

**Louisiana Math and Science Partnership
Program Evaluation Report
2006-2007**

**Louisiana Department of Education
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Louisiana Math and Science Partnership Program Evaluation Report 2006-2007

Overview

In 2006-07, a total of 27 Math and Science Partnership (MSP) programs were funded in Louisiana. Twenty-three middle school projects were funded in 2005-2006 and continued to be funded in 2006-2007. Four high school projects were started in 2006-2007. Louisiana MSP programs have grown. Not only were additional programs funded, the programs served more students in more grades ranging from elementary to high school. Nearly 600 teachers from 39 parishes participated in the programs. Table 1 presents the names of the funded programs, participating parishes, and the subject focus of each program. As shown in the table, ten of the programs focused on science, nine of them focused on math, and eight of them integrated math and science.

Teacher Participation and Evaluation

Nine universities provided training and support to each of the 27 programs in 2006-07, and summer institutes were established for each of the programs during the summer of 2006. The summer institutes were five days a week for 2-3 consecutive weeks. The purpose of the institutes was to increase teacher participants' content knowledge and pedagogical skills in math and/or science. All teachers participated voluntarily in the MSP programs and received a stipend.

A pre-survey and a post-survey were administered to teacher participants before and after the summer institutes. Both surveys were administered online in the formats of multiple choice and open-ended responses. The pre-survey was given at the beginning of the summer institute to collect information on teachers' demographic background, educational level, teaching experiences, previous professional development opportunities, level of knowledge or ability in teaching math/science, as well as goals and objectives in participating in the MSP summer institute program. The post-survey was administered at the end of the summer institute. Teachers were asked to rate their training experience and provide feedback about the programs. Questions included whether their goals and objectives were

met, what strengths and weaknesses the MSP summer institutes have, and how comfortable they are in teaching math/science in the classrooms after the training.

Table 1. Louisiana Math and Science Partnership Projects in 2006-2007

Project	Subject	District(s)
ABC Connections	Science	Lafourche, St Mary, Terrebonne, (also Non-Public)
CSTEP	Science	St Landry, Acadia, Evangeline, Lafayette (also Non-Public)
EBR LSU High School	Alg & Phys Sc	EBR
EBR LSU Middle School Math *	Math	EBR
Iberville LSU High School	Alg & Phys Sc	Iberville, West Baton Rouge, Ascension
Iberville-LSU Middle School Math	Math	Iberville
Monroe City IMPACTS Math	Math	Monroe
Monroe City IMPACTS Science	Science	Monroe
Livingston Math Institute	Math	Livingston
Livingston Science Institute	Science	Livingston
Jefferson MSMSP	Integrated	Jefferson (also Non-Public)
Math TIPS	Math	Lafourche, St Mary, Terrebonne
Meaningful Math Through Models	Math	Plaquemines, St Tammany, Orleans
North LA CSI	Science	Morehouse, Ouachita, West Carroll, Richland
Northwest M&S Enhancement Middle School	Integrated	DeSoto, Caddo
Northwest M&S Enhancement High School	Alg & Phys Sc	DeSoto, Caddo
Project PRISM	Integrated	Tangipahoa
Project Science I	Science	Pointe Coupee, East & West Feliciana, East Baton Rouge, Baker
Project Science II	Science	East Baton Rouge
SAVE Math	Math	Sabine, Vernon
SCIFI	Science	Bossier, Caddo
Science for St. Tammany Teachers	Science	St Tammany, Plaquemines
SYNERGY Middle School Concordia	Integrated	Concordia, Catahoula, LaSalle, Tensas
SYNERGY High School St. Landry	Alg & Phys Sc	St Landry, Acadia, Evangeline, Lafayette (also Non-Public)
Washington Parish Math Program	Math	Washington, Tangipahoa, Bogalusa
Washington Parish Science Program	Science	Washington, Bogalusa, Tangipahoa

*The EBR LSU Middle School Math project combined two different cohorts of teachers.

The projects covered a wide variety of topics in math and science. Premade test packets were not acceptable; therefore, it was necessary to have each MSP develop its own test for the summer

institute. The draft documents were submitted to the Assessment Research and Technology Section of the Louisiana Department of Education (LDE). The test drafts were reviewed to ensure that the content was aligned to the Louisiana Grade-Level Expectations, and the instructional content focus was expressed in the approved project application. The tests were required to include both multiple choice items and constructed response/short answer items. Those that did not meet approval during the review were returned with instructions for revisions, and the project was required to resubmit for approval.

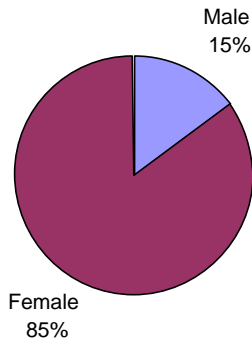
The high school projects worked together and developed a test to use for the summer institutes. The representatives of the approved high school projects met for a planning meeting to determine the instructional content of the four Algebra I/Physical Science projects. The draft version of the test was submitted to the LDE for review. The test was revised and resubmitted for approval based on LDE's instructions. The pre- and post-tests developed for the Algebra I/Physical Science projects funded in the first year were administered to the new high school projects funded for year 2007-08. The state will be able to review the results of the pre- and post-tests from the different projects online in the future.

The pre-test and post-test scores from all the projects were analyzed and compared. A paired comparison T-test was used to determine the statistical significance of the differences between the mean scores.

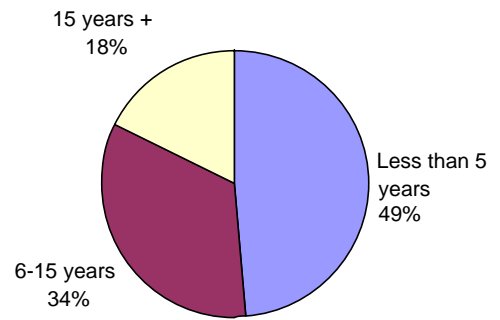
Teacher Participant Background Information

Based on the pre-survey, nearly 600 teachers participated in the MSP math/science summer institutes. Teachers were asked to provide information on their gender, ethnicity, highest educational degree earned, and number of years teaching math and/or science. As shown in Table 2, 85% of the participants were female, 63% of them were White and 33% were Black. About half of the teacher participants taught less than five years, and they are also relatively new to the school where they were teaching. The bachelor's degree was the highest degree earned by 66% of the participants.

Participants by Gender



Years of Teaching Math/Science



Highest Degree Earned

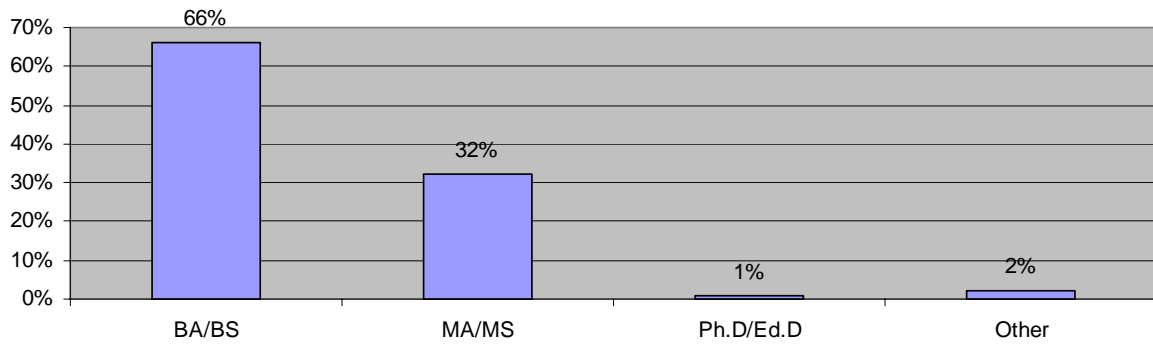


Table 2. MSP Teacher Participants Demographic Information

	Number	Percent
Gender		
Male	90	15%
Female	500	85%
Race		
American Indian	7	1%
Asian	1	0%
Black	191	33%
Hispanic	3	0%
White	360	63%
Other	14	2%
Years of Teaching Math/Science		
Less than 5 years	279	49%
6-15 years	195	34%
15 years or more	101	18%
Years Teaching in Current School		
Less than 5 years	331	58%
6-15 years	175	31%
15 years or more	63	11%
Highest Degree Earned		
BA/BS	379	66%
MA/MS	181	32%
Ph.D/Ed.D	3	1%
Other	11	2%

Teacher Content Knowledge Assessment Results

A percent correct score was calculated for each teacher on the pre-test and post-test. The average scores of all participants for each program and the gain scores from the pre-test to post-test are presented in Table 3. The statistical effects of the T-test are also shown in the table.

