receive credit hours	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Science Methods Course (WCU)	October and November 2004	40 Participants	Science methods course taught at WCU. **Activity follow-up:** semester course **Results:** Students receive credit hours upon completion.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
MSEC and Science Methods (ASU)	September 2004	82 Participants	ASU pre-service teachers toured the MSEC to learn about the Center's purpose and to explore materials available for check-out.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Water Quality Monitoring – Macroinvertebrates (ASU)	September 2004	7 Participants 5 LEAs	Workshop examined how to involve grades 3-8 students in surveys of aquatic macroinvertebrates for the purpose of assessing water quality.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Water Quality Monitoring for the K-12 Classroom (ASU)	October 2004	10 Participants 3 LEAs	Teachers received equipment and reference material for future use in their classrooms.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
JASON III: Disappearing Wetlands (ASU)	October and November 2004	22 Participants 4 LEAs	Interdisciplinary, research-based project represents all curricular areas. Examines what wetlands are, why they are disappearing, and how to best manage these ecosystems. **Activity follow-up:** held in January.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of respondents felt that this professional development activity was valuable for their teaching.
Experiments in Physical Science for K-6	October 2004	8 Participants 3LEAs	Workshop for K-6 teachers on physical science experiments and useful equipment for performing experiments.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of respondents felt that this

(ASU)					professional development activity was valuable for their teaching.
Science Seminars (ASU)	November 2004	22 Participants 6 LEAs	Alternative Energy Sources: Solar Power and Wind Power.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	Ongoing; will be evaluated at end.
Teaching For Meaning Workshop Part I (GAMSEC)	September 2004	10 Participants 3 LEAs	In-depth inquiry teaching that is relevant for the learners. (Also listed under Mathematics)	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of teachers surveyed said that they would use this information in their classrooms and 100% agreed that the activity was valuable for their teaching.
Professional Development Activity **MATHEMATICS**	Date(s) Offered	Number of Participants and LEAs Served	Brief Description of Activity Including Intended Audience	Supports/ Directly Relates to SBE Priorities and/or SCOS	Participant Evaluation of Activity
Current Trends in Mathematics Education (FSU)	December 2004 - February 2005	12 Participants 1 LEA	Explore mathematics education from methodological and research perspectives. **Activity follow-up:** Meet with students to see if grants were funded.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Project SWIM (UNCC)	December 2004 - February 2005	13 Participants	A deep and connected study of algebra topics, particularly through an analysis of change, exploring linear relationships, and using algebraic symbols with a consistent focus on understanding functions. This course for math teachers motivates the mathematical study through rich tasks, uses tools (e.g. graphing calculators) to explore mathematical relationships, and focuses on grade 6-8 thinking in these areas. Developed from participants in the UNCC MAEd program.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Metrolina AP Calculus Group Meetings (UNCC)	January and February 2005	30 Participants 10 LEAs	CMSTE, in partnership with Charlotte-Mecklenburg Schools (CMS) offered a series of Metrolina AP Calculus group meetings. We looked at some common misconceptions and mistakes made by students and teachers, and discussed how to deal with them and what the underlying causes might be. Also upcoming AP Review Day on April 30, Volumes and Integrals: Some common themes, and beginning to review for the AP Exam.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
AP McSTATS Alliance	February 2005	8 Participants	Teachers brought something to share, including a	SBE Priority 3	

Meeting (UNCC)		3 LEAs	problem that has confused most of their students. This presentation is part of the Center's ongoing Statistics Master Teacher Lecture Series, and is co-sponsored by the NC Association of Advanced Placement Statistics Teachers (NCA^2PST) and M^CStats (Mecklenburg County Statistics Teachers support group).	Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Data Analysis and Probability (UNCCH)	February 2005	16 Participants 2 LEAs	Three semester-hour graduate course and second of four mathematics courses in an NCDPI-funded Math-Science Partnership with Durham Public Schools. **Participant implementation:** Class projects required classroom implementation.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	There was pre- and post-testing to evaluate the project; results not yet available.
AP Calculus/Statistics Review (UNCW)	December 2004 - February 2005	4 Participants	AP Calculus and AP Statistics teacher monthly professional development meeting. **Activity follow-up:** for students on April 30, 2005 if enough interest from teachers. **Participant implementation**: Meet and discuss the curriculum and issues such as the national AP exam, assessment ideas, and current AP Programs. Also a hotline for teachers to e-mail peer-to-peer or peer-to-UNCW faculty will be introduced. **Results:** Improve teachers content and strategies for AP courses (Calculus and Statistics).	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Go Figure Series (WCU)	December 2004 and January 2005	135 Participants 13 LEAs	Buncombe County Workshop series of six sessions focus on tasks related to Go Figure exhibit, problem solving, pattern, number sense, measurement, and geometry. **Participant implementation**: Task include data collection, representation and interpretation	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Algebra Tiles Workshop (NCSSM)	January 2005	13 Participants 1 LEA	Professional development for teachers using Algebra Tiles.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
AFM Teacher Collaboration (NCSSM)	December 2004 - February 2005	2 Participants 2 LEAs	Year-round direct support.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Teaching For Meaning Workshop Part II (GAMSEC)	January 2005	10 Participants 3 LEAs	In-depth inquiry teaching that is relevant for the learners. (Also listed under Science)	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of teachers surveyed said that they would use this information in their classrooms and 100% agreed that the activity was valuable for their teaching.
School-Based	January 2005	13 Participants	Strategies for improving the achievement of students	SBE Priority 3	100% of teachers

Academic Enrichment of Under-Achieving Students (GAMSEC)		2 LEAs	from the underrepresented STEM disciplines. (Also listed under Science)	Goals 3.1, 3.2, 3.3, 3.4, 3.5	surveyed said that they would use this information in their classrooms and 100% agreed that the activity was valuable for their teaching.
Professional Development Activity **SCIENCE**	Date(s) Offered	Number of Participants and LEAs Served	Brief Description of Activity Including Intended Audience	Supports/Directly Relates to SBE Priorities and/or SCOS	Participant Evaluation of Activity
Introductory Physics Teacher Workshop (NCSSM)	January and February 2005	12 Participants 9 LEAs	**Participant implementation**: Participants create, share, and experiment with instructional strategies, labs, and demonstrations through a combination of 7 video conferences and independent work.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Environmental Education (Aquatics Workshop) (UNCC)	January 2005	21 Participants 7 LEAs	This workshop was the third of a series of three that provides hands-on activities and field science education to science teachers in our region. A primary focus of this workshop is to continue to improve knowledge and understanding of environmental science.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
NC ISE Science Notebook 101 Workshop (UUNC)	February 2005	55 Participants 6 LEAs	A series of three regional workshops for elementary and middle school teachers on the effective use of science notebooks. Especially designed for North Carolina K-8 educators. Topics included: Learn to assess and evaluate science notebooks and research-based inquiry approach.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
AP Science Alliance Meetings (UNCC)	December 2004 and January 2005	33 Participants 1 LEA	Mike Smith, The Science House, emphasized hands-on learning to AP Physics Teachers whether kitchen chemistry or lab investigations using computer lab equipment. Dr. Rabinovich, UNCC, spoke to our AP Chemistry Teachers on the use of postage stamps as teaching tools in the classroom, particularly for illustrating a number of concepts and topics in chemistry. Kim Garrett, Water Quality Science Educator at LUESA, provided AP Environmental and AP Biology teachers with water quality assessments of their school area and Mecklenburg County water resources overall. Dr. Walt Martin, UNCC, spoke to AP Chemistry Teachers on the chemistry of the atmosphere.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	

			Dr. Mario Belloni, Davidson College, provided a talk about his book *Physlet Physics* to AP Physics teachers. Dr. Stan Schneider, UNCC, spoke to AP Biology teachers on the social behavior of the honey bee. Alan Giles, LUESA, spoke to environmental teachers to aid them in learning more about air quality issues, chemistry, and solutions.		
Professional Development Activity **MATHEMATICS**	Date(s) Offered	Number of Participants and LEAs Served	Brief Description of Activity Including Intended Audience	Supports/ Directly Relates to SBE Priorities and/or SCOS	Participant Evaluation of Activity
Current Trends in Mathematics Education (FSU)	March and April 2005	12 Participants 3 LEAs	Explore mathematics education from methodological and research perspectives. **Activity follow-up:** Meet with students to see if grants were funded. **Participant implementation**: Classroom use of techniques and activities.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Data Analysis and Probability (UNCCH)	March - May 2005	16 Participants 2 LEAs	Three semester-hour graduate course, second of four mathematics courses in an NCDPI-funded Math-Science Partnership with Durham Public Schools. **Participant implementation**: Class projects required classroom implementation.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	There was pre- and post-testing to evaluate the project; results not yet available.
Leadership Training (FSU)	April and May 2005	132 Participants 2 LEAs	Goals include enhancing teacher competencies, helping teachers qualify for certification, building leaders of mathematics instructors for schools and districts, training peers, and conducting mathematics professional development. Target group is all participating K-12 mathematics teachers. **Participant implementation**: School and district professional development.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
AP McSTATS Alliance Meeting (UNCC)	March 2005	8 Participants 4 LEAs	Residual Analysis in Regression Models by Dan Teague, NC School of Science and Mathematics. This presentation is part of the Center's ongoing Statistics Master Teacher Lecture Series, and is co-sponsored by the NC Association of Advanced Placement Statistics Teachers (NCA^2PST) and M^CStats (Mecklenburg County Statistics Teachers support group).	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
	February 2005	13 Participants 1 LEA	Three semester-hour graduate course, first of three science courses in an NCDPI-funded Math-Science Partnership with Durham Public Schools. **Participant implementation**: Class projects required classroom implementation.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	There was pre- and post-testing to evaluate the project; results not yet available.
Activity-Based	January 2005	15 Participants	One-day workshop in an ongoing series through	SBE Priority 3	

Science for Middle School Teachers (UNCCH)		1 LEA	partnership with Chatham County Schools.	Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Using Trade Books to Teach Science and Literacy (UNCCH)	January 2005	24 Participants 1 LEA	One-day workshop in an ongoing series presented in an ongoing partnership with Durham Public Schools.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
CORMP in the Classroom (UNCW)	December 2004 - February 2005	5 Participants	Coastal Ocean Research Monitoring Program (CORMP) **Activity follow-up:** August 2004 – May 2005 **Participant implementation**: Lesson plans, research projects, class materials, develop workshop plan for summer 2005. **Results:** Provide middle and high school teachers with opportunities to observe how CORMP data was collected, and learn how to use the data visualization tool using CORMP data streams to facilitate inquiry instruction in their classrooms.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
GK-12 Fall 04 Professional Development (UNCW)	December 2004	7 Participants	NSF Graduate Teaching Fellows in K-12 Education fall 2004: professional development for 6th grade science teachers aligning 6th grade SCOS to activities and lessons developed by teachers with UNCW graduate students for implementation during the academic year. **Participant implementation**: Teachers will 1) develop activities and lessons in 6th grade science; 2) develop partnerships with science graduate students; 3) use the internet and computers as instructional tools for lesson development.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
GK-12 Spring 05 Professional Development (UNCW)	December 2004 - February 2005	7 Participants	NSF Graduate Teaching Fellows in K-12 Education spring 2005: professional development for 6th grade science teachers aligning 6th grade SCOS to activities and lessons developed by teachers with UNCW graduate students for implementation during the academic year. **Participant implementation**: : Teachers will 1) develop activities and lessons in 6th grade science; 2) develop partnerships with science graduate students; 3) use the internet and computers as instructional tools for lesson development.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Science Education Committee (UNCW)	December 2004	6 Participants	Science Education Educator Search **Activity follow-up:** Schedule follow-up meeting. **Results**: Discuss and set up interviews.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Science Methods	December	24 Participants	Science methods course taught at WCU.	SBE Priority 3	

