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AT&T
Bell Laboratories

S. J. Buchsbaum
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February 4, 1991

Dr. J. Thomas Ratchford
Associate Director, Policy and
International Affairs
Office of Science and Technology Policy
Old Executive Office Building - Room 494
17th and Pennsylvania Avenue
Washington, D.C. 20506

Dear Tom:

As the enclosed materials indicate, AT&T's involvement in K-12 educational programs is quite extensive, but it is not centrally directed. Enclosed are the following:

1. "AT&T GOES TO SCHOOL" - a summary of AT&T projects in K-12 education pursued at local levels.
2. A summary of AT&T Bell Laboratories involvement in high school education - aimed at students and teachers.
3. An internal proposal to the AT&T Foundation Trustees to launch a \$3M-three year program to help reform teacher preparation in certain urban areas. This proposal has been approved by the trustees and we are about to start it. However, please keep the details of the proposal within OSTP.
4. An excerpt from AT&T's Biennial Report on public service activity dealing with education.

Needless to say, we'll be glad to provide further details on any of the above.

Sincerely,

Enc.
As above



AT&T

"AT&T GOES TO SCHOOL"
Summaries of AT&T Projects
in K-12 Education

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"AT&T GOES TO SCHOOL"

Summaries of AT&T Projects in K-12 Education

September 1990

PREFACE

AT&T's involvement in education is long standing, and the commitment of the AT&T Company, the AT&T Foundation, and AT&T people in their communities is for the long term.

This summary review is intended to give a profile of the kinds of pre-college school programs AT&T supports, primarily in the communities where its employees live and work. While this report is not exhaustive, it clearly demonstrates the initiative and commitment of many AT&T people who are helping their local schools.

The report also lists a number of projects that have a national impact on the quality of our nation's public schools. A variety of forms of support are represented here: AT&T Foundation grants, local corporate contributions, local in-kind contributions, internships, and voluntary projects in which AT&T employees serve as mentors. This support reflects an emphasis on aiding disadvantaged students in urban centers, improving math and science education, and providing teachers with the resources they need to help their students achieve.

For 1988, 1989 and 1990, the projects described here represent an investment by AT&T of more than \$3 million in pre-college education, not including the value of volunteer time. (In addition, AT&T invests some \$14 million annually in cash contributions to higher education through the AT&T Foundation.)

The projects are listed by state with a notation on the funding level, funding source, and a brief project description. All of the projects described are current or continuing from efforts initiated over the last several years. In cases where there are no years given, the funding level is the approximate annual or periodic level of support. In cases of AT&T Foundation grants, the years of multi-year pledges are noted. For further information on specific projects, call the local AT&T contact listed with each project, or the Foundation staff if it is a Foundation-funded project.

The AT&T Foundation K-12 projects have been supported primarily under the umbrella of the Urban Schools Initiative in the Education Program of the Foundation. The intent of this program has been to advance school reform and student achievement in targeted locations. Complementing these school-based projects is the AT&T Family Strengthening Initiative of the Foundation's Social Action Program. The intent of this effort is to keep teen parents in school and to help them avoid unwanted pregnancies by providing them with comprehensive support, including health care, family counseling, child care and training in parenting and job skills. The vast majority of projects listed here have been supported through local corporate contributions. They are focused on grassroots efforts to improve the quality of education in communities across the country and to recognize individual achievements of students and teachers.

We hope this document proves useful to its readers. We particularly want to thank all those managers who provided information to help prepare this report.

AT&T Foundation Staff
September 1990

ARIZONA

Program Title: Adopt-A-School

Location: Phoenix

Funding Level: \$7,500 in 1989, \$5,000 in 1990

Funding Source: Local AT&T funds

AT&T Contact: LeeAnn Kuster 602 285-5706

Program Description: AT&T supports this program at Ignacio Conchos Elementary School with volunteer tutors, mentors and other activities to promote the benefits of education to at-risk students.