Overall, the summer institutes were successful in increasing teachers' content knowledge in math and/or science. A 17 point gain was found on the average score of all 26 MSP programs. Twenty-five programs showed statistically significant gains from the training. The gain scores range from 3.4 points to 73.3 points.

Table 3. MSP Teacher Participants Content Knowledge Assessment Results

Project Name	Number of Participants	Pre-Test Percent Correct	Post-Test Percent Correct	Mean Gain Score P<0.05
ABC Connections	20	49.8	62.3	12.5*
CSTEP	24	47.7	62.3	14.6*
EBR LSU High School	18	55.8	64.4	8.6*
EBR Middle School Math	45	67.0	70.4	3.4
Iberville High School	20	50.9	60.8	9.9*
Iberville Middle School Math	26	60.9	83.8	22.9*
Monroe City IMPACTS Math	27	53.6	66.2	12.7*
Monroe City IMPACTS Science	21	49.1	58.9	9.8*
Livingston Math	20	15.1	88.4	73.3*
Livingston Science Institute	14	50.2	84.9	34.7*
Jefferson MSMSP	23	67.4	77.6	10.1*
Math TIPS	23	70.5	76.9	6.4*
Meaningful Math Through Models	15	54.7	61.9	7.2
North LA SCI	24	77.2	82.5	5.3*
Northwest M&S Enhancement Middle School	26	45.3	62.7	17.4*
Northwest M&S Enhancement High School	27	62.0	76.4	14.4*
Project PRISM	16	35.5	49.6	14.1*
Project Science I	29	56.7	79.6	22.9*
Project Science II	25	61.2	80.2	19.0*
SAVE Math	30	47.1	75.9	28.8*
CIFI	29	46.1	60.4	14.4*
Science for St. Tammany Teachers	19	40.8	70.7	29.9*
SYNERGY Middle School Concordia	21	77.2	85.2	8.0*
SYNERGY High School St. Landry	24	68.6	90.2	21.6*
Washington Parish Math Program	26	62.1	80.4	18.3*
Washington Parish Science Program	9	55.4	79.6	24.1*
Total	601	55.9	72.9	17.0*

Teacher Participants Survey Responses

The following account summarizes teachers' responses to some of the questions on the pre-survey and post-survey.

(1). Goals and objectives in participating in the MSP program:

Teachers were asked to indicate their personal goals and objectives in choosing to participate in the MSP program. Most of their goals fell into the following categories:

- To gain/broaden/deepen content knowledge in math or science or in a more specific subject content area.
- To learn new ideas, strategies, materials, and resources to teach the subject in the classroom

Following are some of their responses:

“My objectives are to gain additional math knowledge and a variety of methods needed to teach my students. I want to be able to modify math methods to help all of my students to increase their knowledge/comprehension of math.”

“I want to learn more about teaching math effectively to middle school students. I want to learn how to make learning math fun for my students.”

“I want to learn to better understand the subject and better help my students learn math. I am also teaching math to special education students, and I believe there is a lot they can learn in Math if it is taught so they can understand.”

“To incorporate ideas from MSP into lesson plans.”

“My personal goal is to increase my Biology and Environmental Science knowledge base to better prepare my students for testing and to prepare them for following school years.”

“To improve my ability as a teacher, gain knowledge of life science, obtain new ideas and hands-on activities to implement in the classroom, and I enjoy working with other teachers who are also learning.”

“I would like to integrate more Science into my Math Curriculum. Also, I would like to learn new techniques, lessons, and activities that I can use in my math classes.”

“To find new and innovative ideas to get students interested in learning science. More hands-on study - less by the book teaching - more inquiry-based activities.”

“To become highly qualified in middle school science. To successfully pass the middle school science PRAXIS test. To continue teaching middle school science. To mentor a middle school science student teacher.”

“To become the best science teacher I can be. My students enjoyed my classes; they enjoyed doing labs, and they retained the information using the hands-on method.”

(2). Whether their goals and objectives were met:

On the post-survey, teachers were asked whether their personal goals and objectives were met in the summer institute. Most teachers indicated that their goals were met during the training. Their responses below showed that they were very positive about the programs and some were very enthusiastic about the experience.

“My goals were met by this MSP program. I did acquire some additional knowledge especially in setting up proportionalities and using the graphing calculator. I also learned other methods of instruction and saw first-hand how grouping leads to understanding.”

“My goals were definitely met by the summer component. The alternating content and cross-over days not only refreshed mathematical content knowledge, but also provided opportunities for application, experimentation, and analyzation. I also received training on the TI-84 graphing calculator, which will make me more knowledgeable and confident in integrating those skills into my instruction.”

“Each of my goals was met in multiple ways. I gained deeper understanding, particularly in the measurement and statistics strands.”

“Lessons in the biological and earth sciences provided many examples I can use in math classes to illustrate how principles are applied in a real-world sense.”

“The project far exceeded my goals. I was taught how to incorporate manipulatives into my classroom to teach geometry and measurement. I was also taught new technology skills such as using Math Type software, interactive manipulative websites, and how to effectively use powerpoints.”

“The use of the calculator was enhanced by hands-on games and activities done in our groups during the workshop. It was good to hear from the different grade levels as to how the lesson can be developed from experienced teachers.”

“My goals were more than met by the project. I learned new ways to approach teaching the scientific method as well as methods for guiding students through inquiry learning and experimentation.”

“Since my goals were not clearly defined, the expectations were exceeded. I am so excited to be able to go back to the classroom and support the math teachers in their quest to make learning fun and productive!”

“I feel that my goals were met somewhat in content. I feel that the WETMAAP program will greatly enhance my students' knowledge in topographic maps.”

“I learned new approaches to integrating science and math. I see how I can enhance my lessons by using the computer and other kinds of technology, such as the graphing calculator.”

“My goals were met through in-depth instruction and hands on activities that may be altered to fit the needs of my middle school students”

(3). Strengths of the MSP programs

Teachers were asked to point out the strengths and weaknesses of the programs on the post-survey. Their responses on the question of strength include:

1. Instructors are very knowledgeable about the subject and Louisiana content standards.
2. The use of hands-on activities/field trips and technology experience was invaluable.
3. The instructions are tailored to the teachers’ needs.
4. The peer interactions between the teachers, and cooperative learning experience was helpful.

Examples of their responses are below:

“The strengths were that science and math teachers shared ideas using technology.”

“The main strength was the fact that all instructors were well prepared and the material was either appropriate to my grade level or could easily be changed to a lower level. The group interactions were also a key strength, and I enjoyed working with others from other parishes. I have material now that I can take back with me immediately to the classroom to use.”

