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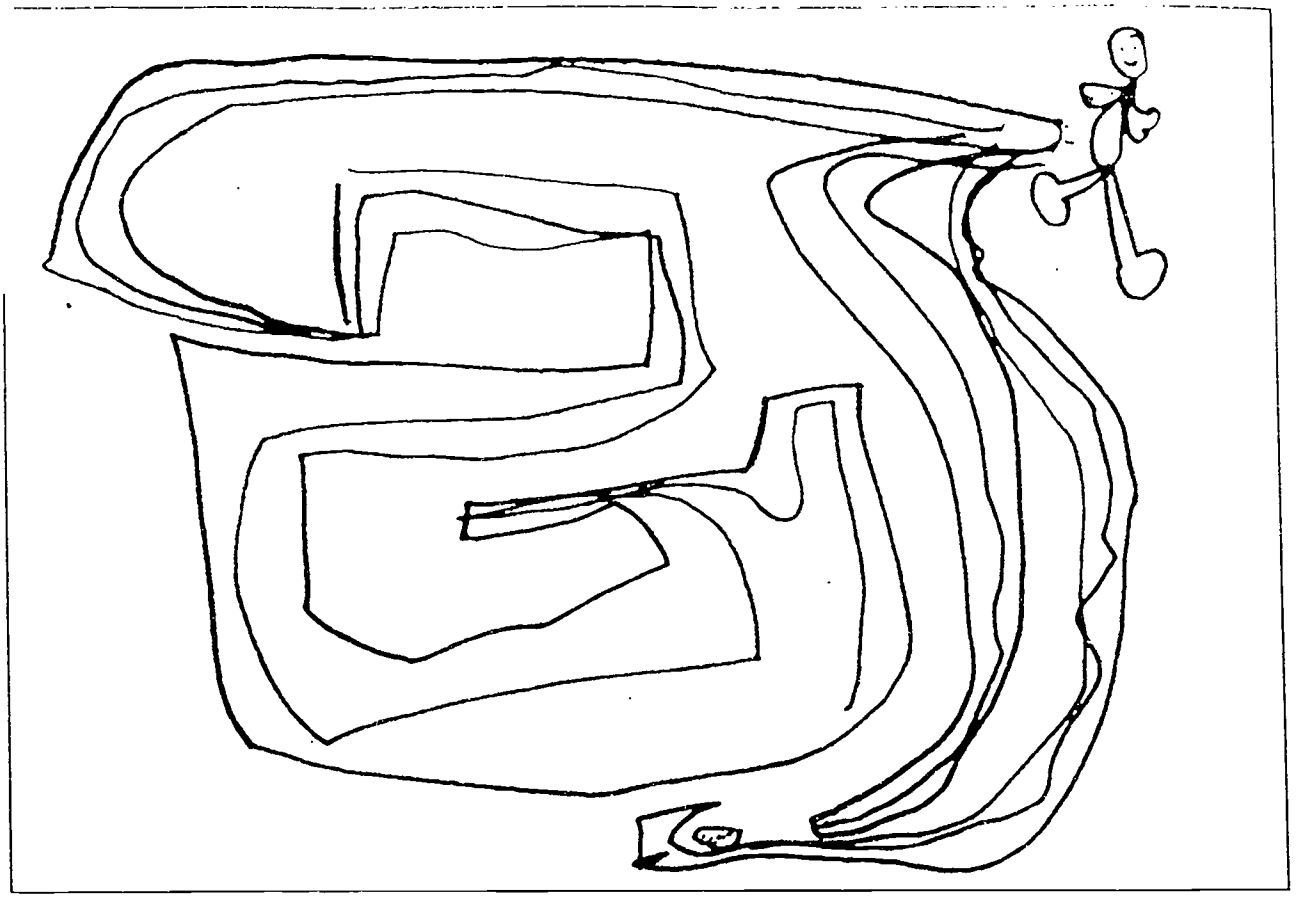
ABSTRACT

Efforts to address the problems of access and achievement for minorities and women in mathematics and science have been focused primarily at the secondary level. However, it has become increasingly apparent that intervention needs to begin earlier. This directory identifies and briefly characterizes intervention programs serving young minority and/or female students. The directory is organized into several sections. The "Procedures" section describes the process used to identify, collect, and verify program information. The "Summary of Findings" section includes a discussion of how programs characterize themselves, whom they serve, where the programs are located, and what are the most prevalent service delivery models. In addition, gaps in service delivery are identified and recommendations to address these needs are provided. The last section of the directory provides information on individual programs and contains a listing by state of program names and contact people. This section also includes: (1) a table of Program Features, which shows the subject areas, student activities, program format, and the average contact time per student; and (2) a table of Students Characteristics, which provides information on ethnicity or race, grades, and number of middle school (grades 4-8) students served. Contains 21 references. (MKR)



INTERVENTION PROGRAMS IN MATH, SCIENCE, AND COMPUTER SCIENCE FOR MINORITY AND FEMALE STUDENTS IN GRADES FOUR THROUGH EIGHT

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May 1987

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Preface

It has been well documented that minorities and women are underrepresented within the fields of mathematics and science; even more devastatingly, they are underrepresented among those high school graduates whom one might call mathematically or scientifically literate. Too many youngsters, especially those from disadvantaged neighborhoods spend their high school years re-learning 5th and 6th grade arithmetic rather than higher level mathematics and science and the more powerful reasoning skills which would serve them well in the future.

The earlier the intervention, and the more broadly based, the greater the likelihood that achievement differences between ethnic groups and sexes can be lessened and student deficits erased before they have become irretrievably compounded. The middle school years are particularly formative ones: a time when youngsters begin to identify their own abilities, personal values, and understanding of where they fit in the world. Because middle-school classroom achievement influences students' perceptions of their abilities and dictates their high school academic paths, middle school is a particularly opportune time for educational intervention.

Intervention programs in mathematics and science for minorities and for girls have been operated on a substantial scale for the past twenty years. While these programs were developed with the needs of special target groups in mind, it is arguable that, at their best, they constitute very good education in mathematics and science--education that retains opportunities to exercise intellectual curiosity and sense of relevance to one's current life and one's future. In addition to serving thousands of youngsters well, the intervention context has provided model programs that appear to be helpful more generally. The intervention community has established itself as a context for the development of innovative educational programming.

About three years ago the Ford Foundation became aware that the interest of the intervention community was turning to the educational needs of younger students. They, too, perceived that high school was already too late. Not sure of the size or the nature of this movement, we asked the Educational Testing Service to use its considerable research capabilities to gauge the breadth and depth of the new intervention efforts. The first product of their work is this Directory of existing intervention programs. Designed to be useful to practitioners and prospective developers of programs, the Directory analyzes program formats, student clientele, and geographical spread. It is intended to foster communication among projects and between them and others who share their concerns but have not yet discovered a satisfactory way to help.

Barbara Scott Nelson
Program Officer
The Ford Foundation

ACKNOWLEDGMENTS

The authors wish to acknowledge the contributions of many professionals who assisted our efforts to identify and describe intervention programs in mathematics, science, and computer science serving minority and female students in grades four through eight. First, we wish to thank our program officer, Barbara Scott Nelson, who recognized the need for this project and provided support and guidance throughout the completion of the directory. Special acknowledgments are also due to members of our Advisory Board who included: Dr. Vinetta Jones, University of North Carolina; Dr. Hernan Lafontaine, Hartford Public Schools; Dr. Marlaine E. Lockheed, The World Bank; Dr. Shirley Malcom, American Association for the Advancement of Science; Dr. Luis A. Martinez-Perez, Florida International University; Dr. Willie Pearson, Jr., Wake Forest University; and Dr. Mary Budd Rowe, University of Florida. Their suggestions regarding nomination sources, intervention programs, and program characteristics were very helpful. We also received valuable advice from colleagues at Educational Testing Service who included: Patricia L. Casserly, Edward A. Chittenden, Ann McAloon, Edith Robinson, and Joan Baratz Snowden.

We extend special thanks to Shirley Malcom and Yolanda George of the American Association for the Advancement of Science for providing access to their files, and to Gayle Dorman of the Center for Early Adolescence who proved an excellent referral source. Additionally, we appreciate the assistance of Bry Pollack of the National Science Teachers Association and Charles Hucka of the National Council of Teachers of Mathematics who generously included an announcement of our study within their publications. Also to be acknowledged are the professionals and organizations who helped identify programs for our target population.

Special acknowledgments are extended to individuals and programs who responded to our request for program information. Their contribution of time and materials made this directory possible.

We also wish to thank our staff whose perseverance, skill, and creativity contributed substantially to the project and the product: Thelma Benton, Joyce Gant, Shawn Gant, Marian Helms, Eleanor Hibbs, Jill Majofsky, Alice Norby, Betty Springsteen, and Susan Wilson.

Special thanks are due the students from the Princeton YWCA after school program whose drawings appear on the cover and in the directory. We also thank Deidre Sheean, artist and design consultant for the project.

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INTRODUCTION

It has been well documented that minorities and women are under-represented within the fields of mathematics and science. Related to this problem are discrepancies in enrollment and achievement in college preparatory classes that are evident during high school years (Hueftel, Rakow & Welch, 1983; NAEP, 1983; Ramist & Arbeiter, 1984). These discrepancies are especially pronounced for students living in urban areas.

Attempts to address the problems of access and achievement have been focused primarily at the secondary level. However, it has become increasingly apparent that intervention needs to begin earlier (Berryman, 1983). Important educational decisions are made during junior high school years that directly affect access to further educational opportunities and ultimately, access to math and science-related careers. In order to broaden the talent pool, middle/junior high students must be encouraged and prepared to continue their studies in mathematics, science and computer science.

While little research has been conducted on factors related to performance and/or participation of minority students and/or females in these subject areas during later elementary and junior high school years, there is some indication that certain educational arrangements contribute to improved performance for minority students and/or young girls (Lockheed, Thorpe, Brooks-Gunn, Casserly, & McAloon, 1985). There is a need to identify existing intervention efforts and to study these programs in light of what is known about potentially effective practices.

Project Goals

Educational Testing Service, with the support of the Ford Foundation, has undertaken a project to:

- Identify intervention programs in mathematics, science or computer science serving female and/or minority students during middle school years (grades 4-8).
- Study existing programs according to instructional and organizational features related to increased interest, participation, or achievement in mathematics, science, and computer science.
- Conduct an in-depth study of successful programs serving students in urban areas with an emphasis on describing a wide range of effective strategies.

Project Activities

The project began in March of 1986 and will continue until September of 1987. The first task, conducted between March and December of 1986, was to conduct a comprehensive search for programs throughout the nation. This directory containing 163 programs represents the results of that search. Future activities will focus on studying selected features of these programs, particularly those programs serving students in urban areas.

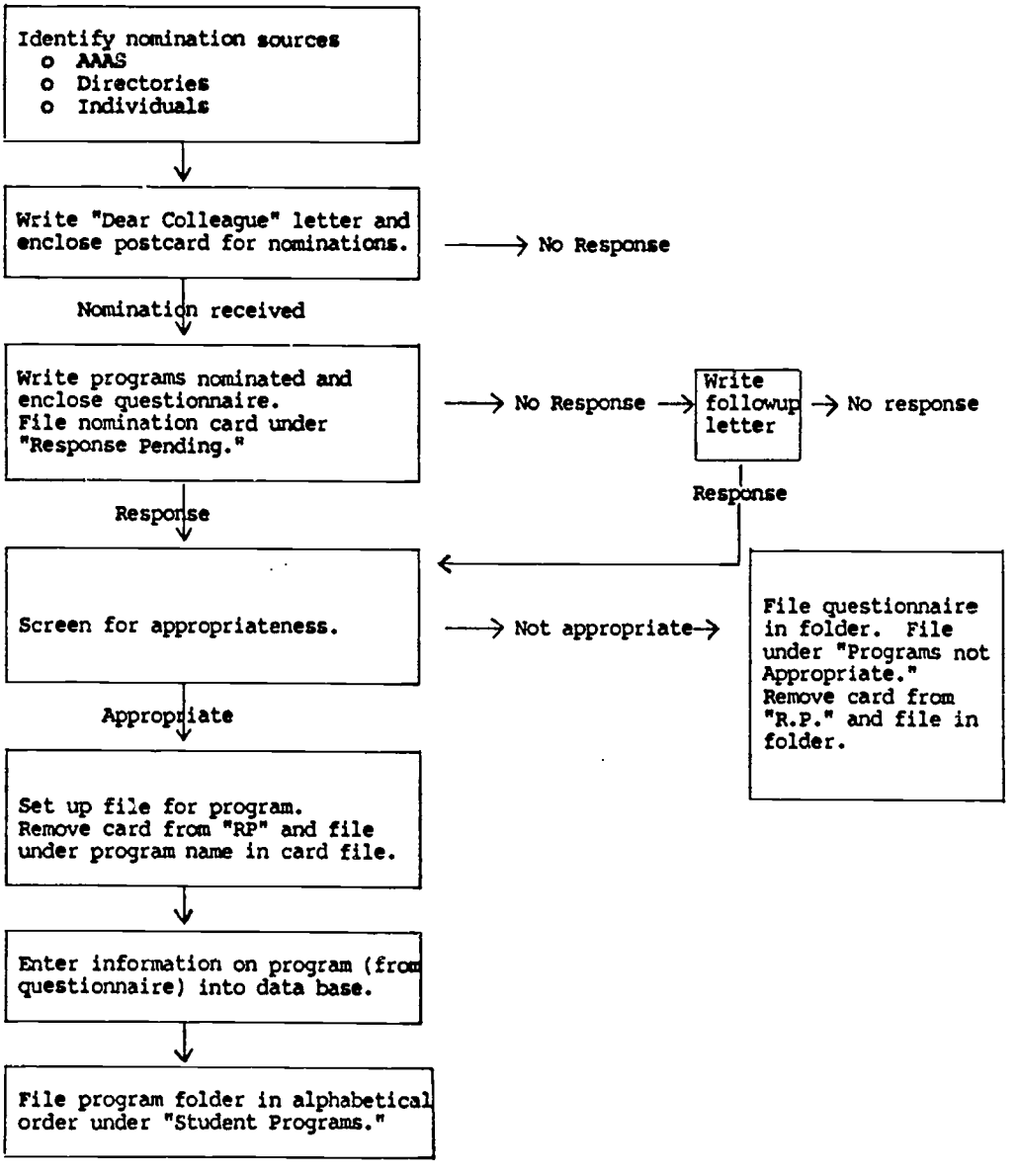
Purpose of the Directory of Intervention Programs

The directory was intended to serve two purposes. First, the directory was prepared to identify and briefly characterize intervention programs serving young minority and/or female students so that further study of program features could be made in the next phase of this project. However, the directory was also intended to serve a broader purpose. It was prepared to create a greater awareness of existing intervention efforts and the need for support to continue and expand these activities. Consistent with this objective, it is hoped that the directory will serve to:

- Facilitate communication between professionals involved in the delivery and/or support of intervention programs.
- Provide a national perspective on the prevalence and nature of intervention programs.
- Identify gaps in service delivery.

The directory is organized into several sections. The "Procedures" section describes the process used to identify, collect and verify program information. The "Summary of Findings" section includes a discussion of how programs characterize themselves, who they serve, and the activities they provide. In addition, gaps in service delivery are identified and recommendations to address these needs are provided.

The last section of the directory provides information on individual programs. It contains a listing by state of program names and contact people. The final section also includes a table of Program Features and a table of Student Characteristics. The table of Program Features shows the subject areas, student activities, program format, and the average contact time per student. The table of Student Characteristics provides information on ethnicity or race, grades, and number of middle school students served.


Identify nomination sources
o AAAS
o Directories
o Individuals
Write "Dear Colleague" letter and enclose postcard for nominations.
No Response
Nomination received
Write programs nominated and enclose questionnaire. File nomination card under "Response Pending."
No Response
Write followup letter
No response
Response
Response
Screen for appropriateness.
Not appropriate
File questionnaire in folder. File under "Programs not Appropriate." Remove card from "R.P." and file in folder.
Appropriate
Set up file for program. Remove card from "RP" and file under program name in card file.
Enter information on program (from questionnaire) into data base.
File program folder in alphabetical order under "Student Programs."

PROCEDURES

PROCEDURES

During this initial phase of the project, a thorough search was conducted to identify mathematics, science, or computer science programs whose objective is to foster the participation and/or achievement of minority students and/or females in grades four through eight. At this point, our search was broadly focused to identify as many existing programs as possible without restriction to specific type of community.

The process to develop the Directory of Intervention Programs involved several stages. The first stage was to obtain nominations of programs serving minorities and/or females. This stage was followed by direct contacts with nominated programs to obtain, screen, and verify information concerning the nature of their student populations and services. The following section describes the nomination and data collection process.

Nomination Process

Identifying Nominations Sources

In order to obtain program nominations, our first task was to identify sources knowledgeable of intervention programs. In conducting this phase of the process we received invaluable assistance from the Office of Opportunities in Science at the American Association for the Advancement of Science (AAAS). They generously shared with us the names and addresses of contacts they had made when conducting their study of mathematics and science programs serving female and minority students in kindergarten to twelfth grade (Malcom, 1983). We supplemented this information with names and addresses derived from a variety of additional sources including studies, published and nonpublished directories, and direct contacts with professionals and known programs. In all, over 2500 nomination contacts were identified. The sources for this information included the following:

- Federal education agencies (NSF, DOE, NIE)
- State and local district supervisors of math and science education
- Universities and research organizations
- Professional organizations involved with women, minorities, mathematics, science, engineering and/or education.
- Major corporations and foundations
- Academies of Science
- Association of Science Technology Centers
- Historically Black Colleges
- Minority Sororities and Fraternities

- o Camps
- o National Science Teachers Association and National Council of Teachers of Mathematics
- o National Action Council for Minorities in Engineering, Inc. and National Association of Precollege Directors

Soliciting Program Nominations

Self-addressed return postcards were sent to secure program nominations. In addition, requests for program nominations were made in bulletins produced by the National Science Teachers Association and the National Council of Teachers of Mathematics. These efforts were supplemented by phone calls to selected persons or organizations known to be directly involved with these students and programs.

In nominating programs, sources were asked to identify intervention programs who were trying to increase the participation and/or performance of minority students or young girls in grades four through eight for subject areas of mathematics, science or computer science. Contacts were asked to provide information that would allow us to communicate directly with programs. For each nomination we requested the program name, address and phone number, as well as the name of the program director, target population for intervention, and the subject area(s) covered. While the major effort to solicit program nominations occurred between March and July of 1986, the identification process continued through the fall. As we began to collect data from nominated programs, other programs were identified. In all, 163 programs were identified as serving our target populations.

Collecting Program Information

Data Collection Process

Once programs had been identified either through self nomination or nomination from one or more of the above mentioned sources, programs were contacted directly to obtain further information. Programs were informed about the purpose of our study and asked to share information about their programs if they met the following criteria:

(1) The program is currently operating.

(2) Minority and/or young female students in grades 4 to 8 are targets for intervention.

(3) The program focuses on mathematics, science or computer science.

A brief questionnaire was enclosed to gather information on the target population served, subject areas, as well as the schedule and location for service delivery. Programs were requested to return the completed questionnaire along with extant materials to provide a more detailed view of their services, organization and instructional approaches. Materials

requested included program descriptions, annual reports, program evaluations and curriculum materials.

When program information was received it was reviewed by project staff to ensure that each program met the existing criteria. When questions arose concerning the appropriateness of a particular program, followup contact was made to clarify information.

To collect information from as many programs as possible, followup letters were sent to programs that did not respond to initial requests for information. A second copy of the program questionnaire was included in the followup mailing along with a checklist for programs that did not meet the project's criteria. To supplement this effort in states where response rate was particularly low, phone calls were made to selected programs. Using this process, we were able to include additional programs and obtain a more accurate indication of the response rate for appropriate programs.

Criteria for Determining Inappropriate Programs

A number of programs were nominated which did not meet the established criteria for one or more of the following reasons:

- They did not serve students in grades 4 to 8.
- They did not target minority students or females for intervention.
- They did not focus on mathematics, science or computer science.
- They intervened directly with teachers, not students.
- They developed curriculum materials, but did not work directly with students.
- They were no longer in operation.

Response Rate

The following summarizes the response rates for programs initially identified.

Number of programs identified.....	396	
Number of inappropriate programs.....	155	
Number of programs identified minus number of inappropriate programs.....		241
Number of nonrespondents.....		78
Number of appropriate programs that responded.....		163

The response rate for intervention programs was derived by dividing the number of appropriate respondents (163) by the number of potentially appropriate programs (241). Thus the response rate for intervention programs was 68%.

Verification of Program Information

Based on a review of the program questionnaire and supplementary information provided by each program, descriptive materials on individual programs were developed for the Program Directory. When these materials were prepared in draft form, they were sent to programs for verification and/or revision. Based on program responses, amendments were made and a final document prepared. The directory was organized to provide a brief narrative summary of each program and a tabular view of selected features across all programs.