Program Title: Junior Achievement

Location: Phoenix

Funding Level: \$3,250 in 1989, \$3,000 in 1990

Funding Source: Local AT&T funds

AT&T Contact: LeeAnn Kuster 602 285-5706

Program Description: AT&T employees served as instructors in Junior Achievement's Business of Applied Economics, designed to acquaint talented high school math students with economics.

Program Title: The Schoolhouse

Location: Phoenix

Funding Level: \$3,000 in 1989

Funding Source: Local AT&T funds

AT&T Contact: LeeAnn Kuster 602-285-5706

Program Description: AT&T contributed a personal computer and funds to support this classroom for homeless children in the Central Arizona Shelter.

Program Title: ASU Engineering Summer Institute

Location: Tempe

Funding Level: \$1,500 in 1989

Funding Source: Local AT&T funds

AT&T Contact: LeeAnn Kuster 602 285-5706

Program Description: Arizona State University's Engineering Summer Institute is aimed at attracting minorities and women to the field of engineering and technology. In concert with this program, the Phoenix Works hosted tours of the plant during two summer sessions, attracting more than 100 high school students.

Program Title: Hispanic Mother-Daughter Program/Arizona State University

Location: Phoenix

Funding Level: \$100,000 over four years, 1986-1989

Funding Source: AT&T Foundation

AT&T Contact: LeeAnn Kuster 602 285-5706

Program Description: This unique educational program, sponsored by Arizona State University, starts at the eighth-grade level and provides both mother and daughter the opportunity to learn about higher education, to meet members of the university community and to learn how to prepare for college and to prepare for career options. The long-range goal is to increase the number of Hispanic women who enroll and graduate from college.

(See also: Texas.)

Program Title: University of Arizona Minority Transfer Program

Location: Tucson

Funding Level: \$6,000 in 1990

Funding Source: AT&T Foundation

AT&T Contact: LeeAnn Kuster 602 285-5706

Program Description: This program is designed to help economically disadvantaged students make the transition from community college to the four-year college environment.

ARKANSAS

Program Title: Adopt-a-School

Location: Little Rock

Funding Level: In-kind services

Funding Source: Local AT&T volunteers

AT&T Contact: Frank Clausen 501 569-4211

Program Description: AT&T employees have adopted a local grammar school and serve as tutors and mentors to improve the overall quality of education for students in the school and to help prepare them to stay and succeed in high school.

CALIFORNIA

Program Title: San Francisco School Volunteers

Location: San Francisco

Funding Level: \$100,000 over two years, 1989-1990

Funding Source: AT&T Foundation

AT&T Contact: Kathi Oram 415 978-2223

Program Description: AT&T's contribution supports a model program in cooperative learning--"Transforming Education at the Middle Schools (TEAMS)"--aimed at improving performance in urban middle schools.

Program Title: Aim High

Location: San Francisco

Funding Level: \$15,000 in 1990

Funding Source: AT&T Foundation

AT&T Contact: Kathi Oram 415 978-2223

Program Description: This program is a collaborative effort among public and private schools to improve the quality of education in the middle schools. AT&T funding will help the program expand.

Program Title: Industry Initiatives for Science and Math
Education (IISME)

Location: Berkeley

Funding Level: \$10,000 in each of three years, 1988-1990

Funding Source: Local AT&T funds

AT&T Contact: Joan Frierson 415 978-2234

Program Description: This program provides funding to allow high school math and science teachers to work in a corporate environment during the summer.

Program Title: Mid-Career Math and Science Credential Program/
Mills College

Location: Oakland

Funding Level: \$15,000 in 1989, \$10,000 in 1990

Funding Source: AT&T Foundation

AT&T Contact: Kathi Oram 415 978-2223

Program Description: This program is a one-year graduate-level teacher prep program designed to allow participants to earn California Teacher Credential in physical or life science or math. AT&T's grant will help increase the number of women and minorities participating in the program.