“The instructors are obviously very competent in and passionate about their areas of study. The cross-over and challenge activities made excellent connections to content studies on the previous days. Technology was appropriately and competently integrated into the activities. The presentations on challenge days were interesting, and gave us potential ideas for presentation projects we could use in our classrooms.”

“The cooperative learning strategies between all the teachers and presenters helped to show how to integrate math and science.”

“Some of the MANY strengths of this program were the organization, amount of information covered, competence of the instructors, effective use of time in class, and SO much more. Our instructors were so prepared that every second was spent in hands-on activities and instruction that kept me engaged and intrigued. The instructors were extremely competent and went above and beyond to make the classes fun, captivating, and yet so very thorough! “

“The programs strengths include highly qualified instructors, effective teaching strategies, useful lesson ideas, and also an opportunity to collaborate with other teachers on many different grade levels.”

“The strength of the program for me was allowing us to do hands-on activities. Like the children in classrooms, I learn better by applying what I've learned through the use of hands-on activities. “

“The instructors have a vast knowledge of their subjects, and they are able to go in-depth with those of us who have questions. The classes were small enough for one-on-one instruction. We had plenty of time to think things through and make discoveries for ourselves.”

“The strength was their focus on scientific inquiry in the classroom. The program gave me a new outlook on teaching in the classroom and made me more confident about teaching inquiry in a whole different way from what I was previously doing with my students.”

(4). Weaknesses of the programs.

Most are very satisfied with the summer institute experience. For those who pointed out some weaknesses, the following were indicated:

1. The coverage of the content knowledge is too much/too deep.
2. Not enough hands-on activities and practice
3. Not enough time to interact with other participants
4. Too much coverage in Science/Math, not enough in the other
5. Others: sessions too long, lunch break too short, space limitation, do not give tests, etc.

Following are some of the responses:

“Some of the lessons were too deep for the level of my students. I probably should have attended a workshop for middle school students, not high school. But I have expanded my knowledge base and understanding. Therefore, I will be able to better explain topics to my students.”

“The only ‘weakness’ in my view was minimal time for discussion amongst peers, especially about ideas for using activities in the classroom. We seldom get the opportunity to interact in this way being from so many different schools.”

“The hours were too long. The participants began to experience fatigue and listened less as the day wore on and on.”

“Not enough time to process all the information that I received. I learned a lot in a short period of time.”

“The weakness of the program was that I think we needed about two more weeks of the program during the summer.”

“I didn't like being separated from the math people a lot because they were getting info that I was missing out on. It was a good thing that it was done like that but I just wanted all of the information all the time. Projects and activities were not grade-level appropriate for the targeted student population. The main weakness of the program was the days where all we did was lecture and take notes instead of a combination of lecture and hands-on activities. Some of the activities and extensions were above the level of my students and have to be adapted for my students. Too much information in a short period of time.”

MSP Student Participation and Evaluation

Can teacher participation in the MSP program transfer effectively into the classroom and improve student learning? To answer this question, Louisiana developed an online system to identify students who are taught by teachers participating in the MSP programs. Along with other student testing data bases, we were able to evaluate the MSP program's effect by constructing comparison groups using students who are similar in demographic background but who were not taught by MSP teacher participants. All schools in which a MSP teacher participant taught math or science were selected for the study. Students who enrolled in these schools but were not instructed by a MSP teacher constituted the comparison group.

Data analyses were conducted to compare the two groups in mean scaled scores and percent of students scored Basic or above in Math or Science on the Louisiana standardized tests. The analyses were conducted at the state level for all the programs as a whole and at the program level. At the state level, regression analyses were used to determine the effects of the MSP program, students' educational classification, SES, and ethnicity on the test scores. The results were summarized and presented in the following tables by grade and content area. Since some programs or subgroups had a relatively small number of students participating, caution needs to be taken in interpreting the results.

Louisiana Statewide Assessment Programs and Student Participation

Student test scores on the Louisiana standardized tests were used to evaluate the MSP programs. Students in grade 8 were administered the Louisiana Education Assessment Program (LEAP) test. The *Integrated* Louisiana Education Assessment Program (*i*LEAP) test was administered to students in grades 5, 6, 7 and 9.

Table 4 presents the number and percentage of students whose teachers participated in the MSP programs by grade, gender, ethnicity, and free/reduced lunch status. The results suggested that about 15,000 students were taught by MSP teacher participants. This group of students is very similar to the over-all Louisiana student population in demographic backgrounds.

Table 4. MSP Student Participants Demographic Information

	Math		Science	
	Number	Percent	Number	Percent
Grade				
5	1,330	9%	1,405	10%
6	4,041	27%	3,526	24%
7	2,600	18%	3,726	25%
8	4,199	29%	3,684	25%
91	2,542	17%	2,418	16%
Sex				
Male	7,627	50%	7,711	50%
Female	7,583	50%	7,587	50%
Ethnicity				
Native American	128	1%	67	0%
Asian	176	1%	170	1%
African American	7,779	51%	7,101	46%
Hispanic	308	2%	342	2%
White	6,834	45%	7,636	50%
Free/Reduced Lunch	9,689	66%	9,396	63%
Statewide Total	15,237	100%	15,329	100%

Grade 5 Math

In 2006-2007, a total of 1,332 fifth grade math students were taught by teachers who participated in the MSP program across 11 projects. Almost the same number of students were found in the comparison group. Table 5 presents the demographic information of the two groups. In demographic backgrounds, the two groups are mostly comparable, with the participant group having slightly higher proportion of high SES and white students.

Table 5. Student Demographics---Grade 5

	Taught by Non-MSP Participant		Taught by MSP Participant	
	Number	Percent	Number	Percent
Education Classification				
Regular Education	1,080	85%	1,147	86%
Special Education	188	15%	185	14%
Ethnicity				
Native American	28	2%	8	1%
Asian	16	1%	8	1%
African American	541	43%	489	37%
Hispanic	39	3%	33	2%
White	644	51%	794	60%
Free/Reduced Lunch	851	67%	825	62%
Paid Lunch	416	33%	507	38%
Statewide Total	1,268	100%	1,332	100%

Regression analysis indicated that economic status, education classification and race have statistically significant effects on the group means at 0.01 levels. The MSP participation has significant effect at the 0.05 level. As shown in Table 6, noticeable score differences are found with the entire group and each subgroup. Students taught by MSP teacher participants scored 14 points higher on the *i*LEAP Math, and 7% more students scored at the Basic or above than the nonparticipant group.

Table 6. *i*LEAP Math Test Scores--- Grade 5

	Mean Scaled Score			Percent Proficient		
	Non-MSP Participant	MSP Participant	Difference	Non-MSP Participant	MSP Participant	Difference
Education Classification						
Regular Education	300	313	+13	63%	70%	+7%
Special Education	254	265	+11	32%	37%	+5%
Ethnicity						
Native American	289	323	+34	54%	75%	+21%
Asian	306	341	+35	36%	86%	+50%
African American	264	282	+18	39%	47%	+8%
Hispanic	292	312	+20	55%	70%	+15%
White	316	322	+6	75%	77%	+2%
Free/Reduced Lunch	278	292	+14	76%	83%	+7%
Paid Lunch	322	331	+9	49%	55%	+6%
Statewide Total	293	307	+14	59%	66%	+7%

Tables 7 and 8 provide the mean scaled scores and percent of students scored Basic or above on the *i*LEAP Math test for each project. Eight programs demonstrated that MSP students have higher math scores than the non-participants.