Course (UNCW)	2004 - February 2005		**Activity follow-up:** Semester Course **Results:** Students receive credit hours upon completion.	Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Science Seminars (ASU)	December 2004 through February 2005	27 Participants	Evolution, Meteorology, Bottle Biology.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
MSEC and Secondary Science Methods (ASU)	January 2005	5 Participants	ASU pre-service teachers toured the Math and Science Education Center to learn about the Center's purpose and to explore Materials available for check-out.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
MSEC and Science Methods, K-6 (ASU)	January 2005	48 Participants	ASU pre-service teachers toured the Math and Science Education Center to learn about the Center's purpose and to explore Materials available for check-out.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Geology (ASU)	January 2005	15 Participants	Workshop in Geology for elementary school teachers.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Ecosystems (ASU)	February 2005	10 Participants	Workshop in Ecosystems Explorations for science teachers.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Teaching For Meaning Workshop Part II (GAMSEC)	January 2005	10 Participants 3 LEAs	In-depth inquiry teaching that is relevant for the learners. (Also listed under Mathematics)	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of teachers surveyed said that they would use this information in their classrooms and 100% agreed that the activity was valuable for their teaching.
School-Based Academic Enrichment of Under-Achieving Students (GAMSEC)	January 2005	13 Participants 2 LEAs	Strategies for improving the achievement of students from the underrepresented STEM disciplines. (Also listed under Mathematics)	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of teachers surveyed said that they would use this information in their classrooms and 100% agreed that the activity was valuable for their teaching.
Professional Development Activity **SCIENCE**	Date(s) Offered	Number of Participants and LEAs Served	Brief Description of Activity Including Intended Audience	Supports/ Directly Relates to SBE Priorities and/or SCOS	Participant Evaluation of Activity
Science Seminars (ASU)	March and May 2005	14 participants 7 LEAs	Forensics seminar: Physics with simple and inexpensive materials. Middle and high school teachers were the main audience, and the community was invited.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of respondents felt that this professional development activity was valuable for their

					teaching.
Chemistry Workshops (ASU)	March and April 2005	6 participants 6 LEAs	Six Saturday chemistry workshops for high school teachers.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of respondents felt that this professional development activity was valuable for their teaching.
Introductory Physics Teachers Workshop (NCSSM)	March - May 2005	13 Participants 3 LEAs	Create, share, and experiment with high school physics instructional strategies, labs, and demonstrations through a combination of the seven videoconferences. **Activity follow-up and Participant implementation:** Independent work such as reading, finding web resources, practice activities, preparing contributions for the videoconferences, and integrating and testing curriculum materials for the classroom. **Results:** Four completed curricular units. Received follow-up credit.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of participants agreed or strongly agreed that this activity was appropriate for their work setting, and they plan to use the information in their classroom.
Life Science for Middle School Teachers (NCSSM)	March - May 2005	13 Participants 1 LEA	Three semester-hour graduate course, first of three science courses in an NCDPI-funded Math-Science Partnership with Durham Public Schools. **Participant implementation**: Class projects required classroom implementation.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	There was pre- and post-testing to evaluate the project; results not yet available.
Learning About Learning + Chemistry, the Environment, and You (NCSSM)	March 2005	26 participants	Train-the-Trainer Workshop for teams of two or more from NC MSEN Centers plus an NC MSEN staff member. **Participant implementation**: These teams will present the workshop at least once in their region by the end of August 2005.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
CORMP in the Classroom (UNCW)	March - May 2005	5 Participants	Coastal Ocean Research Monitoring Program (CORMP) **Activity follow-up:** August 2004 – May 2005 **Participant implementation**: Lesson plans, research projects, class materials; develop workshop plan for summer 2005. **Results:** Provide middle and high school teachers with opportunities to observe how CORMP data was collected, and learn how to use the data visualization tool using CORMP data streams to facilitate inquiry instruction in their classrooms.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
GK-12 Spring 05 Professional Development (UNCW)	March - May 2005	7 Participants	NSF Graduate Teaching Fellows in K-12 Education spring 2005: professional development for 6th grade science teachers aligning 6th grade SCOS to activities and lessons developed by teachers with UNCW graduate students for implementation during the academic year. **Participant implementation**: Teachers will 1) develop activities and lessons in 6th grade science; 2) develop	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	

			partnerships with science graduate students; 3) use the internet and computers as instructional tools for lesson development.		
Earth and Environment (UNCW)	April and May 2005	16 Participants	This workshop will focus on content instruction aligned specifically to the NC Earth/Environmental Standard Course of Study. **Results:** Teachers will gain in-depth content knowledge, instructional resources, and equipment to engage students in ongoing scientific research, as well as data collection and analysis, and will join in a network with professional colleagues.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	

GEMS Training (UNCW)	March 2005	7 Participants	Participants received training on GEMS Chemistry, the Environment and You. **Activity follow-up:** June 7 **Participant implementation:** Participants will conduct a workshop on the GEMS module to receive full credit.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Environmental Education (NC Catch) (UNCC)	March 2005	23 Participants 7 LEAs	This workshop was the first of three that provides hands-on activities and field science education to science teachers in our region. A primary focus of this workshop is to continue to improve knowledge and understanding of environmental science.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Environmental Education (Neotropical Migratory Birds) (UNCC)	April 2005	16 Participants 5 LEAs	This workshop was the second of three workshops that provides hands-on activities and field science education to science teachers in our region.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Environmental Education (It's Our Water) (UNCC)	May 2005	17 Participants 5 LEAs	This workshop was the third of three workshops that provides hands-on activities and field science education to science teachers in our region.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
NC-ISE Science Notebook 102 Workshop (UNCC)	March 2005	55 Participants 6 LEAs	Second of a series of three regional workshops for elementary and middle school teachers on the effective use of science notebooks. Designed for NC K-8 Educators. Topics included: Learn to assess and evaluate science notebooks; and research-based inquiry approach.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
NC-ISE Science Notebook 103 Workshop (UNCC)	April 2005	53 Participants 7 LEAs	Third of a series of three regional workshops for elementary and middle school teachers on the effective use of science notebooks. Especially designed for NC K-8 Educators. Topics included: Learn to assess and evaluate science notebooks as well as research-based inquiry approach.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
AP Science Alliance	April 2005	14 Participants	Bobbie Hinson, Providence Day School, spoke to AP	SBE Priority 3	

Meetings (UNCC)		3 LEA	Biology teachers on how to survive the end of AP Biology. Gina Barrier, Science House, spoke to AP Chemistry teachers through Junk Drawer Chemistry. Marek Smith, Reedy Creek Nature Center, spoke to AP Environmental Science teachers about threats of invasive exotic plants. Loren Winters, NC School of Science and Mathematics, spoke to AP Physics teachers on high speed photography.	Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Middle School Science Alliance (UNCC)	March 2005	31 Participants 7 LEAs	CMSTE, in partnership with CMS Schools, offered the Middle School Science Alliance meeting on March 17th. Middle school teachers were invited to learn about the NEED Project. NEED teaches the scientific concepts of energy and provides objective information about energy sources--their use and impact on the environment, the economy, and society. The program also includes information to educate students about energy efficiency and conservation, as well as tools to help educators, energy managers, and consumers use energy wisely.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Effective Approaches For Middle School Science Teaching and Learning Follow-Up (GAMSEC)	April 2005	24 Participants 7 LEAs	A middle school science workshop series for teams of teachers in grades 6-8 (a teacher-leader model). Each leader will gain science content knowledge and pedagogical skills. They will develop a pacing guide and leadership skills.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of participants surveyed agreed they would use this information in their classrooms and 100% agreed that the professional development activity was valuable for their teaching.
Professional Development Activity **MATHEMATICS**	Date(s) Offered	Number of Participants and LEAs Served	Brief Description of Activity Including Intended Audience	Supports/ Directly Relates to SBE Priorities and/or SCOS	Participant Evaluation of Activity
Discrete Mathematics (ASU)	July 2005	14 Participants 8 LEAs	The workshop provided high school mathematics teachers with an overview of many of the topics in the SCOS while highlighting appropriate technology and manipulatives for various topics. The teachers studied the mathematics of networks, social choice, and decision making while expanding their knowledge of applications of matrix arithmetic and probability.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of respondents felt that this professional development activity was valuable for their teaching.
Technical Mathematics (ASU)	July 2005	10 Participants 9 LEAs	The workshop gave high school mathematics teachers hands-on experience with Technical Mathematics that they can use in their classes.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of respondents felt that this professional development activity was valuable for their teaching.

Advanced Functions and Modeling (ASU)	July 2005	13 Participants 11 LEAs	The workshop for high school teachers used appropriate technology from manipulatives to calculators and application software to model things that could be done in the high school. AFM is one of the courses added to the SCOS, and offered as an additional unit of mathematics that mandates Algebra II as a prerequisite. This workshop was offered last year and this year to help teachers find effective ways to teach the new course.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of respondents felt that this professional development activity was valuable for their teaching.

History of Mathematics (ASU)	July 2005	11 Participants 8 LEAs	The workshop was designed to give an appreciation of the history of mathematics and to relate it to its use in teaching mathematics.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of respondents felt that this professional development activity was valuable for their teaching.
Statistics (ASU)	June and July 2005	7 Participants 5 LEAs	The workshop increased teachers' knowledge of statistics and gave techniques and strategies for teaching statistics. The workshops are part of a joint venture between the MSEC and the MELT program.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of respondents felt that this professional development activity was valuable for their teaching.
AP Statistics for Beginners (ECU)	June and July 2005	6 Teachers 6 LEAs	Beginning AP Statistics teachers received content instruction and teaching ideas.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of participants were very satisfied or satisfied with the instruction
AP Statistics for Experienced (ECU)	June and July 2005	8 Teachers 5 LEAs	Experienced AP Statistics teachers received content instruction and teaching ideas.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of participants were very satisfied or satisfied with the instruction
AP Calculus (ECU)	July 2005	25 Teachers 21 LEAs	AP Calculus teachers received content instruction and teaching ideas.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of participants were very satisfied or satisfied with the instruction.
Advanced Functions and Modeling (ECU)	July 2005	10 Teachers 8 LEAs	Teachers of Advanced Functions and Modeling (new 4th year mathematics course) addressed function concepts from multiple perspectives as well as modeling techniques from real world data. Teachers will meet on a Saturday in the fall to discuss implementation issues.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of participants were very satisfied or satisfied with the instruction.
Rural Initiative in Mathematics and Science: (ECU)	August 2005	21 Teachers 3 LEAs	Project RIMS focuses on lateral entry mathematics and science teachers in grades 6-12 from Bertie, Hertford, and Lenoir Counties. This workshop was an introduction to a long-term project focusing on improving teacher quality and student achievement. Classroom visits and follow-up	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of participants were very satisfied or satisfied with the instruction.

			meetings will be held during the 2005-06 school year.		
A Pre-Service Professional Development Model for Partnership and Change (FSU)	June and July 2005	17 Participants Multiple LEAs	An in-depth investigation of a variety of techniques and topics pertaining to curriculum, methodology, technology, and research in teaching mathematics including exploration of problem analysis, descriptive statistics, and elementary probability. **Activity follow-up:** Ongoing **Participant implementation**: School and district professional development.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	Instruction met participant needs.
Advanced Functions and Modeling (FSU)	July 2005	21 Participants Multiple LEAs	Explore function concepts from multiple perspectives: symbolic, graphical and tabular. **Participant implementation**: Classroom usage of techniques and activities.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	Instruction met participant needs.
Advanced Functions and Modeling (High School Math Teachers) (NCCSM)	June 13-17, 2005	45 Participants 26 LEAs	**Activity follow-up:** Contact list and network established. **Participant implementation**: Most are teaching AFM. **Results:** Teachers are using the lessons and tips.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of participants were very satisfied or satisfied with the instruction.
AP Calculus AB (New) (UNCC)	June and July 2005	22 Participants 16 LEAs	Teachers examined methods and techniques for content presentation, sequencing, and pacing of the course. Major calculus topics were explored, as well as the structure and grading of the AP exam, teaching strategies, and student textbook selection.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
AP Statistics (New) (UNCC)	June and July 2005	24 Participants 13 LEAs	This course examined major topic areas such as exploration of data, deciding what and how to measure in planning a study, anticipating patterns using probability and simulation, and statistical inference. Focus was on methods and techniques of instruction. Computers and TI-83 graphing calculators with statistical capabilities were used.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
SWIM: Math for the Real World (UNCC)	June and July 2005	17 Participants 3 LEAs	This was a two-week course for middle grades teachers. We discussed several topics especially data, probability, and algebra. The participants learned how the math they teach at middle grades relates to secondary math, and preformed several lab activities to see how data collected from the real world can be used to make predictions.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
SWIM: Geometry and Measurement (UNCC)	June and July 2005	16 Participants 4 LEAs	Designed specifically for Charlotte-Mecklenburg (CMS) teachers who wanted innovative, hands-on lessons to develop geometric concepts, reinforce skills, and gain experience in problem solving, reasoning, and proofs. Participants studied logic and deductive reasoning; applied properties, definitions and proofs to two and three	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	

			dimensional figures; described the transformation of polygons in the coordinate plane in simple algebraic terms; and used length, area, and volume of geometric figures to solve problems.		
SWIM: Discrete Mathematics (UNCC)	June and July 2005	7 Participants 5 LEAs	The material taught here will help teachers teach the Discrete Mathematics course and further their knowledge of the subject. Material included the mathematics of networks, social choice, and decision making, applications of matrix arithmetic and probability. Applications and modeling are central to this course.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
SWIM: Data Analysis and Probability (UNCC)	August 2005	9 Participants 4 LEAs	This course focuses on applications, problem solving experiences, the use of technology as a problem solving tool, mathematics as a part of daily life and as a natural development of human endeavors. Data was used to solve problems which occur in daily life. Topics covered may easily be adapted for use in your mathematics classrooms.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
SWIM: Reasoning with Numbers and Algebra (UNCC)	August 2005	24 Participants 4 LEAs	This course for mathematics teachers motivates the mathematical study through rich tasks, uses tools (e.g. graphing calculators) to explore mathematical relationships, and focuses on grade 6-8 thinking in these areas. Developed from participants in the UNCC MAEd program.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
SWIM: Calculus for Middle School Teachers (UNCC)	August 2005	12 Participants 3 LEAs	Items covered in this course include limits, continuity, derivatives, applications of the derivative, differential equations and slope fields, integration, techniques of integration, applications of integration, volumes of solids of rotation, sequences and series, Taylor, Maclaurin, and power series.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Advanced Functions and Modeling (New) (UNCC)	July 2005	14 Participants 5 LEAs	A five-day intensive workshop focused on the new course Advanced Functions and Modeling, which was added to the 2003 Standard Course of Study to meet the UNC System's new entrance requirement of a fourth math course having an Algebra II prerequisite. The NC Mathematics and Science Education Network (NC-MSEN) is designing this workshop for teachers who will be teaching the AFM course.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
EDUC 100 Data Analysis and Probability (UNCCH)	June 2005	16 Participants 2 LEAs	Three semester-hour graduate course; second of four math courses in a DPI-funded Math-Science Partnership with Durham Public Schools. **Participant implementation**: Class projects required classroom implementation.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	There was pre- and post-testing to evaluate the project; results not yet available.
MATH 130 Graph Theory and	June 2005	13 Participants 6 LEAs	Mathematics course for candidates in the Masters of	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4,	Participants prepared portfolio entries as part