Program Title: Mount St. Mary's College

Location: Los Angeles

Funding Level: \$25,000 in 1990

Funding Source: AT&T Foundation

AT&T Contact: Ava Evegon 213 239-7536

Program Description: Mount St. Mary's has worked for the past few years to identify young minority women who would be good candidates for college. The college has been very successful in this endeavor, entitled "Strides Toward Educational Proficiency (STEP)," and now works with high school freshmen, sophomores and juniors to help them select the right courses to prepare for a degree. AT&T initially awarded the college a \$50,000 grant in 1987. The latest contribution will allow the college to conduct further research and assessment of its program and disseminate the information for use by other inner city colleges.

Program Title: AT&T Family Initiative: Children Now, the Center for Improvement of Child Care, Inc., the Urban League

Location: Los Angeles

Funding Level: \$225,000 over three years, 1989-1991

Funding Source: AT&T Foundation

AT&T Contact: Ava Evegon 213 239-7536

Program Description: This program operates like the other AT&T-funded teen pregnancy prevention initiatives. Its goals are to prevent teen pregnancy through education and counseling and to help those teens who do become pregnant to learn parenting skills, finish school and pursue job opportunities.

(Note: A similar program, "School-Age Parents Program," operates in Oakland, Cal., and is funded through the AT&T Foundation at a level of \$225,000 over three years, 1989-1991.)

Program Title: University of California MESA (Math, Engineering and Science Achievement)

Location: Berkeley

Funding Level: \$25,000 in 1989

Funding Source: AT&T Foundation

AT&T Contact: Mary Barnsdale 415 224-2998

Program Description: MESA is designed to increase the number of African American, Mexican American, Puerto Rican and American Indian students receiving college degrees in a math-related field. MESA identifies junior high school students with high potential and offers them study groups, tutorials, and math and science competitions. The program reaches some 4,000 students from 138 California high schools.

Program Title: Achievement Council

Location: Oakland

Funding Level: \$200,000 over two years, 1988-1989

Funding Source: AT&T Foundation

AT&T Contact: Kathi Oram 415 978-2223

Program Description: AT&T's support, targeted primarily at Los Angeles, has helped the Achievement Council run institutes for principals, counselors and teachers from urban schools. The institutes work to develop team building and planning skills of teachers, counselors and administrators to improve the overall performance of the schools and their students.

Program Title: Oakland Metro Forum

Location: Oakland

Funding Level: \$4,000 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Kathi Oram 415 224-2223

Program Description: The forum has developed a plan to improve the quality of education and to reawaken community confidence in the Oakland public school system.

Program Title: California State University/Center for Chicano Research

Location: Fresno

Funding Level: \$4,000 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Ed Novi 415 224-2996

Program Description: The program aims to reduce the dropout rate among Hispanic students and to help them develop self-esteem and prepare for college.

Program Title: Junior Achievement - Bay Area

Location: Brisbane

Funding Level: \$7,500 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Joan Frierson 415 978-2234

Program Description: The program teaches students how the principles of economics can apply to their own money management and encourages them to stay in school.

Program Title: Math, Engineering and Science Achievement (MESA)

Location: Fresno

Funding Level: \$7,500 over five years, 1986-1990

Funding Source: Local AT&T funds

AT&T Contact: Ed Novi 415 442-2996

Program Description: The program encourages minority high school students to attend college and pursue math, engineering and science courses.

Program Title: I Have a Dream Foundation

Location: San Francisco

Funding Level: \$2,400 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Kathi Oram 415 978-2223

Program Description: The program provides motivation and support for minority students to finish high school and attend college or vocational school.

Program Title: New Conservatory Children's Theatre

Location: San Francisco

Funding Level: \$2,000 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Kathi Oram 415 978-2223

Program Description: The theater provides an AIDS play, "The Inner Circle," that speaks directly to teens about AIDS.