Table 7. *i*LEAP Math Mean Scores by Project--- Grade 5

Project Name	Taught by Non-MSP Participant		Taught by MSP Participant		Mean Scores Difference
	Total Number	Mean Score	Total Number	Mean Score	
ABC Connections	49	279	50	313	+34
Iberville LSU Middle School Math	50	249	130	276	+27
Jefferson MSMSP	30	270	114	325	+55
Livingston Math Institute	157	322	196	320	-2
Math TIPS	218	294	122	308	+14
Monroe City Impacts Math	45	314	189	312	-2
Northwest M&S Enhancement Middle School	46	303	39	232	-71
Project Prism	59	263	36	297	+34
SAVE Math	231	302	201	322	+20
Synergy Middle School Concordia	14	304	176	315	+11
Washington Parish Math Program	131	293	65	262	-3
Statewide Total	1,030	296	1,318	307	+11

Table 8. Percent of Students Scored Basic or Above on *i*LEAP Math Test by Project--- Grade 5

Project Name	Taught by Non-MSP Participant		Taught by MSP Participant		Difference
	Number	%	Number	%	
ABC Connections	19	39%	39	78%	+39%
Iberville LSU Middle School Math	15	30%	59	45%	+30%
Jefferson MSMSP	13	43%	88	77%	+34%
Livingston Math Institute	121	77%	150	77%	0%
Math TIPS	129	59%	76	62%	+3%
Monroe City Impacts Math	26	58%	131	69%	+11%
Northwest M&S Enhancement Middle School	32	70%	2	5% ^{*1}	-65%
Project Prism	26	44%	24	67%	+23%
SAVE Math	155	67%	147	73%	+6%
Synergy Middle School Concordia	9	64%	132	75%	+11%
Washington Parish Math Program	79	60%	21	32% ^{*2}	-28%
Statewide Total	652	59%	869	66%	+7%

^{*1}This program is for high risk students, which had 98% on free/reduced lunch, 20% of them in special ed, and 98% of them are minority.

^{*2} This program has 51% students in special ed, 91% of them were receiving free/reduced lunch.

Grade 5 Science

In 2006-2007, a total of 1,402 fifth grade students were taught by teachers who participated in the MSP Science program. As shown in Table 9, the comparison group has a relatively smaller number of students but is very similar in demographic backgrounds, with the participants having slightly higher percentage of low SES and minority students.

Table 9. Student Demographics---Grade 5

	Taught by Non-MSP Participant		Taught by MSP Participant	
	Number	Percent	Number	Percent
Education Classification				
Regular Education	746	85%	1,218	87%
Special Education	135	15%	184	13%
Ethnicity				
Native American	14	2%	10	1%
Asian	4	0%	19	1%
African American	291	33%	532	38%
Hispanic	27	3%	42	3%
White	544	62%	799	57%
Free/Reduced Lunch	628	71%	1,038	74%
Paid Lunch	253	29%	364	26%
Statewide Total	881	100%	1,402	100%

Regression analysis indicated that economic status, education classification and race have statistically significant effects on the group means at 0.01 level. However, MSP participation does not have a statistically significant effect on the mean scores. Table 10 indicates that students taught by MSP teacher participants scored only 1 point higher on the *iLEAP* Science test.

Tables 10 and 11 provide the mean scaled scores and percent of students scored Basic or above on the *iLEAP* Science test for each project. There are noticeable differences between participants and comparison groups for some of the projects. However, since the student demographic background may not be comparable at the project level, these differences need to be interpreted with caution.

Table 10. iLEAP Science Test Scores--- Grade 5

	Mean Scaled Score			Percent Proficient		
	Non-MSP Participant	MSP Participant	Difference	Non-MSP Participant	MSP Participant	Difference
Education Classification						
Regular Education	304	304	0	67%	61%	-6%
Special Education	274	274	0	41%	34%	-7%
Ethnicity						
Native American	294	311	+17	50%	70%	+20%
Asian	309	306	-3*	50%	79%	+29%*
African American	278	279	+1	42%	36%	-6%
Hispanic	278	305	+27	43%	63%	+20%
White	311	313	+2	73%	72%	-1%
Free/Reduced Lunch	291	291	0	55%	50%	-5%
Paid Lunch	318	324	+6	79%	80%	+1%
Statewide Total	299	300	+1	63%	58%	-5%

* Less than 10 students in the one or both groups.

Table 11. iLEAP Science Mean Scores by Project--- Grade 5

Project Name	Taught by Non-MSP Participant		Taught by MSP Participant		Mean Score Difference
	Total Number	Mean Score	Total Number	Mean Score	
ABC Connections	75	289	241	310	+21
CSTEP	125	296	64	305	+9
Jefferson MSMSP	28	268	116	315	+47
Livingston Science Institute	98	311	45	320	+9
Monroe City Impacts Science	11	306	138	294	-12
North LA CSI	45	263	55	290	+27
Northwest M&S Enhancement Middle School	45	311	38	239	-72
Project Prism	36	303	33	301	-2
Project Sc I	9	293	101	285	-8
Project Sc II	1	342	42	318	-24
SCIFI	254	311	242	296	-15
Synergy Middle School Concordia	14	284	169	312	+28
Washington Parish Science Program	16	247	101	277	+30
Statewide Total	757	299	1,385	300	+1

Table 12. Percent of Students Scored Basic or Above on iLEAP Science Test by Project--- Grade 5

Project Name	Taught by Non-MSP Participant		Taught by MSP Participant		Difference
	Number	%	Number	%	
ABC Connections	34	45%	172	71%	+26%
CSTEP	74	59%	46	72%	+13%
Jefferson MSMSP	14	50%	82	71%	+21%
Livingston Science Institute	73	74%	34	76%	+2%
Monroe City Impacts Science	9	82%	67	49%	-33%
North LA CSI	9	20%	28	51%	+31%
Northwest M&S Enhancement Middle School	33	73%	3	8%	-65%
Project Prism	23	64%	19	58%	-6%
Project Sc I	5	56%	38	38%	-18%
Project Sc II	1	100%	32	76%	-24%
SCIFI	185	73%	129	53%	-20%
Synergy Middle School Concordia	10	71%	119	70%	-1%
Washington Parish Science Program	4	25%	33	33%	+8%
Statewide Total	474	63%	802	58%	-5%

Grade 6 Math

In 2006-2007, a total of 4,059 sixth grade math students were taught by teachers who participated in 14 different MSP programs in Louisiana. Table 13 shows the demographic background of the participants and the comparison group. The two groups were similar with the participants having slightly lower proportion of special education students, higher SES, and a lower proportion of minority students.

Regression analyses indicated that MSP participation, educational classification, lunch status, and ethnicity have statistically significant effects to the mean scores on the *i*LEAP Math test. The MSP program is very effective, and participants' students scored significantly higher (26 points) than the nonparticipants (Table 14). Sixteen percent more students in the participant group scored Basic or above on the *i*LEAP test than the nonparticipants. The MSP program is effective in all subgroups despite education classification, ethnic background, or SES.

Table 15-16 presented the *i*LEAP Math test performance by programs. As shown in the tables, students in grade 6 have benefited from the MSP program in most of the programs in Louisiana.