Topology (UNCCH)			Education for Experienced Teachers Program.	3.5	of NCATE evaluation.
Advanced Functions and Modeling (AFM) Follow-Up (UNCW)	June 2005	6 Participants	This two-day workshop was designed as a review/follow-up for teachers who took the AFM course in 2004 (the 2004 course was set-up as part of the new requirements to add one additional unit of mathematics that has Algebra II as a prerequisite). AFM satisfied this requirement.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Advanced Functions and Modeling (AFM) (UNCW)	July 2005	6 Participants	To provide a standard (non-honors) course that satisfied the new UNC entrance requirement, a new course, AFM, was added to the Standard Course of Study. AFM included materials selected from Pre-Calculus and Discrete Mathematics and was taught from a problem-oriented perspective. The NC Mathematics and Science Education Network (NC-MSEN) is designing this one-week workshop for teachers who will be teaching the AFM course. Workshops are being offered at various NC-MSEN sites, including UNCW.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Middle School Math Workshop (UNCW)	August 2005	21 Participants	This workshop was designed to develop understanding and to present activities for middle school mathematics classes in Probability, Algebra, Proportional Reasoning, Geometry, and Measurement.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Advanced Functions and Modeling Workshop Follow Up (WCU)	June 2005	4 Participants 1 LEA	Follow up to previous Advanced Functions and Modeling workshop.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Geometry 311 (WCU)	June 2005	4 Participants 3 LEAs	CMSE sponsored summer courses for teacher development in mathematics and science. **Activity follow-up:** Additional courses will continue to be offered. **Participant implementation**: Participants received college credit for courses leading to teaching certification in mathematics and science. **Results:** Lateral entry and emergency teachers earn the semester hours needed to retain positions or obtain North Carolina Teaching License.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Advanced Functions and Modeling Workshop (WCU)	August 2005	10 Participants 4 LEAs	CMSE sponsored workshop for teacher development in mathematics and science. **Activity follow-up:** Additional courses will continue to be offered. **Participant implementation**: Participants will be able to teach the course in the next academic year.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	

Professional Development Activity **SCIENCE**	Date(s) Offered	Number of Participants and LEAs Served	Brief Description of Activity Including Intended Audience	Supports/ Directly Relates to SBE Priorities and/or SCOS	Participant Evaluation of Activity
Science Kits for Grades 1-5 (ASU)	June 2005	26 Participants 11 LEAs	Teachers learned how to use science kits for hands-on teaching of science. Several LEAs have acquired science kits and are in need of help in learning to use them. The teachers were from grades 1-5.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of respondents felt that this professional development activity was valuable for their teaching.
Inquiry, Science Process Skills, Integration, and the State Science Test (ASU)	June 2005	23 Participants 12 LEAs	Teachers worked on materials and techniques for using inquiry for more effective science teaching. The teachers used hands-on activities themselves that they will implement in their own classrooms. Teachers were from grades K-5.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of respondents felt that this professional development activity was valuable for their teaching.
Teaching Evolution: Concepts, Strategies and Activities (ASU)	June 2005	12 Participants 8 LEAs	Teachers from grades 6-12 investigated various aspects of evolution and effective ways of teaching the concepts at the various grade levels. The main emphasis was on biological evolution.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of respondents felt that this professional development activity was valuable for their teaching.
MSEC and Science Methods, K-6 (ASU)	July 2005	24 Participants	ASU pre-service teachers toured the Math and Science Center to learn about the Center's purpose and to explore materials available for check out..	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	Not evaluated
MSEC and Science Methods, 6-12 (ASU)	August 2005	12 Participants	ASU pre-service teachers toured the Math and Science Center to learn about the Center's purpose and to explore materials available for check out.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	Not evaluated
It's Our Water (ECU)	June 2005	12 Teachers 11 LEAs	Middle and high school science teachers received an introduction to a new curriculum product provided by the NC Environmental Education Fund. **Activity follow-up:** Teachers will meet at the NC Science Teachers Association meeting in November to discuss implementation efforts.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of participants were very satisfied with the instruction.
AP Biology (ECU)	June and July 2005	15 Teachers 12 LEAs	AP Biology teachers received content instruction and teaching ideas.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of participants were very satisfied or satisfied with the instruction.
AP Environmental Science (ECU)	June and July 2005	12 Teachers 9 LEAs	AP Environmental Science teachers received content instruction and teaching ideas.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of participants were very satisfied or satisfied with the

					instruction.
NC Curriculum Science Investigations K-8 (ECU)	July 2005	17 Teachers 7 LEAs	K-8 teachers were involved in an activity-based experience focusing on the Standard Course of Study in science, using relevant curriculum materials from the GEMS Series (Great Expectations in Mathematics and Science). Teachers worked in grade level groups to develop appropriate lessons for their students. This project was hosted by Bertie County Schools. Teachers will meet on a Saturday in the fall to discuss implementation issues.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of participants were very satisfied or satisfied with the instruction.
Using Logic Models to Improve EOC Scores (ECU)	July 2005	7 Teachers 6 LEAs	High school biology and physical science teachers were taught how to use a logic model to identify a selected outcome (student learning) and to develop strategies designed to achieve that outcome. Teachers will meet on a Saturday in the fall to discuss implementation issues.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of participants were very satisfied or satisfied with the instruction.
NC Curriculum Science Investigations K-8 (ECU)	July 2005	28 Teachers 7 LEAs	K-8 teachers were involved in an activity-based experience focusing on the Standard Course of Study in science, using relevant curriculum materials from the GEMS Series (Great Expectations in Mathematics and Science). Teachers worked in grade level groups to develop appropriate lessons for their students. This project was hosted by Wayne County Schools. Teachers will meet on a Saturday in the fall to discuss implementation issues.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of participants were very satisfied or satisfied with the instruction.
Rural Initiative in Mathematics and Science (RIMS) (ECU)	August 2005	21 Teachers 3 LEAs	Project RIMS focuses on lateral entry mathematics and science teachers in grades 6-12 from Bertie, Hertford, and Lenoir Counties. This workshop was an introduction to a long-term project focusing on improving teacher quality and student achievement. Classroom visits and follow-up meetings will be held during the 2005-06 school year.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of participants were very satisfied or satisfied with the instruction.
Hands-On Environmental Science (FSU)	June 2005	20 Participants Multiple LEAs	Teachers participate in hands-on science learning activities that have been correlated with the NCSSC of Study for elementary and middle grades. **Participant implementation**: Classroom usage of techniques and activities.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	TBD
5th Grade Science Now 2005 (Training in Forces and Motion Science Kit) (NCCSM)	June and July 2005	23 Participants 13 LEAs	**Activity follow-up:** Teachers can take online follow-up course. Teachers will meet at NCSTA. **Participant implementation:** All participants have a full kit that they are using in their classrooms. **Results:** More hands-on/inquiry science in 5th grade classrooms.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of participants were very satisfied or satisfied with the instruction.
8th Grade Science Now	June and July	25 Participants	**Activity follow-up:** Teachers can take online follow-up	SBE Priority 3	100% of participants

2005 (Training in "Solutions and Pollutions" Science Kit) (NCCSM)	2005	17 LEAs	course. Teachers will meet at NCSTA. **Participant implementation:** All participants have a full kit that they are using in their classrooms. **Results:** More hands-on/inquiry science in 8th grade classrooms.	Goals 3.1, 3.2, 3.3, 3.4, 3.5	were very satisfied or satisfied with the instruction.
2005 Summer Science Leadership Institute DPI Information Session for Middle School and High School Teachers (NCCSM)	July 2005	125 Participants Statewide LEAs	**Activity follow-up:** Opportunities at NCSTA conference will run again next summer. **Participant implementation:** These science leaders will share methods and materials in their local school districts. **Results:** Science teachers have latest information from Department of Public Instructions.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	DPI administrated its own evaluation. Participants were pleased with the program, and many offered specific recommendations for future Institute sessions.
GLOBE (UNCC)	June 2005	7 Participants 3 LEAs	GLOBE is a hands-on international environmental science and educational program that links students, teachers, and the scientific research community in an effort to learn more about the environment. Teachers set up GLOBE sites at their school and teach students to engage in scientific testing, data collection, and evaluation.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Field Botany (UNCC)	June 2005	4 Participants 3 LEAs	Class members utilized the UNC Charlotte Botanical Gardens where they conducted field studies on pollination biology, practice plant identification, and utilized greenhouse plants. There was as much outdoor activity as the weather allowed, as well as one long day field trip and classroom discussions.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
AP Chemistry (New) (UNCC)	June and July 2005	23 Participants 19 LEAs	Designed specifically for new AP Chemistry teachers who have not taught chemistry problem solving and need to review concepts. Content and current methods for teaching the topics of equilibrium, thermodynamics, kinetics, bonding, and descriptive chemistry were covered, as well as the preparation and the execution of experiments appropriate for student labs.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
AP Psychology (UNCC)	June and July 2005	24 Participants 15 LEAs	Our focus was both on how to build new courses and on how to strengthen existing courses. Presentations by UNC Charlotte faculty, media resources, PowerPoint, and uses of classroom technologies were demonstrated throughout the week. Text selection and student writing was also included.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
AP Chemistry (UNCC)	July 2005	15 Participants 12 LEAs	Content and current methods for teaching the topics of equilibrium, thermo-dynamics, kinetics, bonding, and descriptive chemistry were covered, as well as preparation and execution of experiments appropriate for student laboratories. Participants received instruction and demonstration of the techniques that they chose from the instructor's list (i.e., using microchem labs, computers for	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	

			gathering data and/or data analysis).		
AP Environmental Science (UNCC)	July 2005	23 Participants 15 LEAs	Teachers explored content with a view to selection of subjects and strategies for teaching and creating labs for the environmental science course. Attention was paid to the make-up and criteria for evaluation of the AP Environmental Science exam (first offered in 1998). Topics such as plant or aquatic environmental assessment were also selected for in-depth exploration.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Hydrology and Ground Water (UNCC)	July 2005	9 Participants 5 LEAs	Classes discussed surface water discharges, storage and movement of groundwater and causes, natural and manmade contamination. The class participated in field trips to observe various activities related to measuring stream flow discharges and groundwater movement and quality issues. Participants also went on an overnight field trip to a USGS Groundwater laboratory.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
CSI: Classroom Science Investigations (UNCC)	July 2005	6 Participants 3 LEAs	Teachers gained hands-on experience with crime scene investigation techniques including fiber and hair sample analysis, blood typing, chromatography, fingerprinting, and DNA fingerprinting. Teachers used digital photography, prepared a PowerPoint presentation for a jury, and conducted virtual interviews of suspects. Final activity was a 30-minute PowerPoint presentation of evidence.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Leopold Education Project (UNCC)	July 2005	15 Participants 6 LEAs	The Leopold Education Project (LEP) is an innovative, interdisciplinary, critical thinking, conservation and environmental education curriculum based on classic writings of renowned conservationist Aldo Leopold. The workshop teaches the public about humanity's ties to the natural environment in the effort to conserve and protect the earth's natural resources. This session is targeted towards grades 6-12, but others were welcome to attend.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Modeling Physics (UNCC)	July 2005	11 Participants 3 LEAs	Teachers who completed this course are trained to use modeling cycles, student collaboration, and evaluation of data as tools to better physics instruction. Modeling Workshops thoroughly treat the pedagogy and content for the mechanics portion of a physics course, or for physical science. Content is reorganized around basic models to increase its structural coherence. Participants are supplied with a complete set of course materials and work through activities alternately in the roles of student or teacher, as they practice techniques of guided inquiry and cooperative learning.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
EDUC 119A Life Science for Middle School Teachers (UNCCH)	June 2005	13 Participants 1 LEA	Three semester-hour graduate course; first of three science courses in a DPI-funded Math-Science Partnership with Durham Public Schools.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	There was pre- and post-testing to evaluate the project; results not yet available.

			Participant implementation: Class projects required classroom implementation.		
Flow of Matter and Energy Through Living Systems (UNNCH)	June 2005	24 Participants 11 LEAs	Professional development activity co-sponsored with Horizon Research in connection with an NSF-sponsored science education research grant.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Processes That Shape Earth and Plate Tectonics (UNCCH)	June 2005	36 Participants 13 LEAs	Professional development activity co-sponsored with Horizon Research in connection with an NSF-sponsored science education research grant.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Forces and Their Effect on Motion (UNCCH)	July 2005	48 Participants 13 LEAs	Professional development activity co-sponsored with Horizon Research in connection with an NSF-sponsored science education research grant.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Science Olympiad Student Enrichment Program - Laurinburg (UNCCH)	June 2005	17 Participants 9 LEAs	Workshop for teams of students and teachers to establish new Science Olympiad programs; funded by a grant from the Burroughs-Wellcome Fund.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Science Olympiad Student Enrichment Program - Rocky Mount (UNCCH)	June 2005	10 Participants 6 LEAs	Workshop for teams of students and teachers to establish new Science Olympiad programs; funded by a grant from the Burroughs-Wellcome Fund.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Science Olympiad Student Enrichment Program - Winston-Salem (UNCCH)	June 2005	33 Participants 11 LEAs	Workshop for teams of students and teachers to establish new Science Olympiad programs; funded by a grant from the Burroughs-Wellcome Fund.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Science Olympiad Student Enrichment Program - Clinton (UNCCH)	June 2005	12 Participants 4 LEAs	Workshop for teams of students and teachers to establish new Science Olympiad programs; funded by a grant from the Burroughs-Wellcome Fund.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
PEET: Watermolds as Model Organisms For Teaching Biology (UNCW)	June 2005	6 Participants	An understanding of life cycles is a fundamentally important underpinning for all advanced studies in the biological sciences. This workshop provided teachers with a curriculum, background content information, and lesson plans for teaching high school students about life cycles as modeled by watermolds.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
GEMS Chemistry, the Environment, and You (UNCW)	June 2005	5 Participants	The focus of this workshop was on 8th grade chemistry from elemental basics to the complicated environmental impacts of chemicals. Participants conducted investigations and utilized technology and information systems to build an understanding of chemistry. This was done by using the GEMS book *Learning About Learning*.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	