Program Title: Directions

Location: San Francisco

Funding Level: \$7,650 over four years, 1987-1990

Funding Source: Local AT&T funds

AT&T Contact: Lezlie Bishop 415 978-2227

Program Description: The organization places teens in summer jobs and offers training in job search skills. It also matches youngsters with mentors in particular career fields to get them to think about their future.

Program Title: Interface Institute

Location: Oakland

Funding Level: \$8,000 over three years, 1988-1990

Funding Source: Local AT&T funds

AT&T Contact: Lezlie Bishop 415 978-2227

Program Description: The Institute provides activities and college prep programs in the public schools for students at risk of dropping out.

Program Title: Chicana Foundation of Northern California

Location: Oakland

Funding Level: \$4,000 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Lezlie Bishop 415 978-2227

Program Description: The program promotes Hispanic leadership, awards scholarships and offers skills workshops for scholarship applicants.

Program Title: San Jose State University/Minority Engineering
Student Association (MESA)

Location: San Jose

Funding Level: \$5,000 in each of two years, 1989-1990

Funding Source: Local AT&T funds

AT&T Contact: Kevin Compton 408 452-3966

Program Description: The program sponsors "This Is Engineering," a two-week residential program for 40 Black and Mexican American high school juniors and seniors who plan to pursue a career in engineering.

COLORADO

Program Title: Choices Program/ Wasson, Dogherty, Air Academy,
Widefield High Schools

Location: Colorado Springs

Funding Level: \$10,000 (\$2,500 per school) in 1990

Funding Source: Local AT&T funds

AT&T Contact: Debbie Steele 303 298-6258

Program Description: The Colorado field office has chosen to focus its attention on the growing problem of teenage suicide. The Choices program empowers students local high schools to develop and administer a program that recognizes and rewards students who make sound choices in the areas of education, values and life styles. The program now encompasses four schools in two school districts and has received statewide attention.

Program Title: Prospecting In Education Awards

Location: Statewide

Funding Level: \$60,000 total in 1990 to fund eight separate
programs (described on the following pages)

Funding Source: Local AT&T funds

AT&T Contact: Debbie Steele 303 298-6258

Program Description: AT&T created this program to recognize and fund innovative secondary education programs. Criteria considered in awarding funds included potential for outreach into the community and new and creative partnerships.

The eight programs receiving awards in 1990 are as follows:

Program Title: Robotics Program/Smiley Middle School

Location: Denver

Funding Level: \$2,000

Program Description: The goal of this program is to integrate information from a variety of subjects and to help students think. Using robotics as a focal point, 50 students will learn how math, social studies, science and language arts work together. In addition, all 620 students at the school will benefit from a robotics fair and a guest speaker program.

Program Title: Breakfast Club/Wyco Drive Elementary School

Location: Northglenn

Funding Level: \$1,200

Program Description: This program is designed to help at-risk students make the transition into middle school. During their time in sixth grade, 12 to 15 students will meet for half an hour each day before school to work on building their self-esteem and on finding a mission for their middle and high school years. In addition, home visits will help ensure that the club's work is reinforced at home.

Program Title: Colorado Business Week Program/Colorado Association of Business and Industry

Location: Statewide

Funding Level: \$5,000

Program Description: Through scholarships, AT&T will help 25 minority, physically or mentally handicapped or underprivileged youngsters attend the Business Week program, run by the Colorado Association of Commerce and Industry. This program offers high school students the opportunity to explore the world of business and economics and to meet and learn from businesspeople. The program is held each year at the University of Northern Colorado and the University of Southern Colorado.

Program Title: Project Take Off/Mi Casa Resource Center

Location: Denver

Funding Level: \$5,000

Program Description: Providing a myriad of support services, this program reaches out to 50 young women who have dropped out of high school. Offering counseling, child care assistance, and occupational assessments, this program assists these women in earning their high school equivalency diplomas and finding gainful employment.

Program Title: School Centered Renewal/The Public Education Coalition

Location: Denver area

Funding Level: \$10,000

Program Description: AT&T funds are aiding the Public Education Coalition's study of 17 schools in the Denver area to assess how well teachers are teaching, the roles of parents and how curricula are meeting students' needs.