Table 13. Student Demographics---Grade 6

	Taught by Non-MSP Participant		Taught by MSP Participant	
	Number	Percent	Number	Percent
Education Classification				
Regular Education	5,144	87%	3,675	91%
Special Education	797	13%	384	9%
Ethnicity				
Native American	24	0%	23	1%
Asian	92	2%	61	2%
African American	3,864	65%	2,098	52%
Hispanic	200	3%	88	2%
White	1,751	29%	1,784	44%
Free/Reduced Lunch	4,390	74%	2,743	68%
Paid Lunch	1,513	25%	1,307	32%
Statewide Total	5,941	100%	4,059	100%

Table 14. iLEAP Math Test Scores--- Grade 6

	Mean Scaled Score			Percent Proficient		
	Non-MSP Participant	MSP Participant	Difference	Non-MSP Participant	MSP Participant	Difference
Education Classification						
Regular Education	286	310	+24	56%	70%	+14%
Special Education	228	252	+24	22%	35%	+13%
Ethnicity						
Native American	304	313	+9	55%	70%	+15%
Asian	342	352	+10	77%	87%	+10%
African American	264	283	+19	42%	54%	+12%
Hispanic	262	293	+31	42%	61%	+19%
White	308	329	+21	69%	82%	+13%
Free/Reduced Lunch	267	289	+22	44%	59%	+15%
Paid Lunch	312	337	+25	72%	84%	+12%
Statewide Total	279	305	+26	51%	67%	+16%

Table 15. iLEAP Math Mean Scores by Project--- Grade 6

Project Name	Taught by Non-MSP Participant		Taught by MSP Participant		Mean Score Difference
	Total Number	Mean Score	Total Number	Mean Score	
EBR LSU High School	16	265	52	275	+10
EBR LSU Middle School Math	1634	278	756	288	+10
Iberville LSU High School	206	250	135	282	+32
Iberville LSU Middle School Math	115	254	198	292	+38
Jefferson MSMSP	455	256	282	296	+40
Livingston Math Institute	217	298	312	315	+17
Math TIPS	65	252	98	281	+29
Meaningful Math through Modeling (St. Tammany)	492	293	330	315	+22
Monroe City Impacts Math	186	294	249	291	-3
Northwest M&S Enhancement Middle School	856	285	978	321	+36
Project Prism	271	288	64	307	+19
SAVE Math	246	300	333	325	+25
Synergy Middle School Concordia	140	265	128	299	+34
Washington Parish Math Program	10	228	75	298	+70
Statewide Total	4,909	279	3,990	305	+26

Table 16. Percent of Students Scored Basic or Above on *i*LEAP Math Test by Project--- Grade 6

Project Name	Taught by Non-MSP Participant		Taught by MSP Participant		Difference
	Number	%	Number	%	
EBR LSU High School	6	38%	23	44%	+6%
EBR LSU Middle School Math	811	50%	442	58%	+8%
Iberville LSU High School	66	32%	74	55%	+23%
Iberville LSU Middle School Math	42	37%	111	56%	+19%
Jefferson MSMSP	175	38%	187	66%	+28%
Livingston Math Institute	141	65%	240	77%	+12%
Math TIPS	21	32%	50	51%	+19%
Meaningful Math through Modeling (St. Tammany)	308	63%	243	74%	+11%
Monroe City Impacts Math	106	57%	147	59%	+2%
Northwest M&S Enhancement Middle School	457	53%	701	72%	+19%
Project Prism	156	58%	42	66%	+8%
SAVE Math	173	70%	275	83%	+13%
Synergy Middle School Concordia	62	44%	84	66%	+22%
Washington Parish Math Program	3	30%	46	61%	+31%
Statewide Total	2,527	51	2,665	67	+16%

Grade 6 Science

In 2006-2007, a total of 3,492 sixth grade students were taught by teachers who participated in the MSP science program. Participants and comparison group were closely matched in demographics, with a slightly higher percentage of students receiving paid lunch, and more majority students and regular education students in the participant group (Table 17).

Regression analyses found the MSP program, as well as other demographics, have statistically significant effects on group mean scores on the *i*LEAP Science test. The participants' students scored 17 points higher than the nonparticipants, and fifteen percent more students scored Basic or above on the *i*LEAP Science test (Table 18). The program had positive effects on almost all subgroups except Asian and Native Americans who had very few participants.

Tables 19 and 20 present the test results for participants and comparison groups by program.

Table 17. Student Demographics---Grade 6

	Taught by Non-MSP Participant		Taught by MSP Participant	
	Number	Percent	Number	Percent
Education Classification				
Regular Education	4,311	88%	3,137	90%
Special Education	570	12%	355	10%
Ethnicity				
Native American	9	0%	25	1%
Asian	99	2%	42	1%
African American	2,700	55%	1,418	41%
Hispanic	184	4%	81	2%
White	1,882	39%	1,922	55%
Free/Reduced Lunch	3,343	68%	2,106	60%
Paid Lunch	1,527	31%	1,385	40%
Statewide Total	4,881	100%	3,492	100%

Table 18. iLEAP Science Test Scores--- Grade 6

	Mean Scaled Score			Percent Proficient		
	Non-MSP Participant	MSP Participant	Difference	Non-MSP Participant	MSP Participant	Difference
Education Classification						
Regular Education	294	310	+16	54%	69%	+15%
Special Education	253	270	+17	23%	36%	+13%
Ethnicity						
Native American	299	307	+8*	71%	72%	+1%*
Asian	312	313	+1	75%	62%	-13%
African American	273	288	+15	37%	51%	+14%
Hispanic	279	290	+11	46%	56%	+10%
White	312	320	+8	70%	77%	+7%
Free/Reduced Lunch	277	292	+15	41%	54%	+13%
Paid Lunch	316	327	+11	73%	83%	+10%
Statewide Total	289	306	+17	51%	66%	+15%

*Less than 10 students in one of the groups.

Table 19. iLEAP Science Mean Scores by Project--- Grade 6

Project Name	Taught by Non-MSP Participant		Taught by MSP Participant		Mean Score Difference
	Total Number	Mean Score	Total Number	Mean Score	
ABC Connections	54	284	231	307	+23
CSTEP	261	316	221	304	-12
EBR LSU High School	258	299	53	270	-29
Iberville LSU High School	18	287	125	305	+18
Jefferson MSMSP	454	268	282	296	+28
Livingston Science Institute	370	308	442	313	+5
Monroe City Impacts Science	18	288	165	308	+20
North LA CSI	131	294	263	319	+25
Northwest M&S Enhancement Middle School	852	283	973	308	+25
Project Prism	272	301	64	306	+5
Project Sc I	351	283	53	323	+40
Project Sc II	760	291	167	292	+1
SCIFI	186	294	35	302	+8
Science for St. Tammany Teachers	15	323	107	313	+10
Synergy Middle School Concordia	139	269	128	304	+35
Washington Parish Science Program	94	267	76	295	+28
Statewide Total	4,157	289	3,430	306	+17

**Table 20. Percent of Students Scored Basic or Above on iLEAP Science Test by Project---
Grade 6**

Project Name	Taught by Non-MSP Participant		Taught by MSP Participant		Difference
	Number	%	Number	%	
ABC Connections	25	46%	155	67%	+21%
CSTEP	189	72%	141	64%	-8%
EBR LSU High School	148	57%	20	38%	-19%
Iberville LSU High School	9	50%	82	66%	+16%
Jefferson MSMSP	162	36%	161	57%	+21%
Livingston Science Institute	254	69%	334	76%	+7%
Monroe City Impacts Science	10	56%	116	70%	+14%
North LA CSI	73	56%	200	76%	+20%
Northwest M&S Enhancement Middle School	374	44%	638	66%	+22%
Project Prism	170	63%	40	63%	0%
Project Sc I	158	45%	42	79%	+34%
Project Sc II	392	52%	91	54%	+2%
SCIFI	98	53%	22	63%	+10%
Science for St. Tammany Teachers	12	80%	80	75%	-5%
Synergy Middle School Concordia	50	36%	81	63%	+27%
Washington Parish Science Program	2	22%	42	55%	+33%
Statewide Total	2,128	51%	2,260	66%	+16%

Grade 7 Math

In 2006-2007, a total of 2,610 seventh grade math students were taught by teachers who participated in the MSP program across 14 different projects in Louisiana. The demographic information of the participants and comparison group demonstrated that the two groups are very comparable in every demographic background (Table 21).