Caveats

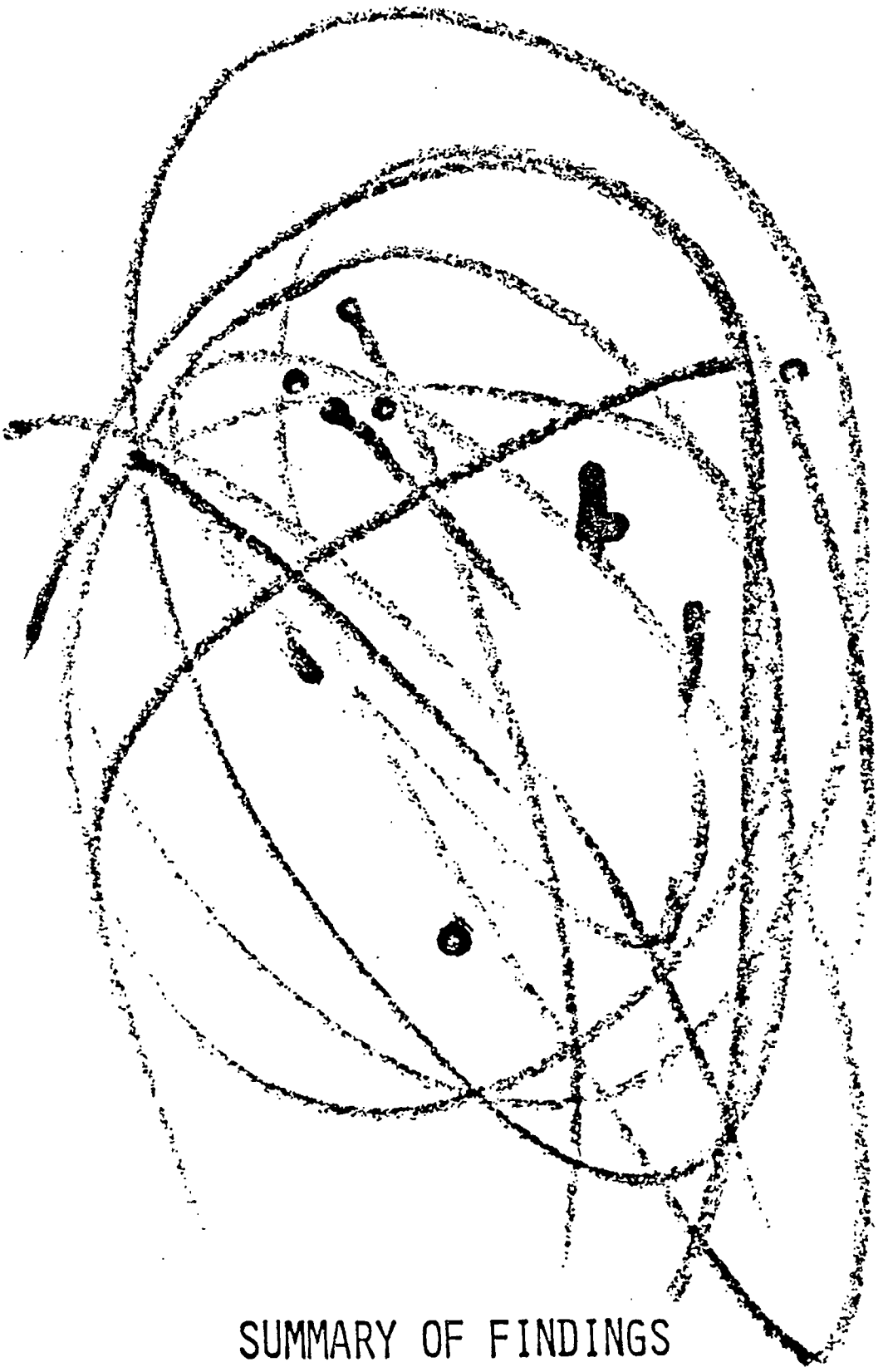
In developing this directory we were pleasantly surprised at the number of programs that were nominated. Based on previous work and contacts with other professionals in this area, we had expected to find perhaps 40 programs in existence. We were very pleased to discover a high level of interest and response from service providers, professional organizations and the business community.

While we welcomed the enthusiastic response to our request for nominations, the process to obtain and verify program information necessitated greater time and effort than had been anticipated originally. Though we have not received a response from all nominated programs despite followup efforts, constraints of time and funding have necessitated an end to the data collection process. Nevertheless, given the extensive search for programs and the large number of respondents, we feel that this directory represents a fairly accurate picture of the type of programs that are operating for minority students and/or young females within grades four through eight.

As you review the directory you will note some variation in the descriptions of programs. These variations reflect the ways in which programs have characterized themselves. For instance, some programs have designated that all students are their target population. These programs were included if they also indicated special efforts to recruit or to intervene with minorities or females, or if they indicated that their programs are particularly effective for minorities or young girls.

As our focus was on programs that directly intervened with middle school students, we did not include descriptions of curricula or teacher training programs unless these programs indicated that they also were working directly with students.

In some instances, national or regional programs were identified. These programs are listed in the directory with a star(*). While it is recognized that these programs operate in a number of sites, only the name and address of the central office are provided. Information on the number and characteristics of students reflect the total population served.



SUMMARY OF FINDINGS

WHAT DID WE FIND?

WHAT DID WE FIND?

Summary of Information in Directory

The information contained in this directory describes the range and extent of intervention efforts in math and science for middle school minorities and girls. There is a great deal of variation among programs as well as a great deal of similarity. Classifying them was not always an easy task. Neither was deciding which of the many programs we identified should be included in the directory. We relied heavily on programs' self-classification and self-description, especially in defining their target populations. As we have described in the "Procedures" section, we excluded from the directory all programs that did not provide direct services to students in our target groups, thereby omitting programs that focused solely on teacher training, curriculum development and/or development of teaching materials.

The sections that follow give an overview of the 163 programs we identified, focusing on:

- o program self-definition in terms of target population and subjects offered;
- o an analysis of students being served by programs--their sex, ethnicity, and grade level;
- o geographic distribution of programs;
- o gaps in service delivery;
- o policy recommendations based on our findings.

How Do Programs Describe Themselves?

Programs in the directory have been classified according to self-description. Figure 1 shows the proportion of programs focusing on minority groups (33%), on females (13%), and on a combination of the two groups (54%).

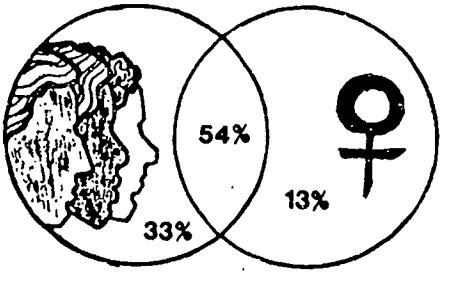


Figure 1. Target population of programs

Programs were also classified (again, using the program's own designation) according to their subject area focus. Figure 2 illustrates the proportion of programs focusing on each of the three subject areas—math, science, or computer science—or a combination thereof.

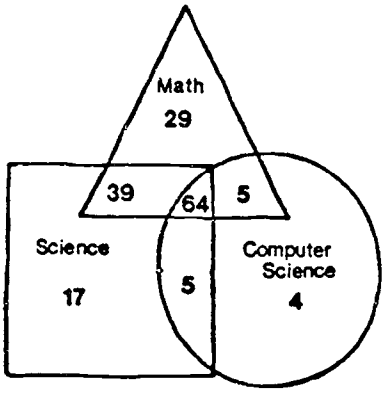


Figure 2. Subject area focus of programs

Who Are Programs Actually Serving?

One hundred nine programs (67%) are serving female students and 143 programs (88%) are serving minority students. Of ethnic groups, Blacks are served by the most programs (83%); while other groups appear to participate in fewer programs: Mexican Americans (41%), Puerto Ricans (41%), Other Hispanics (28%), Native Americans (35%), Asian Americans (21%), and Whites (58%).

Although programs span varying grade ranges, of our target middle school grades, seventh and eighth grades seem to be served by most of the programs as is shown in Figure 3.

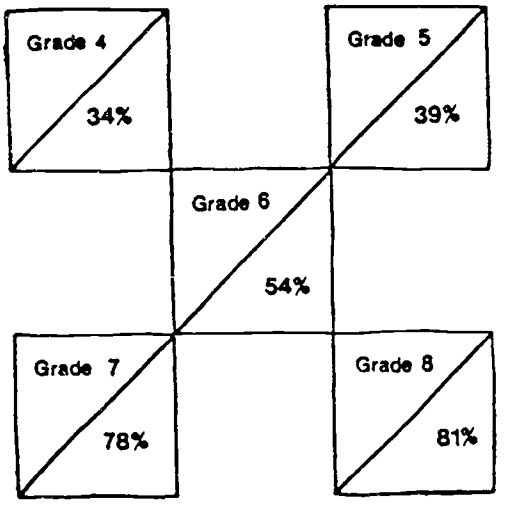


Figure 3. Distribution of programs by grade level

Where Are Programs Located?

Figure 4 gives the regional distribution of programs as well as the number of programs in each state.

The West has the greatest number of programs (30%), followed by the Northeast (28%), then by the Central states (24%), and the Southeast (18%). The top five states for programs are California (21) New York (12), Georgia (12), Illinois (9), and Washington, D.C. (9).

What Are the Most Prevalent Service Delivery Models?

In terms of their service delivery models, these programs vary as to format, size, contact time with students, and activities offered. The most predominant format is that of the in-school program, which accounts for 62% of all programs. (A number of the in-school programs are cooperative ventures involving the school and a university or industry.) In-school programs take place during the school day primarily on school premises. While 43% of in-school programs operate solely during school time, 57% provide services beyond the school day. These activities include after school, Saturday, and/or summer programs.

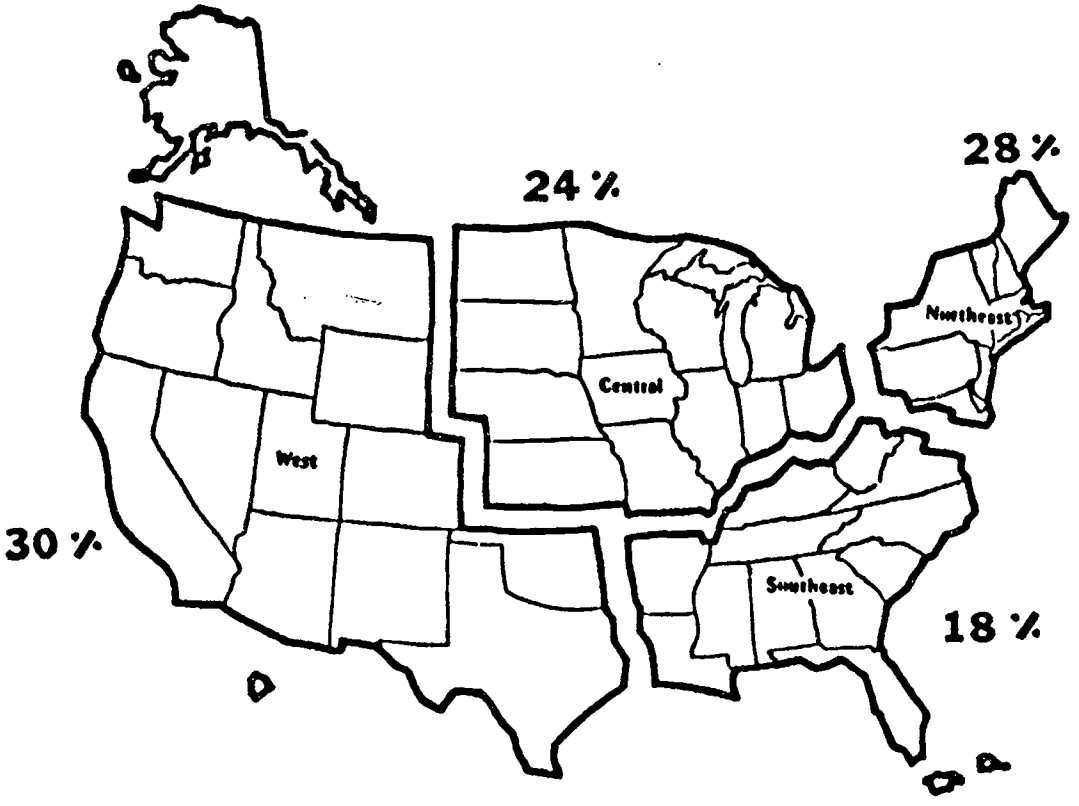
Although providing year-round activities (defined here as ten months or more of activities) requires substantial commitment and coordination of resources, we found that of the 163 programs identified, 42 (26%) use the year-round service delivery model. In addition to 26 school based programs offering year-round services, 16 non-school based programs offer summer activities in conjunction with after school and/or Saturday programs. Although not all programs reported contact time, of those that did (128) the plurality (38%) ran for ten months or longer out of a year; 33% ran for fewer than three months. Short-term or "one-time" formats are much less prevalent—10% of programs are conferences/workshops and 5% are competitions.

Forty-one percent of the programs are small (fewer than 100 students), 31% are medium size (101-500 students), and 28% are large (over 501 participants). As might be expected, the program format seems to determine size. In-school programs tend to have more than 100 students, although program participants often work in smaller groups. Saturday programs tend to be small (fewer than 100 students), whereas competitions tend to involve large numbers of participants (1,001 or more). Career days or career conferences usually range from 50 to 250 participants.

The activities most often offered by programs are shown in Figure 5: hands-on activities, direct instruction, career/academic counseling, advisors/role models, guest speakers, and field trips. Others, less frequently offered, include special projects (33%), contests/science fairs (28%), study groups/clubs (23%), tutoring (22%), test preparation (18%), and job shadowing (7%).

What Are the Gaps in Service Delivery?

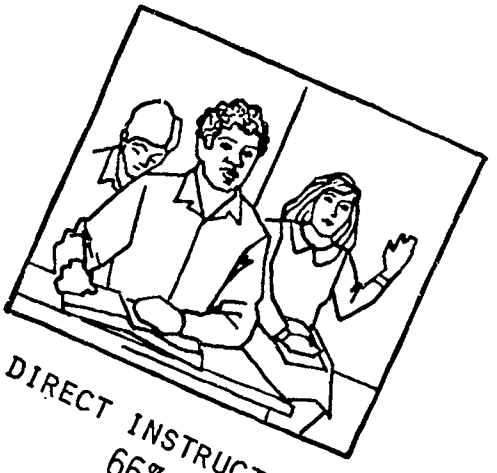
An analysis of program information, including features, student characteristics, and regional distribution resulted in highlighting three



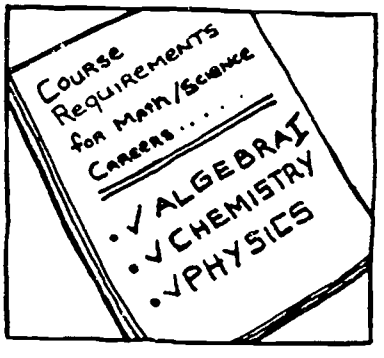
WEST		CENTRAL		NORTHEAST		SOUTHEAST	
Arizona	3	Illinois	9	Connecticut	4	Alabama	1
California	21	Indiana	5	Delaware	1	Arkansas	1
Colorado	6	Iowa	3	District of Columbia	9	Florida	2
Hawaii	3	Kansas	1	Maryland	4	Georgia	12
Idaho	1	Michigan	7	Massachusetts	3	Louisiana	1
Montana	1	Minnesota	4	New Jersey	5	North Carolina	3
New Mexico	3	Nebraska	1	New York	12	Virginia	7
Oklahoma	4	Ohio	7	Pennsylvania	6	West Virginia	1
Oregon	1	Wisconsin	3	Rhode Island	1		
Texas	6					Puerto Rico	1

Figure 4. Geographic distribution of programs.

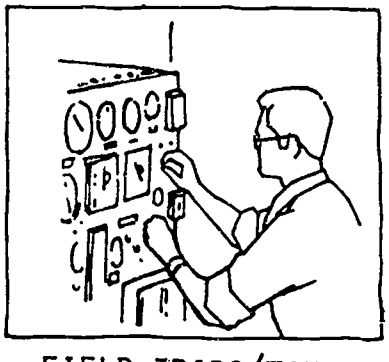
ROLE MODELS
54%



DIRECT INSTRUCTION
66%

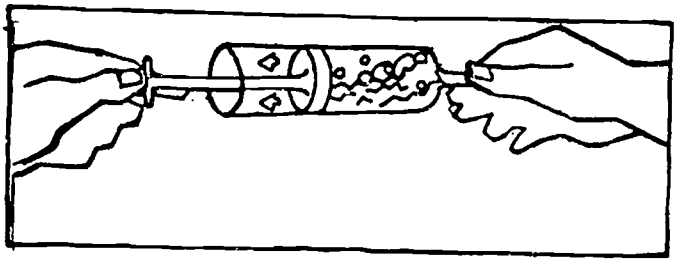


COUNSELING
59%



FIELD TRIPS/TOURS
47%

GUEST SPEAKERS
54%



HANDS-ON EXPERIENCES
84%

Figure 5. Program activities.

areas of interest and concern: the differences between the minority and the female-focused programs, the way the programs are distributed geographically, and the distribution of intervention services among middle school grades.

Minority- versus female-focused programs

Number of programs. Although the majority of programs (88 or 54%) target both females and minorities, of those that describe their target population as one or the other, only 21 serve females as compared to 54 that serve minorities. This finding is puzzling, especially since there has been much more research on factors that affect female participation in math and science than there has been on minority participation in these disciplines. Inasmuch as the middle school years have been identified as critical in the development of girls' attitudes regarding math and science (Fennema, 1976), it would seem important to undertake more intervention activities specifically aimed at girls at this period in life.

The imbalance between numbers of minority- and female-focused programs should not distract us from the need for more minority-focused programs for this age group. Differential achievement of Blacks, Hispanics, and Native Americans in math and science is already apparent by middle school and early intervention is also necessary to address problems of performance and participation in later years.

Program activities. A look at the differences between the format/activities of programs for girls versus those for minorities reveals that most of the former are conference/workshops (and therefore short-term inteventions) whereas most of minority-focused programs are in-school programs (and therefore long-term in nature). Sixty-seven percent of girls' programs offer hands on activities and career/academic counseling, 14% offer direct instruction, whereas 86% have guest speakers and 76% have role models/advisors. Compare this with the activities offered by minority programs: 91% have hands on activities and 74% direct instruction, whereas 52% have guest speakers and 56% have role models/advisors. It is evident that the girl-focused programs offer intervention designed to effect attitudinal changes in girls vis-à-vis careers in math and science while the minority-focused interventions attempt to improve achievement. (This finding echoes that of Malcom, Aldrich, Hall, Boulware and Stern [1984] that projects for females focus heavily on career awareness.) It is also interesting to note that none of the female-focused programs offers contest or science fair-type activities, and few offer activities involving teamwork (23%).

Although research has suggested that attitudinal factors, especially sex-role factors, may be most important in creating sex-related differences in math performance (Levine & Ornstein, 1983; Sherman, 1980), other research points to the importance of activities that address girls' achievement and performance in math and science. This research recommends that girls should be aware of and learn scientific terminology by the middle school years (Lynch & Paterson, 1980), be exposed to scientific concepts such as volume and density and proportional reasoning by middle school (Howe & Shayer, 1981), and that they be exposed to scientific activities and experiences both in and out of the classroom at an early age (Kahle & Lakes, 1983).

Girls' confidence as learners of math, their perception of math as a difficult subject, and their view of the value of math have an important impact on attitudes, achievement, and participation in advanced courses in the high school years (Parsons, 1983).

Intervention activities to develop confidence in math performance, which should include the improvement of math achievement, seem to be most useful if undertaken before the sixth grade (Parsons & Ruble, 1977). Fox (1976), in discussing the timing of intervention efforts, suggests that career awareness programs begin in the early elementary school years, followed by more intensive programs in the middle and high school years. The majority of activities being offered girls in middle school seem to be short-term or "one-time" efforts. Although female-focused programs for middle school students are correctly addressing attitudinal changes in their intervention approaches, there seems to be a paucity of activities that address the development of confidence in math ability, exposure to math and science experiences, and the learning of math and science terminology and concepts, which, according to research, are also important activities for girls in this age group.

Minority-focused programs should also increase activities involving role models, guest speakers, and counseling inasmuch as research has shown the importance of awakening interest early (at least by the sixth and seventh grades) through role models, career counseling, and other means (James & Smith, 1985; Johnson, 1984).

Grade levels served. A comparison of female-focused programs with minority-focused programs reveals that although both tend to serve more middle school students in the higher grades (six through eight), the female-focused programs serve students in grades four and five at a much lower rate than their minority-focused counterparts. (Only 19% and 29% of female-focused programs serve fourth and fifth graders, respectively; whereas for minority programs the proportions are 45% and 49%.) This may be due to research that identifies the critical years for developing girls' attitudes towards math and science as the sixth through eighth grade years (Fennema, 1976). This may well be so; however, research has also shown that inequitable exposure of girls to math and science as well as many of the stereotypical attitudes towards these disciplines are present from the elementary school years (Fox, 1976; Lynch & Paterson, 1980). Perhaps female-focused programs should consider including younger girls in the population they serve.