Program Title: Pre-Secondary Educational Program/Adams County, School District #12

Location: Denver

Funding Level: \$11,000

Program Description: In an effort to reduce the number of drop-outs from Merritt Hutton Junior High School, this program works to enhance math, reading and study skills. The program also reaches out to involve parents through home visits and counseling.

Program Title: Expanding Horizons/Denver Boys-Denver Girls

Location: Denver

Funding Level: \$16,000

Program Description: Students in two of Denver's middle schools receive guidance, testing and counseling through this program, and each student will spend at least 30 hours with a mentor. AT&T's partners in this program are the Rotary Club and the Denver Boys and Girls Clubs.

Program Title: Dimensions for Learning/Aurora Education Foundation

Location: Aurora

Funding Level: \$9,800

Program Description: Five local teachers will attend this seminar, which explores how teachers teach and how they help their students excel. These five teachers will then conduct in-service training for teachers throughout Aurora's schools.

In addition to the Choices Program and the Prospecting In Education Awards, AT&T funds the following programs in Colorado:

Program Title: AT&T Family Strengthening Initiative: New Chance Program/Technical Education Center, Manpower Demonstration Research Corp

Location: Denver

Funding Level: \$175,000 over three years, 1989-1991

Funding Source: AT&T Foundation

Program Description: New Chance helps teen mothers obtain education and job skills training. The program also offers counseling, financial support, day care and parenting skills training.

Program Title: 6th Congressional District Award

Location: Denver

Funding Level: \$500 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Debbie Steele 303 298-6258

Program Description: This award is given to high school students who volunteer more than 100 hours of community service each year.

Program Title: Latin American Education Fund

Location: Denver

Funding Level: \$1,000 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Debbie Steele 303 298-6258

Program Description: The fund provides college scholarships to Latin American students.

Program Title: Frontiers of Science

Location: Denver

Funding Level: \$5,000 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Debbie Steele 303 298-6258

Program Description: The program encourages high school students to explore the world of science and pursue college courses and careers in science-related fields.

Program Title: University of Northern Colorado/Juniors in Math
and Science Program

Location: Colorado Springs

Funding Level: \$1,200 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Debbie Steele 303 298-6258

Program Description: The university offers a program to high-potential high school juniors and seniors to encourage them to pursue careers in science.

CONNECTICUT

Program Title: Connecticut Joint Council on Economic Education

Location: Statewide

Funding Level: \$1,000 in each of two years, 1989-1990

Funding Source: Local AT&T funds

AT&T Contact: Paul Karoff 617 574-3198

Program Description: This program is designed to give elementary school students a basic understanding of economics and business.

Program Title: Connecticut Pre-Engineering Program

Location: West Hartford

Funding Level: \$15,000 over two years, 1988-1989

Funding Source: Local AT&T funds

AT&T Contact: Paul Karoff 617 574-3198

Program Description: Recognized as a national model by the National Action Council for Minorities in Engineering, this program encourages interest in math and science among inner-city children. AT&T has also donated five personal computers to the program.

Program Title: Hartford Alliance

Location: Hartford

Funding Level: \$500 in each of two years, 1989-1990

Funding Source: Local AT&T funds

AT&T Contact: Paul Karoff 617 574-3198

Program Description: This program brings the public and private sectors together to enhance the overall quality of education in the Hartford schools.

Program Title: Hartford Graduate Center

Location: Hartford

Funding Level: \$1,000 in each of four years, 1987-1990

Funding Source: Local AT&T funds

AT&T Contact: Paul Karoff 617 574-3198

Program Description: The Hartford Graduate Center runs a summer computer camp for Hartford elementary and high school students. AT&T's contribution helped pay for some of these students to attend the camp.