Regression analyses indicated that economic status, education classification, and race have statistically significant effects on the group means at 0.01 level. MSP participation had significant effect at the 0.05 level. The 7th grade math performance on the iLEAP Math test for the two groups, indicated that the students of MSP participants scored four scaled score points higher than the nonparticipants, and four percent more students in the participant group passed the math test than the nonparticipants (Table 22). The MSP program was more effective with the special education students.

In this subgroup, 14 percent more special education students scored Basic or above than the nonparticipating special education students.

Test results for each of the programs are presented in Tables 23-24.

Table 21. Student Demographics---Grade 7

	Taught by Non-MSP Participant		Taught by MSP Participant	
	Number	Percent	Number	Percent
Education Classification				
Regular Education	3,110	88%	2,294	88%
Special Education	432	12%	316	12%
Ethnicity				
Native American	8	0%	14	1%
Asian	50	1%	22	1%
African American	2,176	61%	1,584	61%
Hispanic	136	4%	25	1%
White	1,162	33%	963	37%
Free/Reduced Lunch	2,462	70%	1,830	70%
Paid Lunch	1,070	30%	776	30%
Statewide Total	3,542	100%	2,610	100%

Table 22. iLEAP Math Test Scores--- Grade 7

	Mean Scaled Score			Percent Proficient		
	Non-MSP Participant	MSP Participant	Difference	Non-MSP Participant	MSP Participant	Difference
Education Classification						
Regular Education	320	303	-17	56%	59%	+3%
Special Education	226	248	+22	15%	29%	+14%
Ethnicity						
Native American	312	333	+21	86%	79%	-7%
Asian	352	355	+3	88%	95%	+7%
African American	271	276	+5	38%	40%	+2%
Hispanic	287	305	+18	47%	60%	+13%
White	333	328	-5	75%	77%	+2%
Free/Reduced Lunch	277	283	+6	42%	46%	+4%
Paid Lunch	333	330	-3	74%	77%	+5%
Statewide Total	294	298	+4	52%	56%	+4%

Table 23. iLEAP Math Mean Scores by Project--- Grade 7

Project Name	Taught by Non-MSP Participant		Taught by MSP Participant		Mean Score Difference
	Total Number	Mean Score	Total Number	Mean Score	
EBR LSU High School	145	258	27	273	+15
EBR LSU Middle School Math	538	277	97	252	-25
Iberville LSU High School	27	253	38	243	-10
Iberville LSU Middle School Math	16	306	85	299	-7
Jefferson MSMSP	415	283	85	290	+7
Livingston Math Institute	23	318	156	335	+17
Meaningful Math through Modeling (St. Tammany)	209	342	154	328	-14
Monroe City Impacts Math	236	308	462	277	-31
Northwest M&S Enhancement Middle School	1,041	304	635	302	-2
Project Prism	18	223	153	280	+57
SAVE Math	6	293	134	331	+8
Synergy Middle School St. Landry	77	296	113	302	+6
Synergy Middle School Concordia	12	264	127	304	+40
Washington Parish Math Program	182	278	151	294	+16
Statewide Total	2,957	294	2,443	298	+4

Table 24. Percent of Students Scored Basic or Above by Project--- Grade 7

Project Name	Taught by Non-MSP Participant		Taught by MSP Participant		Difference
	Number	%	Number	%	
EBR LSU High School	35	24%	10	37%	+13%
EBR LSU Middle School Math	224	42%	32	33%	-9%
Iberville LSU High School	8	30%	4	11%	-19%
Iberville LSU Middle School Math	10	63%	42	49%	+14%
Jefferson MSMSP	199	48%	50	59%	+11%
Livingston Math Institute	15	65%	128	82%	+17%
Meaningful Math through Modeling (St. Tammany)	163	78%	116	75%	-3%
Monroe City Impacts Math	142	60%	196	42%	-18%
Northwest M&S Enhancement Middle School	590	57%	369	58%	+1%
Project Prism	3	17%	60	39%	+22%
SAVE Math	4	67%	101	75%	+8%
Synergy Middle School St. Landry	48	62%	66	58%	-4%
Synergy Middle School Concordia	5	42%	77	61%	+18%
Washington Parish Math Program	80	44%	81	54%	+10%
Statewide Total	1,538	52%	1,357	56%	+4%

Grade 7 Science

In 2006-2007, a total of 3,740 seventh grade students were taught by teachers who participated in the MSP science program across Louisiana. More students were included in the comparison group. In comparing student demographics, the two groups are closely comparable with the participant group having slightly higher proportion of white students and regular education students (Table 25).

Regression analyses indicated that economic status, education classification, race, and MSP program have statistically significant effects on the group means. The students of MSP participants scored 3 scaled score points higher than the nonparticipants (Table 26). Four percent more students scored at Basic or above on the *iLEAP* Science test. The MSP program had a small but statistically significant effect on the students of MSP participants.

Tables 27-28 present the test results of the 7th grade students on the *iLEAP* Science test by program.

Table 25. Student Demographics---Grade 7

	Taught by Non-MSP Participant		Taught by MSP Participant	
	Number	Percent	Number	Percent
Education Classification				
Regular Education	5,202	89%	3,432	92%
Special Education	649	11%	308	8%
Ethnicity				
Native American	12	0%	19	1%
Asian	90	2%	40	1%
African American	3,052	52%	1,679	45%
Hispanic	203	3%	64	2%
White	2,478	42%	1,936	52%
Free/Reduced Lunch	3,633	62%	2,283	61%
Paid Lunch	2,187	37%	1,451	39%
Statewide Total	5,851	100%	3,740	100%

Table 26. LEAP Science Test Scores--- Grade 7

	Mean Scaled Score			Percent Proficient		
	Non-MSP Participant	MSP Participant	Difference	Non-MSP Participant	MSP Participant	Difference
Education Classification						
Regular Education	306	308	-2	58%	60%	+2%
Special Education	261	264	+3	20%	24%	+4%
Ethnicity						
Native American	313	300	-13*	75%	61%	-14%*
Asian	329	322	-7	78%	63%	+15%
African American	283	285	+2	36%	38%	-2%
Hispanic	295	294	-1	51%	52%	+1%
White	323	321	-2	74%	74%	0%
Free/Reduced Lunch	287	293	+6	41%	46%	+5%
Paid Lunch	325	323	-2	75%	76%	+1%
Statewide Total	302	305	+3	54%	58%	+4%

Table 27. iLEAP Science Mean Scores By Project--- Grade 7

Project Name	Taught by Non-MSP Participant		Taught by MSP Participant		Mean Score Difference
	Total Number	Mean Score	Total Number	Mean Score	
ABC Connections	17	277	180	307	+30
CSTEP	543	321	434	312	-9
EBR LSU High School	145	269	27	285	+16
Iberville LSU High School	29	270	38	267	-3
Jefferson MSMSP	413	294	83	297	+3
Livingston Science Institute	140	301	320	314	+13
North LA CSI	620	305	431	318	+13
Northwest M&S Enhancement Middle School	962	303	616	299	-4
Project Prism	17	251	152	298	+47
Project Sc I	205	268	14	230	-38
Project Sc II	845	296	313	286	-10
SCIFI	717	304	491	305	+1
Science for St. Tammany Teachers	272	336	131	327	-9
Synergy High School St. Landry	60	294	100	287	-7
Synergy Middle School Concordia	12	267	127	302	+35
Washington Parish Science Program	2	340	74	301	-39*
Statewide Total	4,999	302	3,609	305	+3