Coastal Ocean Research and Monitoring Program Option 1 (UNCW)	July and August 2005	9 Participants	CORMP is a research and monitoring program that addresses improving weather forecasting, predictions of climate change and elated impacts on coastal populations, safety and efficiency of marine operations, and coastal ecosystem health.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Coastal Ocean Research and Monitoring Program Option 3 (UNCW)	July and August 2005	9 Participants	CORMP is a research and monitoring program that addresses improving weather forecasting, predictions of climate change and elated impacts on coastal populations, safety and efficiency of marine operations, and coastal ecosystem health.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
NSF GK-12 Year 4 (UNCW)	August 2005	3 Participants	Professional development for science teachers aligning the Standard Course of Study to activities and lessons developed by teachers with UNCW graduate students for classroom implementation during the academic year.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Global Learning and Observations to Benefit the Environment (UNCW)	August 2005	18 Participants	This workshop will certify teachers for the GLOBE Program (which helps students improve their achievement in science, math, and the use of computer and network technology). The GLOBE Program will help teachers and students achieve state and local education goals and standards and increase student understanding of science.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Geology 150 (WCU)	June 2005	3 Participants 3 LEAs	CMSE sponsored summer courses for teacher development in mathematics and science. **Activity follow-up:** Additional courses will continue to be offered. **Participant implementation**: Participants received college credit for courses leading to teaching certification in mathematics and science. **Results:** Lateral entry and emergency teachers earn the semester hours needed to retain positions or obtain North Carolina Teaching License.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Geology 601 Earth Science (WCU)	June 2005	25 Participants 11 LEAs	CMSE sponsored summer courses for teacher development in mathematics and science. **Activity follow-up:** Additional courses will continue to be offered. **Participant implementation**: Participants received college credit for courses leading to teaching certification in mathematics and science. **Results:** Lateral entry and emergency teachers earn the semester hours needed to retain positions or obtain North Carolina Teaching License.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Science Literacy in the Elementary Classroom (WCU)	June 2005	24 Participants 8 International LEAs	Professional Development for international teachers. **Activity follow-up:** E-mail network established for participants.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	

GEMS: Great Exploration in Math and Science (WCU)	July 2005	4 Participants 1 LEA	Various GEMS guides presented to help 8th grade teachers meet the goals of the new NC standard course of study. **Participant implementation**: Teachers will be able to engage students in inquiry-based learning and model appropriate pedagogy for using hands-on inquiry science activities.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Education Leadership Institute in Science and Literacy: Making the Connection (WCU)	June 2005	23 Participants 6 International LEAs	Professional Development for international teachers **Activity follow-up:** Additional courses in science literacy to follow.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Summer Science and Technical Institute (GAMSEC)	June 2005	16 Participants	Thirty hours of Standards-based, activity-based relevant strategies.		
Middle School Science Workshop Series (GAMSEC)	June 2005	12 Participants	Effective strategies for integrating science teaching, literacy, and social studies, and mathematics.		
Summer Scholars Program (GAMSEC)	July and August 2005	389 Participants	Theme: Inquiry – The Scientific Way of Knowing. Included hands-on activities for activity-based learning in all classes, portfolio development for student work, and ongoing assessment by student and teacher. Focus: personal development.		
Professional Development Activity **TECHNOLOGY**	Date(s) offered	Number of Participants & LEAs Served	Brief Description of Activity including Intended Audience	Supports/directly relates to SBE Priorities and/or SCOS	Participant evaluation of activity
AP Computer Science (New) (UNCC)	July 2005	22 Participants 14 LEAs	An introduction to Java and object-oriented programming. The course covered the material and the AP Java subset required for the AP Computer Science A-Level exam. We studied Java classes and objects, constructors and method, interfaces, inheritance, and polymorphism. Participants learned to program Java applets and applications through case studies and Java.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
AP Computer Science Case Studies Weekender (UNCC)	July 2005	10 Participants 8 LEAs	For teachers who have been teaching AP for three or more years. This weekender allowed teachers to focus on curriculum challenges, share and discuss new teaching techniques, and review the contributions that important new research is making to content and teaching methodologies.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Distance Learning Instruction (UNCC)	June 2005	8 Participants 2 LEAs	Using Blackboard and Macromedia Breeze in distance learning programs.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	

T^3 Integrating Multiple Technologies (ASU)	July 2005	15 Participants 10 LEAs	The workshop dealt with the use of multiple technologies in teaching mathematics. This course was part of a cooperative effort with the Mathematics Education Leadership Training (MELT) Program. Some students were in graduate programs and received graduate credit towards a master's degree.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of respondents felt that this professional development activity was valuable for their teaching.
T^3 Algebra for Novice Users (ASU)	June 2005	17 Participants 14 LEAs	The workshop dealt with effectively using technology in teaching algebra. Four math workshops were T^3, Teachers Teaching with Technology.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of respondents felt that this professional development activity was valuable for their teaching.
T^3 AP Calculus (ASU)	June 2005	12 Participants 5 LEAs	The workshop dealt with effectively using technology in teaching AP Calculus. This workshop was taken by some participants for graduate credit and by some for license renewal credit.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of respondents felt that this professional development activity was valuable for their teaching.
T^3 Geometry (ASU)	June and July 2005	16 Participants 12 LEAs	The workshop dealt with the effective use of technology in teaching geometry.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	100% of respondents felt that this professional development activity was valuable for their teaching.

September 2004 - August 2005

Non-Pre-College Program Family and Student Activities

Professional Development Activity	Date(s) Offered	Number of Participants and Names of LEAs Served	Brief Description of Activity Including Intended Audience	Supports/Directly Relates to SBE Priorities and/or SCOS	Participant Evaluation of Activity
Math Day for Cove Creek School (ASU)	September 2004	92 Participants	Mathematics activities were presented by ASU faculty.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Family Math Night (ASU)	September - November 2004	563 Participants	Parents and children are engaged in problem-solving skills and together build an understanding of mathematical concepts with hands-on materials.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Family Math Night (FSU)	February 2005	25 Participants 1 LEA	Family mathematics activity kit shared and presented to community parents with strategies to enhance learning for K-8 mathematics students.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Math Counts Competition (WCU)	January 2005	120 Participants	New Hanover County Schools' MATHCOUNTS Competition: fundamental concepts of algebra, probability, and statistics are reviewed. **Participant implementation**: two teams of four students from each school compete. **Results:** Winning teams from this competition will advance to the next level of competition, which is being coordinated by the professional engineers of NC.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
High School Mathematics Enrichment (NCSSM)	December 2004	12 Participants	Girls on Track participants engage in a morning of mathematics instruction.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
NC Science Fair Workshop in Brunswick County (UNCW)	October 2004	17 Participants	NC Science Fair Workshop in Brunswick County **Participant implementation**: prepare students for local, county, and regional science fairs.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Ecology of Grandfather Mountain (ASU)	September 2004	53 Participants	ASU Professor Dr. Gary Walker made a presentation to middle grades students on the ecology of Grandfather Mountain.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Science Mobile (ASU)	October 2004	448 Participants 2 LEAs	Mr. Jeff Hugo presented a full day of challenging and fun science activities to grades 3 and 6-8 classrooms	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Family Math Nights	March and	1,342 Participants	Family Math Nights at 12 elementary schools and one	SBE Priority 4.2	

(ASU)	April 2005	10 LEAs	middle school presented at the school sites. Students and their parents are engaged in problem-solving skills, and build an understanding together of mathematical concepts with hands-on materials. They then put into practice at home the ideas they have developed.		
AP Calculus and AP Statistics Review for Students (UNCW)	April 2005	125 Participants	Advanced Placement Calculus and Advanced Placement Statistics review for end of year exams. **Participant implementation**: Applied to final exam on the following Tuesday. **Results:** Considered a success, request to do again next year.	SBE Priority 4.2	
AP Calculus/ Statistics Review Day (UNCC)	April 2005	1,032 Participants	The UNC Charlotte Center for Mathematics, Science, and Technology Education, in partnership with McStats and Charlotte-Mecklenburg Schools, invites you to the Second Annual Metrolina AP Calculus and Statistics Review Day. We will meet on the UNC Charlotte campus in the Fretwell Building. This is a day for students to drop in and take advantage of some of the area's best AP Calculus and AP Statistics teachers talking about subjects that might (and probably will) appear on the AP Calculus and AP Statistics tests this May.	SBE Priority 4.2	
Science Olympiad (ECU)	March 2005	625 Participants 10 LEAs	Students worked in teams to solve problems in science, mathematics, and engineering. **Activity follow-up:** Regional winners competed in the State Science Olympiad.	SBE Priority 4.2	100% of teachers rated the activity as excellent or very good
K-5 Geology (ASU)	March - May 2005	705 Participants 6 LEAs	Geology presentations on soils, minerals, and Blackbeard to eight elementary schools.	SBE Priority 4.2	
2005 SE Regional Science Fair (UNCW)	February 2005	500 Participants	2005 Southeast Regional Science Fair. **Activity follow-up:** State fair **Participant implementation**: Elementary, middle and high school students compete for the right to advance to state science fair. **Results:** 26 participants advanced to the state fair.	SBE Priority 4.2	
Geology (ASU)	January 2005	225 Participants	Geology activities for elementary school students.	SBE Priority 4.2	
The Hydrosphere (ASU)	October 2004	148 Participants	Presentation to 140 middle grades students and 8 teachers.	SBE Priority 4.2	

The Greensboro Area Mathematics and Science Education Center
(GAMSEC)

Work with Lexington City Schools (an ASSET District)

September 1, 2004 – March 31, 2005

Middle and High School Students and Teachers from Lexington City Schools Continue to Participate in GAMSEC Activities

Two of the Lead Teachers for the GAMSEC Pre-College Program are from Lexington Middle School and Lexington High School, respectively. Mrs. Rosa Lovelace, Assistant Principal of the Lexington Middle School is one of the Lead Teachers. The high school Lead Teacher is a mathematics teacher. Mrs. Lovelace comes to the A&T campus each Saturday and has assisted the Saturday Academy staff and teachers as a substitute teacher, teaching assistant, and hall monitor. In the summer of 2005, she will serve as the Language Arts teacher for the 8th grade Summer Scholars Program.

Under the guidance of Mrs. Lovelace, parents and students at the middle school have heard so many favorable comments about the GAMSEC Pre-College Saturday Academy that twelve parents requested permission to enroll their children in the GAMSEC Pre-College Program in January 2005. The 12 families received the mandatory orientation and were enrolled in the Program on February 10, 2005 and began their participation in the GAMSEC Pre-College Program Saturday Academy on February 12, 2005. It is interesting to note that most of the information that the Pre-College Program students shared with their peers at school was academic (improved grades; hands-on activities and experiments in real laboratories; career and college counseling; opportunities to learn more mathematics and science and meet students form other schools who are interested in science and mathematics; opportunities to learn from role-model university students and professionals; and to go to the university on Saturdays). They even encouraged the non-participating students to join their Saturday Academy groups.

These activities directly relate to SBE Priority 4.2

September 2004 – May 2005

NCSU Center for Research in Mathematics and Science Education

Professional Development Activity	Date(s) Offered	Number of Participants and LEAs Served	Brief Description of Activity Including Intended Audience	Supports/Directly Relates to SBE Priorities and/or SCOS
Technical Reports and Products	September 2004 - February 2005		*Middle Grades Academy: A Vision for Middle Grades Education in North Carolina* (with Beal, C. Dalton, P., Pope, C. O'Steen, W. Grable, L. Norwood, N.	NCLB
National Presentation Proposal	September 2004 - February 2005		Carter, G., Patrick, M., Wiebe, E., Park, J. & Butler, S. *Middle Grade Students' Interpretations of Topographic Maps.* Accepted for presentation at national meeting of National Association of Research in Science Teaching.	NCLB
Grant in Progress	September 2004 - February 2005		Co-PI - *Visualization Research in Science Education Curriculum Development.* Glaxo-Smith -Kline, $1,000,000. Member of research team designing, implementing, analyzing, and preparing research reports in the area of instructional representations.	NCLB
Regional Presentation	September 2004 - February 2005		With M. Patrick & E. Wiebe. *Simple and rich representations of DNA replication: Middle schoolers' understanding and preferences.* Presented at Association of Teacher Educators regional meeting.	NCLB
Grant in progress	September 2004 - February 2005		Co-PI - PT3 – US Department of Education. *Middle Data - A North Carolina Consortium to Prepare Future Teachers to Become Middle Grades Technology Teacher Leaders,* $524,613. Responsible for project assessment, overseeing graduate student coordinating data collection, interface with external evaluator.	NCLB
Organized Conference	September 2004 - February 2005	35 Participants	International Research Conference to investigate mathematical reasoning.	NCLB
Grant in Progress	September 2004 - February 2005	9 Participants	Co-PI – *North Carolina Middle Math Project*, National Science Foundation $230,000 subcontract with UNC-Chapel Hill, January, 2002 – January 2005.	NCLB
Grant in Progress	September 2004 - February 2005	130 Participants	Co-Principal Investigator – National Science Foundation, $688,941. Collaboration through Agile Software Development Practices: *A Means for Improvement in Quality and Retention of the IT Workforce.* 2003-2005	IT Workforce
Grant in Progress	September 2004 - February 2005		Co-Principal Investigator – National Science Foundation, $550,000. *Women and Information Technology: A Comparative Study of Young Women from Middle Grades through High School and Into College*, August, 2002 – July, 2005.	NCLB
Publication Submitted with Revisions	September 2004 - February 2005		Berenson, S., Slaten, K., Williams L., & Ho, Chih-wei. (Paper Submitted). *Voices of women in a software engineering course: Reflections on collaboration.* Journal of Educational Resources in Computing.	IT Workforce