Test preparation activities

Very few programs (18%) offer test preparation activities. Of female-focused programs, only 5% offer these services. Research, however, shows test anxiety to be an important influence on test scores of young Black test-takers (Payne, Smith & Payne, 1983), and test preparation to significantly affect math achievement test performance for girls as well as boys (Bookman & Iwanicki, 1983). Although test preparation can never be considered a substitute for substantive intervention, more test preparation activities should be offered by programs.

Geographic distribution

An analysis of each region's population in terms of minority composition and grade levels is beyond the scope of this document. There are, however, imbalances in the geographic distribution of programs that are readily apparent and that seem to indicate that some groups are being underserved in some areas of the country.

The Southeast. It is difficult to explain the low number of programs for middle school students in the Southeast given the high concentration of minorities, particularly Blacks, in this area. Furthermore, of the 29 programs in the Southeast, a large number are located in Georgia (12), principally around the Atlanta area. Upon receiving a low response rate from the Southern states to our initial call for nominations, we intensified our efforts to locate programs, contacting all historically Black institutions as well as Black fraternities and sororities in the South, with very little result.

Several explanations may account for the low proportion of programs in the Southeast. The number of intervention efforts in the region may seem even smaller than it actually is because of the nature of activities being carried out by programs such as SECME (Southeastern Consortium for Minorities in Engineering), which operates on a "third-party" model providing assistance to teachers in schools in several states in the South. Another factor that may explain the dearth of programs may be that intervention efforts are being directed at high school rather than middle school. An examination of our list of Southeastern programs deemed "not applicable" for inclusion in the directory shows that over half (13) of these programs were excluded because the population served was in grade nine and above. Irrespective of these reasons, however, there does seem to be a a need for more intervention efforts for middle school students in the Southeast, especia ly in those states where no programs exist.

States with a large Native American population. Several of the states with no programs are states with a high concentration of Native Americans in the population. Establishment of programs in areas that are underserved, especially areas with high minority populations, is necessary.

Grade distribution

A look at the grades served by the programs reveals a fairly uneven distribution, with the majority of programs serving grades six through eight. Grades four and five are served by only 34% and 39%, respectively, of all programs, whereas grades six, seven, and eight are served by 54%, 78%, and 81%, respectively, of all programs. A possible explanation for this may be the tendency for programs already serving high school students to expand their services downward to include junior high school grades. This trend may also explain the quite sudden increase within the last few years of programs serving middle school students. Anecdotal evidence suggests that programs have realized that intervention efforts applied at the high school level may come too late to effect any lasting change. More research needs to be done on the relative efficacy of intervention in the fourth and fifth grades versus the sixth, seventh, and eighth grades. In the meantime, however, existing programs might consider extending their

services to fourth and fifth graders since many of the factors that affect differential participation rates are already present in the elementary school years.

Summary of Findings

The initial phase of the project provides a broad view of the nature and prevalence of programs serving minority and female students.

We Have Found:

- There are many more intervention programs in math and science serving middle school minority and female students than a review of the literature and anecdotal information led us to expect. In spite of this finding, there are gaps in service delivery as described below.

- The number of programs focusing on middle school girls and minority students appears low in relation to the population of minority and female students within this age range (U.S. Dept. of Commerce, 1986).

- On a positive note, of the intervention programs we identified that target minority students, many are incorporating strategies related to academic achievement. Some programs are also offering services that address motivational factors related to participation and achievement including exposure to careers and opportunities to interact with role models or mentors.

- For female students, a somewhat different picture emerges. Programs identified as female-focused are emphasizing attitudinal more than instructional activities.

- The preponderance of programs for both minorities and females focus at or above grade six. Many of these programs also extend into high school years. Only a third serve students in fourth or fifth grades.

- While many programs provide counseling or academic guidance critical to future academic and career planning, very few programs offer test preparation activities.

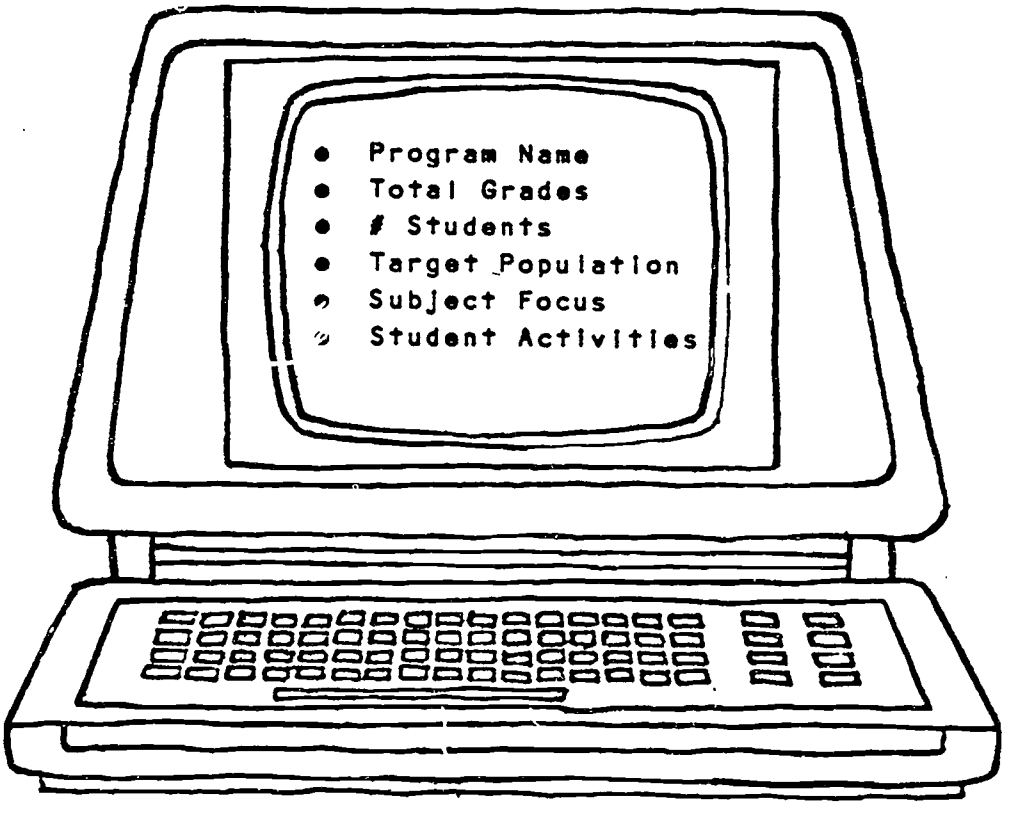
- There is a dearth of intervention programs targeting middle school students in the Southeast. Since this area contains a large Black population, it is possible that Black middle school students in the Southeast are being underserved. The same situation exists for Native Americans. Several of the states with a high concentration of Native Americans seem to have no intervention programs for middle school students.

Policy Implications

What implications do the above findings have for policy? In general, we are supportive of the programs that already exist for this age group and urge that funding be continued. The following are specific recommendations generated by our look into the state of invervention in math and science for females and minorities in middle school:

- Increase the number of female-focused and minority-focused programs serving middle school students.
- Increase the number of female-focused programs that offer activities to enhance the achievement and participation of girls in math and science.
- Increase the number of minority-focused programs offering role models, career awareness, and counseling activities.
- Add test preparation to programs offering awareness/ motivation activities and substantive achievement activities. (Test preparation should not be considered a substitute for substantive intervention.)
- Serve greater numbers of Native Americans, especially in states where there is a high concentration of this group.
- Establish more programs in the Southeast, especially in those states where there are none.
- Expand the services of existing female- and minority-focused programs to fourth and fifth graders.

Since the present project did not evaluate the effectiveness of individual programs described in the directory, we can make no recommendations regarding the effectiveness of particular strategies or approaches used by programs. This will be the subject of another report to be undertaken as a second phase of the project wherein effective approaches and strategies will be identified via case studies of successful programs.


Program Name
Total Grades
Students
Target Population
Subject Focus
Student Activities

PROGRAMS

Intervention Programs in Mathematics, Science and Computer Science for Minority and Female Students in Grades Four Through Eight

ALABAMA

Science Discovery Day
Selma University
Division of Natural & Applied Science
Selma, AL 36701
Dr. Shobha Sriharan, Director
205-872-8061

- o Format: Annual One-Day Workshop
- o Total grades/# students: 112 students in grades 7 to 12
- o Middle grades/# students: 57 students in grades 7 to 8
- o Target population: Minority students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Personal contacts with people working in science related areas, demonstrations, award of certificates

ARKANSAS

Mu Alpha Theta Math Contest
Mathematics Department
Hughes Public Schools
P.O. Box 9
Hughes, AR 72348
Ms. Betty R. Allen, Director
501-339-2580

- o Format: Annual Competition Day
- o Total grades/# students: 186 students in grades 7 to 8
- o Target population: All students including minority and female students
- o Subject focus: Mathematics
- o Student activities include: Math contests, awards and publicity of winners

* = National, regional or statewide programs; programs with multiple sites.

ARIZONA

Engineering Summer Institutes
College of Engineering and Applied Science
Arizona State University
Tempe, AZ 85287
Ms. Beatrice Meza, Director
602-965-5150

- o Format: Series of Four One-Week Summer Programs
- o Total grades/# Students: 200 students in grades 8 to 12
- o Middle grades/# Students: 70 students in grade 8
- o Target population: Minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Presentations by College professors followed by laboratory tours, student panels, practicing engineers serving as speakers and role models,industry tours, presentation on academic preparation, session on test taking and study skills, working on a special engineering design project, hands-on experience with computers, awards and certificates of participation

Pre-Engineering Summer Workshops for Women and Minorities
University of Arizona
College of Engineering
Tucson, AZ 85721
Dr. Morris Farr, Director
602-621-2446

- o Format: Summer Workshops
- o Total grades/# students: 191 students in grades 7 to 11
- o Middle grades/# students: 70 students in grades 7 to 8
- o Target population: Minority and female students
- o Subject focus: Science
- o Student activities include: General information presentations, hands-on experience, demonstrations, lectures, tours, meeting with engineers

Women in Science and Engineering (WISE)
University of Arizona
Modern Languages 265
Tucson, AZ 85721
Dr. Laurel Wilkening, Chair, WISE Advisory Board
602-621-7339

- o Format: Annual One-Day Science Career Workshop
- o Total grades/# students: 300 students in grades 7 to 12
- o Middle grades/# students: 150 students in grades 7 to 8
- o Target population: Minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Career panel discussions with female scientists and engineers and hands-on experience with science, engineering, and computer science activities

CALIFORNIA

ACCESS/CCPP (Alliance for Collaborative Change in Education in School Systems/The Cooperative College Preparatory Program)
University of California, Berkeley
Lawrence Hall of Science
Berkeley, CA 94720
Dr. Louis Schell, Director
415-642-6280

- o Format: In and After School Programs
- o Total grades/# students: 3,000 students in grades 7 to 12
- o Middle grades/# students: 2,000 students in grades 7 to 8
- o Target population: Minority and female students
- o Subject focus: Mathematics and science
- o Student activities include: Tutoring, small group instruction, before- and after-school study groups, academic and career counseling, in-class instruction

Caltech Secondary School Science Project (SSSP)
California Institute of Technology
10-63 Caltech
Pasadena, CA 91125
Dr. Lee F. Browne, Executive Director
818-356-6207

- o Format: Year Round Program (After School Lecture Series--University Based, Saturday Visitation Program and Seven-Week Summer Session)
- o Total grades/# students: 450 students in grades 7 to 12
- o Middle grades/# students: 200 students in grades 7 to 8
- o Target population: All students including minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Tutoring, assistance on a science fair or research project, guest speakers, lecturers, scientific demonstrations, advanced placement-type classes in math and science

Edison Computech School
Fresno Unified School District
555 E. Belgravia
Fresno, CA 93706
Mr. Vurdell Newsome, Principal
209-441-3971

- o Format: Year Round Program (In and After School, Summer and Saturday)
- o Total grades/# students: 1,752 students in grades 7 to 12
- o Middle grades/# students: 630 students in grades 7 to 8
- o Target population: All students including minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Laboratory activities, lectures and classroom discussions, tutoring, student designed projects, career lab, career fair, science fair, guest speakers, field trips to New York, France, Mexico, Cape Canaveral, industrial sites, science museums

EQUALS/Family Math Program *
Lawrence Hall of Science
University of California
Berkeley, CA 94720
Dr. Virginia Thompson, Director
415-642-1823

- o Format: Workshop Series
- o Total grades/# students: 6,700 students in grades K to 8
- o Target population: All students including minority and female students
- o Subject focus: Mathematics
- o Student activities include: Hands-on, problem solving approaches to mathematics, career seminars, role models

Expanding Your Horizons
Skyline Community College
3300 College Drive
San Bruno, CA 94066
Professor Christine L. Case, Director
415-642-1823

- o Format: Annual One-day Career Conference
- o Total grades/# students: 400 students in grades 6 to 12
- o Middle grades/# students: 288 students in grades 6 to 8
- o Target population: Minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Hands-on activities, demonstrations, career sessions, problems and puzzle test, lunch with a scientist followed by a lab/facilities tour

Expanding Your Horizons Career Conference
Loyola Marymount University
13921 Hesby
Sherman Oaks, CA 91423
Ms. Marilyn Rehwald, Director
818-995-3892

- o Format: Annual One-day Conference
- o Total grades/# students: 200 students in grades 6 to 12
- o Target population: Minority and female students
- o Subject focus: Mathematics and science
- o Student activities include: Direct contact with active professional women, hands-on workshops in math and science, career awareness panels and career exploration sessions

Expanding Your Horizons in Math and Science *
Math/Science Network
Math/Science Resource Center
Mills College
Oakland, CA 94613
Dr. Jan MacDonald, Director
415-430-2230

- o Format: Annual One-Day Career Conference
- o Total grades/# students: 15,500 students in grades 7 to 12
- o Target population: Female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Panel presentations by women scientists, hands-on workshops, career workshops with women in math and science-related fields presenting information about career opportunities and appropriate academic preparation

Finding Out/Descubrimiento Program for Complex Instruction
Center for Educational Research
at Stanford (CERAS)
Stanford University
Stanford, CA 94305
Professor Elizabeth B. Cohen, Director
415-723-4661

- o Format: In School Program
- o Total grades: Grades 2 to 5
- o Target population: Minority students
- o Subject focus: Mathematics and science
- o Student activities include: Open-ended activities, learning centers, cooperative groupwork, concept mastery, problem solving experiences

Franklin Computer Science Project
Franklin Jr. High
Long Beach Unified School District
540 Cerritos
Long Beach, CA 90802
Ms. Joni Marcoux, Director
213-435-4952

- o Format: In School Program
- o Total grades/# students: 120 students in grades 7 to 9
- o Middle grades/# students: 90 students in grades 7 to 8
- o Target population: Female students
- o Subject focus: Computer science
- o Student activities include: Hands-on computer experiences

Los Angeles Education Partnership Science/Math Enrichment Project
California State University, Los Angeles
5151 State University Drive
Los Angeles, CA 90032
Dr. Alan Crawford, Director
213-224-3762

- o Format: In School Program
- o Total grades/# students: 108 students in grades 4 to 5
- o Target population: Minority students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Lab activities, classroom activities, field trips

M.I.S.S.—Math Instruction and Science Studies
Career Options Conference
Orange Unified School District
370 N. Glassell Street
Orange, CA 92666
Ms. Nancy Murray, Chairperson
714-997-6115

- o Format: One-Day Conference
- o Total grades/# students: 200 students in grades 8 to 9
- o Middle grades/# students: 100 students in grade 8
- o Target population: Female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Panel discussions, career workshops

Mathematics, Engineering, Science Achievement Program (MESA) *
Lawrence Hall of Science
University of California
Berkeley, CA 94720
Mr. Fred Easter, Statewide Director
415-642-5064

- o Format: Year-Round Program (In and After School, Saturday and Summer)
- o Total grades/# students: 5,200 students in grades 7 to 12
- o Middle grades/# students: 1,011 students in grades 7 to 8
- o Target population: Minority students
- o Subject focus: Mathematics and science
- o Student activities include: Hands-on learning experiences, lab experiences, field trips, peer tutoring, study groups, academic and career advising, guest speakers, career day, contests and competitions, live-in summer enrichment programs

MESA Pre-College Program
Harvey Mudd College
Claremont, CA 91711
Ms. Linda Dell'Osso, Director
714-621-8240

- o Format: Year Round Program (In and After School, Saturday and Summer)—one of 17 pre-college MESA centers throughout California
- o Total grades/# students: 350 students in grades 7 to 12
- o Target population: Minority students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Hands-on learning experiences, field trips, peer tutoring, study groups, academic and career advising, guest speakers, career day, contests and competitions, summer enrichment program

Minority Participation in the Earth Sciences (MPES) *
Elementary School Program
U.S. Geological Survey
345 Middlefield Road, MS144
Menlo Park, CA 94025
Dr. Joyce R. Blueford, Coordinator, Geologist
415-323-8111

- o Format: In School Classroom Visitation Program
- o Total grades/# students: 6,000+ students in grades K to 12
- o Middle grades/# students: 3,000 students in grades 4 to 6
- o Target population: Minority students (low income)
- o Subject focus: Mathematics, science and computer science
- o Student activities include: K-6 science centers, guest speakers (geologists), audio-visual presentations, career discussions, demonstrations (kiddie kit)

Project AIMS (Activities That Integrate Mathematics and Science) *
Fresno Pacific College
1717 South Chestnut Avenue
Fresno, CA 93702
Dr. Arthur J. Wiebe and Mrs. Judith Hillen, Directors
209-453-2024

- o Format: In School and Summer Programs
- o Total grades: Grades K to 9
- o Target population: Minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Hands-on mathematics and science experiences, role models, home science investigations, study groups

Project Interface (PI)
Allen Temple Baptist Church
8500 "A" Street
Oakland, CA 94621
Ms. Ann Wilson, Director
415-635-1755

- o Format: Year Round Program (After School and Summer)
- o Total grades/# students: 73 students in grades 7 to 9
- o Middle grades/# students: 50 students in grades 7 to 8
- o Target population: Minority students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Hands-on experiences, tutoring, field trips, role models and guest speakers, classroom instruction, counseling

Project SEED (Special Elementary Education for the Disadvantaged) *
2336-A McKinley Avenue
Berkeley, CA 94703
Mr. William F. Johntz, Director
415-644-3422

- o Format: Year-Round Program (In and After School and Summer)
- o Total grades/# students: 6,000 students in grades 4 to 6
- o Target population: Minority students
- o Subject focus: Mathematics
- o Student activities include: Guest instructors, presentations, demonstrations, discussions, role models, group discovery learning activities

Quantitative Educational Development (QED)
California Academic Partnership Program
c/o E.O.P. San Diego State University
5172 1/2 College Avenue
San Diego, CA 92115
Mr. Bruce Keitel, Co-Director of QED
619-265-4336

- o Format: In School Program and Two Weeks of Science Olympics
- o Total grades/# students: 301 students in grade 8
- o Target population: Minority and female students
- o Subject focus: Mathematics and science
- o Student activities include: Hands-on activities, computer assisted instruction, counseling, tutoring, annual science fair/science olympics, field trips

SCI-MATH Project *
Education and Technology Foundation
1855 Folsom Street
San Francisco, CA 94103
Ms. JoAnne Bulotti and Mr. James McAuliffe, Co-Directors
415-626-3070

- o Format: In School Program
- o Total grades/# students: 2,800 students in grades 7 to 12
- o Middle grades/# students: 1,680 students in grades 7 to 8
- o Target population: All students including minority and female students
- o Subject focus: Mathematics and science
- o Student activities include: Hands-on activities, experiments with real life applications

Southern California Junior Academy of Science
900 Exposition Building
Los Angeles, CA 90007
Ms. Gloria J. Takahashi, Director
213-744-3384

- o Format: Saturday Program
- o Total grades/# students: 150 students in grades 7 to 12
- o Target population: All students including minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Guest speakers, tours, role models

SPICE (Science Partnership: Industry, Community, Education)
Office of County Superintendent of Schools
P.O. Box 6307
Santa Barbara, CA 93160-6307
Dr. Burt Pearlman, Director
805-964-4711

- o Format: Year Round Program (In and After School, Saturday, Summer)
- o Total grades: Grades K to 12
- o Target population: Minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Hands-on activities, concrete, real world experiences, guest speakers, field trips

COLORADO

Colorado Minority Engineering Association, Inc. (CMEA)
College of Engineering
University of Colorado at Denver
1100 14th Street, Room 517
Denver, CO 80202
Dr. Miguel A. Garcia, Executive Director
303-556-2870

- o Format: In and After School Programs
- o Total grades/# students: 1,200 students in grades 7 to 12
- o Middle grades/# students: 543 students in grades 7 to 8
- o Target population: Minority students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Tutoring, academic and career counseling, field trips, role models, competitions, summer enrichment program, job shadowing, hands-on experiences

Denver Audubon Society Urban Education Project
1720 Race Street
Denver, CO 80206
Ms. Karen S. Hollweg, Director
303-399-3219

- o Format: Year Round Program (In and After School, Saturday and Summer)
- o Total grades/# students: 2,500 students annually in grades 4 to 6
- o Target population: All students including minority and female students
- o Subject focus: Science (biological)
- o Student activities include: Outdoor hands-on investigating experiences, scientific explorations, simulation experiences, role models