FLORIDA

Program Title: Florida Education Foundation Consortium

Location: Statewide

Funding Level: \$5,000 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Jan Baskin 813 530-2414

Program Description: The Consortium supports local school foundations by acting as an advocate for funding before the state department of education and the state legislature, and provides collective support for educational programs that have been funded by private business. The Consortium, representing about half of the 67 school boards in Florida, raises money from private business to support programs the state can not afford to fund.

Program Title: Florida Memorial College

Location: Miami

Funding Level: \$60,000 in 1988

Funding Source: AT&T Foundation

AT&T Contact: Julie Spechler 305 662-6411

Program Description: Florida Memorial is a predominantly Black liberal arts college. AT&T's grant enabled the school to expand its teacher certification program, specifically to increase the pool of math and science teachers in Dade and surrounding counties.

Program Title: Orange County Public School Foundation Board

Location: Orange County

Funding Level: \$5,000 in each of three years, 1988, 1989, 1990

Funding Source: Local AT&T funds

AT&T Contact: Randy Berridge 407 660-4131

Program Description: This foundation works to raise money from private sources to fund programs not funded by the state.

Program Title: University of Central Florida/ McKnight Foundation

Location: Orlando

Funding Level: \$25,000 over three years, 1987-1989

Funding Source: Local and AT&T Foundation funds

AT&T Contact: Randy Berridge 407 660-4131

Program Description: Run by the University of Central Florida, the McKnight Foundation provides counseling and incentives to help motivate minority high school students to stay in school, graduate and seek a college education.

Program Title: AT&T Support of Dade County Schools

Location: Dade County

Funding Level: \$15,000 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Julie Spechler 305 662-6411

Program Description: In an effort to showcase the strengths of the Dade County School System, the fourth largest in the country, AT&T funded and helped produce a 15-minute videotape, as well as advertising, a press kit and a description of how best to present the tape. The audience included teachers, students, parents, school board and PTA members, realtors, and city and county officials. It was also designed for use by economic development agencies seeking to persuade companies to relocate to Dade County and for use in teacher recruitment.

Program Title: Junior Achievement/Youth Leadership of Central Florida

Location: Orlando

Funding Level: \$2,500 in each year, 1989 and 1990

Funding Source: Local AT&T funds

AT&T Contact: Randy Berridge 407 660-4131

Program Description: This program recognizes the top two students from 23 area high school for their leadership and scholastic abilities. The students meet various members of the city government as they learn what it takes to be leaders.

Program Title: Student Intern Program

Location: Statewide

Funding Level: \$650 in each of four years, 1986-1990

Funding Source: Local AT&T funds

AT&T Contact: Randy Berridge 407 660-4131

Program Description: AT&T provides a \$650 sponsorship to support top high school students who are given the opportunity to intern with U.S. Congressman William McCollum in his Washington office.

Program Title: Hillsborough Public Schools Foundation Board

Location: Tampa Bay

Funding Level: \$5,000 in each of four years, 1986-1989

Funding Source: Local AT&T funds

AT&T Contact: Randy Berridge 407 660-4131

Program Description: The AT&T area sales manager serves on this Tampa Bay board to raise funds to support special pre-college programs.

Program Title: Project to Increase Mastery of Math and
Science (PIMMS)

Location: Palm Beach County

Funding Level: \$5,000 in 1989, \$2,500 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Jacqui Brier-Kiviat 305 938-4641

Program Description: AT&T, in partnership with Pratt & Whitney, funds this training program for high school math and science teachers in Palm Beach County. Under the auspices of the county school board, PIMMS targets 30 teachers for this program each year.

Program Title: Partners in Excellence

Location: Broward County

Funding Level: In-kind services in 1987, 1988, 1990

Funding Source: Local AT&T volunteers

AT&T Contact: Jacqui Brier-Kiviat 305 938-4641

Program Description: Working with Northeast High School in Broward County, AT&T employees serve as mentors, develop programs to address student concerns and provide tutoring. AT&T has won several awards for its participation, and in 1988 was named "Partner of the Year."