Publication	September 2004 - February 2005		Person, A., Berenson, S., & Greenspon, P. (2004). *The role of numbers in proportional reasoning: A prospective teacher's understanding.* In B. Jaworski (Ed.), Proceedings of the 28th Annual Meeting of PME, pp. 3-156-164. Bergen, Norway. University of Bergen.	Math Teacher Shortage
Proceedings Publication	September 2004 - February 2005		Vouk, M., Berenson, S., & Michael, J. (2004). *Women and Information Technology: Summary of Second Year Findings.* Report to the PI Meeting of the NSF IT Workforce Program. Philadelphia, PA.	
Paper Submitted and Accepted	September 2004 - February 2005		Berenson, S., Williams, & Slaten, K. (July, 2005). *Using Pair Programming and Agile Development Methods in a University Software Engineering Course to Develop a Model of Social Interaction.*	IT Workforce
Paper Submitted and Accepted	September 2004 - February 2005		Howe, A., Vouk, M., & Berenson, S. (July, 2005). *Changing the High School Culture to Promote Interest in IT Careers Among High Achieving Girls.*	IT Workforce
Design Experiment Research Group	September 2004 - February 2005	4 Participants	Weekly research meetings with graduate students and junior faculty.	Math Teacher Shortage
EMS 203	August - December 2004	18 Participants	Middle grades and high school mathematics methods course.	Math Teacher Shortage
Grant Proposal Submitted	December 2004 - February 2005		Co- PI on a proposal submitted to NSF-EHR/REC-ROLE, titled *Cognitive Theories of Multimedia Instructional Materials: Research and Validation in the Middle School Classroom.* This project would use cognitive/learning science research as the basis for investigating and validating multimedia design heuristics for middle school science instructional material. Value of the proposal is $496,408 over three years.	NCLB
Presentations	December 2004 - February 2005		Patrick, M., Carter, G. & Wiebe, E. (2004). *Simple and rich representations of DNA replication: Middle schoolers' understanding and preferences.* Presented at Friday I Mathematics and Science Education Collaboration.	NCLB
Paper Submitted	December 2004 - February 2005		Slaten, K., Berenson, S., Droujkova, M. & Tombes, S. (under review). *Assessing Beginning Pre-Service Teacher Knowledge: An Early Intervention Strategy.* Poster to be delivered at PME 29 in Melbourne, Australia.	Math Teacher Shortage
Paper Submitted	December 2004 - February 2005		Droujkova, M., Berenson, S., Slaten, K., & Tombes, S. (research report under review. *A Conceptual Framework for Studying Teacher Preparation: The Pirie-Kieren Model, Collective Understanding, and Metaphor.* Paper to be delivered at PME 29 in Melbourne, Australia.	Math Teacher Shortage

September 2004 - May 2005

NC-MSEN Technology

Professional Development Activity	Date(s) Offered	Number of Participants and LEAs Served	Brief Description of Activity Including Intended Audience	Supports/ Directly Relates to SBE Priorities and/or SCOS	Participant Evaluation of Activity
WeatherBug Training (WCU)	October 2004	22 Teachers 4 LEAs	Workshop combines meteorology with technology for classrooms. **Activity follow-up: .**Visitation in classroom. **Participant implementation:** Productions of units.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Pender County Staff Development (UNCW)	January 2005	12 Participants	Probeware Workshop **Participant implementation**: Provides opportunities on how to use hands-on data acquisition probes and software (Vernier Laptops and Dell Hand-Held Axims) in your classroom. **Results:** A cross-curricular lab that will combine chemistry, physics, and algebra II, along with analysis and/or pre-calculus, while incorporating lab activities that will cover the high school curriculum and standard course of study.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Teaching Mathematics Using Computers (FSU)	May 2005	12 Participants 1 LEA	A study of the use of computers in mathematics teaching and research, incorporating evaluations of instructional software, and examining integrative techniques for application of microcomputers. **Participant implementation**: Classroom usage of techniques and activities.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
Environmental Education (Field Trip Earth) (UNCC)	September 2004	22 Participants 7 LEAs	This workshop was the first in a series of three that provides hands-on activities and field science education to science teachers in our region. This particular segment focused on the use of technology in science.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	
SMEC's Saturday Science Sessions (UNCW)	September and October 2004	4 Participants	Globe Training helps students improve their achievement in science, mathematics, and in the use of computer and network technology, as well as aids teachers and students to achieve state and local education goals and standards.	SBE Priority 3 Goals 3.1, 3.2, 3.3, 3.4, 3.5	

September 2004 - May 2005

NC-MSEN USDoEd and/or NSF-Funded Projects

Professional Development Activity	Date(s) Offered	Number of Participants and LEAs Served	Brief Description of Activity Including Intended Audience	Supports/ Directly Relates to SBE Priorities and/or SCOS	Participant Evaluation of Activity
North Carolina Middle Mathematics Project (NCM^2) Collaboration among ASU, ECU, FSU, GAMSEC, NC State University (NCSU) - internal evaluator, UNCC, UNCCH, UNCW, and WCU NSF Award No. ESI-0101943	September 2004 - May 2005	136 Participants Alamance-Burlington, Asheville City, Beaufort, Bertie, Brunswick, Buncombe, Cabarrus, Caldwell, Carteret, Caswell, Catawba, Chatham, Charlotte-Mecklenburg, Cherokee, Columbus, Craven, Cumberland, Currituck, Duplin, Durham, Edgecombe, Franklin, Granville, Guilford, Halifax, Haywood, Iredell-Statesville, Jackson, Kannapolis City, Lenoir, Moore, Nash, New Hanover, Northampton, Onslow, Orange, Pender, Pitt, Randolph, Richmond, Rockingham, Rowan, Sampson, Scotland, Stanly, Swain, Vance, Wake, Wayne, Watauga, Wilkes, Wilson	The project is a collaboration between NC-MSEN and the NC Department of Public Instruction (NCDPI) to improve mathematics education in grades 6-8 statewide, support teachers in their professional development, and provide academic renewal and financial recognition to support their retention. Tuition-free graduate-level courses (statistics and data analysis, geometry and measurement, numbers and algebra) serve as the foundation for a master's degree in middle school mathematics and for NBPTS certification in Early Adolescence/Mathematics. For more information, see http://www.unc.edu/depts/cmse/NCM2/index.htm **Activity follow-up:** Professional development activities were conducted for over 2,000 teachers statewide. **Participant implementation:** Teachers are using what they learn from the project's graduate courses in their classrooms. **Results:** Since project startup, the following pertains to NBPTS certification: 37 teachers have received certification. 64 teachers are current candidates. The Leadership Team has been increased to 45 members up from 17.	SBE Priorities: 3.1, 3.2, 3.3, 3.4, 3.5	NCM^2 teachers are: • incorporating more problem-solving in their lessons • promoting more communication in their classrooms • using activities or tasks from their graduate work • using both teacher directed and student centered methodologies. 82% of the teachers have either received a master's degree or are currently enrolled in a master's program. This indicates that the project has had a strong positive impact on teachers' decisions to pursue further graduate work. Many teachers have taken on roles as leaders at the school, district, regional, and state level as a result of their direct or indirect involvement in this project. Pre-service and in-service teachers outside of the project have been exposed to coursework developed during this project. Some universities will continue to teach these courses in their middle

					school master's programs. *Source*: Year 4 Internal Evaluation, Center for Research in Mathematics and Science Education, NC State University (an NC-MSEN Center)
The North Carolina Partnership for Improving Mathematics and Science (NC-PIMS) University Hubs: NC-MSEN Centers at ECU, FSU in collaboration with UNC-Pembroke (UNCP), and UNCW NSF Award No. EHR-0226877 and U. S. Department of Education Award No. S366A020000 **Lead Teacher courses include:** Navigating Through Geometry K-5	September 2004 - May 2005 In November 2004, NC-PIMS was re-scoped to a comprehensive PK-12 mathematics-only initiative, effective June 1, 2005	23 Facilitators (Master Teachers) 520 Lead Teachers 6600+ classroom teachers Beaufort, Bladen, Brunswick, Columbus, Craven, Cumberland, Duplin, Edgecombe, Greene*, Hoke, Jones, Martin, Onslow, Pitt, Sampson, Wayne, Wilson * Greene County was not active	NC-PIMS works with eastern NC school districts to increase K-12 mathematics and science learning and to decrease current achievement gaps using three foci: 1. District Leadership and Policy 2. Teacher Professional Development, K-5 (elementary) and 6-12 (secondary) 3. Student Encouragement/Parental Involvement (SE/PI) K-8 Aspects of the project include: 1. District Leadership Teams (DLTs) determine needs for mathematics and science professional development in relation to their district's improvement plans. 2. Facilitators serve as liaisons between the project and school districts to which they are assigned. 3. Lead Teachers from each elementary and secondary school in the partner districts receive content-rich course work and leadership training so they can conduct professional development workshops and serve as resources for teachers in their schools. 4. Twenty-four hours of professional development is provided for all classroom teachers of mathematics and science during the academic year by Facilitators and Lead Teachers. 5. Parent workshops are have been designed to help them become knowledgeable advocates for their children's mathematics and science education. 6. Age-appropriate community-based student activities designed to motivate them to learn and increase their mathematics and science performance. For more information, see http://www.ncpims.org **Activity follow-up:** Continual professional development for Facilitators, Lead Teachers, and classroom teachers. Ongoing parent workshops and student-centered activities in	SBE Priorities: 1.2, 1.3, 1.4, 3.1, 3.2, 3.3, 3.4, 3.5, 4.1, 4.2, 4.3	Teacher professional development pre- and post-assessments indicated an increase in content knowledge in both mathematics and science Lead Teachers. Lead Teachers report that the courses have had an impact on their teaching. SE/PI o Ninety-five percent (95%) indicated that they would recommend the workshop to other parents o Ninety-two percent (92%) indicated they would attend more parent workshops. o Almost all of the parents indicated they would include their children in more mathematics because of their workshop attendance. 89% of elementary science Lead Teachers felt the professional development they received enhanced their understanding of how students learn about science. 100% of secondary science Lead Teachers felt the professional development they received enhanced their understanding of how students learn about science. 65% of elementary mathematics

Algebraic Thinking Course: Follow-up K-5 Algebraic Thinking Course: Follow-up 6-12			the districts' communities. **Participant implementation:** Teachers are using information from their professional development in the classroom. Parents indicate that they will use information from workshops to help their children.		Lead Teachers felt the professional development they received enhanced their understanding of how students learn about mathematics.
Inquiry-Based Learning for Science Elementary Lead Teachers Inquiry-Based Learning for Science Secondary Lead Teachers **Classroom teacher professional development modules include:** Physical Science 6-12 Problem in Science Education Algebraic Thinking K-5 Inquiry-Based Learning for Science Elementary Teachers Algebraic Thinking 6-12 Inquiry-Based Learning for Science Secondary Teachers			**Results**: The IHE/K-12 Connections Task Force has been developed as an extension of the Statewide Policy Advisory Board to address the issues of institutional change and sustainability as it pertains to the involvement and rewards for STEM (scientists, technologists, engineers, and mathematicians) faculty involvement in K-12 mathematics and science education. District Leadership Teams (DLTs) have been developed in all of the partner districts. STEM professionals designed and will deliver the K-5 and 6-12 mathematics courses in the summer of 2005. 493 Lead Teachers participated in leadership training. Approximately 7,000 K-5 teachers and 1,100 6-12 teachers received mathematics and science professional development workshops delivered by NC-PIMS Lead Teachers. SE/PI training has taken place with 91 community volunteers who have been recruited and trained to present the P.U.S.H. (Parents Utilizing Standards at Home) workshops by three Facilitators. 38 workshops have been conducted by these volunteers and school personnel. In addition to the P.U.S.H. workshops, 60 after-school program providers have received the SAM training for student activities. *For more information, contact Thomas B. Clark, Project Director or Verna L. Holoman, Principal Investigator.*		90% of secondary mathematics Lead Teachers felt the professional development they received enhanced their understanding of how students learn about mathematics. 65% of elementary mathematics teachers report that they have used the activities from the professional development. 48% of elementary science teachers report that they have used the activities from the professional development. 70% of secondary science teachers report that they have used the activities from the professional development. 68% of secondary mathematics teachers report that the objectives of the professional development were accomplished. *Source:* Center for Educational Research and Evaluation (CERE), UNC-Greensboro.

UNC - CSLD Professional Development Activities

September 2004 –August 2005

Program Name: NC Model Teacher Education Consortium (NCMTEC)

Professional Development Activity	Date(s) offered	Number of Participants & LEAs Served	Brief Description of activity including intended audience	Supports/directly relates to SBE priorities and/or SCOS	Participant evaluation of activity
Reduced Tuition Scholarships for NCMTEC – Sponsored Courses	Aug. 2004-Dec 2004 (These dates reflect attendance in fall semester 2004.)	369 clients took 494 courses (or tuition slots) List LEAs Served: Alamance, Bertie, Bladen, Clinton, Columbus, Duplin, Edgecombe Elizabeth City-Pasquotank, Franklin, Granville, Greene, Halifax, Harnett, Hertford, Johnston, Jones, Lenoir, Martin, Nash, Northampton Onslow, Person, Richmond, Roanoke	Since 1990 NCMTEC has provided reduced tuition for teachers (lateral entry, emergency, provisional) and paraprofessionals (teacher assistants, substitutes, clerical, etc.) with a menu of NCMTEC-sponsored courses each semester. **Activity follow-up:** Assistance is provided each semester with transcript evaluations to secure a plan of study and registration for the courses through mail-in and on-site sessions. Representatives from the colleges and universities attend the on-site registration sessions to evaluate transcripts and advise NCMTEC clients. Individual coaching and advising from NCMTEC staff is also available. **Participant implementation**: Participants received college credit for the courses that lead to a teaching license. Each participant paid $80 for each 3 -semester hour college course. NCMTEC paid the remaining tuition for the 494 courses. **Results:** Lateral entry and emergency teachers earned the college semester hours needed to retain their positions. Teacher assistants and other paraprofessionals successfully completed college courses needed to earn a college degree and teacher licensure.	SBE Priority #3, Goals: 3.1, 3.2, 3.3, 3.4	The college courses are evaluated by each IHE that is offering them.