Denver Educational Entry to Energy Program (DEEEP)
Denver Public Schools
3800 York Street, Unit B
Denver, CO 80205
Ms. Tamara S. Rhone, Project Director
303-837-1000 Ext. 2817

- o Format: In and After School Programs
- o Total grades/# students: 280 students in grades 7 to 12
- o Middle grades/# students: 110 students in grades 7 to 8
- o Target population: Minority and female students
- o Subject focus: Mathematics and science
- o Student activities include: Counseling in career planning and preparation, study skill emphasis, classes, field trips, job shadowing, role models

Developing Problem Solving Strategies Through the Use of Concrete Manipulatives, and Extending and Applying Concepts to Computer Programs and Learning Centers
Weld County S/D 6
811 15th Street
Greeley, CO 80631
Mr. Richard Hodge, Math & Science Coordinator
303-352-1543

- o Format: In School Program
- o Total grades/# students: 25 students in grades K to 6
- o Middle grades/# students: 13 students in grades 4 to 6
- o Target population: Minority students
- o Subject focus: Mathematics and computer science
- o Student activities include: Hands-on experiences in mathematics, computer activities

Project STAMM (Systematic Teaching and Measuring Mathematics) *
Jefferson County Public Schools
1005 Wadsworth Blvd.
Lakewood, CO 80215
Ms. Sherry Stumbaugh, Director
303-231-2381

- o Format: In School Program
- o Total grades/# students: 78,939 students in grades K to 12
- o Middle grades/# students: 27,772 students in grades 4 to 8
- o Target population: All students including minority and female students
- o Subject focus: Mathematics
- o Student activities include: Small and large group instruction, independent instruction, activities, games, enrichment exercises

Research/Design/Construction: A Model for Teaching/Evaluating Science Skills and Processes
Gardner School
Huerfano County S/D Re-1
P.O. Box 191
Gardner, CO 81040
Ms. Julia Marchawt, Director
303-746-2912

- o Format: In School Program
- o Total grades/# students: 119 students in grades K to 8
- o Middle grades/# students: 60 students in grades 4 to 8
- o Target population: All students including minority and female students
- o Subject focus: Mathematics and science
- o Student activities include: Hands-on activities, special projects, cooperative learning activities

CONNECTICUT

Connecticut PEP (Pre-Engineering Program)
The Science Museum of Connecticut
950 Trout Brook Drive
Hartford, CT 06119
Mr. Robert F. Content, Director
203-236-2961

- o Format: After School Program
- o Total grades/# students: 48 students in grades 7 to 8
- o Target population: Minority and female students
- o Subject focus: Mathematics and science
- o Student activities include: Speakers from local businesses, industries and educational institutions; field trips, directed formal instruction, contest and competitions, including school science fair and the statewide Connecticut Science Fair and MATHCOUNTS, individualized student career counseling, tutoring, supplementary computer instruction, test-taking workshops, group science/engineering projects, monthly newsletter, recognition awards, incentives

Multiply Your Options Conferences (MYO)
Project to Increase Mastery of Mathematics and Science
Wesleyan University
Middletown, CT 06457
Ms. Karen Sherrick, Program Coordinator
203-347-9411

- o Format: One-Day Conference
- o Total grades/# students: 700 students in grades 7 to 12
- o Middle grades/# students: 200 students in grades 7 to 8
- o Target population: Minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Workshops to familiarize students with science and math related careers and academic preparation needed to pursue these positions, activities include discussions, demonstrations and informal contacts with female and minority professionals

Saturday Academy
205 Farmington Avenue
Hartford, CT 06156
Ms. Catherine Jenkins, Director
203-727-4303

- o Format: Saturday Program (Two Nine-Week Sessions)
- o Total grades/# students: 50 students in grade 7
- o Target population: All students including minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Hands-on experiences, computer literacy classes, math and science projects, guest speakers, field trips, debates, improvisation, talent shows, newsletters

Third Wave
University of Hartford
200 Bloomfield Avenue
W. Hartford, CT 06117
Dr. Anne Pierce, Director
203-243-4648

- o Format: Summer Program
- o Total grades/# students: 60 students in grades 7 to 12
- o Middle grades/# students: 40 students in grades 4 to 8
- o Target population: All students including minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Role playing, lectures, field trips, computer activities, lab experiences, role models, special projects, job shadowing, guest speakers, career counseling

DISTRICT OF COLUMBIA

Computer Applications in Mathematics, Problem Solving and Science (Project CAMPS^2)
Office for Pre-College Programs
University of the District of Columbia
Washington, DC 20008
Ms. Jennifer Jones Dobbins, Director
202-282-2115

- o Format: Summer Program
- o Total grades/# students: 60 students in grades 6 to 8
- o Target population: Minority students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Core curriculum classes in integrated mathematics and science, computer programming, computer applications, individual research projects, career awareness, seminars, field trips

Content-Based ESL Curriculum
Bilingual Division DC Public Schools
35th & T Streets, N.W.
Washington, DC 20007
Ms. Betty Cunningham, ESL Coordinator
202-282-0133

- o Format: Year Round Program (In School, Saturday, Summer Programs)
- o Total grades/# students: 4,935 students in grades K to 12
- o Middle grades/# students: 1,690 students in grades 4 to 8
- o Target population: Minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Hands-on experiences, field trips, guest speakers, tutoring, classroom instruction, counseling, test preparation, math contests, science fair

Educational Equity for Black Girls Project
National Black Child Development Institute
1463 Rhode Island Avenue, N.W.
Washington, DC 20005
Ms. Merlene A. Vassall, Director
202-387-1281

- o Format: Summer Seminars
- o Total grades: Grades 6 to 12
- o Target population: Minority females
- o Subject focus: Mathematics and science
- o Student activities include: Awareness seminars fostering healthy self-esteem and achievement motivation; portraying Black females in positive roles and high paying, non-traditional occupations

I Love Mathematics Program
The Golden Spiral Institute
7705 Georgia Avenue, N.W.
Suite 106
Washington, DC 20012
Ms. Carolyn A. Young, Director
202-726-5672

- o Format: After School and Saturday Programs
- o Total grades/# students: 50 students in grades 6 to 12
- o Middle grades/# students: 3 students in grades 6 to 8
- o Target population: Minority and female students
- o Subject focus: Mathematics
- o Student activities include: Seminars, courses, manipulative activities, tutoring, career day

Math-Science Summer Enrichment Program
DC Public Schools
20th and Franklin Streets, N.E.
Washington, DC 20018
Mr. Gordon Lewis, Director
202-576-7816

- o Format: Summer Program
- o Total grades/# students: 40 students in grades 7 to 9
- o Middle grades/# students: 25 students in grades 7 to 8
- o Target population: Minority students
- o Subject focus: Mathematics and science
- o Student activities include: Information sessions on careers, speakers, tours of businesses, industries, government agencies, and universities

Mathematics, Science and Minorities, K-6 *
Mid-Atlantic Center for Race Equity
American University
5010 Wisconsin Avenue, N.W.
Washington, DC 20016
Dr. Sheryl Denbo, Director
202-885-8517

- o Format: In School Program
- o Total grades/# students: 4,500 students in grades K to 6
- o Target population: Minority students
- o Subject focus: Mathematics and science
- o Student activities include: Hands-on experiences/laboratory experiences, field trips, career awareness workshops, role models, peer tutoring, skill development activities, higher order cognitive and affective activities, integrated interdisciplinary lessons

Number Line
Native American Science Education Association
1228 M Street, N.W.
Washington, DC 20005
Dr. Gary W. Allen, Executive Director
202-638-7066

- o Format: Summer Program
- o Total grades/# students: 30 students in grades 3 to 4
- o Middle grades/# students: 15 students in grade 4
- o Target population: High ability minority students
- o Subject focus: Mathematics
- o Student activities include: Multisensory learning experiences

Real Math
Native American Science Education Association
1228 M Street, N.W.
Washington, DC 20005
Mr. Gary W. Allen, Executive Director
202-638-7066

- o Format: In School Program
- o Total grades/# students: 1,000 students in grades K to 8
- o Middle grades/# students: 350 students in grades 4 to 8
- o Target population: Minority students
- o Subject focus: Mathematics
- o Student activities include: Hands-on/manipulative activities

Project YES (Youth in Engineering and Science)
Office for Pre-College Programs
University of the District of Columbia
Washington, DC 20008
Ms. Jennifer Jones Dobbins, Director
202-282-2115

- o Format: Saturday Program
- o Total grades/# students: 102 students in grades 7 to 9
- o Middle grades/# students: 78 students in grades 7 to 8
- o Target population: Minority students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Pre-engineering core curriculum, career development mini-course, computer science, math problem solving, engineering projects, technical symposium, role models, field trips

DELAWARE

Forum to Advance Minorities in Engineering (FAME)
Room N-13535
10th and Orange Street
Wilmington, DE 19898
Mr. John H. Mathis, Executive Director
302-774-9270

- o Format: Year Round Program (After School, Saturday and Summer)
- o Total grades/# students: 200 students in grades 7 to 12
- o Middle grades/# students: 109 students in grades 7 to 8
- o Target population: Minority students
- o Subject focus: Mathematics and science
- o Student activities include: Motivational, awareness and pre-engineering classroom readiness activities, Saturday Service Club, Summer Enrichment Program (industrial and cultural tours, mentors/role models), individual as well as small group work

FLORIDA

BASE (Blacks for Academic Success in Education)
Duval County Public Schools
1701 Prudential Drive
Jacksonville, FL 32216
Dr. Alvin G. White, Director
904-390-2199

- o Format: In School Program
- o Total grades/# students: 1,280 students in grades 5 to 12
- o Middle grades/# students: 637 students in grades 5 to 8
- o Target population: Minority students
- o Subject focus: Mathematics and science
- o Student activities include: Hands-on experiences, field trips, role models, guest speakers, study groups, club activities, tutoring, classroom instruction, career and academic counseling, test preparation workshops

GEMS (Generating Excellence in Math and Science)
Dade County Public Schools
1450 N.E. 2nd Avenue
Miami, FL 33132
Ms. Jeanne Bolick, Project Manager
305-376-1921

- o Format: In School Program
- o Total grades/# students: 900 students in grades 4 to 6
- o Target population: Minority students
- o Subject focus: Mathematics and science
- o Student activities include: Field trips, hands-on activities, guest speakers, math clubs, science fair, math contests, test preparation

GEORGIA

Academy of Excellence (AoE)
Discovery Learning, Inc.
1776 Peachtree Street, #620N
Atlanta, GA 30309
Dr. Harold Finkelstein, Director
404-881-8200

- o Format: After School and Saturday Programs
- o Total grades/# students: 60 students in grades 4 to 8
- o Target population: Minority and female students
- o Subject focus: Science and computer science
- o Student activities include: Hands-on experiences and other classroom activities in science and computing

Basic Skills Improvement (BSI)
Discovery Learning, Inc.
1776 Peachtree Street, #620N
Atlanta, GA 30309
Dr. Harold Finkelstein, Director
404-881-8200

- o Format: Year Round Program (After School and Summer)
- o Total grades/# students: 160 students in grades K to 7
- o Middle grades/# students: 140 students in grades 4 to 7
- o Target population: Minority and female students
- o Subject focus: Mathematics
- o Student activities include: Supplementary instruction and motivational activities

Community Skills Training (CST)
Discovery Learning Inc.
1776 Peachtree Street, #620N
Atlanta, GA 30309
Dr. Harold Finkelstein, Director
404-881-8200

- o Format: Year Round Program (After School and Summer)
- o Total grades/# students: 210 students in grades 1 to 8
- o Middle grades/# students: 160 students in grades 4 to 8
- o Target population: Minority and female students
- o Subject focus: Mathematics and computer science
- o Student activities include: Problem-solving, introductory geometry, building test-taking skills, simple observations and experiments

Mathematics Inservice Model for Teachers of Native American Students
Discovery Learning, Inc.
1776 Peachtree Street, N.W. #620N
Atlanta, GA 30309
Dr. Harold Finkelstein, Director
404-881-8200

- o Format: In School and Summer Programs
- o Total grades/# students: 60 students in grades 3 to 7
- o Middle grades/# students: 60 students in grades 4 to 7
- o Target population: Minority students
- o Subject focus: Mathematics
- o Student activities include: Interactive dialogue, motivational activities, problem solving techniques/discovery learning activities, games

Neighborhood Computer Training Program (NCT)
Discovery Learning, Inc.
1776 Peachtree Street, #620N
Atlanta, GA 30309
Dr. Harold Finkelstein, Director
404-881-8200

- o Format: Year Round Program (After School, Saturday and Summer)
- o Total grades/# students: 110 students in grades K to 7
- o Middle grades/# students: 80 students in grades 4 to 7
- o Target population: Minority and female students
- o Subject focus: Computer science
- o Student activities include: Classes in computer literacy, computer programming and business application software

Saturday Science Academy
Clarke College
240 James T. Brawley Drive, S.W.
Atlanta, GA 30314
Dr. Melvin Webb, Director
404-681-3080

- o Format: Saturday Program
- o Total grades/# students: 400 students in grades 3 to 8
- o Middle grades/# students: 330 students in grades 4 to 8
- o Target population: Minority students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Exploratory and discovery activities, lab oriented instruction/experiences, special projects, tours/field trips, role models

Science Fair Project Workshop
Savannah-Chatham
208 Bull Street
Savannah, GA 31401
Dr. Harris K. Lentini, Science Coordinator
912-651-7154

- o Format: Summer Program
- o Total grades/# students: 20 students in grades 6 to 8
- o Target population: Minority and female students
- o Subject focus: Science
- o Student activities include: Demonstrations, exhibits, assistance on a science fair or research project

Southeastern Consortium for Minorities in Engineering (SECME) *
Georgia Institute of Technology
Room 208 Savant Building
Atlanta, GA 30332
Ms. Carolyn C. Chestnutt, Executive Director
494-894-3314

- o Format: In School Program
- o Total grades/# students: 12,600 students in grades 6 to 12
- o Middle grades/# students: 961 students in grades 6 to 8
- o Target population: Minority students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Guest speakers, hands-on curriculum enrichment activities

Southwest Achievement Center
3116 B. E. Mays Drive, S.W.
P.O. Box 42438
Atlanta, GA 30311
Dr. Betty S. McNair, Director
404-696-5789 or 6160

- o Format: Year Round Program (After School, Saturday and Summer)
- o Total grades/# students: 200 students in grades K to 12
- o Middle grades/# students: 75 students in grades 4 to 8
- o Target population: Minority students
- o Subject focus: Mathematics and computer science
- o Student activities include: Experiences with computers, career exploration through discussion, enrichment classes, tutoring

Summer Computer Workshops
Chatham BOE
208 Bull Street
Savannah, GA 31401
Mr. Benny White, Program Director
912-651-7154

- o Format: Summer Program
- o Total grades/# students: 66 students in grades 6 to 8
- o Target population: Minority and female students
- o Subject focus: Computer science
- o Student activities include: Computer literacy classes, hands-on experience with computers

Summer Technical Enrichment Program
Richmond County Board of Education
Curriculum Center
3116 Lake Forest Drive
Augusta, GA 30909
Dr. Alvin Forest, Assistant Principal
404-737-7232

- o Format: Six-Week Summer Program
- o Total grades/# students: 50 students in grades 8 to 9
- o Middle grades/# students: 43 students in grade 8
- o Target population: Minority students
- o Subject focus: Mathematics and science
- o Student activities include: Problem solving activities, individual projects, guest engineers, field trips

The Academy
Savannah-Chatham
208 Bull Street
Savannah, GA 31401
Dr. Harris R. Lentini, Science Coordinator
912-651-7154

- o Format: Two-Week Summer Program
- o Total grades/# students: 510 students in grades 1 to 12
- o Target population: Gifted and talented students including minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Mini-classes, hands-on activities, experiments, field trips/tours

HAWAII

Foundational Approaches in Science Teaching (FAST) *
University of Hawaii
Curriculum Research and Development Group
1776 University Avenue
Honolulu, HI 96734
Dr. Donald B. Young and
Dr. Francis M. Pottenger, Co-Directors
808-948-7863

- o Format: In School Program
- o Total grades/# students: 67,580 students in grades 6 to 9
- o Middle grades/# students: 67,000 students in grades 6 to 8
- o Target population: All students including minority and female students
- o Subject focus: Science
- o Student activities include: Inquiry/discovery approaches, investigations in the field and laboratory student-designed research projects

Scientists-in-the-Schools Program
Hawaii Association for Women in Science
Biomed Building T606B
University of Hawaii, Manoa
Honolulu, HI 96822
Dr. Nancy K. Lind, President
808-948-7969

- o Format: In School Program
- o Total grades: Grades 6 to 12
- o Target population: Female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Role models, career counseling, scientists of different disciplines speaking at schools

Share-a-Day-with-a-Scientist
Hawaii Association for Women in Science
Biomed Building T606B
University of Hawaii, Manoa
Honolulu, HI 96822
Dr. Nancy K. Lind, President
808-948-7969

- o Format: Saturday Program
- o Total grades/# students: 100 students in grades 6 to 12
- o Middle grades/# students: 50 students in grades 6 to 8
- o Target population: Female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Field trips, job shadowing, role models, career counseling, scientists of different disciplines speaking at schools

IOWA

Des Moines Science Magnet Program
Des Moines Public Schools
1800 Grand Avenue
Des Moines, IA 50309
Mr. Larry Streffler, Director
515-243-1297

- o Format: In and After School Programs
- o Total grades/# students: 600 students in grades K to 6
- o Middle grades/# students: 200 students in grades 4 to 6
- o Target population: Minority students
- o Subject focus: Science and computer science
- o Student activities include: Field trips, role models, hands-on learning experiences, study groups, in class instruction, guest speakers, special projects

Go Power for Girls
Ames Community Schools
120 South Kellogg
Ames, IA 50010
Ms. Kay North, Coordinator ELP
515-232-3400

- o Format: After School Program
- o Total grades/# students: 50 students in grades 4 to 6
- o Target population: High ability female students
- o Subject focus: Mathematics and science
- o Student activities include: Career awareness seminars

Taking the Road Less Traveled
Iowa State University
Women's Center
Ames, IA 50011
Ms. Florine Swanson, Director
515-294-0887

- o Format: One-Day Conference
- o Total grades/# students: 300 students in grades 6 to 12
- o Middle grades/# students: 100 students in grades 6 to 8
- o Target population: Female students
- o Subject focus: Mathematics and science
- o Student activities include: Workshops, tours, displays, guest speakers

IDAHO

Idaho Science Camp
University of Idaho
College of Engineering
Moscow, ID 83843
Dr. Margrit Von Braun, Director
208-885-6438

- o Format: Summer Camp
- o Total grades/# students: 35 students in grades 8 to 10
- o Middle grades/# students: 6 students in grade 8
- o Target population: Minority and female students
- o Subject focus: Science and computer science
- o Student activities include: Demonstrations, field trips, engineering projects

ILLINOIS

Chicago Area Pre-College Engineering Program (CAPCEP)
300 West Adams Street
Chicago, IL 60606
Dr. Deborah A. Minor, Executive Director
312-726-4137

- o Format: Saturday Program
- o Total grades/# students: 300 students in grades 7 to 8
- o Target population: Minority students
- o Subject focus: Mathematics and science
- o Student activities include: Math and science appreciation program including problem-solving exercises, mentoring by engineers and other professionals, career counseling and academic competition, field trips

Ecological Citizenship
Chicago Academy of Sciences
2001 N. Clark St.
Chicago, IL 60614
Mr. Jim Vear, Outreach Coordinator
312-549-0606

- o Format: In School and Summer Programs (Five-Week Outdoor-Based Program)
- o Total grades/# students: 1,300 students in grades K to 8
- o Middle grades/# students: 750 students in grades 4 to 8
- o Target population: Minority and female students
- o Subject focus: Science
- o Student activities include: Discussions, demonstrations, assignments

Engineering Career Workshops for Women
Technological Institute
Northwestern University
Evanston, IL 60201
Ms. Carolyn Krulee, Assistant Dean
312-491-5195

- o Format: Annual Career Day
- o Total grades/# students: 249 students in grades 6 to 12
- o Middle grades/# students: 2 students in grades 6 to 8
- o Target population: Minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Speakers, panel discussions, small group discussions, role models

Mathematics Teacher Development with Peer Tutoring
Chicago Public Schools
Bureau of Mathematics
1819 West Pershing Road
Chicago, IL 60609
Dr. Dorothy Strong, Director
312-890-7945

- o Format: In School Program
- o Total grades/# students: 335 students in grades 7 to 8
- o Target population: Minority students
- o Subject focus: Mathematics
- o Student activities include: Problem-solving activities and experiences in higher order mathematical concepts

Metro Achievement Program
500 S. Racine Avenue
Suite 412
Chicago, IL 60607
Miss Karen L. Johnson, Executive Director
312-226-4886

- o Format: Year Round Program (Saturday and Summer)
- o Total grades/# students: 41 students in grades 7 to 8
- o Target population: Minority and female students
- o Subject focus: Mathematics and science
- o Student activities include: Summer program--classes in math, communications and science, career awareness and counseling, human values instuctors and sports
  Saturday program--instruction and tutoring in English, math or science and human values