**Table 28. Percent of Students Scored Basic or Above on iLEAP Science Test by Project---
Grade 7**

Project Name	Taught by Non-MSP Participant		Taught by MSP Participant		Difference
	Number	%	Number	%	
ABC Connections	8	47%	118	66%	+19%
CSTEP	383	71%	273	63%	-8%
EBR LSU High School	37	26%	9	33%	+7%
Iberville LSU High School	6	21%	8	21%	0%
Jefferson MSMSP	200	48%	38	46%	-2%
Livingston Science Institute	74	53%	216	68%	+15%
North LA CSI	349	56%	282	65%	+9%
Northwest M&S Enhancement Middle School	510	53%	338	55%	+2%
Project Prism	4	24%	81	53%	+29%
Project Sc I	52	25%	1	7 %	-18%
Project Sc II	409	48%	122	39%	-9%
SCIFI	400	56%	280	57%	+1%
Science for St. Tammany Teachers	227	83%	101	77%	-6%
Synergy High School St. Landry	36	60%	42	42%	-18%
Synergy Middle School Concordia	2	17%	70	55%	+38%
Washington Parish Science Program	2	100%	38	51%	-49%*
Statewide Total	2,699	54%	2,075	58%	+4%

Grade 8 math

In 2006-2007, a total of 4,132 eighth grade math students were taught by teachers who participated in the MSP program across 15 different projects. The demographic information for the participants and the nonparticipants demonstrates that the two groups are very close in the proportion of students receiving free/reduced. However, 7% more White and 4% more regular education students made up the participant group when compared to the nonparticipant group (Table 29).

Regression analysis indicated that economic status, education classification, race, and MSP program had statistically significant effects on the group means. MSP participant students scored four scaled score points higher than the nonparticipants. Overall, six percent more students scored at Basic or above on the LEAP Math test. The MSP program had a small but statistically significant effect on the students of MSP participants (Table 30).

Tables 31-32 present the test results of the two groups on the LEAP Math test by program.

Table 29. Student Demographics---Grade 8

	Taught by Non-MSP Participant		Taught by MSP Participant	
	Number	Percent	Number	Percent
Education Classification				
Regular Education	5,204	88%	3,786	92
Special Education	712	12%	346	8
Ethnicity				
Native American	42	1%	76	2%
Asian	89	2%	62	2%
African American	3,265	55%	1,974	48%
Hispanic	181	3%	123	3%
White	2,328	39%	1,893	46%
Free/Reduced Lunch	3,862	65%	2,680	65%
Paid Lunch	2,025	34%	1,443	35%
Statewide Total	5,916	100%	4,132	100%

Table 30. LEAP Math Test Scores--- Grade 8

	Mean Scaled Score			Percent Proficient		
	Non-MSP Participant	MSP Participant	Difference	Non-MSP Participant	MSP Participant	Difference
Education Classification						
Regular Education	329	331	+2	54%	58%	+4%
Special Education	282	290	+8	17%	23%	+6%
Ethnicity						
Native American	303	323	+20	31	51	+20%
Asian	374	363	-11	76	90	+14%
African American	310	310	0	36%	37%	+1%
Hispanic	309	338	+29	43%	65%	+22%
White	343	344	+1	68%	73%	+5%
Free/Reduced Lunch	312	318	+6	40	46	+6%
Paid Lunch	346	345	-1	69	73	+4%
Statewide Total	324	328	+4	50	56	+6%

Table 31. LEAP Math Mean Scores by Project--- Grade 8

Project Name	Taught by Non-MSP Participant		Taught by MSP Participant		Mean Score Difference
	Total Number	Mean Score	Total Number	Mean Score	
EBR LSU High School	145	296	43	315	+9
EBR LSU Middle School Math	1,343	321	673	317	-4
Iberville LSU High School	34	293	18	313	+20
Iberville LSU Middle School Math	70	336	123	315	-21
Jefferson MSMSP	478	313	300	331	+19
Livingston Math Institute	200	335	415	343	+8
Math Tips	561	318	451	320	+2
Meaningful Math through Modeling (St. Tammany)	624	334	416	346	+12
Monroe City Impacts Math	228	325	338	305	-20
Northwest M&S Enhancement Middle School	389	355	295	336	-17
Project Prism	197	325	170	338	+13
SAVE Math	233	332	287	338	+6
Synergy Middle School St. Landry	59	329	78	322	+7
Synergy Middle School Concordia	92	297	305	326	+29
Washington Parish Math Program	211	321	122	319	-2
Statewide Total	4,864	324	4,034	328	+4

Table 32. Percent of Students Scored Basic or Above on LEAP Math Test by Project--- Grade 8

Project Name	Taught by Non-MSP Participant		Taught by MSP Participant		Difference
	Number	%	Number	%	
EBR LSU High School	29	20%	18	42%	+22%
EBR LSU Middle School Math	609	45%	314	47%	+2%
Iberville LSU High School	9	26%	6	33%	+7%
Iberville LSU Middle School Math	46	66%	43	35%	-31%
Jefferson MSMSP	208	44%	197	66%	+22%
Livingston Math Institute	127	64%	303	73%	+9%
Math Tips	248	44%	213	47%	+3%
Meaningful Math through Modeling (St. Tammany)	379	61%	298	72%	+9%
Monroe City Impacts Math	119	52%	113	33%	-19%
Northwest M&S Enhancement Middle School	277	71%	175	59%	+12%
Project Prism	113	57%	107	63%	+6%
SAVE Math	134	58%	200	70%	+12%
Synergy Middle School St. Landry	32	54%	40	51%	-3%
Synergy Middle School Concordia	23	25%	168	55%	+30%
Washington Parish Math Program	92	44%	50	41%	-3%
Statewide Total	2,445	50%	2,245	56%	+6%

Grade 8 Science

In 2006-2007, a total of 4,132 eighth grade students were taught by teachers who participated in the MSP science program across Louisiana. More students were included in the comparison group. In comparing student demographics, the two groups are closely comparable, with the participant group having slightly higher proportion of white students and regular education students (Table 33).

Regression analyses indicated that economic status, education classification, race, and MSP program had statistically significant effects on the group means. Students of MSP participants scored six scaled score points higher than the nonparticipants. Five percent more students scored at Basic or above on the LEAP Science test. The MSP program had a small but statistically significant effect on the students of MSP participants (Table 34).

Tables 35-36 present the test results of the 8th grade students on the LEAP Science test by program.

Table 33. Student Demographics---Grade 8

	Taught by Non-MSP Participant		Taught by MSP Participant	
	Number	Percent	Number	Percent
Education Classification				
Regular Education	3,881	89%	3,157	91%
Special Education	490	11%	294	9%
Ethnicity				
Native American	19	0%	10	0%
Asian	69	2%	58	2%
African American	2,148	49%	1,580	46%
Hispanic	171	4%	123	4%
White	1,954	45%	1,680	49%
Free/Reduced Lunch	2,584	59%	2,116	61%
Paid Lunch	1,766	40%	1,331	39%
Statewide Total	4,371	100%	3,451	100%

Table 34. LEAP Science Test Scores--- Grade 8

	Mean Scaled Score			Percent Proficient		
	Non-MSP Participant	MSP Participant	Difference	Non-MSP Participant	MSP Participant	Difference
Education Classification						
Regular Education	307	311	+4	56%	61%	+5%
Special Education	263	272	+9	22%	28%	+6%
Ethnicity						
Native American	293	301	+8	45%	40%	-5%
Asian	319	318	-1	70%	71%	+1%
African American	283	286	+3	34%	36%	+2%
Hispanic	286	315	+29	43%	66%	+23%
White	325	329	+4	75%	78%	+3%
Free/Reduced Lunch	288	296	+8	39%	46%	+7%
Paid Lunch	324	329	+5	74%	78%	+4%
Statewide Total	303	309	+6	54%	59%	+5%