		Rapids, Robeson, Sampson, Tyrrell, Vance, Warren, Wayne, Weldon, Whiteville, Wilson			
Scholarship for Full Reimbursement =/< $500	Sept. 2004-Nov 2004	14 clients took 14 courses List LEAs served: Alamance, Beaufort, Camden, Duplin, Hertford, Lenoir, Nash, Onslow, Robeson, Sampson, Vance	**Full reimbursement up to $ 500 for an** **undergraduate college course/school year** **Activity follow-up:** Assistance with transcript evaluations to secure a plan of study and registration for the courses through mail-in and on-site sessions is provided each semester. In addition, individual coaching and advising from NCMTEC staff is available. **Participant implementation:** When NCMTEC was not sponsoring a course required for teacher licensure, participants received one reimbursement/school year (up to $500) to take the course at the IHE of their choice. **Results:** All participants successfully completed the course and earned a "c" or above, thus reducing the number of courses needed for licensure.	SBE Priority #3, Goals: 3.1, 3.2, 3.3, 3.4, 3.5	The college courses are evaluated by each IHE that is offering them.
Tuition Scholarships for Community College Courses	Sept. 2004-Nov. 2004	84 clients took 165 courses List LEAs served: Alamance, Beaufort,, Brunswick, Clinton, Duplin, Edgecombe Elizabeth City/ Pasquotank, Franklin,	Tuition scholarships (Participants pay $60/course; NCMTEC pays remaining tuition), activity fees, and $60 textbook assistance/course for 100-200 level community college courses are offered each semester. **Activity follow-up:** Advising sessions and assistance with transcript evaluations to secure a plan of study are offered each semester. Ongoing individual coaching and advising from NCMTEC staff is available. **Participant implementation:** Participants attend one of 28 community colleges, take the required college transfer courses agreed upon through the UNC Articulation Agreement (at $60/course). NCMTEC pays the remaining tuition, activity fees, and a maximum of $60/course for required textbooks. **Results:** Many of the financial and geographic barriers that have prohibited teacher assistants and other	SBE Priority #3, Goals: 3.1, 3.2,3.3, 3.4, 3.5	Application s for parapro-fessionals require an essay on why they want to be a teacher. Focus groups are held each year to receive input from parapro-fessionals.

		Granville, Greene, Halifax, Harnett, Hertford, Johnston, Jones, Lenoir, Martin, Nash, Onslow, Person, Richmond, Robeson, Sampson, Vance, Warren,, Wayne, Weldon, Wilson	paraprofessionals from becoming teachers have been removed.		The community college courses are evaluated by the specific community college.
Student Teacher Tuition Scholarships	Sept. 2004-Nov. 2004	2 clients received Scholarships List Leas served: Brunswick, Johnston	Full tuition scholarships are provided during the student teaching semester. **Activity follow-up:** After the student teaching semester, participants are invited to an NCMTEC-sponsored technology seminar. Once they have signed a contract with an NCMTEC LEA, they are issued a laptop computer on loan. Each summer they come back for a renewal seminar in order to keep the laptop on loan and update their technology skills. **Participant implementation:** When no other financial aid is available (NCMTEC checks with IHEs to confirm), NCMTEC provides a full semester of tuition assistance (scholarship) during student teaching. **Results:** Teacher assistants and other paraprofessionals are able to complete their teacher education programs fulfilling their goal of becoming a teacher.	SBE Priority # 3, Goals: 3.1, 3.2, 3.4, 3.5	Qualitative testimonials entitled "The Long Journey to Becoming a Teacher" from parapro-fessionals can be found at www.ncmtec.org.
Student Teacher Stipends	Sept. 2004-Nov. 2004	6 clients served List Leas served: Brunswick, Lenoir, Nash,	A stipend of $500/month is provided for paraprofessionals who have to take a leave of absence without pay during student teaching. **Activity follow-up:** After the student teaching semester, participants are invited to a technology seminar. Once they have signed a contract with an NCMTEC LEA, they are issued a laptop computer on loan. Each summer they come back for a renewal seminar in order to keep the laptop on loan.	SBE Priority # 3, Goals: 3.1, 3.2, 3.4, 3.5	Qualitative testimonials entitled "It Has Been a Long Journey" from paraprofess ionals can

		Onslow	**Participant implementation:** When teacher assistants and other paraprofessionals must take a leave of absence from their jobs to do their student teaching, NCMTEC pays them a stipend of $500/month during the student teaching experience. **Results:** Teacher assistants and other paraprofessionals are able to complete their teacher education programs fulfilling their goal of becoming a teacher.		be found at www.ncmtec.org
Praxis I Preparation Seminars	Sept. 2004-Nov. 2004	24 clients took 1 or more seminars (Clients may take reading, writing and/or math) List of LEAs served: Alamance Bladen Duplin Edenton/ Chowan Johnston Jones Lenoir Martin Nash Richmond Roanoke Rapids Robeson Warren, Washington Weldon	One-day Praxis I preparation seminars are held several times/year in reading, writing, and math. **Activity follow-up:** The facilitator of the seminar communicates with the participants and provides additional help as needed. A math tutorial sponsored by NCMTEC that began fall 2004 semester has provided additional assistance. **Participant implementation:** Participants receive a full day of preparation in reading, a day in writing, and a day in math when they attend NCMTEC Praxis I seminars. Test taking skills and strategies are covered, practice tests are given, and extensive content is covered. **Results:** Participants are better prepared and more confident in taking Praxis I tests. Once they pass Praxis I, they can then be admitted to a teacher education program at the IHE of their choice. Teachers who must take Praxis I because of a low GPA are also given an opportunity to attend the seminars and prepare for the exam.	SBE Priority # 3, Goals: 3.1,3.2,3.4,3.5	96% of the participants gave the reading seminar the highest possible rating (5), while 4% gave them the next highest rating (4). 97% of the participants gave the writing seminar the highest possible rating (5), while 3% gave them the next highest rating (4). 93% of the participants gave the math seminar the highest possible rating (5), while 7% gave them

					the next highest rating (4).
Praxis II Preparation Seminars	Sept. 2004-Nov. 2004	30 clients served List of LEAs served: Alamance Beaufort Bertie Bladen Elizabeth City/ Pasquotank Franklin Nash Robeson Warren Wayne Wilson	Praxis II preparation seminars are offered each semester in specific content areas. **Activity follow-up:** The facilitator of the seminar communicates with the participants and provides additional help as needed. **Participant implementation:** Participants attend a full day of extensive content preparation and some test taking skills/strategies that prepare them for taking Praxis II exams. Facilitators are master teachers who have taken the exam in the last two years. **Results:** Participants are better prepared and more confident in taking Praxis II tests	SBE Priority # 3, Goals: 3.1,3.2,3.3,3.4,3.5	A 2004 analysis revealed that 84% of the participants gave the seminars the highest possible rating (5), while 16% gave them the next highest rating (4).
Mail-in Registration for Spring 2005 NCMTEC Sponsored IHE Courses	Sept. 2004-Nov. 2004	292 clients registered for 466 Spring 2005 courses through mail-in registration List of LEAs served: Alamance Bertie Bladen Brunswick Columbus Duplin Edgecombe Elizabeth City/ Pasquotank,	Each semester NCMTEC sponsors on-site registration that includes transcript evaluations and advising sessions. In addition, a mail-in registration process was begun during the spring 2004 semester in order to eliminate geographic and time barriers. **Activity follow-up:** Ongoing individual coaching and advising from NCMTEC staff is available **Participant implementation:** Each semester, NCMTEC offers onsite and mail-in registration for the upper-level NCMTEC- sponsored college courses. Representatives from the participating IHEs, the local community college, and the Regional Alternative Licensure Center are contracted to attend the sessions to advise participants and evaluate their transcripts at the on-site registration sessions. NCMTEC staff members provide advising during mail-in registration that takes place prior to on-site registration. **Results:** 292 clients had the opportunity to register for 466 upper-level spring 2005 teacher education courses sponsored by NCMTEC through mail-in registration, thus removing geographic and financial barriers.	SBE Priority # 3, Goals: 3.2,3..3,	Clients have provided a great deal of qualitative data supporting their appreciation for mail-in registration. Clients who registered for NCMTEC sponsored courses In November 2004 for this spring 2005

		Franklin Granville Greene, Halifax Harnett Hertford Hyde Johnston, Lenoir, Martin, Nash, Northampto n, Onslow, Person, Richmond, Roanoke Rapids Robeson, Sampson Vance Warren Wayne Weldon Whiteville Wilson			semester increased by 31%; the number of courses they registered for increased by 43%.
Student Teacher Technology Seminars	Sept. 2004-Nov. 2004	8 clients served List of LEAs Served: Duplin Johnston Nash Robeson Warren Wilson,	NCMTEC sponsors an annual technology seminar for program participants who have completed student teaching. **Activity follow-up:** After the student teaching semester, participants are invited to a technology seminar. Once they have signed a contract with an NCMTEC LEA, they are issued a laptop computer on loan. Each summer they come back for a renewal seminar in order to keep the laptop on loan. NCMTEC's technology consultant checks with them during the year and coaches them when technology challenges arise. **Participant implementation:** Each summer, NCMTEC honors the previous year's student teachers by inviting them to a technology seminar. When they sign a contract with an NCMTEC LEA, they are issued a laptop computer on loan. Each summer they come back for a renewal seminar in order to keep the laptop on loan. Teachers use the laptops for classroom instruction and management. **Results:** Recent college graduates who are beginning	SBE Priority # 3, Goals: 3.1, 3.2,3.3,3.4,3.5	100% of the participants gave the technology seminar the highest possible rating (5).

			their first year of teaching receive additional staff development in technology and leave equipped with a laptop on loan to enhance their teaching. In addition, they are treated as the true professionals they are.		
Praxis I Math Tutorial	Sept. 2004-Nov 2004	6 clients served LEAs Served: Alamance Duplin Edgecombe Franklin Greene Washington	During the Fall 2004 semester, NCMTEC sponsored the first Math Tutorial for program participants who have completed NCMTEC's Praxis I Math seminar but need additional help in taking the Praxis I Math test. **Activity follow-up:** When program participants take the Praxis I test and submit their scores to NCMTEC, they are reimbursed the $20 registration fee for the seminar— regardless of their score. **Results:** Paraprofessionals who have difficulty in math are provided additional help to prepare for taking the Praxis I Math test.		Evaluations for the recent math tutorial have not yet been compiled.
Reduced Tuition Scholarships for NCMTEC – Sponsored Courses	Jan. 2005-May 2005 (These dates reflect attendance in spring semester 2005.)	572 clients took 837 courses (or tuition slots) List LEAs Served: Alamance Beaufort Bertie Bladen Brunswick Clinton Columbus Duplin Edenton-Chowan Edgecombe Elizabeth City-Pasquotank Franklin Granville Greene Halifax Harnett Hertford, Hyde,	Since 1990 NCMTEC has provided reduced tuition for teachers (lateral entry, emergency, provisional) and paraprofessionals (teacher assistants, substitutes, clerical, etc.) with a menu of NCMTEC-sponsored courses each semester. **Activity follow-up:** Assistance is provided each semester with transcript evaluations to secure a plan of study and registration for the courses through mail-in and on-site sessions. Representatives from the colleges and universities attend the on-site registration sessions to evaluate transcripts and advise NCMTEC clients. Individual coaching and advising from NCMTEC staff is also available. **Participant implementation**: Participants received college credit for the courses that lead to a teaching license. Each participant paid $80 for each 3 -semester hour college course. NCMTEC paid the remaining tuition for the 837 courses. **Results:** Lateral entry and emergency teachers earned the college semester hours needed to retain their positions. Teacher assistants and other paraprofessionals successfully completed college courses needed to earn a college degree and teacher licensure.	SBE Priority #3, Goals: 3.1, 3.2, 3.3, 3.4	The college courses are evaluated by each IHE that is offering them.