Pre-Algebra Development Centers
Chicago Public Schools
1819 West Pershing Road
Chicago, IL 60609
Dr. Dorothy Strong, Director
312-890-7945

- o Format: In School Program
- o Total grades: Grades 7 to 8
- o Target population: Minority students
- o Subject focus: Mathematics
- o Student activities include: Laboratory experiences, regular classroom instruction, individualized diagnosis and remediation

Project STARWALK *
Lakeview Museum of Arts and Sciences
Lakeview Museum Planetarium
1125 W. Lake Avenue
Peoria, IL 61614
Mr. Bob Riddle, Director
309-686-NOVA

- o Format: In School Program
- o Total grades/# students: 16,000 students in grades 3 to 6
- o Middle grades/# students: 8,000 students in grades 4 to 6
- o Target population: All students including minority and female students
- o Subject focus: Science
- o Student activities include: Series of lessons in earth/space concepts, three visits to the planetarium, multisensory, hands-on experiences

Tomorrow's Scientist, Technician and Manager's Program
Tri-County Urban League
317 South MacArthur Highway
Peoria, IL 61605
Ms. Beverly Nance, Director
309-673-7474

- o Format: Year Round Program (After School, Saturday and Summer)
- o Total grades/# students: 300 students in grades 1 to 12
- o Middle grades/# students: 35 students in grades 4 to 8
- o Target population: Minority students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Motivational activities, career counseling, academic tutorials, community service projects, summer enrichment program, clubs, site visits/field trips

Young Scientist Program
Chicago Health and Medical Careers Program
Illinois Institute of Technology
3200 South Wabash Avenue
Chicago, IL 60616
Dr. Reggi Jones, Director
312-567-3912

- o Format: Year Round Program (After School, Saturday, Summer)
- o Total grades: Grades 6 to 8
- o Target population: High ability students including minority and female students
- o Subject focus: Science
- o Student activities include: Field trips, career workshops, advisement, competition, guest speakers, hands-on laboratory activities, use of microcomputers

INDIANA

MATHCOUNTS in Indiana *
Indiana Society of Professional Engineers
2509 E. 54th St., P.O. Box 20806
Indianapolis, IN 46220
Mr. Larry Conrad, Director
317-255-2267

- o Format: Year Round Program (In and After School and Saturday)
- o Total grades/# students: 2,000 students in grades 7 to 8
- o Target population: All students including minority and female students
- o Subject focus: Mathematics
- o Student activities include: Individual and team contests/ competitions, drill sessions/coaching

Mathematics Pentathlon *
Pentathlon Institute
500 East 42nd Street
Indianapolis, IN 46220
Ms. Mary Gilfeather, Director
317-283-6225

- o Format: Year Round Program (In and After School and Summer)
- o Total grades/# students: 10,000 students in grades K to 7
- o Middle grades/# students: 5,000 students in grades 4 to 7
- o Target population: All students including minority and female students
- o Subject focus: Mathematics
- o Student activities include: School and home participation, after school math clubs, summer camps, individual and team competition promoting active problem solving experiences

Minority Engineering Advancement Program (MEAP)
Purdue University
School of Engineering
799 West Michigan Street
Indianapolis, IN 46202
Ms. Vicki L. Vance, Acting Director
317-264-2943

- o Format: Summer Program
- o Total grades/# students: 120 students in grades 6 to 12
- o Middle grades/# students: 64 students in grades 6 to 8
- o Target population: Minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Motivational sessions and career orientation; math, science, and problem-solving enrichment activities; design projects; field trips; instruction in computers and graphics, guest speakers

Pupil Improvement Program (PIP)
Decatur Township Junior High School
5108 S. High School Road
Indianapolis, IN 46241
Ms. Sharon Bartlett, Program Director
317-856-5274

- o Format: In School Program
- o Total grades/# students: 100 students in grades 7 to 8
- o Target population: All students including minority and female students
- o Subject focus: Mathematics and science
- o Student activities include: Hands-on experiences, class activities to boost academic skills and self-esteem, test preparation

TEAMS (Training for Equitable Attributes in Mathematics and the Sciences)
Indiana University
School of Education
Center for Urban and Multicultural Education
902 West New York Street, Room 3165
Indianapolis, IN 46202
Dr. Teresa Jump, Co-Director
317-274-6846

- o Format: In School Program
- o Total grades: Grades 5 to 9
- o Target population: Minority and female students, including the disabled
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Job shadowing, role models, guest speakers, hands-on experiences, classroom activities, science fair, career and academic counseling

KANSAS

Math and Science Individual Achievement (MSIA)
Our Lady of Guadalupe School
210 North Branner
Topeka, KS 66616
Sister Mary Julitta Doerhoff, Director
913-233-9171

- o Format: In School Program
- o Middle grades/# students: 74 students in grades 4 to 8
- o Target population: Minority and female students
- o Subject focus: Mathematics and science
- o Student activities include: Hands-on experiences, guest speakers, tutoring, classroom instruction, science fair, career counseling

LOUISIANA

Louisiana Engineering Advancement Program for Minorities (LEAP) *
Xavier University
New Orleans, LA 70125
Mr. George W. Baker, Executive Director
504-483-7646

- o Format: In School Program
- o Total grades/# students: 380 students in grades 7 to 12
- o Middle grades/# students: 125 students in grades 7 to 8
- o Target population: Minority and female students
- o Subject focus: Mathematics and science
- o Student activities include: Field trips, speakers, mentoring, scholarships and awards, science competition, motivational/career counseling, academic support materials

MASSACHUSETTS

Blacks and Mathematics (BAM): A Visiting School Lecturer Program *
Sponsored by the Mathematical Association of America (MAA)
College of Arts and Sciences
Wentworth Institute of Technology
Boston, MA 02115
Dean John W. Alexander, Jr., Director
617-442-9010

- o Format: In School Visiting Lecturer Program
- o Total grades/# students: 5,990 students in grades 7 to 12
- o Middle grades/# students: 3,500 students in grades 7 to 8
- o Target population: Minority and female students
- o Subject focus: Mathematics
- o Student activities include: Career awareness, role models, school visits vary from informal, small group demonstrations to large, formal assemblies

Engineering Career Orientation (ECO)
College of Engineering
University of Massachusetts
Amherst, MA 01003
Mr. Reynolds Winslow, Director
413-545-2030

- o Format: Summer Program
- o Total grades/# students: 46 students in grades 8 to 12
- o Middle grades/# students: 11 students in grade 8
- o Target population: Minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Hands-on experiences, career orientation, role models and speakers, field trips, tutoring

Massachusetts Pre-Engineering Program (MASSPEP)
Wentworth Institute of Technology
550 Huntington Avenue
Boston, MA 02115
Dr. Robert C. Hayden, Executive Director
617-427-7227

- o Format: Year Round Program (After School, Saturday and Summer)
- o Total grades/# students: 120 students in grades 7 to 12
- o Middle grades/# students: 75 students in grades 7 to 8
- o Target population: Minority students
- o Subject focus: Mathematics and science
- o Student activities include: Tutoring, hands-on computer experiences, projects, workshops, teamwork, laboratory experiences

MARYLAND

Engineering Pipeline
Minority Engineering Development
c/o Voluntary Council on Equal Opportunity, Inc.
1 East Pratt Street, Room 421N
Baltimore, MD 21202
Mr. David Julien, Executive Director
301-234-5766

- o Format: In and After School Programs
- o Total grades/# students: 364 students in grades 7 to 12
- o Middle grades/# students: 120 students in grades 7 to 8
- o Target population: Minority and female students
- o Subject focus: Mathematics and science
- o Student activities include: Hands-on activities and projects, field trips, counseling, lab demonstrations, career days and awareness activities, MATHCOUNTS competition, test taking skills, role models and guest speakers, special projects

Hands-on-Science Outreach, Inc. (HOSO) *
4910 Macon Road
Rockville, MD 20852
Ms. Phyllis Katz, Director
301-881-1142

- o Format: After School Program
- o Total grades/# students: 6,000 students in grades Pre-K to 6
- o Middle grades/# students: 1,500 students in grades 4 to 6
- o Target population: All students including minority and female students
- o Subject focus: Science
- o Student activities include: Hands-on experiences, problem-solving activities, small-group instruction

Milliken II Schools
Prince George's County Public Schools
14201 School Lane
Upper Marlboro, MD 20772
Dr. Joyce Thomas, Director
301-454-5766

- o Format: Year Round Program (In School and Summer)
- o Total grades/# students: 6,300 students in grades K to 6
- o Middle grades/# students: 3,500 students in grades 4 to 6
- o Target population: Minority students
- o Subject focus: Mathematics and computer science
- o Student activities include: The Comer School Development Program, computer lab and a take-home computer program, role models, counseling

TAI Math (Team Accelerated Instruction) *
The Johns Hopkins University
3505 North Charles Street
Baltimore, MD 21218
Ms. Barbara Bennett, Dissemination Coordinator
301-338-8249

- o Format: In School Program
- o Total grades: Grades 3 to 6
- o Target population: All students including minority and female students
- o Subject focus: Mathematics
- o Student activities include: Cooperative learning and mastery-based, interactive instruction, small group instruction, homework

MICHIGAN

Detroit Area Pre-College Engineering Program, Inc. (DAPCEP) *
Rackham Educational Memorial Building
60 Farnsworth Avenue
Detroit, MI 48202
Mr. Kenneth Hill, Director
313-831-3050

- o Format: Year Round Program (In and After School, Saturday, Summer)
- o Total grades/# students: 1,600 students in grades 7 to 12
- o Middle grades/# students: 1,000 students in grades 7 to 8
- o Target population: Minority students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Science fair project, role models and technical speakers, field trips, instructional classes, tutorial program modules, research and study on minority scientists and engineers, engineering contests

Girls + Math + Science = Choices
Calhoun Intermediate School District
17111 G Drive, North
Marshall, MI 49068
Ms. Rose J. Arbanas, Project Director
616-781-5141

- o Format: Annual One-Day Conference
- o Total grades/# students: 170 students in grades 7 to 8
- o Target population: Female students
- o Subject focus: Mathematics and science
- o Student activities include: Female role models, small group discussions, hands-on problem solving activities, keynote and panel presentations, video tape and film show

HANDS-ON: Science Training Program for Black Youth
Black American Studies
George Sprau Tower
Western Michigan University
Kalamazoo, MI 49008
Dr. Leroi R. Ray, Jr., Director
616-383-8015

- o Format: Year Round Program (During and After School and Summer—Community and University based)
- o Total grades/# students: 160 students in grades 2 to 6
- o Middle grades/# students: 90 students in grades 4 to 6
- o Target population: Minority students
- o Subject focus: Mathematics and science
- o Student activities include: Hands-on science lab activities, classes, standardized tests, field trips, audio visual modules, role models, career awareness activities

People in Science
Cranbrook Institute of Science
500 Lone Pine Road
P.O. Box 801
Bloomfield Hills, MI 48013
Ms. Janet Johnson, Director
313-645-3229

- o Format: After School and Saturday Programs
- o Total grades/# students: 2,000 students in grades 3 to 6
- o Middle grades/# students: 1,000 students in grades 4 to 6
- o Target population: Female students
- o Subject focus: Science
- o Student activities include: Planetarium demonstration, museum displays and interactive exhibits, outdoor activities, cultural games and stories

Summer Youth Program
Michigan Technological University
208 Academic Office Building
Houghton, MI 49931
Ms. Christine Anderson, Coordinator Youth Programs
906-487-2219

- o Format: Summer Program
- o Total grades/# students: 1,000 students in grades 6 to 12
- o Middle grades/# students: 450 students in grades 6 to 8
- o Target population: All students including minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Field and laboratory activities, field trips, classroom instruction, computer activities, role models

Women and Mathematics: Visiting Lecture Program *
Sponsored by the Mathematics Association of America
Department of Mathematics
University of Michigan, Flint
Flint, MI 48503
Dr. Carole Lacampagne, National Director
313-762-3244

- o Format: In School Lecturer Program
- o Total grades/# students: 4,443 students in grades 6 to 12
- o Target population: Female students
- o Subject focus: Mathematics
- o Student activities include: Presentation and informal discussions with women professionals in math-related fields, career awareness and guidance, role models

Yes, You Can
Cranbrook Institute of Science
500 Lone Pine Road
Bloomfield Hills, MI 48013
Ms. Janet Johnson, Director
313-645-3225

- o Format: After School and Saturday Programs
- o Total grades/# students: 205 students in grades 6 to 8
- o Target population: Female students
- o Subject focus: Mathematics and science
- o Student activities include: Hands on seminars, demonstrations, talks with women in science and math fields, keynote presentations

MINNESOTA

Hispanic Motivation Program (Un Primer Paso)
Hispanic Women's Development Corporation
970 Raymond Avenue
St. Paul, MN 55114
Dr. Darcia Narvaez, Coordinator
612-641-1619

- o Format: Year Round Program (In School and Summer)
- o Total grades/# students: 50 students in grades 6 to 10
- o Middle grades/# students: 36 students in grades 6 to 8
- o Target population: Minority and female students
- o Subject focus: Mathematics and science
- o Student activities include: Tutoring, direct instruction

Linking School and Community Math-Science/Career Role Models for Girls in Grades 4-6
Independent School District 281
4701 Zealand Avenue, North
New Hope, MN 55428
Ms. Marlys Dickmeyer, Director
612-537-4347

- o Format: In School Program
- o Total grades/# students: 900 students in grades 4 to 6
- o Target population: Female students
- o Subject focus: Mathematics and science
- o Student activities include: Role models, guest speakers

Math Bridge Program
University of Minnesota
117 Pleasant Street, S.E.
Minneapolis, MN 55455
Dr. Donald Birmingham, Director
612-626-0219

- o Format: Saturday Program
- o Total grades/# students: 150 students in grade 8
- o Target population: Minority and female students
- o Subject focus: Mathematics
- o Student activities include: Special projects in mathematics, physics and computer graphics, career counseling

Visiting Women Scientists Program *
3M Center 230-3F-06
St. Paul, MN 55144
Ms. Helen Anderson, Chairperson
612-736-9420

- o Format: In School Lecture Program
- o Total grades: Grades 7 to 12
- o Target population: Female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Career awareness, academic counseling, role models of women professionals combining family lives and successful careers

MONTANA

Expanding Your Horizons in Science and Mathematics
Rocky Mountain College
1511 Poly Drive
Billings, MT 59102
Ms. Sandra Barz and Ms. Sue Walker, Co-Directors
406-657-1086

- o Format: Annual Career Conference
- o Total grades/# students: 247 students in grades 7 to 12
- o Middle grades/# students: 185 students in grades 7 to 8
- o Target population: Female students
- o Subject focus: Mathematics and science
- o Student activities include: Career counseling, hands-on workshops, career panels, video presentations, keynote address

NORTH CAROLINA

Mathematics and Science Education Network (MSEN) *
Pre-College Program in Mathematics and Science
University of North Carolina at Chapel Hill
Chapel Hill, NC 27514
Dr. Vinetta Jones, Network Director
919-966-3256

- o Format: Year Round Program (In and After School, Saturday and Summer)
- o Total grades/# students: 1,000 students in grades 6 to 12
- o Middle grades/# students: 750 students in grades 6 to 8
- o Target population: Minority students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Academic tutoring, daily pre-college academic classes, independent study groups, summer enrichment, academic counseling, field trips, scholarship recognition awards, Saturday Academy, math/science competition and design contests, college and career advising, leadership skills

RECAST
Pitt County Chamber of Commerce
302 S. Greene Street
Greenville, NC 27834
Ms. Barbara Woods, Coordinator
919-752-4101

- o Format: In and After School Programs
- o Total grades/# students: 360 students in grades 7 to 12
- o Middle grades/# students: 240 students in grades 7 to 8
- o Target population: Minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Field trips, contests, lectures, projects, a variety of instructional approaches

Saturday Academy
Bennett College
900 East Washington Street
Greensboro, NC 27401-3239
Dr. Nellouise D. Watkins, Director
919-370-8684

- o Format: Saturday Program
- o Total grades/# students: 90 students in grades 5 to 8
- o Target population: Minority students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Hands-on activities, enrichment/skill building exercises, direct instruction, test preparation, science experiments, field trips

NEBRASKA

Project FOCUS
Omaha Public Schools/
Gifted Education Office
620 South 31st Street
Omaha, NE 68105
Ms. Margaret Zuke, Resource Teacher
402-978-7198

- o Format: Year Round Program (In School and Summer)
- o Total grades/# students: 453 students in grades 2 to 7
- o Middle grades/# students: 354 students in grades 4 to 7
- o Target population: Gifted minority students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Computer classes, simulation experiences, field trips, group projects, hands-on activities, Thinklab exercises

NEW JERSEY

Futures Unlimited Conferences
Consortium for Educational Equity
Rutgers, The State University
Kilmer Campus - Building 4090
New Brunswick, NJ 08903
Ms. Rebecca Lubetkin, Executive Director
201-932-2071

- o Format: One-Day Conference
- o Total grades/# students: 300-500 students per conference from grades 7 to 12
- o Target population: Minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Students spend day at college: in the morning they do science in labs taught by college faculty and in the afternoon they interact with women, professional and technical, who are employed in math and science based jobs

Introduction to ChIME (Chemical Industry for Minorities in Engineering)
Center for Pre-College Programs
N.J. Institute of Technology
323 King Boulevard
Newark, NJ 07102
Ms. Rosa Cano, Director
201-596-3423/3577

- o Format: Summer Program (3 1/2 weeks)
- o Total grades/# students: 31 students in grades 7 to 9
- o Middle grades/# students: 23 students in grades 7 to 8
- o Target population: Minority and female students
- o Subject focus: Science
- o Student activities include: Classroom and laboratory activities, field trips, seminars/guest speakers, career counseling

Introduction to Urban Engineering
Center for Pre-College Programs
N.J. Institute of Technology
323 King Boulevard
Newark, NJ 07102
Ms. Rosa Cano, Director
201-596-3423/3577

- o Format: Summer Program (4 weeks)
- o Total grades/# students: 87 students in grades 7 to 8
- o Target population: Minority and female students
- o Subject focus: Science
- o Student activities include: Classroom and laboratory activities, field trips, seminars, career counseling

Minorities and Women in Engineering *
N.J. Bell Headquarters
Office of External Affairs
540 Broad Street
Newark, NJ 07102
Mr. Mike Rivera, Program Coordinator
201-649-2043

- o Format: Year Round Speaker Bureau (In and After School, Saturday, Summer)
- o Total grades/# students: 6,400 students in grades 2 to 9
- o Target population: Minority and female students
- o Subject focus: Mathematics and science
- o Student activities include: Career awareness activities, guest speakers

Stevens Middle School Math, Science, and Computer Project
Stevens Technical Enrichment Program (STEP)
Stevens Institute of Technology
Hoboken, NJ 07030
Mr. Edward Prather, Director
201-420-5204

- o Format: In and After School Programs
- o Total grades/# students: 170 students in grades 6 to 8
- o Target population: Minority students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Practical applications of mathematics and science through nontraditional mathematics and scientific demonstration, cooperative learning, computer experience, role models/guest speakers

NEW MEXICO

Mathematics, Engineering and Science Achievement (MESA) *
University of New Mexico
345 Farris Center
Albuquerque, NM 87131
Dr. Patrick Lopez, Director
505-277-5831

- o Format: Year-Round Program (In School, Saturday and Summer)
- o Total grades/# students: 552 students in grades 8 to 12
- o Middle grades/# students: 8 students in grade 8
- o Target population: Minority students
- o Subject focus: Mathematics and science
- o Student activities include: Field trips, speakers, tutoring, award banquets, academic advisement, college advisement, workshops, mentors, role models, employment, engineering contests

Saturday Science Academy
Southwest Resource Center for Science and Engineering
University of New Mexico
Albuquerque, NM 87131
Dr. Richard J. Griego, Director
505-277-3641/4613

- o Format: Saturday Program
- o Total grades/# students: 50 students in grades 4 to 6
- o Target population: Minority students
- o Subject focus: Science and computer science
- o Student activities include: Hands-on science activities, role models, special projects, career awareness activities, computer activities

Spatial Encounters
Institute for Applied Research Service
Behavioral Research Division
University of New Mexico
Albuquerque, NM 87131
Dr. Peggy Blackwell, Project Director
505-277-3638

- o Format: In School Program
- o Total grades: Grades 5 to 12
- o Target population: Minority and female students
- o Subject focus: Mathematics
- o Student activities include: Activities to enhance spatial ability, assessment of visual problems

NEW YORK

Buffalo Area Engineering Awareness for Minorities (BEAM) *
412 Bonner Hall
SUNY at Buffalo
Amherst, NY 14260
Dr. James Legge, Director
716-636-3066

- o Format: Year Round Program (In and After School and Summer--Six Weeks Pre-Engineering Enrichment Program and Eight Weeks Research Program)
- o Total grades/# students: 600 students in grades 7 to 12
- o Middle grades/# students: 400 students in grades 7 to 8
- o Target population: Minority students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Role model engineers, industrial field trips, industrial demonstrations, tutorial assistance, summer program, BEAM clubs, contests, modules, special projects, engineering awareness modules