Table 35. LEAP Science Mean Scores by Project--- Grade 8

Project Name	Taught by Non-MSP Participant		Taught by MSP Participant		Mean Score Difference
	Total Number	Mean Score	Total Number	Mean Score	
ABC Connections	60	280	175	305	+25
CSTEP	23	294	177	305	+11
Jefferson MSMSP	479	295	299	314	+19
Livingston Science Institute	175	322	176	320	-2
Monroe City Impacts Science	98	274	272	301	+27
North LA CSI	385	326	233	325	-1
Northwest M&S Enhancement Middle School	378	324	294	306	-18
Project Prism	195	304	166	315	+11
Project Sc I	192	268	160	272	+4
Project Sc II	615	292	356	287	-5
SCIFI	810	307	572	319	+12
Science for St. Tammany Teachers	97	325	116	327	+2
Synergy Middle School Concordia	93	281	302	312	+31
Washington Parish Science program	14	259	63	312	+53
Statewide Total	3,614	303	3,361	309	+6

Table 36. Percent of Students Scored Basic or Above on LEAP Science Test by Project--- Grade 8

Project Name	Taught by Non-MSP Participant		Taught by MSP Participant		Difference
	Number	%	Number	%	
ABC Connections	15	25%	97	55%	+30%
CSTEP	12	52%	96	54%	+2%
Jefferson MSMSP	219	46%	188	63%	+17%
Livingston Science Institute	133	76%	126	72%	-4%
Monroe City Impacts Science	20	20%	145	53%	+33%
North LA CSI	286	74%	167	72%	-2%
Northwest M&S Enhancement Middle School	261	69%	166	56%	-13%
Project Prism	109	56%	112	67%	+11%
Project Sc I	50	26%	41	26%	0%
Project Sc II	268	44%	133	37%	-7%
SCIFI	458	57%	389	68%	+11%
Science for St. Tammany Teachers	73	75%	94	81%	+6%
Synergy Middle School Concordia	28	30%	180	60%	+30%
Washington Parish Science program	4	29%	42	67%	+38%
Statewide Total	1,936	54%	1,976	59%	+5%

12. Grade 9 Math

This is the first year 9th grade teachers participated in the MSP program in Louisiana. A total of four Algebra I/Physical Science projects were established and funded in 2006-2007. In the entire state, 2,311 math students were taught by teachers who participated in the MSP program. (NOTE: Currently there is no science assessment at the 9th grade level.) A much greater number of students were not taught by MSP participating teachers and, therefore, were included in the comparison group. The two groups are very similar in ethnic background. The participant group had slightly higher percentage of regular education students and students receiving free/reduced lunch (Table 37).

Table 37. Student Demographics---Grade 9

	Taught by Non-MSP Participant		Taught by MSP Participant	
	Number	Percent	Number	Percent
Education Classification				
Regular Education	5,132	87%	2,137	92%
Special Education	769	13%	174	8%
Ethnicity				
Native American	8	0%	0	0%
Asian	62	1%	8	1%
African American	3,298	56%	1,280	55%
Hispanic	84	1 %	23	1%
White	2,430	41%	998	43%
Free/Reduced Lunch	3,396	58%	1,442	62%
Paid Lunch	2,484	42%	867	38%
Statewide Total	5,901	100%	2,311	100%

Regression analysis was used to analyze the scaled score mean differences between SES, race, education classification, and MSP programs. The results indicated that all variables have statistically significant effects on the group means. The students of MSP participants scored an average of 7 points higher than students of nonparticipants. Seven percent more students scored Basic or above in the participants group than the nonparticipants. The MSP program has greater effect on the special education students and the low SES students, Asian, and Hispanics (Table 38).

Student test performance on the iLEAP Math test by program is presented in Table 39-40.

Table 38. iLEAP Math Test Scores--- Grade 9

	Mean Scaled Score			Percent Proficient		
	Non-MSP Participant	MSP Participant	Difference	Non-MSP Participant	MSP Participant	Difference
Education Classification						
Regular Education	300	301	+1	56%	60%	+4%
Special Education	219	246	+27	11%	21%	+10%
Ethnicity						
Native American	325	NA	NA	75%	NA	NA
Asian	341	330	-11	74%	100%	+26%
African American	264	276	+12	33%	40%	+7%
Hispanic	293	304	+11	60%	73%	+13%
White	321	322	+1	71%	78%	+7%
Free/Reduced Lunch	270	285	+15	37%	48%	+11%
Paid Lunch	316	316	0	67%	72%	+5%
Statewide Total	290	297	+7	50%	57%	+7%

Table 39. iLEAP Math Mean Scores by Project--- Grade 9

Project Name	Taught by Non-MSP Participant		Taught by MSP Participant		Mean Score Difference
	Total Number	Mean Score	Total Number	Mean Score	
EBR LSU High School	994	295	459	293	-2
Iberville LSU High School	213	265	249	286	+21
Northwest M&S Enhancement High School	2,212	280	938	293	+13
Synergy High School St. Landry	1,338	307	593	309	+2
Statewide Total	4,757	290	2,239	297	+7

Table 40. Percent of Students Scored Basic or Above on iLEAP Math Test by Project--- Grade 9

Project Name	Taught by Non-MSP Participant		Taught by MSP Participant		Difference
	Number	%	Number	%	
EBR LSU High School	540	54%	237	52%	-2%
Iberville LSU High School	78	37%	121	49%	+12%
Northwest M&S Enhancement High School	936	42%	513	55%	+13
Synergy High School St. Landry	842	63%	404	68%	+5%
Statewide Total	2,396	50%	1,275	57%	+7%

Summary

This report has described the MSP programs funded in Louisiana in 2006-07, presented the methodology used in evaluating the effectiveness of the MSP programs, and summarized the findings and results. A total of 27 MSP programs were funded and operated in 39 parishes. About 600 teachers participated in the MSP programs and received training from nine major universities. All teachers participated in the program on a voluntary basis.

The effects of the program on the teachers and students were evaluated. Surveys and testing data were used to evaluate the effects of the summer institutes on the teacher participants. The results found that almost all programs successfully helped the teachers to improve their knowledge in the math and science content areas. Through hands-on activities and cooperative learning, the teachers learned new skills and strategies in teaching their subject in the classrooms. Teachers indicated that the summer institutes have helped them become better teachers and become more confident in delivering the math and science knowledge to the students.

The effectiveness of the MSP program on the students' learning was evaluated using Louisiana's standardized test scores. Comparison groups were constructed to match the MSP student participants in demographics and other schooling environments. Test scores on the LEAP and *i*LEAP tests were used to assess the effects of the MSP programs.

The analyses were conducted at both the state and the program level by grade and by subject. The results indicated the participants and the comparison group are very similar in ethnicity, education classification, and SES. Regression analyses indicated that these variables have significant effects on the group means on both math and science in all grades. Therefore, it was very important to pull out these influences in evaluating the program effects.

The study indicated that the MSP program in general has improved student learning in all grades and in both subjects. However, the effects were not uniform. In math, the MSP program is most successful and effective for grades 5 and 6. On average, student participants in these two grades scored 14 and 26 scaled score points higher than the nonparticipants respectively, and 7% and 16% more participants scored at Basic or above. The MSP program was relatively successful in high school. Students in the four projects scored 7 points higher than the nonparticipants, and 7% more of them scored at Basic and above. In science, the effect of the MSP program was most pronounced in 6th grade. The participants scored 17 points higher than the nonparticipants. In the participant group, 15% more students scored Basic or above than the nonparticipants.

There was a differential MSP program effect on student subgroups. In certain grades, the program was more effective with the special education students and students with low SES status. For example, the special education participants in 9th grade scored 25 points higher than the nonparticipants on the *i*LEAP math test. This may be a result of special education teachers who participated in the MSP programs.