		Johnston Lenoir, Martin Nash Northampton Onslow Person Richmond Roanoke Rapids Robeson Sampson Vance Warren Washington Wayne Weldon Whiteville Wilson			
Scholarship for Full Reimbursement =/< $500	Dec. 2004-Feb. 2005	5 clients took 5 courses List LEAs served: Alamance, Beaufort Duplin Sampson Vance	**Full reimbursement up to $ 500 for an** **undergraduate college course/school year** **Activity follow-up:** Assistance with transcript evaluations to secure a plan of study and registration for the courses through mail-in and on-site sessions is provided each semester. In addition, individual coaching and advising from NCMTEC staff is available. **Participant implementation:** When NCMTEC was not sponsoring a course required for teacher licensure, participants received one reimbursement/school year (up to $500) to take the course at the IHE of their choice. **Results:** All participants successfully completed the course and earned a "c" or above, thus reducing the number of courses needed for licensure.	SBE Priority #3, Goals: 3.1, 3.2, 3.3, 3.4, 3.5	The college courses are evaluated by each IHE that is offering them.
Tuition Scholarships for Community College Courses	Dec. 2004-Feb. 2005	83 clients took 133 courses *(This number is incomplete since all*	Tuition scholarships (Participants pay $60/course; NCMTEC pays remaining tuition), activity fees, and $60 textbook assistance/course for 100-200 level community college courses are offered each semester. **Activity follow-up:** Advising sessions and assistance with transcript evaluations to secure a plan of study are offered each semester. Ongoing individual coaching	SBE Priority #3, Goals: 3.1, 3.2,3.3, 3.4, 3.5	Application s for paraprofess ionals require an essay on why they want to be a

		invoices for community college courses have not been received.) List LEAs served: Alamance Beaufort Bertie Brunswick, Clinton, Duplin Edgecombe Elizabeth City/ Pasquotank Franklin Gates Greene Halifax Harnett Hyde Johnston Jones Lenoir Martin Nash Northampton Onslow Person Roanoke Rapids Robeson Vance Warren Wayne Weldon Wilson	and advising from NCMTEC staff is available. **Participant implementation:** Participants attend one of 28 community colleges, take the required college transfer courses agreed upon through the UNC Articulation Agreement (at $60/course). NCMTEC pays the remaining tuition, activity fees, and a maximum of $60/course for required textbooks. **Results:** Many of the financial and geographic barriers that have prohibited teacher assistants and other paraprofessionals from becoming teachers have been removed.		teacher. Focus groups are held each year to receive input from paraprofessionals. The community college courses are evaluated by the specific community college.
Student Teacher Tuition Scholarships	Dec. 2004-Feb. 2005	3 clients received Scholarships	Full tuition scholarships are provided during the student teaching semester. **Activity follow-up:** After the student teaching	SBE Priority # 3, Goals: 3.1, 3.2, 3.4, 3.5	Qualitative testimonials entitled

		List Leas served: Nash Person Wayne	semester, participants are invited to an NCMTEC-sponsored technology seminar. Once they have signed a contract with an NCMTEC LEA, they are issued a laptop computer on loan. Each summer they come back for a renewal seminar in order to keep the laptop on loan and update their technology skills. **Participant implementation:** When no other financial aid is available (NCMTEC checks with IHEs to confirm), NCMTEC provides a full semester of tuition assistance (scholarship) during student teaching. **Results:** Teacher assistants and other paraprofessionals are able to complete their teacher education programs fulfilling their goal of becoming a teacher.		"The Long Journey to Becoming a Teacher" from paraprofessionals can be found at www.ncmtec.org.
Student Teacher Stipends	Dec. 2004-Feb. 2005	12 clients served List Leas served: Beaufort Gates Nash Onslow Richmond Robeson Vance Wayne	A stipend of $500/month is provided for paraprofessionals who have to take a leave of absence without pay during student teaching. **Activity follow-up:** After the student teaching semester, participants are invited to a technology seminar. Once they have signed a contract with an NCMTEC LEA, they are issued a laptop computer on loan. Each summer they come back for a renewal seminar in order to keep the laptop on loan. **Participant implementation:** When teacher assistants and other paraprofessionals must take a leave of absence from their jobs to do their student teaching, NCMTEC pays them a stipend of $500/month during the student teaching experience. **Results:** Teacher assistants and other paraprofessionals are able to complete their teacher education programs fulfilling their goal of becoming a teacher.	SBE Priority # 3, Goals: 3.1, 3.2, 3.4, 3.5	Qualitative testimonial's entitled "It Has Been a Long Journey" from paraprofessionals can be found at www.ncmtec.org
Praxis I Preparation Seminars	Dec. 2004-Feb. 2005	69 clients took 1 or more seminars (Clients may take reading, writing and/or math) List of LEAs served: Bladen	One-day Praxis I preparation seminars are held several times/year in reading, writing, and math. **Activity follow-up:** The facilitator of the seminar communicates with the participants and provides additional help as needed. A math tutorial sponsored by NCMTEC that began fall 2004 semester has provided additional assistance. **Participant implementation:** Participants receive a full day of preparation in reading, a day in writing, and a day in math when they attend NCMTEC Praxis I seminars. Test taking skills and strategies are covered, practice tests are given, and extensive content is covered. **Results:** Participants are better prepared and more confident in taking Praxis I tests. Once they pass Praxis I, they can then be admitted to a teacher education	SBE Priority # 3, Goals: 3.1,3.2,3.4,3.5	A 2004 analysis indicated that 96% of the participants gave the reading seminar the highest possible rating (5), while 4% gave them the next highest

		Brunswick Duplin Edenton-Chowan Edgecombe Elizabeth City-Pasquotank, Gates Johnston Washington	program at the IHE of their choice. Teachers who must take Praxis I because of a low GPA are also given an opportunity to attend the seminars and prepare for the exam.		rating (4). 97% of the participants gave the writing seminar the highest possible rating (5), while 3% gave them the next highest rating (4). 93% of the participants gave the math seminar the highest possible rating (5), while 7% gave them the next highest rating (4).
Praxis II Preparation Seminars	Dec. 2004-Feb. 2005	14 clients served List of LEAs served: Alamance Brunswick Camden Harnett Johnston Lenoir Sampson Wayne Weldon Wilson	Praxis II preparation seminars are offered each semester in specific content areas. **Activity follow-up:** The facilitator of the seminar communicates with the participants and provides additional help as needed. **Participant implementation:** Participants attend a full day of extensive content preparation and some test taking skills/strategies that prepare them for taking Praxis II exams. Facilitators are master teachers who have taken the exam in the last two years. **Results:** Participants are better prepared and more confident in taking Praxis II tests	SBE Priority # 3, Goals: 3.1,3.2,3.3,3.4,3.5	A 2004 analysis revealed that 84% of the participants gave the seminars the highest possible rating (5), while 16% gave them the next highest rating (4).

Mail-in Registration for Spring 2005 NCMTEC Sponsored IHE Courses	Dec. 2004-Feb. 2005	None. Summer 2005 mail-in registration has not been completed. List of LEAs served: Alamance Bertie Bladen Brunswick Columbus Duplin Edgecombe Elizabeth City/ Pasquotank, Franklin Granville Greene Halifax Harnett Hertford Hyde Johnston, Lenoir Martin Nash Northampton Onslow Person Richmond Roanoke Rapids Robeson Sampson Vance Warren Wayne Weldon	Each semester NCMTEC sponsors on-site registration that includes transcript evaluations and advising sessions. In addition, a mail-in registration process was begun during the spring 2004 semester in order to eliminate geographic and time barriers. **Activity follow-up:** Ongoing individual coaching and advising from NCMTEC staff is available **Participant implementation:** Each semester, NCMTEC offers onsite and mail-in registration for the upper-level NCMTEC- sponsored college courses. Representatives from the participating IHEs, the local community college, and the Regional Alternative Licensure Center are contracted to attend the sessions to advise participants and evaluate their transcripts at the on-site registration sessions. NCMTEC staff members provide advising during mail-in registration that takes place prior to on-site registration. **Results:**	SBE Priority # 3, Goals: 3.2,3..3,	Clients have provided a great deal of qualitative data supporting their appreciation for mail-in registration. Clients who registered for NCMTEC sponsored courses this spring semester increased by 31% from the fall 2004 semester. The number of courses they registered for increased by 43%.

		Whiteville Wilson			
Student Teacher Technology Seminars	Dec. 2004-Feb. 2005	None. List of LEAs Served:	NCMTEC sponsors an annual technology seminar for program participants who have completed student teaching. **Activity follow-up:** After the student teaching semester, participants are invited to a technology seminar. Once they have signed a contract with an NCMTEC LEA, they are issued a laptop computer on loan. Each summer they come back for a renewal seminar in order to keep the laptop on loan. NCMTEC's technology consultant checks with them during the year and coaches them when technology challenges arise. **Participant implementation:** Each summer, NCMTEC honors the previous year's student teachers by inviting them to a technology seminar. When they sign a contract with an NCMTEC LEA, they are issued a laptop computer on loan. Each summer they come back for a renewal seminar in order to keep the laptop on loan. Teachers use the laptops for classroom instruction and management. **Results:** Recent college graduates who are beginning their first year of teaching receive additional staff development in technology and leave equipped with a laptop on loan to enhance their teaching. In addition, they are treated as the true professionals they are.	SBE Priority # 3, Goals: 3.1, 3.2,3.3,3.4,3.5	100% of the participants gave the technology seminar the highest possible rating (5).
Praxis I Math Tutorial	Dec. 2004-Feb. 2005	None LEAs Served:	During the Fall 2004 semester, NCMTEC sponsored the first Math Tutorial for program participants who have completed NCMTEC's Praxis I Math seminar but need additional help in taking the Praxis I Math test. **Activity follow-up:** When program participants take the Praxis I test and submit their scores to NCMTEC, they are reimbursed the $20 registration fee for the seminar— regardless of their score. **Results:** Paraprofessionals who have difficulty in math are provided additional help to prepare for taking the		Evaluations for the recent math tutorial have not yet been compiled.

			Praxis I Math test.		
Reduced Tuition Scholarships for NCMTEC – Sponsored Courses	Jan. 2005-May 2005	572 clients took 833 courses (or tuition slots) List LEAs Served: Alamance Beaufort Bertie Bladen Brunswick Clinton Columbus Duplin Edenton-Chowan Edgecombe Elizabeth City-Pasquotank Franklin Gates Granville Greene Halifax Harnett Hertford Hyde Johnston Lenoir Martin Nash Northampton Onslow Person Richmond Roanoke Rapids Robeson Sampson Vance Warren	**Since 1990 NCMTEC has provided reduced tuition for teachers (lateral entry, emergency, provisional) and paraprofessionals (teacher assistants, substitutes, clerical, etc.) with a menu of NCMTEC-sponsored courses each semester.** **Activity follow-up:** Assistance is provided each semester with transcript evaluations to secure a plan of study and registration for the courses through mail-in and on-site sessions. Representatives from the colleges and universities attend the on-site registration sessions to evaluate transcripts and advise NCMTEC clients. Individual coaching and advising from NCMTEC staff is also available. **Participant implementation**: Participants received college credit for the courses that lead to a teaching license. Each participant paid $80 for each 3 -semester hour college course. NCMTEC paid the remaining tuition for the 837 courses. **Results:** Lateral entry and emergency teachers earned the college semester hours needed to retain their positions. Teacher assistants and other paraprofessionals successfully completed college courses needed to earn a college degree and teacher licensure.	SBE Priority #3, Goals: 3.1, 3.2, 3.3, 3.4	The college courses are evaluated by each IHE that is offering them.

		Washington Wayne Weldon Wilson			

Scholarship for Full Reimbursement =/< $500	March 2005-May 2005	13 clients took 13 courses List LEAs served: Alamance Duplin Granville Lenoir Nash Onslow Roanoke Rapids Robeson Sampson	Full reimbursement up to $ 500 for an undergraduate college course/school year **Activity follow-up:** Assistance with transcript evaluations to secure a plan of study and registration for the courses through mail-in and on-site sessions is provided each semester. In addition, individual coaching and advising from NCMTEC staff is available. **Participant implementation:** When NCMTEC was not sponsoring a course required for teacher licensure, participants received one reimbursement/school year (up to $500) to take the course at the IHE of their choice. **Results:** All participants successfully completed the course and earned a "c" or above, thus reducing the number of courses needed for licensure.	SBE Priority #3, Goals: 3.1, 3.2, 3.3, 3.4, 3.5	The college courses are evaluated by each IHE that is offering them.
Tuition Scholarships for Community College Courses	March 2005-May 2005	112 clients took 195 courses *(This number is incomplete since all invoices for community college courses have not been received.)* List LEAs served: Alamance Beaufort Bertie	**Tuition scholarships (Participants pay $60/course; NCMTEC pays remaining tuition), activity fees, and $60 textbook assistance/course for 100-200 level community college courses are offered each semester.** **Activity follow-up:** Advising sessions and assistance with transcript evaluations to secure a plan of study are offered each semester. Ongoing individual coaching and advising from NCMTEC staff is available. **Participant implementation:** Participants attend one of 28 community colleges, take the required college transfer courses agreed upon through the UNC Articulation Agreement (at $60/course). NCMTEC pays the remaining tuition, activity fees, and a maximum of $60/course for required textbooks. **Results:** Many of the financial and geographic barriers that have prohibited teacher assistants and other paraprofessionals from becoming teachers have been	SBE Priority #3, Goals: 3.1, 3.2,3.3, 3.4, 3.5	Applications for paraprofessionals require an essay on why they want to be a teacher. Focus groups are held each year to receive input from paraprofessionals. The community college courses are

		Brunswick, Clinton Duplin Edgecombe Elizabeth City/ Pasquotank Franklin Gates Greene Halifax Harnett Hertford Hyde Johnston Jones Lenoir Martin Nash Northampton Onslow Person Richmond Roanoke Rapids Robeson Sampson Vance Warren, Wayne Weldon Wilson	removed.		evaluated by the specific community college.
Student Teacher Tuition Scholarships	March 2005-May 2005	8 clients received Scholarships List LEAs served: Beaufort Columbus Nash Person Wayne	**Full tuition scholarships are provided during the student teaching semester.** **Activity follow-up:** After the student teaching semester, participants are invited to a NCMTEC-sponsored technology seminar. Once they have signed a contract with a NCMTEC LEA, they are issued a laptop computer on loan. Each summer they come back for a renewal seminar in order to keep the laptop on loan and update their technology skills. **Participant implementation:** When no other financial aid is available (NCMTEC checks with IHEs to	SBE Priority # 3, Goals: 3.1, 3.2, 3.4, 3.5	Qualitative testimonials entitled "The Long Journey to Becoming a Teacher" from parapro-fessionals

			confirm), NCMTEC provides a full semester of tuition assistance (scholarship) during student teaching. **Results:** Teacher assistants and other paraprofessionals are able to complete their teacher education programs fulfilling their goal of becoming a teacher.		can be found at www.ncmtec.org.
Student Teacher Stipends	March 2005-May 2005	13 clients served List LEAs served: Beaufort Columbus Gates Nash Onslow Richmond Robeson Wayne	**A stipend of $500/month is provided for paraprofessionals who have to take a leave of absence without pay during student teaching.** **Activity follow-up:** After the student teaching semester, participants are invited to a technology seminar. Once they have signed a contract with an NCMTEC LEA, they are issued a laptop computer on loan. Each summer they come back for a renewal seminar in order to keep the laptop on loan. **Participant implementation:** When teacher assistants and other paraprofessionals must take a leave of absence from their jobs to do their student teaching, NCMTEC pays them a stipend of $500/month during the student teaching experience. **Results:** Teacher assistants and other paraprofessionals are able to complete their teacher education programs fulfilling their goal of becoming a teacher.	SBE Priority # 3, Goals: 3.1, 3.2, 3.4, 3.5	Qualitative testimonials entitled "It's Been a Long Journey" from paraprofessionals can be found at www.ncmtec.org

Praxis I Preparation Seminars	March 2005-May 2005	45 clients took 1 or more seminars (Clients may take reading, writing and/or math) List of LEAs served: Bertie Bladen Brunswick Duplin Edenton-Chowan Edgecombe Elizabeth City-Pasquotank Franklin Gates Greene Harnett Johnston Lenoir Nash Washington Wayne	**One-day Praxis I preparation seminars are held several times/year in reading, writing, and math.** **Activity follow-up:** The facilitator of the seminar communicates with the participants and provides additional help as needed. A math tutorial sponsored by NCMTEC that began fall 2004 semester has provided additional assistance. **Participant implementation:** Participants receive a full day of preparation in reading, a day in writing, and a day in math when they attend NCMTEC Praxis I seminars. Test taking skills and strategies are covered, practice tests are given, and extensive content is covered. **Results:** Participants are better prepared and more confident in taking Praxis I tests. Once they pass Praxis I, they can then be admitted to a teacher education program at the IHE of their choice. Teachers who must take Praxis I because of a low GPA are also given an opportunity to attend the seminars and prepare for the exam.	SBE Priority # 3, Goals: 3.1,3.2,3.4,3.5	A 2004 analysis indicated that 96% of the participants gave the reading seminar the highest possible rating (5), while 4% gave them the next highest rating (4). 97% of the participants gave the writing seminar the highest possible rating (5), while 3% gave them the next highest rating (4). 93% of the participants gave the math seminar the highest possible

					rating (5), while 7% gave them the next highest rating (4).