Gifted Math Program (GMP)
University of Buffalo
Department of Learning and Instruction
Faculty of Educational Studies
560 Brady Hall
Buffalo, NY 14260
Ms. Betty J. Krist, Co-Director
716-636-3175

- o Format: During School Time and Saturday Programs (University-based)
- o Total grades/# students: 250 students in grades 7 to 12
- o Target population: High ability minority and female students
- o Subject focus: Mathematics
- o Student activities include: Monday and Wednesday classes at the University, replaces home school math instruction for high ability students, focus on computation, problem-solving and test-taking skills

Junior High School Bio-Med Enrichment Program/Science Careers
City College School of Education R-5208
138th Street and Convent Avenue
New York, NY 10031
Professor Harold McKenna, Director
212-690-6678

- o Format: During School Time Program (University-based)
- o Total grades/# students: 90 students in grades 7 to 9
- o Middle grades/# students: 60 students in grades 7 to 8
- o Target population: Minority students
- o Subject focus: Science
- o Student activities include: Recitations and hands-on laboratory study at City College twice per week, open discussions, demonstrations, mastery learning techniques and strategies, motivational activities

Mathematical Olympiads for Elementary Schools *
Forest Road School
Valley Stream, NY 11582
Dr. George Lenchner, Executive Director
516-791-2220

- o Format: Individual and School Competition Program (In and After School)
- o Total grades/# students: 38,853 students in grades 1 to 6
- o Middle grades/# students: 37,907 students in grades 4 to 6
- o Target population: All students including minority and female students
- o Subject focus: Mathematics
- o Student activities include: Training for competitions, five competitions per school year, individual and school awards

Mentor in Engineering Program
N.Y. Alliance for the Public Schools
32 Washington Place, 5th Floor
New York, NY 10003
Ms. Barbara Probst, Project Director
212-598-2750

- o Format: In School Program
- o Total grades/# students: 180 students in grades 7 to 8
- o Target population: Minority students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Guest speakers once a week, role models, field trips, job shadowing, skill and concept development related to practical applications

Operation SMART (Science, Math and Relevant Techology) *
Girls Clubs of America, Inc.
205 Lexington Avenue
New York, NY 10016
Ms. Ellen Wahl Sullivan, Director
212-689-3700

- o Format: Year Round Program (After School, Saturday, Summer)
- o Total grades/# students: 300 students in grades 1 to 8
- o Middle grades/# students: 100 students in grades 4 to 8
- o Target population: Minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Hands-on math and science experiences; activities throughout other Girls Club programs that emphasize exploration, experimentation, and questioning; career exploration and awareness activities including mentors, job shadowing, field trips/tours of workplaces, role models, guest speakers, Expanding Your Horizons conferences; family involvement, including Family Math and Family Science programs

Playing To Win Computer Center
Playing To Win, Inc.
1761 Third Ave.
Rear Basement
New York, NY 10029
Ms. Antonia Stone, Executive Director
212-369-4077

- o Format: Year Round Program (During School Time--Center-based, After School, Saturday, Summer)
- o Total grades/# students: 500 students in grades K to 12
- o Target population: Minority and female students
- o Subject focus: Computer science
- o Student activities include: Computer instruction, assignments

Saturday Enrichment Series (SES)
University of Buffalo
Department of Learning and Instruction
Faculty of Educational Studies
560 Brady Hall
Buffalo, NY 14260
Ms. Betty J. Krist, Co-Director
716-636-3175

- o Format: Saturday Program
- o Total grades/# students: 247 students in grades 4 to 6
- o Target population: Minority and female students
- o Subject focus: Mathematics
- o Student activities include: Instruction in computation, problem solving and test taking, career awareness, counseling

Science Inquiry
City College of New York
School of Education
North Academic Center 4/220
136 Street and Convent Avenue
New York, NY 10031
Dr. Sharon Hersch, Director
212-690-4162

- o Format: During School Time Program (University-based)
- o Total grades/# students: 70 students in grades 5 to 7
- o Target population: Minority students
- o Subject focus: Science
- o Student activities include: Hands-on activities/laboratory investigations and experimentation, skill-building exercises, small-group instruction

South Orangetown Career Education Program/Career Internship Program (CIP)
South Orangetown School District
Tappan Zee High School and
South Orangetown Middle School
Van Wyck Road
Blauvelt, NY 10913
Ms. Esther Korin, Director of Curriculum
914-359-2179

- o Format: In and After School Programs
- o Total grades/# students: 1,500 students in grades 5 to 12
- o Middle grades/# students: 200 students in grades 5 to 8
- o Target population: Female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Work site visits, learning contracts, seminars

W.I.Z.E.—Wildlife Inquiry through Zoo Education *
New York Zoological Society/Bronx Zoo
185th Street and Southern Boulevard
Bronx, NY 10460
Ms. Annette Berkovits, Director
212-220-5135

- o Format: In School Program
- o Total grades/# students: 30,000 students in grades 6 to 12
- o Middle grades/# students: 27,000 students in grades 6 to 8
- o Target population: All students including minority and female students
- o Subject focus: Science
- o Student activities include: Field trips, modules, classroom discussions, discovery learning activities, classroom simulations, teamwork, problem solving

Xerox Science Consultant Program *
Xerox Corporation and Rochester City
School District
Building 105-56C
800 Phillips Road
Webster, NY 14580
Mr. Eugene M. Wicks, Director
716-422-4772 or 2116

- o Format: In School Program
- o Total grades/# students: 2,500 students in grades 4 to 6
- o Target population: Minority students
- o Subject focus: Science and computer science
- o Student activities include: Guest speakers, role models, hands-on activities/science class experiments, demonstrations

OHIO

Career Awareness Program (CAP)
National Technical Association
c/o 1744 Payne Avenue
Cleveland, OH 44144
Mr. James Sawyer, Director
216-433-4000

- o Format: In School and Saturday Programs
- o Total grades/# students: 80 students in grades 6 to 12
- o Middle grades/# students: 40 students in grades 6 to 8
- o Target population: Minority students
- o Subject focus: Mathematics and science
- o Student activities include: Field trips, contests and recognition banquet, advanced math problem solving, test-taking strategies, laboratory activities career awarenes sessions, special engineering projects, role models

Cleveland Minorities in Engineering Forum, Inc. (CMEF) *
1380 80th & East 64th Streets
Cleveland, OH 44114
Mr. Bert Holt, Director
216-574-8151

- o Format: Year Round Program (In and After School, Summer)
- o Total grades/# students: 900 students in grades 1 to 12
- o Middle grades/# students: 500 students in grades 4 to 8
- o Target population: Minority students
- o Subject focus: Mathematics and science
- o Student activities include: Hands-on experience, field trips, career day, summer academic camps, individual and group activities, role models, interviews and classroom visitations, presentations, one on on individual attention

Mathematics Olympics
Cincinnati Academy of Mathematics and Science
7001 Reading Road
Cincinnati, OH 45237
Mr. Jeff Brokamp, Coordinator
513-351-7010

- o Format: Competition
- o Total grades/# students: 200 students in grades 7 to 8
- o Target population: Minority students
- o Subject focus: Mathematics
- o Student activities include: Skill building activities, math competition

Mathematics Pentathlon *
Cincinnati Public Schools
Woodward High
7001 Reading Road
Cincinnati, OH 45237
Mr. Jeff Brokamp, Director
513-351-7010

- o Format: Team and Individual Competition
- o Total grades/# students: 30,000 students in grades K to 7
- o Target population: Minority students
- o Subject focus: Mathematics
- o Student activities include: Instruction in math strategy and reasoning, math tournament

Middle Grades Math Contest
Cincinnati Public Schools
Schwab Middle Schools
4370 Beech Hill
Cincinnati, OH 45202
Mr. Bruce Chester, Director
513-881-2945

- o Format: Team Competition
- o Total grades/# students: 120 students in grades 7 to 8
- o Target population: Minority and female students
- o Subject focus: Mathematics
- o Student activities include: Math instruction, series of team competitions

Summer Enrichment Program in Mathematics and Science
Mail Location #18
College of Engineering
University of Cincinnati
Cincinnati, OH 45421
Dr. James E. Wade, Executive Director
513-475-1138

- o Format: Summer Program
- o Total grades/# students: 200 students in grades 7 to 12
- o Middle grades/# students: 75 students in grades 4 to 8
- o Target population: Minority students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Tours, experiences with computers, seminars, presentations, tutoring in math and science, mentoring by minority professionals, instruction in test preparation

Technical Career Counseling (TC^2)
c/o National Technical Association
P. O. Box 1462
Akron, OH 44309
Dr. Lawrence P. King, Executive Director
216-821-9110

- o Format: In School Program
- o Total grades/# students: 35 students in grade 8
- o Target population: Minority students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Career awareness through seminars, hands-on projects, demonstrations, field trips, visits by professionals to school, enrichment classes in mathematics and science, contests, science fair, student clubs, test preparation, mentors

OKLAHOMA

Academic Gifted Enrichment Classes
Enid Public Schools
500 So. Independence
Enid, OK 73701
Ms. Colleen Nixon, Director
405-234-5270

- o Format: In School Program
- o Total grades/# students: 1,500 students in grades K to 12
- o Middle grades/# students: 527 students in grades 4 to 8
- o Target population: All students including minority and female students
- o Subject focus: Mathematics and science
- o Student activities include: Hands-on activities, field trips, job shadowing, role models, peer tutoring, guest speakers, math competition, science fair, career and academic counseling, test preparation

Engineering Fair *
201 NE 27th Street, Room 125
Oklahoma City, OK 73105
Dr. Noel Long, Director
405-528-1435

- o Format: Engineering Fair
- o Total grades/# students: 4,000 students in grades 6 to 12
- o Middle grades/# students: 2,000 students in grades 6 to 8
- o Target population: All students including minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Hands-on activities, contests, discussions with professionals

Increasing the Participation of Native American Students in Higher Mathematics
Central State University
College of Education
100 North University Drive
Edmond, OK 73034
Dr. Carl Downing, Director
405-341-2980

- o Format: In School Program
- o Total grades/# students: 750 students in grades K to 10
- o Middle grades/# students: 375 students in grades 4 to 8
- o Target population: Minority students
- o Subject focus: Mathematics
- o Student activities include: Workshops, culturally-based projects/activities

MATHCOUNTS—Oklahoma *
201 NE 27th Street, Room 125
Oklahoma City, OK 73105
Dr. Noel Long, Director
405-528-1435

- o Format: In and After School Programs
- o Total grades/# students: 8,000 students in grades 7 to 8
- o Target population: All students including minority and female students
- o Subject focus: Mathematics
- o Student activities include: Coaching program, series of competitions

OREGON

Expanding the Career Options for Middle School Ethnic Minority Females
School District #1
Office of Grants Management
P.O. Box 3107
Portland, OR 97208
Dr. Sandy McCroskey, Director
503-280-5656

- o Format: In School Program
- o Total grades/# students: 30 students in grades 6 to 8
- o Target population: Minority and female students
- o Subject focus: Mathematics and science
- o Student activities include: Role models, guest speakers, career counseling, exhibits and demonstrations

PENNSYLVANIA

Camp-In—Franklin Institute
20th & The Parkway
Philadelphia, PA 19103
Ms. Beth Kugler, Director
215-448-1114

- o Format: Overnight Camp Experience
- o Total grades/# students: 8,300 students in grades 3 to 6
- o Middle grades/# students: 7,000 students in grades 4 to 6
- o Target population: Female students
- o Subject focus: Science
- o Student activities include: Science workshops, planetarium show, rooftop observatory, demonstrations, hands-on exhibits

Community Ambassador Program
Steering Committee for Minorities Communication
Westinghouse Electric Corp.
Westinghouse Building
Pittsburgh, PA 15222
Ms. C. M. Springer, Director
412-642-3017

- o Format: In School Lecturer Program
- o Total grades/# students: 7,100 students in grades 4 to 10
- o Target population: Minority students
- o Subject focus: Mathematics and science
- o Student activities include: Visits by local professionals, career awareness, role models

Increasing Achievement of 7th and 8th Grade Girls in Math, Science, and Computer Science
School District of Philadelphia
21st and Parkway
Philadelphia, PA 19103
Ms. Vera Demchenko, Coordinator of Sex Equity
215-299-8806

- o Format: Academic Year Program (In School, After School, Saturday)
- o Total grades/# students: 300 students in grades 7 to 8
- o Target population: Female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Field trips, guest speakers, computer-assisted instruction, tutoring

Mathematics and Computer Science Summer Institute
Cheyney University of Pennsylvania
Cheyney, PA 19319
Dr. Henry Hardy, Director
215-399-2000

- o Format: Summer Program
- o Total grades/# students: 110 students in grades 8 to 12
- o Middle grades/# students: 30 students in grade 8
- o Target population: Minority and female students
- o Subject focus: Mathematics and computer science
- o Student activities include: Enrichment activities, lectures and application activities, laboratory experiences, test preparation and career awareness workshops, special projects, field trips

PRIME, INC.
1700 Walnut Street
Suite 1201
Philadelphia, PA 19103
Dr. Alexander Tobin, Executive Director
215-893-8500

- o Format: Year Round Program (In School and Summer)
- o Total grades/# students: 2,500 students in grades 7 to 12
- o Middle grades/# students: 900 students in grades 7 to 8
- o Target population: Minority students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Field trips, classes (enrichment, motivation, and skill development activities), projects, hands-on experience, guest speakers

Westinghouse Career Conferences
Steering Committee for Minority Communications
Westinghouse Electric Corp.
Westinghouse Building
Pittsburgh, PA 15222
Ms. C. M. Springer, Director
412-642-3017

- o Format: One Day Conferences
- o Total grades/# students: 1,500 students in grades 5 to 10
- o Target population: Minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Career awareness through discussions led by minority and/or female professionals

PUERTO RICO

Community Information Program
Resource Center for Science & Engineering
University of Puerto Rico—Rio Piedras Campus
College of Natural Sciences
Facundo Bueso Building, Office 304
Rio Piedras, PR 00931
Dr. Manuel Gomez, Director
809-765-5170

- o Format: Saturday Academy and Summer Program
- o Total grades/# students: 80 students in grades 7 to 12
- o Middle grades/# students: 20 students in grades 7 to 8
- o Target population: Minority students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Hands-on experiences and learning activities, field trips, research projects, competitions/math-science bowls, conferences, modules

RHODE ISLAND

Basic Education/Science & Technology (BEST)
Sackett School Science Magnet
Providence School Department
159 Sackett Street
Providence, RI 02907
Dr. Joseph Renzulli, Principal
401-456-9407

- o Format: Year Round Program (In and After School and Summer)
- o Total grades/# students: 468 students in grades K to 6
- o Middle grades/# students: 128 students in grades 4 to 6
- o Target population: All students including minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Field trips, science fair, activity centered science/and computer labs, team teaching sessions, independent activities

TEXAS

Golden Crescent Alliance for Minorities in Engineering (GCAME)
E. I. Dupont Company
P.O. Box 2626
Victoria, TX 77902
Mr. Mike Jackson, Director
512-572-1216

- o Format: Year Round Program (In School and Summer)
- o Total grades/# students: 148 students in grades 7 to 12
- o Middle grades/# students: 107 students in grades 7 to 8
- o Target population: Minority and female students
- o Subject focus: Mathematics and science
- o Student activities include: Field trips, summer projects, classroom instruction, role models, tutoring, career counseling, guest speakers

San Antonio Pre-Freshman Engineering Program (PREP)
University of Texas at San Antonio
San Antonio, TX 78285
Dr. Manuel P. Berriozabal, Executive Director
512-691-5530

- o Format: Summer Program
- o Total grades/# students: 378 students in grades 6 to 11
- o Middle grades/# students: 264 students in grades 6 to 8
- o Target population: High ability minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Problem-solving seminars, guest speakers, field trips, simulation experiences, class assignments and laboratory projects

Saturday Science Club
INSIGHTS El Paso Science Center
303 North Oregon Street
El Paso, TX 79901
Mr. Robert G. Tuck, Jr., Executive Director
915-542-2990

- o Format: Saturday Program
- o Total grades: Grades K to 12
- o Target population: Minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Hands-on workshops and exhibits, contests, presentation/lectures

TAME (Texas Alliance for Minorities in Engineering) *
College of Engineering
Box 19019
UTA Station
Arlington, TX 76019
Dr. John S. Robottom, Director
817-273-2571

- o Format: Year Round Program (After School, Saturday, Summer)
- o Total grades/# students: 2,100 students in grades 7 to 12
- o Middle grades/# students: 240 students in grades 7 to 8
- o Target population: Minority students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Career conferences, tours, exhibits, contests, tutorial service, speaker program

Texas Prefreshman Engineering Program (TexPREP) *
University of Texas at San Antonio
San Antonio, TX 78285
Dr. Manuel P. Berriozabal, State Coordinator
512-691-5530

- o Format: 8-Week Summer Program
- o Total grades/# students: 485 students in grades 5 to 11
- o Middle grades/# students: 272 students in grades 5 to 8
- o Target population: High ability minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Hands-on experiences, seminars, classes, guest speakers, field trips, career counseling, computer science and engineering projects, practice SAT examinations

Ysleta Girls Count!
Ysleta Independent School District
9600 Sims
El Paso, TX 79925
Ms. Evelyn Bell, Assistant Superintendent
915-595-5700

- o Format: Year Round Program (After School, Saturday, Summer)
- o Total grades/# students: 60 students in grades 7 to 8
- o Target population: High ability female students
- o Subject focus: Mathematics
- o Student activities include: Instruction in mathematics skills and problem solving, hands-on activities, games, mentoring, career awareness, projects, field trips

VIRGINIA

Academic Enrichment Camp for the College Bound
College of Engineering
Virginia Polytechnic Institute and State University
Norris Hall
Blacksburg, VA 24061
Ms. Pamela Kurstedt, Assistant Dean
703-961-6641

- o Format: Summer Program
- o Total grades/# students: 300 students in grades 8 to 12
- o Middle grades/# students: 75 students in grade 8
- o Target population: All students including minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Classes, laboratory experiences, special projects, contests, computer exercises, study skills, academic counseling

COMETS (Career Oriented Modules to Encourage Topics in Science) *
Fairfax County Public Schools
Lacey Instructional Center
3705 Crest Drive
Annandale, VA 22003
Ms. Johnnie Hamilton, Director
703-698-7500

- o Format: In School Program
- o Total grades/# students: 27,261 students in grades 7 to 9
- o Target population: All students including minority and female students
- o Subject focus: Science
- o Student activities include: Hands-on activities, career awareness, women and minority professionals as guest presenters

MATHCOUNTS—National Society of Professional Engineers *
1420 King Street
Alexandria, VA 22314
Dr. Camy Griffin, Director
703-684-2831

- o Format: Year Round Program (In and After School and Saturday)
- o Total grades/# students: 750,000 students in grades 7 to 8
- o Target population: All students including minority and female students
- o Subject focus: Mathematics
- o Student activities include: Coaching sessions, test-taking skills, individual and team competitions, excursions

Mathletes
Norfolk Public Schools
800 E. City Hall Avenue
P.O. Box 1357
Norfolk, VA 23510
Mrs. Anna S. Henderson, Acting Mathematics Coordinator
804-441-2715

- o Format: After School Program
- o Total grades/# students: 500 students in grades 3 to 5
- o Middle grades/# students: 360 students in grades 4 to 5
- o Target population: Minority students
- o Subject focus: Mathematics
- o Student activities include: Supplemental instruction in math knowledge and skills, competition

Project FAME (Females and Minorities Excel)
Fairfax County Public Schools
3705 Crest Drive
Annandale, VA 22003
Ms. Marge McClurg, Director
703-698-7509

- o Format: Summer Program
- o Total grades/# students: 28 students in grade 8
- o Target population: High ability minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Series of ten half-day seminars, career orientation and hands-on/job shadowing experiences at local businesses

University of Virginia Summer Enrichment Program
260 Ruffner Hall
405 Emmet Street
Charlottesville, VA 22903
Dr. Carolyn Callahan, Professor
804-924-0791

- o Format: Summer Program
- o Total grades/# students: 750 students in grades 5 to 11
- o Middle grades/# students: 600 students in grades 5 to 8
- o Target population: Gifted students including female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Demonstrations, lectures, discussions, individual or small-group projects, guest speakers, experiments/ investigations, seminars, tours

VSU Sciences Enrichment Program
Virginia State University
Box SS
Petersburg, VA 23803
Ms. Jacquelyn P. Pollard
804-520-6411

- o Format: Year Round Program (Saturday and Summer)
- o Total grades/# students: 25 students in grades 7 to 12
- o Middle grades/# students: 3 students in grades 7 to 8
- o Target population: Minority and female students
- o Subject focus: Science and mathematics
- o Student activities include: Intensive supplemental instruction, lab experiences, field trips, symposium, career guidance

WASHINGTON

Mathematics, Engineering and Science Achievement (MESA) *
Middle School Engineering Project
University of Washington
College of Engineering
353 Leow FH-10
Seattle, WA 98195
Dr. Patricia MacGowan, Director
206-543-0562

- o Format: Year Round Program (In and After School and Summer)
- o Total grades/# students: 4,310 students in grades 5 to 8
- o Target population: Minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Instruction in skills and concept developments, lab experiences, guest speakers, role models, competitions, field visits, career awareness

WISCONSIN

Community Mentor-Protege Model for Physically Disabled Girls
Curative Rehabilitation Center
1000 N. 92nd Street
Wauwatosa, WI 53226
Ms. Jane Nellen, Coordinator
414-259-1414

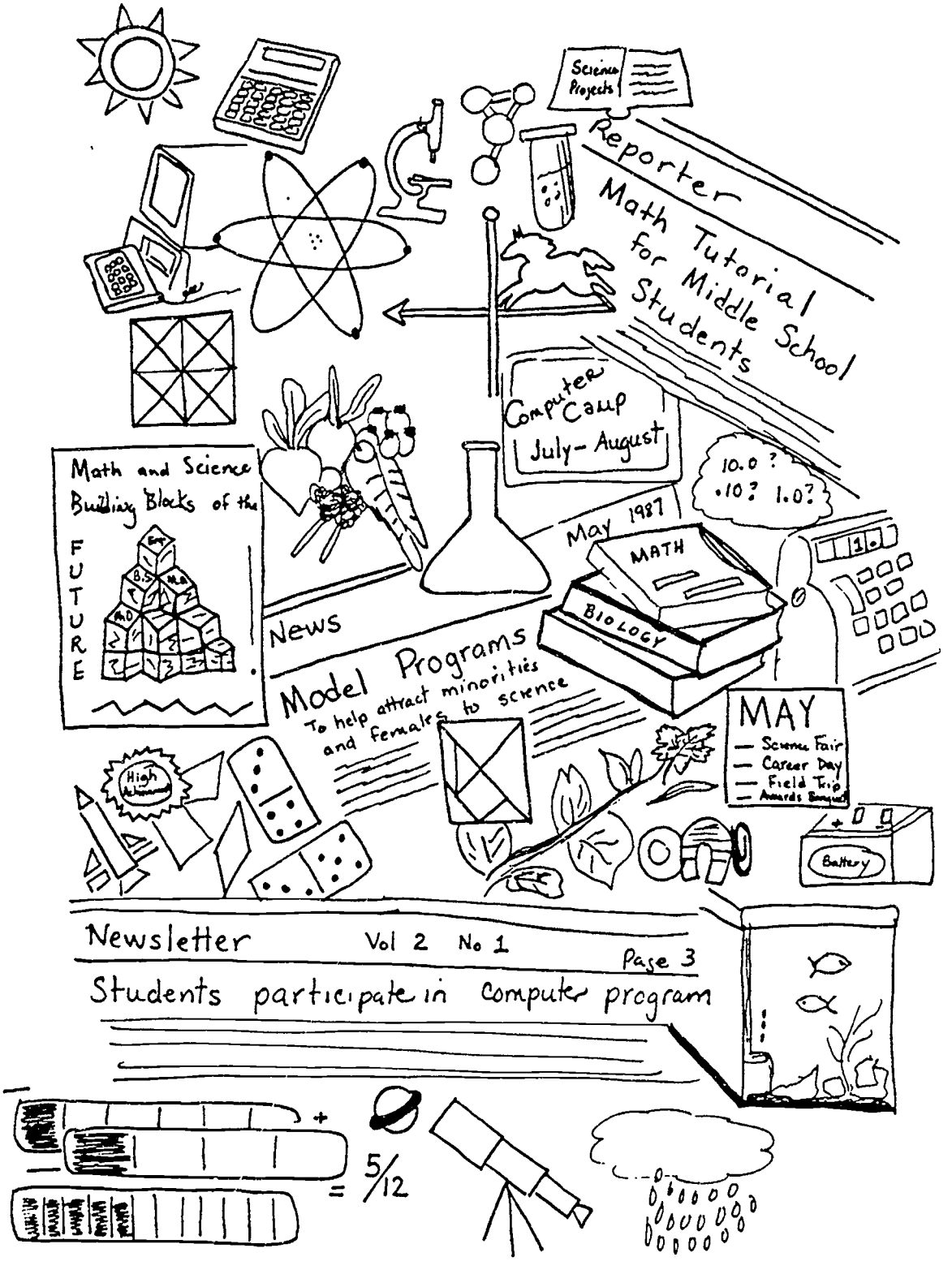
- o Format: Year Round Program (In School and Summer)
- o Total grades/# students: 33 students in grades 6 to 12
- o Middle grades/# students: 1 student in grades 6 to 8
- o Target population: Physically disabled minority and female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Mentoring experience, career awareness activities

Expanding Your Horizons
University of Wisconsin, Madison
24 General Engineering Building
1527 University Avenue
Madison, WI 53706
Dr. Lois B. Greenfield, Director
608-262-3507

- o Format: One Day Career Conference
- o Total grades/# students: 250 students in grades 7 to 12
- o Target population: Female students
- o Subject focus: Mathematics, science and computer science
- o Student activities include: Tours, discussions, presentations by career representatives, exposure to nontraditional careers

Wisconsin Science Education Service Centers
1670 Van Hise Hall
Madison, WI 53706
Ms. Shirley Stennis Williams and
Kenneth W. Dowling, Program Directors
608-262-3767

- o Format: In School Program
- o Total grades: Grades K to 12
- o Target population: All students including minority and female students
- o Subject focus: Science
- o Student activities include: Lab experiments and other classroom activities, role models



PROGRAM FEATURES

Program Name	State	SUBJECT FOCUS: Math	Science	Computers	STUDENT ACTIVITIES: Field Trips/Tours	Job Shadowing	Advisors/Role Models	Experiments/Labs/Demonstrations	Tutoring	Study Groups/Clubs	Direct Instruction	Guest Speakers/Instructors	Contest/Science Fair
Science Discovery Day	AL	•	•	•				•				•	
Mu Alpha Theta Math Contest	AR	•											•
Engineering Summer Institutes	AZ	•	•	•	•		•	•				•	
Pre-Engineering Summer Workshops for Women and Minorities	AZ		•		•		•	•			•	•	
Women in Science and Engineering (WISE)	AZ	•	•	•			•	•				•	
ACCESS/CCPP (Alliance for Collaborative Change in Education/In School Systems...	CA	•	•				•	•	•	•	•	•	
Caltech Secondary School Science Project (SSSP)	CA	•	•	•			•	•	•		•	•	
Edison Computech School	CA	•	•	•				•	•	•	•	•	•
EQUALS/Family Math Program	CA	•					•	•				•	
Expanding Your Horizons	CA	•	•	•	•		•	•				•	•
Expanding Your Horizons Career Conference	CA	•	•				•	•				•	
Expanding Your Horizons in Math and Science	CA	•	•	•			•	•				•	

PROGRAM FORMAT									AVERAGE CONTACT TIME PER STUDENT							
									Months Per Year				Hours Per Week			
Special Projects	Career/Academic Counselling	Test Preparation	In/During School Program	After School Program	Saturday	Summer Programs/Camp	Conference/Workshop	Competition	≤1-3	4-6	7-9	≥10	≤1-2	3-5	6-8	≥9
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Program Name	State	SUBJECT FOCUS: Math	SUBJECT FOCUS: Science	SUBJECT FOCUS: Computers	STUDENT ACTIVITIES: Field Trips/Tours	STUDENT ACTIVITIES: Job Shadowing	STUDENT ACTIVITIES: Advisors/Role Models	STUDENT ACTIVITIES: Experiments/Labs/Demonstrations	STUDENT ACTIVITIES: Tutoring	STUDENT ACTIVITIES: Study Groups/Clubs	STUDENT ACTIVITIES: Direct Instruction	STUDENT ACTIVITIES: Guest Speakers/Instructors	STUDENT ACTIVITIES: Contest/Science Fair
Finding Out/Descubrimiento for Complex Instruction	CA	•	•					•		•	•		
Franklin Computer Science Project	CA			•				•			•		
Los Angeles Education Partnership Science/Math Enrichment Project	CA	•	•	•	•			•			•		
M.I.S.S--Math Instruction and Science Studies Career Options Conference	CA	•	•	•			•					•	
Mathematics, Engineering, Science Achievement Program (MESA)	CA	•	•		•		•	•	•	•	•	•	•
MESA Pre-College Program	CA	•	•	•	•		•	•	•	•	•	•	•
Minority Participation in the Earth Sciences (MPES)	CA	•	•	•	•		•	•			•	•	•
Project AIMS (Activities That Integrate Mathematics and Science)	CA	•	•	•			•	•		•	•		
Project Interface (PI)	CA	•	•	•	•		•	•	•	•	•	•	•
Project SEED (Special Elementary Education for the Disadvantaged)	CA	•					•	•		•	•	•	
Quantitative Educational Development (QED)	CA	•	•		•			•	•		•		•
SCI-MATH Project	CA	•	•					•			•		

			PROGRAM FORMAT						AVERAGE CONTACT TIME PER STUDENT							
									Months Per Year				Hours Per Week			
Special Projects	Career/Academic Counseling	Test Preparation	In/During School Program	After School Program	Saturday	Summer Programs/Camp	Conference/Workshop	Competition	≤1-3	4-6	7-9	≥10	≤1-2	3-5	6-8	≥9
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		SUBJECT FOCUS			STUDENT ACTIVITIES								
Program Name	State	Math	Science	Computers	Field Trips/Tours	Job Shadowing	Advisors/Role Models	Experiments/Labs/Demonstrations	Tutoring	Study Groups/Clubs	Direct Instruction	Guest Speakers/Instructors	Contest/Science Fair
Southern California Junior Academy of Science	CA	•	•	•	•		•					•	
SPICE (Science Partnership: Industry-Community-Education)	CA	•	•	•	•		•	•			•	•	
Colorado Minority Engineering Association, Inc. (CMEA)	CO	•	•	•	•	•	•	•	•		•		•
Denver Audubon Society Urban Education Project	CO		•		•			•			•	•	
Denver Educational Entry to Energy Program (DEEEP)	CO	•	•		•	•	•				•		
Developing Problem Solving Strategies Through the Use of Concrete Manipulatives....	CO	•		•				•			•		
Project STAMM (Systematic Teaching and Measuring Mathematics)	CO	•						•			•		
Research/Design/Construction: A Model for Teaching/Evaluating Science Skills and Processes	CO	•	•					•		•			
Connecticut PEP (Pre-Engineering Program)	CT	•	•		•				•		•	•	•
Multiply Your Options Conferences (MYO)	CT	•	•	•			•	•				•	
Saturday Academy	CT	•	•	•	•			•			•	•	
Third Wave	CT	•	•	•	•	•	•	•			•	•	

			PROGRAM FORMAT						AVERAGE CONTACT TIME PER STUDENT							
									Months Per Year				Hours Per Week			
Special Projects	Career/Academic Counselling	Test Preparation	In/During School Program	After School Program	Saturday	Summer Programs/Camp	Conference/Workshop	Competition	≤1-3	4-6	7-9	≥10	≤1-2	3-5	6-8	≥9
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Program Name	State	SUBJECT FOCUS: Math	Science	Computers	STUDENT ACTIVITIES: Field Trips/Tours	Job Shadowing	Advisors/Role Models	Experiments/Labs/Demonstrations	Tutoring	Study Groups/Clubs	Direct Instruction	Guest Speakers/Instructors	Contest/Science Fair
Computer Applications in Mathematics, Problem Solving and Science (Project CAMPS[2])	DC	•	•	•	•			•			•	•	
Content-Based ESL Curriculum	DC	•	•	•	•			•	•		•	•	•
Educational Equity for Black Girls Project	DC	•	•				•					•	
I Love Mathematics Program	DC	•						•	•		•		
Math-Science Summer Enrichment Program	DC	•	•		•							•	
Mathematics, Science and Minorities, K-6	DC	•	•		•		•	•	•		•		
Number Line	DC	•						•			•		
Real Math	DC	•						•			•		
Project YES (Youth in Engineering and Science)	DC	•	•	•	•		•	•			•	•	
Forum to Advance Minorities in Engineering (FAME)	DE	•	•	•	•		•	•	•	•	•	•	•
BASE (Blacks for Academic Success in Education)	FL	•	•		•		•	•	•	•	•	•	
GEMS (Generating Excellence in Math and Science)	FL	•	•		•			•		•	•	•	•

			PROGRAM FORMAT						AVERAGE CONTACT TIME PER STUDENT							
									Months Per Year				Hours Per Week			
Special Projects	Career/Academic Counselling	Test Preparation	In/During School Program	After School Program	Saturday	Summer Programs/Camp	Conference/Workshop	Competition	≤1-3	4-6	7-9	≥10	≤1-2	3-5	6-8	≥9
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Program Name	State	SUBJECT FOCUS: Math	SUBJECT FOCUS: Science	SUBJECT FOCUS: Computers	STUDENT ACTIVITIES: Field Trips/Tours	STUDENT ACTIVITIES: Job Shadowing	STUDENT ACTIVITIES: Advisors/Role Models	STUDENT ACTIVITIES: Experiments/Labs/Demonstrations	STUDENT ACTIVITIES: Tutoring	STUDENT ACTIVITIES: Study Groups/Clubs	STUDENT ACTIVITIES: Direct Instruction	STUDENT ACTIVITIES: Guest Speakers/Instructors	STUDENT ACTIVITIES: Contest/Science Fair
Academy of Excellence (AoE)	GA		•	•				•			•		
Basic Skills Improvement (BSI)	GA	•						•			•		
Community Skills Training (CST)	GA	•		•				•			•		
Mathematics Inservice Model for Teachers of Native American Students	GA	•						•			•		
Neighborhood Computer Training Program (NCT)	GA			•				•			•		
Saturday Science Academy	GA	•	•	•	•		•	•					
Science Fair Project Workshop	GA		•					•					•
Southeastern Consortium for Minorities in Engineering (SECME)	GA	•	•	•				•			•	•	
Southwest Achievement Center	GA	•		•				•	•		•		
Summer Computer Workshops	GA			•				•			•		
Summer Technical Enrichment Program	GA	•	•		•			•				•	
The Academy	GA	•	•	•	•			•			•		

PROGRAM FORMAT									AVERAGE CONTACT TIME PER STUDENT							
									Months Per Year				Hours Per Week			
Special Projects	Career/Academic Counselling	Test Preparation	In/During School Program	After School Program	Saturday	Summer Programs/Camp	Conference/Workshop	Competition	≤1-3	4-6	7-9	≥10	≤1-2	3-5	6-8	≥9
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Program Name	State	SUBJECT FOCUS: Math	Science	Computers	STUDENT ACTIVITIES: Field Trips/Tours	Job Shadowing	Advisors/Role Models	Experiments/Labs/Demonstrations	Tutoring	Study Groups/Clubs	Direct Instruction	Guest Speakers/Instructors	Contest/Science Fair
Foundational Approaches In Science Teachings (FAST)	H1		•					•			•		
Scientists-In-the-Schools Program	H1	•	•	•			•					•	
Share-a-Day-With-a-Scientist	H1	•	•	•	•	•	•	•				•	
Des Moines Science Magnet Program	1A		•	•	•		•	•		•	•	•	
Go Power for Girls	1A	•	•				•					•	
Taking the Road Less Traveled	1A	•	•		•		•	•				•	
Idaho Science Camp	1D		•	•	•			•			•		
Chicago Area Pre-College Engineering Program (CAPCEP)	1L	•	•		•		•	•				•	•
Ecological Citizenship	1L		•					•				•	
Engineering Career Workshops for Women	1L	•	•	•			•					•	
Mathematics Teacher Development with Peer Tutoring	1L	•					•	•			•		
Metro Achievement Program	1L	•	•				•	•	•		•		

			PROGRAM FORMAT						AVERAGE CONTACT TIME PER STUDENT							
									Months Per Year				Hours Per Week			
Special Projects	Career/Academic Counselling	Test Preparation	In/During School Program	After School Program	Saturday	Summer Programs/Camp	Conference/Workshop	Competition	≤1-3	4-6	7-9	≥10	≤1-2	3-5	6-8	≥9
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Program Name	State	SUBJECT FOCUS: Math	Science	Computers	STUDENT ACTIVITIES: Field Trips/Tours	Job Shadowing	Advisors/Role Models	Experiments/Labs/Demonstrations	Tutoring	Study Groups/Clubs	Direct Instruction	Guest Speakers/Instructors	Contest/Science Fair
Pre-Algebra Development Centers	1L	•						•			•		
Project STARWALK	1L		•		•			•			•		
Tomorrow's Scientist, Technician and Manager's Program	1L	•	•	•	•			•	•	•	•		
Young Scientist Program	1L		•		•		•	•			•	•	•
MATHCOUNTS in Indiana	1N	•					•			•	•		•
Mathematics Pentathlon	1N	•					•	•	•	•	•		•
Minority Engineering Advancement Program (MEAP)	1N	•	•	•	•		•	•			•	•	
Pupil Improvement Program (PIP)	1N	•	•					•			•		
TEAMS (Training for Equitable Attributes in Mathematics and the Sciences)	1N	•	•	•		•	•	•			•	•	•
Math and Science Individual Achievement (MSIA)	KS	•	•				•	•	•		•	•	•
Louisiana Engineering Advancement Program for Minorities (LEAP)	LA	•	•		•		•	•	•	•		•	•
Blacks and Mathematics (BAM): A Visiting School Lecturer Program	MA	•					•	•				•	

PROGRAM FORMAT									AVERAGE CONTACT TIME PER STUDENT							
									Months Per Year				Hours Per Week			
Special Projects	Career/Academic Counselling	Test Preparation	In/During School Program	After School Program	Saturday	Summer Programs/Camp	Conference/Workshop	Competition	≤1-3	4-6	7-9	≥10	≤1-2	3-5	6-8	≥9
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Program Name	State	SUBJECT FOCUS: Math	SUBJECT FOCUS: Science	SUBJECT FOCUS: Computers	STUDENT ACTIVITIES: Field Trips/Tours	STUDENT ACTIVITIES: Job Shadowing	STUDENT ACTIVITIES: Advisors/Role Models	STUDENT ACTIVITIES: Experiments/Labs/Demonstrations	STUDENT ACTIVITIES: Tutoring	STUDENT ACTIVITIES: Study Groups/Clubs	STUDENT ACTIVITIES: Direct Instruction	STUDENT ACTIVITIES: Guest Speakers/Instructors	STUDENT ACTIVITIES: Contest/Science Fair
Engineering Career Orientation (ECO)	MA	•	•	•	•		•	•	•		•	•	
Massachusetts Pre-Engineering Program (MASSPEP)	MA	•	•					•	•	•			
Engineering Pipeline	MD	•	•		•		•	•		•		•	•
Hands-on-Science Outreach, Inc. (HOSO)	MD		•					•		•	•		
Milliken 11 Schools	MD	•		•			•	•			•		
TAI Math (Team Accelerated Instruction)	MD	•						•		•	•		
Detroit Area Pre-College Engineering Program, Inc. (DAPCEP)	MI	•	•	•	•		•	•	•		•	•	•
Girls + Math + Science = Choices	MI	•	•				•	•				•	
HANDS-ON: Science Training Program for Black Youth	MI	•	•		•		•	•			•	•	
People in Science	MI		•		•			•					
Summer Youth Program	MI	•	•	•	•			•	•		•	•	
Women and Mathematics: Visiting Lecture Program	MI	•						•				•	

PROGRAM FORMAT									AVERAGE CONTACT TIME PER STUDENT							
									Months Per Year				Hours Per Week			
Special Projects	Career/Academic Counseling	Test Preparation	In/During School Program	After School Program	Saturday	Summer Programs/Camp	Conference/Workshop	Competition	≤1-3	4-6	7-9	≥10	≤1-2	3-5	6-8	≥9
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Program Name	State	SUBJECT FOCUS: Math	SUBJECT FOCUS: Science	SUBJECT FOCUS: Computers	STUDENT ACTIVITIES: Field Trips/Tours	STUDENT ACTIVITIES: Job Shadowing	STUDENT ACTIVITIES: Advisors/Role Models	STUDENT ACTIVITIES: Experiments/Labs/Demonstrations	STUDENT ACTIVITIES: Tutoring	STUDENT ACTIVITIES: Study Groups/Clubs	STUDENT ACTIVITIES: Direct Instruction	STUDENT ACTIVITIES: Guest Speakers/Instructors	STUDENT ACTIVITIES: Contest/Science Fair
Yes, You Can	MI	•	•				•	•				•	
Hispanic Motivation Program (Un Primer Paso)	MN	•	•						•		•		
Linking School and Community Math-Science/Career Role Models for Girls in Grades 4-6	MN	•	•				•					•	
Math Bridge Program	MN	•						•					
Visiting Women Scientists Program	MN	•	•	•			•					•	
Expanding Your Horizons in Science and Mathematics	MT	•	•				•	•				•	
Mathematics and Science Education Network (MSEN)	NC	•	•	•	•	•	•	•	•	•	•	•	•
RECAST	NC	•	•	•	•			•		•	•		•
Saturday Academy	NC	•	•	•	•		•	•			•		
Project FOCUS	NE	•	•	•	•			•			•		
Futures Unlimited Conferences	NJ	•	•	•	•		•	•				•	
Introduction to ChIME (Chemical Industry for Minorities in Engineering)	NJ		•		•			•			•	•	