Praxis II Preparation Seminars	March 2005-May 2005	52 clients served List of LEAs served: Alamance Bladen Brunswick Camden Clinton City Columbus Edenton/ Chowan Edgecombe Franklin Harnett Johnston Lenoir Nash Onslow Richmond Robeson Sampson, Washington Wayne Weldon Whiteville City Wilson	**Praxis II preparation seminars are offered each semester in specific content areas.** **Activity follow-up:** The facilitator of the seminar communicates with the participants and provides additional help as needed. **Participant implementation:** Participants attend a full day of extensive content preparation and some test taking skills/strategies that prepare them for taking Praxis II exams. Facilitators are master teachers who have taken the exam in the last two years. **Results:** Participants are better prepared and more confident in taking Praxis II tests	SBE Priority # 3, Goals: 3.1,3.2,3.3,3.4,3.5	A 2004 analysis revealed that 84% of the participants gave the seminars the highest possible rating (5), while 16% gave them the next highest rating (4).
Mail-in Registration for Spring 2005 NCMTEC Sponsored IHE Courses	March 2005-May 2005	328 Clients Registered through Mail-In in March and April for Summer Sponsored Courses List of LEAs served:	**Each semester NCMTEC sponsors on-site registration that includes transcript evaluations and advising sessions. In addition, a mail-in registration process was begun during the spring 2004 semester in order to eliminate geographic and time barriers.** **Activity follow-up:** Ongoing individual coaching and advising from NCMTEC staff is available **Participant implementation:** Each semester, NCMTEC offers onsite and mail-in registration for the upper-level NCMTEC- sponsored college courses. Representatives from the participating IHEs, the local community college, and the Regional Alternative	SBE Priority # 3, Goals: 3.2,3..3,	Clients have provided a great deal of qualitative data supportin g their appreciati on for mail-in registratio n. Clients

		Alamance Beaufort Bertie Bladen Brunswick Clinton City Columbus Duplin Edenton/ Chowan Edgecombe Elizabeth City/ Pasquotank Franklin Gates Granville Greene Halifax Harnett Hertford Hyde Johnston Jones Lenoir Martin Nash Northampton Onslow Richmond Roanoke Rapids Robeson Sampson Vance Warren Wayne Weldon City Whiteville City Wilson	Licensure Center are contracted to attend the sessions to advise participants and evaluate their transcripts at the on-site registration sessions. NCMTEC staff members provide advising during mail-in registration that takes place prior to on-site registration. **Results:** Participants who know what courses they need and do not need to speak to an IHE advisor at an on-site registration are able to register through a mail-in process. This eliminates the need for them to drive long miles and spend the time to attend an on-site registration each semester.		who registered for NCMTEC sponsored courses this spring semester increased by 31% from the fall 2004 semester. The number of courses they registered for increased by 43%.
Student Teacher Technology Seminars	March 2005-May 2005	None List of	**NCMTEC sponsors an annual technology seminar for program participants who have completed student teaching.**	SBE Priority # 3, Goals: 3.1, 3.2,3.3,3.4,3.5	100% of the participan

		LEAs	**Activity follow-up:** After the student teaching semester, participants are invited to a technology seminar. Once they have signed a contract with a NCMTEC LEA, they are issued a laptop computer on loan. Each summer they come back for a renewal seminar in order to keep the laptop on loan. NCMTEC's technology consultant checks with them during the year and coaches them when technology challenges arise. **Participant implementation:** Each summer, NCMTEC honors the previous year's student teachers by inviting them to a technology seminar. When they sign a contract with a NCMTEC LEA, they are issued a laptop computer on loan. Each summer they come back for a renewal seminar in order to keep the laptop on loan. Teachers use the laptops for classroom instruction and management. **Results:** Recent college graduates who are beginning their first year of teaching receive additional staff development in technology and leave equipped with a laptop on loan to enhance their teaching. In addition, they are treated as the true professionals they are.		ts gave the technolog y seminar the highest possible rating (5).
Praxis I Math Tutorial	March 2005-May 2005	4 clients served. List of LEAs Served: Bladen Edenton/ Chowan Harnett Robeson	**During the Fall 2004 semester, NCMTEC sponsored the first Math Tutorial for program participants who have completed NCMTEC's Praxis I Math seminar but need additional help in taking the Praxis I Math test.** **Activity follow-up:** When program participants take the Praxis I test and submit their scores to NCMTEC, they are reimbursed the $20 registration fee for the seminar— regardless of their score. **Results:** Paraprofessionals who have difficulty in math are provided additional help to prepare for taking the Praxis I Math test.	SBE Priority # 3 Goals: 3.1, 3.2, 3.4, 3.5	Evaluatio ns for the recent math tutorial have not yet been compiled.
Reduced Tuition Scholarships for NCMTEC – Sponsored Courses	June 2005-August 2005	527 clients took 821 courses (or tuition slots)	**Since 1990 NCMTEC has provided reduced tuition for teachers (lateral entry, emergency, provisional) and paraprofessionals (teacher assistants, substitutes, clerical, etc.) with a menu of NCMTEC-sponsored courses each semester.**	SBE Priority #3, Goals: 3.1, 3.2, 3.3, 3.4	The college courses are evaluated

		List LEAs Served: Alamance Beaufort Bertie Bladen Brunswick Clinton Columbus Duplin Edenton-Chowan Edgecombe Elizabeth City-Pasquotank Franklin Gates Granville Greene, Halifax Harnett Hertford Hyde Johnston Lenoir Martin Nash-Rocky Mount Northampton Onslow Person Richmond Roanoke Rapids Robeson Sampson Vance Warren Wayne Weldon Whiteville City	**Activity follow-up:** Assistance is provided each semester with transcript evaluations to secure a plan of study and registration for the courses through mail-in and on-site sessions. Representatives from the colleges and universities attend the on-site registration sessions to evaluate transcripts and advise NCMTEC clients. Individual coaching and advising from NCMTEC staff is also available. **Participant implementation**: Participants received college credit for the courses that lead to a teaching license. Each participant paid $80 for each 3 -semester hour college course. NCMTEC paid the remaining tuition for the 821 courses. **Results:** Lateral entry and emergency teachers earned the college semester hours needed to retain their positions. Teacher assistants and other paraprofessionals successfully completed college courses needed to earn a college degree and teacher licensure.		by each IHE that is offering them.

		Wilson			
Scholarship for Full Reimbursement =/< $500	June 2005-August 2005	10 clients took 10 courses List LEAs served: Alamance Duplin Franklin Granville Nash-Rocky Mount Onslow Robeson	Full reimbursement up to $ 500 for an undergraduate college course/school year **Activity follow-up:** Assistance with transcript evaluations to secure a plan of study and registration for the courses through mail-in and on-site sessions is provided each semester. In addition, individual coaching and advising from NCMTEC staff is available. **Participant implementation:** When NCMTEC was not sponsoring a course required for teacher licensure, participants received one reimbursement/school year (up to $500) to take the course at the IHE of their choice. **Results:** All participants successfully completed the course and earned a "c" or above, thus reducing the number of courses needed for licensure.	SBE Priority #3, Goals: 3.1, 3.2, 3.3, 3.4, 3.5	The college courses are evaluated by each IHE that is offering them.
Tuition Scholarships for Community College Courses	June 2005-August 2005	0 clients took 0 courses *(This number is incomplete since invoices for community college courses have not been received.)* List LEAs served: NA	**Tuition scholarships (Participants pay $60/course; NCMTEC pays remaining tuition), activity fees, and $60 textbook assistance/course for 100-200 level community college courses are offered each semester.** **Activity follow-up:** Advising sessions and assistance with transcript evaluations to secure a plan of study are offered each semester. Ongoing individual coaching and advising from NCMTEC staff is available. A conference *"Eager to Learn, Eager to Teach: The Journey of NCMTEC's Future Teachers"* at the North Raleigh Hilton on October 14-15, 2005 is planned to further support paraprofessionals in their journey in becoming a teacher. **Participant implementation:** Participants attend one of 28 community colleges, take the required college transfer courses agreed upon through the UNC Articulation Agreement (at $60/course). NCMTEC	SBE Priority #3, Goals: 3.1, 3.2,3.3, 3.4, 3.5	Applications for paraprofessionals require an essay on why they want to be a teacher. Focus groups are held each year to receive input from paraprofessionals. The community college courses

			pays the remaining tuition, activity fees, and a maximum of $60/course for required textbooks. **Results:** Many of the financial and geographic barriers that have prohibited teacher assistants and other paraprofessionals from becoming teachers have been removed. In addition, many lateral entry and emergency licensed teachers have been able to take content specific courses needed to clear their teaching license at a community college.		are evaluated by the specific community college.
Student Teacher Tuition Scholarships	June 2005-August 2005	3 clients received Scholarships List LEAs served: Beaufort Johnston	**Full tuition scholarships are provided during the student teaching semester.** **Activity follow-up:** After the student teaching semester, participants are invited to a NCMTEC-sponsored technology seminar. Once they have signed a contract with a NCMTEC LEA, they are issued a laptop computer on loan. Each summer they come back for a renewal seminar in order to keep the laptop on loan and update their technology skills. **Participant implementation:** When no other financial aid is available (NCMTEC checks with IHEs to confirm), NCMTEC provides a full semester of tuition assistance (scholarship) during student teaching. **Results:** Teacher assistants and other paraprofessionals are able to complete their teacher education programs fulfilling their goal of becoming a teacher.	SBE Priority # 3, Goals: 3.1, 3.2, 3.4, 3.5	Qualitative testimonials entitled "The Long Journey to Becoming a Teacher" from parapro-fessionals can be found at www.ncmtec.org.
Student Teacher Stipends	June 2005-August 2005	10 clients served List LEAs served: Beaufort Columbus Elizabeth City/ Pasquotank Lenoir Onslow Sampson	**A stipend of $500/month is provided for paraprofessionals who have to take a leave of absence without pay during student teaching.** **Activity follow-up:** After the student teaching semester, participants are invited to a technology seminar. Once they have signed a contract with an NCMTEC LEA, they are issued a laptop computer on loan. Each summer they come back for a renewal seminar in order to keep the laptop on loan. **Participant implementation:** When teacher assistants and other paraprofessionals must take a leave of absence from their jobs to do their student teaching, NCMTEC pays them a stipend of $500/month during the student teaching experience. **Results:** Teacher assistants and other paraprofessionals are able to complete their teacher education programs	SBE Priority # 3, Goals: 3.1, 3.2, 3.4, 3.5	Qualitative testimonials entitled "It's Been a Long Journey" from parapro-fessionals can be found at www.ncmtec.org

			fulfilling their goal of becoming a teacher.		
Praxis I Preparation Seminars	June 2005-August 2005	0 clients took 1 or more seminars (Clients may take reading, writing and/or math) List of LEAs served:	**One-day Praxis I preparation seminars are held several times/year in reading, writing, and math.** **Activity follow-up:** The facilitator of the seminar communicates with the participants and provides additional help as needed. A math tutorial sponsored by NCMTEC that began fall 2004 semester has provided additional assistance. **Participant implementation:** Participants receive a full day of preparation in reading, a day in writing, and a day in math when they attend NCMTEC Praxis I seminars. Test taking skills and strategies are covered, practice tests are given, and extensive content is covered. **Results:** Participants are better prepared and more confident in taking Praxis I tests. Once they pass Praxis I, they can then be admitted to a teacher education program at the IHE of their choice. Teachers who must take Praxis I because of a low GPA are also given an opportunity to attend the seminars and prepare for the exam.	SBE Priority # 3, Goals: 3.1,3.2,3.4,3.5	A 2004 analysis indicated that 96% of the participants gave the reading seminar the highest possible rating (5), while 4% gave them the next highest rating (4). 97% of the participants gave the writing seminar the highest possible rating (5), while 3% gave them the next highest rating (4). 93% of the participants gave the math seminar the highest