			PROGRAM FORMAT						AVERAGE CONTACT TIME PER STUDENT							
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Program Name	State	SUBJECT FOCUS			STUDENT ACTIVITIES								
		Math	Science	Computers	Field Trips/Tours	Job Shadowing	Advisors/Role Models	Experiments/Labs/Demonstrations	Tutoring	Study Groups/Clubs	Direct Instruction	Guest Speakers/Instructors	Contest/Science Fair
Introduction to Urban Engineering	NJ		•		•		•	•			•	•	
Minorities and Women in Engineering	NJ	•	•									•	
Stevens Middle School Math, Science, Computer Project	NJ	•	•	•			•	•		•		•	
Mathematics, Engineering and Science Achievement (MESA)	NM	•	•		•		•	•	•		•	•	•
Saturday Science Academy	NM		•	•			•	•					
Spatial Encounters	NM	•						•			•		
Buffalo Area Engineering Awareness for Minorities (BEAM)	NY	•	•	•			•	•	•	•	•		•
Gifted Math Program (GMP)	NY	•						•		•	•		
Junior High School Bio-Med Enrichment Program/Science Careers	NY		•					•			•		
Mathematical Olympiads for Elementary Schools	NY	•					•			•	•		•
Mentor in Engineering Program	NY	•	•	•	•	•	•	•				•	
Operation SMART (Science, Math and Relevant Technology)	NY	•	•	•	•	•	•	•	•	•	•	•	

			PROGRAM FORMAT						AVERAGE CONTACT TIME PER STUDENT							
									Months Per Year				Hours Per Week			
Special Projects	Career/Academic Counseling	Test Preparation	In/During School Program	After School Program	Saturday	Summer Programs/Camp	Conference/Workshop	Competition	≤1-3	4-6	7-9	≥10	≤1-2	3-5	6-8	≥9
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Program Name	State	SUBJECT FOCUS			STUDENT ACTIVITIES								
		Math	Science	Computers	Field Trips/Tours	Job Shadowing	Advisors/Role Models	Experiments/Labs/Demonstrations	Tutoring	Study Groups/Clubs	Direct Instruction	Guest Speakers/Instructors	Contest/Science Fair
Playing To Win Computer Center	NY			•				•			•		
Saturday Enrichment Series (SES)	NY	•						•		•	•		
Science Inquiry	NY		•					•		•	•		
South Orangetown Career Education Program/Career Internship Program (CIP)	NY	•	•	•	•			•				•	
W.I.Z.E.--Wildlife Inquiry Through Zoo Education	NY		•		•		•	•			•		
Xerox Science Consultant Program	NY		•	•			•	•				•	•
Career Awareness Program (CAP)	OH	•	•		•		•	•			•		•
Cleveland Minorities in Engineering Forum, Inc. (CMEF)	OH	•	•		•		•	•	•	•		•	
Mathematics Olympics	OH	•									•		•
Mathematics Pentathlon	OH	•									•		•
Middle Grades Math Contest	OH	•						•			•		•
Summer Enrichment Program in Mathematics and Science	OH	•	•	•	•		•	•	•		•		

			PROGRAM FORMAT						AVERAGE CONTACT TIME PER STUDENT							
									Months Per Year				Hours Per Week			
Special Projects	Career/Academic Counselling	Test Preparation	In/During School Program	After School Program	Saturday	Summer Programs/Camp	Conference/Workshop	Competition	≤1-3	4-6	7-9	≥10	≤1-2	3-5	6-8	≥9
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Program Name	State	SUBJECT FOCUS: Math	Science	Computers	STUDENT ACTIVITIES: Field Trips/Tours	Job Shadowing	Advisors/Role Models	Experiments/Labs/Demonstrations	Tutoring	Study Groups/Clubs	Direct Instruction	Guest Speakers/Instructors	Contest/Science Fair
Technical Career Counseling (TC^2)	OH	•	•	•	•		•	•	•	•	•	•	•
Academic Gifted Enrichment Classes	OK	•	•		•	•	•	•	•			•	•
Engineering Fair	OK	•	•	•			•	•					•
Increasing the Participation of Native American Students in Higher Mathematics	OK	•					•	•			•		
MATHCOUNTS--Oklahoma	OK	•					•			•	•		•
Expanding the Career Options for Middle School Ethnic Minority Females	OR	•	•				•	•				•	
Camp-In--Franklin Institute	PA		•					•				•	
Community Ambassador Program	PA	•	•				•					•	
Increasing Achievement of 7th and 8th Grade Girls in Math, Science, and Computer Science	PA	•	•	•	•		•	•	•				
Mathematics and Computer Science Summer Institute	PA	•		•				•		•	•		
PRIME, INC.	PA	•	•	•	•			•			•	•	
Westinghouse Career Conferences	PA	•	•	•	•		•					•	

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		Math	Science	Computers	Field Trips/Tours	Job Shadowing	Advisors/Role Models	Experiments/Labs/Demonstrations	Tutoring	Study Groups/Clubs	Direct Instruction	Guest Speakers/Instructors	Contest/Science Fair
Community Information Program	PR	•	•	•	•			•			•		•
Basic Education/Science and Technology (BEST)	RI	•	•	•	•			•		•			•
Golden Crescent Alliance for Minorities in Engineering (GCAME)	TX	•	•		•		•		•			•	
San Antonio Pre-Freshman Engineering Program (PREP)	TX	•	•	•	•			•			•	•	
Saturday Science Club	TX	•	•	•				•			•	•	•
TAME (Texas Alliance for Minorities in Engineering)	TX	•	•	•	•		•	•			•	•	•
Texas Prefreshman Engineering Program (TexPREP)	TX	•	•	•	•		•	•			•	•	
Ysleta Girls Count!	TX	•			•	•	•	•			•	•	
Academic Enrichment Camp for the College Bound	VA	•	•	•				•			•		•
COMETS (Career Oriented Modules to Encourage Topics in Science)	VA		•				•	•			•	•	
MATHCOUNTS--National Society of Professional Engineers	VA	•					•			•			•
Mathletes	VA	•								•	•		•

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Program Name	State	SUBJECT FOCUS: Math	Science	Computers	STUDENT ACTIVITIES: Field Trips/Tours	Job Shadowing	Advisors/Role Models	Experiments/Labs/Demonstrations	Tutoring	Study Groups/Clubs	Direct Instruction	Guest Speakers/Instructors	Contest/Science Fair
Project FAME (Females and Minorities Excel)	VA	•	•	•	•	•	•	•			•		
University of Virginia Summer Enrichment Program	VA	•	•	•	•			•			•	•	
VSU Sciences Enrichment Program	VA	•	•		•			•			•		
Mathematics, Engineering and Science Achievement (MESA)	WA	•	•	•	•		•	•		•	•	•	•
Community Mentor-Protege Model for Physically Disabled Girls	WI	•	•	•			•						
Expanding Your Horizons	WI	•	•	•	•		•					•	
Wisconsin Science Education Service Centers	WI		•				•	•			•		

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Special Projects	Career/Academic Counselling	Test Preparation	In/During School Program	After School Program	Saturday	Summer Programs/Camp	Conference/Workshop	Competition	≤1-3	4-6	7-9	≥10	≤1-2	3-5	6-8	≥9
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STUDENT CHARACTERISTICS

STUDENT CHARACTERISTICS

Program Name	State	Target Group		Ethnicity/Race							
		Minorities	Females	B	MA	PR	OH	NA	A	OA	W
Science Discovery Day	AL	●		●							●
Mu Alpha Theta Math Contest	AR	●	●	●	●				●	●	●
Engineering Summer Institutes	AZ	●	●	●	●			●			●
Pre-Engineering Summer Workshops for Women and Minorities	AZ	●	●	●	●			●			
Women in Science and Engineering (WISE)	AZ	●	●	●	●			●	●		●
ACCESS/CCPP (Alliance for Collaborative Change in Education/in School Systems...	CA	●	●	●	●	●	●	●	●	●	
Caltech Secondary School Science Project (SSSP)	CA	●	●	●	●				●		●
Edison Computech School	CA	●	●	●	●			●	●		●
EQUALS/Family Math Program	CA	●	●	●	●	●	●	●	●		
Expanding Your Horizons	CA	●	●	●						●	●
Expanding Your Horizons Career Conference	CA	●	●								
Expanding Your Horizons in Math and Science	CA		●								
Finding Out/Descubrimiento for Complex Instruction	CA	●		●	●				●		
Franklin Computer Science Project	CA		●								●
Los Angeles Education Partnership Science/Math Enrichment Project	CA	●		●	●						

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Total Grades Served													Number of Middle School Students (grades 4-8)						
				Middle Grades															
K	1	2	3	4	5	6	7	8	9	10	11	12	≤10	11-50	51-100	101-250	251-500	501-1000	≥1001
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Program Name	State	Target Group		Ethnicity/Race							
		Minorities	Females	B	MA	PR	OH	NA	A	OA	W
M.I.S.S--Math Instruction and Science Studies Career Options Conference	CA		•	•					•		•
Mathematics, Engineering, Science Achievement Program (MESA)	CA	•		•	•	•		•			
MESA Pre-College Program	CA	•	•	•	•	•					
Minority Participation in the Earth Sciences (MPES)	CA	•		•	•		•				•
Project AIMS (Activities That Integrate Mathematics and Science)	CA	•	•	•		•	•		•	•	•
Project Interface (PI)	CA	•		•							•
Project SEED (Special Elementary Education for the Disadvantaged)	CA	•		•	•				•		
Quantitative Educational Development (QED)	CA	•	•								
SCI-MATH Project	CA	•	•	•	•	•	•				•
Southern California Junior Academy of Science	CA	•	•	•	•		•		•	•	•
SPICE (Science Partnership: Industry-Community-Education)	CA	•	•	•	•		•	•	•	•	•
Colorado Minority Engineering Association, Inc. (CMEA)	CO	•		•	•					•	•
Denver Audubon Society Urban Education Project	CO	•	•	•	•			•	•		•
Denver Educational Entry to Energy Program (DEEEP)	CO	•	•	•	•				•	•	•
Developing Problem Solving Strategies Through the Use of Concrete Manipulatives....	CO	•		•	•						•

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STUDENT CHARACTERISTICS

Program Name	State	Target Group		Ethnicity/Race							
		Minorities	Females	B	MA	PR	OH	NA	A	OA	W
Project STAMM (Systematic Teaching and Measuring Mathematics)	CO	•	•	•	•	•	•	•	•	•	•
Research/Design/Construction: A Model for Teaching/Evaluating Science Skills and Processes	CO	•	•		•				•		•
Connecticut PEP (Pre-Engineering Program)	CT	•	•								
Multiply Your Options Conferences (MYO)	CT	•	•	•							•
Saturday Academy	CT	•	•	•		•	•		•	•	•
Third Wave	CT	•	•	•		•	•		•	•	•
Computer Applications in Mathematics, Problem Solving and Science (Project CAMPS^2)	DC	•		•		•		•	•		•
Content-Based ESL Curriculum	DC	•	•				•			•	
Educational Equity for Black Girls Project	DC	•	•	•							
I Love Mathematics Program	DC	•	•	•							
Math-Science Summer Enrichment Program	DC	•		•		•					
Mathematics, Science and Minorities, K-6	DC	•		•		•					
Number Line	DC	•						•			
Project YES (Youth in Engineering and Science)	DC	•		•		•		•	•		•
Real Math	DC	•						•			

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STUDENT CHARACTERISTICS

Program Name	State	Target Group		Ethnicity/Race							
		Minorities	Females	B	MA	PR	OH	NA	A	OA	W
Forum to Advance Minorities in Engineering (FAME)	DE	●		●	●	●		●			
BASE (Blacks for Academic Success in Education)	FL	●		●							
GEMS (Generating Excellence in Math and Science)	FL	●		●			●				●
Academy of Excellence (AoE)	GA	●	●	●						●	●
Basic Skills Improvement (BSI)	GA	●	●	●					●		
Community Skills Training (CST)	GA	●	●	●				●			
Mathematics Inservice Model for Teachers of Native American Students	GA	●						●			
Neighborhood Computer Training Program (NCT)	GA	●	●	●					●		●
Saturday Science Academy	GA	●		●	●	●			●		●
Science Fair Project Workshop	GA	●	●	●							●
Southeastern Consortium for Minorities in Engineering (SECME)	GA	●		●	●			●			
Southwest Achievement Center	GA	●		●							
Summer Computer Workshops	GA	●	●	●							●
Summer Technical Enrichment Program	GA	●		●						●	●
The Academy	GA	●	●	●							●

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STUDENT CHARACTERISTICS

Program Name	State	Target Group		Ethnicity/Race							
		Minorities	Females	B	MA	PR	OH	NA	A	OA	W
Foundational Approaches in Science Teachings (FAST)	H1	•	•	•	•	•	•		•	•	•
Scientists-in-the-Schools Program	H1		•						•		
Share-a-Day-With-a-Scientist	H1		•						•		
Des Moines Science Magnet Program	1A	•		•	•	•	•	•	•	•	•
Go Power for Girls	1A		•	•	•	•	•	•	•	•	•
Taking the Road Less Traveled	1A		•								
Idaho Science Camp	1D	•	•	•	•			•	•		•
Chicago Area Pre-College Engineering Program (CAPCEP)	1L	•									
Ecological Citizenship	1L	•	•	•	•	•	•	•	•	•	•
Engineering Career Workshops for Women	1L	•	•	•	•	•	•	•	•	•	•
Mathematics Teacher Development with Peer Tutoring	1L	•		•		•					•
Metro Achievement Program	1L	•	•	•	•	•	•			•	•
Pre-Algebra Development Centers	1L	•		•		•					
Project STARWALK	1L	•	•								
Tomorrow's Scientist, Technician and Manager's Program	1L	•		•			•		•		•

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STUDENT CHARACTERISTICS

Program Name	State	Target Group		Ethnicity/Race							
		Minorities	Females	B	MA	PR	OH	NA	A	OA	W
Young Scientist Program	IL	●	●	●		●					●
MATHCOUNTS In Indiana	IN	●	●								
Mathematics Pentathlon	IN	●	●	●	●	●	●	●	●	●	●
Minority Engineering Advancement Program (MEAP)	IN	●	●	●			●		●		
Pupil Improvement Program (PIP)	IN	●	●	●	●			●	●		●
TEAMS (Training for Equitable Attributes in Mathematics and the Sciences)	IN	●	●	●							●
Math and Science Individual Achievement (MSIA)	KS	●	●		●						
Louisiana Engineering Advancement Program for Minorities (LEAP)	LA	●	●	●	●	●	●	●			●
Blacks and Mathematics (BAM): A Visiting School Lecturer Program	MA	●	●	●							
Engineering Career Orientation (ECO)	MA	●	●	●		●		●			
Massachusetts Pre-Engineering Program (MASSPEP)	MA	●		●		●	●				●
Engineering Pipeline	MD	●	●	●							
Hands-on-Science Outreach, Inc. (HOSO)	MD	●	●	●					●	●	●
Milliken 11 Schools	MD	●		●	●	●	●		●	●	●
TAI Math (Team Accelerated Instruction)	MD	●	●	●	●	●	●	●	●	●	●

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STUDENT CHARACTERISTICS

Program Name	State	Target Group		Ethnicity/Race							
		Minorities	Females	B	MA	PR	OH	NA	A	OA	W
Detroit Area Pre-College Engineering Program, Inc. (DAPCEP)	MI	•		•	•	•					
Girls + Math + Science = Choices	MI		•	•						•	•
HANDS-ON: Science Training Program for Black Youth	MI	•		•			•				•
People in Science	MI		•	•		•					•
Summer Youth Program	MI	•	•	•		•			•		•
Women and Mathematics: Visiting Lecture Program	MI		•								
Yes, You Can	MI		•	•							•
Hispanic Motivation Program (Un Primer Paso)	MN	•	•		•	•	•				
Linking School and Community Math-Science/Career Role Models for Girls in Grades 4-6	MN		•	•	•	•					•
Math Bridge Program	MN	•	•	•	•	•		•			
Visiting Women Scientists Program	MN		•								
Expanding Your Horizons in Science and Mathematics	MT		•					•			•
Mathematics and Science Education Network (MSEN)	NC	•	•	•	•	•		•			
RECAST	NC	•	•	•			•				•
Saturday Academy	NC	•	•					•			

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Total Grades Served													Number of Middle School Students (grades 4-8)						
				Middle Grades															
K	1	2	3	4	5	6	7	8	9	10	11	12	≤10	11-50	51-100	101-250	251-500	501-1000	≥1001
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		Minorities	Females	B	MA	PR	OH	NA	A	OA	W
Project FOCUS	NE	•		•	•			•	•		•
Futures Unlimited Conferences	NJ	•	•	•		•	•				
Introduction to ChIME (Chemical Industry for Minorities in Engineering)	NJ	•	•	•		•			•		•
Introduction to Urban Engineering	NJ	•	•	•		•			•		•
Minorities and Women in Engineering	NJ	•	•	•	•	•	•	•	•		•
Stevens Middle School Math, Science, Computer Project	NJ	•		•		•					•
Mathematics, Engineering and Science Achievement (MESA)	NM	•		•	•			•			
Saturday Science Academy	NM	•		•	•	•	•	•	•	•	•
Spatial Encounters	NM	•	•		•			•			•
Buffalo Area Engineering Awareness for Minorities (BEAM)	NY	•		•		•		•			•
Gifted Math Program (GMP)	NY	•	•	•							
Junior High School Bio-Med Enrichment Program/Science Careers	NY	•		•		•	•				
Mathematical Olympiads for Elementary Schools	NY	•	•	•	•	•	•	•	•		•
Mentor in Engineering Program	NY	•		•		•					
Operation SMART (Science, Math and Relevant Technology)	NY	•	•	•		•					•

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STUDENT CHARACTERISTICS

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		Minorities	Females	B	MA	PR	OH	NA	A	OA	W
Playing To Win Computer Center	NY	•	•	•		•	•				
Saturday Enrichment Series (SES)	NY	•	•	•							
Science Inquiry	NY	•		•			•		•		•
South Orangetown Career Education Program/Career Internship Program (CIP)	NY		•								
W.I.Z.E.--Wildlife Inquiry Through Zoo Education	NY	•	•	•	•	•	•	•	•		•
Xerox Science Consultant Program	NY	•		•		•					•
Career Awareness Program (CAP)	OH	•		•							
Cleveland Minorities In Engineering Forum, Inc. (CMEF)	OH	•		•		•	•				•
Mathematics Olympics	OH	•		•							•
Mathematics Pentathlon	OH	•		•							•
Middle Grades Math Contest	OH	•	•	•	•	•	•	•	•		
Summer Enrichment Program In Mathematics and Science	OH	•		•	•	•		•	•	•	•
Technical Career Counseling (TC^2)	OH	•		•							
Academic Gifted Enrichment Classes	OK	•	•	•	•	•	•	•	•	•	•
Engineering Fair	OK	•	•	•	•	•		•	•	•	•

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		Minorities	Females	B	MA	PR	OH	NA	A	OA	W
Increasing the Participation of Native American Students in Higher Mathematics	OK	•						•			
MATHCOUNTS--Oklahoma	OK	•	•	•	•	•		•	•	•	•
Expanding the Career Options for Middle School Ethnic Minority Females	OR	•	•				•			•	
Camp-In--Franklin Institute	PA		•	•		•					•
Community Ambassador Program	PA	•		•	•	•		•			
Increasing Achievement of 7th and 8th Grade Girls in Math, Science, and Computer Science	PA		•	•		•			•		•
Mathematics and Computer Science Summer Institute	PA	•	•	•		•					
PRIME, INC.	PA	•		•	•	•		•			
Westinghouse Career Conferences	PA	•		•	•	•	•				
Community Information Program	PR	•				•					
Basic Education/Science and Technology (BEST)	RI	•	•	•				•			
Golden Crescent Alliance for Minorities in Engineering (GCAME)	TX	•	•	•	•				•		
San Antonio Pre-Freshman Engineering Program (PREP)	TX	•	•	•	•			•	•		•
Saturday Science Club	TX	•	•	•	•		•				•
TAME (Texas Alliance for Minorities in Engineering)	TX	•		•	•			•			

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		Minorities	Females	B	MA	PR	OH	NA	A	OA	W
Texas Prefreshman Engineering Program (TexPREP)	TX	•	•	•	•			•	•		•
Ysleta Girls Count!	TX		•	•	•			•	•		•
Academic Enrichment Camp for the College Bound	VA	•	•	•					•		•
COMETS (Career Oriented Modules to Encourage Topics in Science)	VA	•	•	•	•	•	•	•	•	•	•
MATHCOUNTS--National Society of Professional Engineers	VA	•	•	•		•		•	•		•
Mathletes	VA	•		•							•
Project FAME (Females and Minorities Excel)	VA	•	•	•			•		•		•
University of Virginia Summer Enrichment Program	VA		•	•					•	•	
VSU Sciences Enrichment Program	VA	•	•	•							
Mathematics, Engineering and Science Achievement (MESA)	WA	•	•	•	•			•			
Community Mentor-Protege Model for Physically Disabled Girls	WI	•	•	•							•
Expanding Your Horizons	WI		•	•		•	•				•
Wisconsin Science Education Service Centers	WI	•	•	•				•		•	•

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