Program Title: Summer Intern Program

Location: Ft. Lauderdale, Miami

Funding Level: AT&T summer employment

Funding Source: Local AT&T funds

AT&T Contact: Julie Spechler 305 662-6411

Program Description: AT&T hires four students for a six-week summer internship inputting and retrieving data to assist the local sales branch. Four AT&T managers serve as mentors for the interns during the summer and throughout the following school year to ensure that the students stay in school.

GEORGIA

Program Title: AT&T Family Strengthening Initiative: Best Youth Clubs, Southside Health Care, Clark Atlanta University

Location: Atlanta

Funding Level: \$225,000 over three years, 1989-1991

Funding Source: AT&T Foundation

AT&T Contact: Esther Silver-Parker 404 873-7613

Program Description: This program is one of several teen parenting initiatives sponsored by AT&T in major cities to help prevent teen pregnancy through education and counseling and to help those teens who do get pregnant to stay in school, learn parenting skills and to find suitable child care and eventual employment. The Atlanta project focuses on Carver High School and the Carver Housing Project.

Program Title: Efficacy Development Model/Atlanta Public
Schools

Location: Atlanta

Funding Level: \$184,000 over two years, 1990, 1991

Funding Source: AT&T Foundation

AT&T Contact: Esther Silver-Parker 404 873-7613

Program Description: The Efficacy Development Model, a training program that will be implemented for all Atlanta elementary school teachers, provides teachers with new approaches for stimulating development in students through the teaching of psychological and behavioral dimensions of performance and development. It stresses the importance of understanding development as a process anyone can master, encourages all students to assume personal responsibility for their own development and teaches skills critical to high performance in any endeavor.

ILLINOIS

Program Title: Community Renewal Society/Catalyst

Location: Chicago

Funding Level: \$150,000 over two years, 1989-1990

Funding Source: AT&T Foundation

AT&T Contact: Fran Smith 312 230-4894

Program Description: The Community Renewal Society is a non-profit, urban service agency enabling disadvantaged citizens in low-and-moderate income neighborhoods to be active participants in solving community problems. The Society has also been a key agent in fostering school reform. The grant is for publication of Catalyst, a journal that serves as a technical assistance tool for educating administrators and parents in the restructuring of the Chicago public school system.

Program Title: DePaul University Center for Urban Education

Location: Chicago

Funding Level: \$350,000 over three years, 1990-1992

Funding Source: AT&T Foundation

AT&T Contact: Fran Smith 312 230-4894

Program Description: The university is establishing a Center for Urban Education to prepare teachers for the inner-city public schools and for the support of teachers at work in the inner city. The Center will establish a model for certification of teachers for inner-city schools and will organize two teacher preparation programs, one for retiring corporate personnel and individuals changing careers, another for undergraduates.

Program Title: AT&T Family Strengthening Initiative: AT&T Young Parents Resources Network/West Side Future, The Network for Youth Services, Illinois Caucus on Teen Pregnancy

Location: Chicago

Funding Level: \$190,000 over three years, 1989-1991

Funding Source: AT&T Foundation

AT&T Contact: Fran Smith 312 230-4894

Program Description: One of several AT&T Family Strengthening Initiative programs around the country, Chicago's teen parent initiative program works to prevent teen pregnancy through education and counseling and aids those teens who do become pregnant by offering child care, financial aid and an opportunity for the young women to finish school and find a job.

Program Title: Leadership for Quality Education

Location: Chicago

Funding Level: \$100,000 plus in-kind services in 1990

Funding Source: Local AT&T resources

AT&T Contact: Fran Smith 312 230-4894

Program Description: AT&T provides office space and other in-kind services for this new agency that will serve as a monitoring and facilitating group on school reform on behalf of the business community.

Program Title: Chicago Metro History Fair

Location: Chicago

Funding Level: \$1,500 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Fran Smith 312-230-4894

Program Description: This annual fair involves junior and senior high school students in creating projects that reflect the history of the city.

Program Title: Jobs for Youth

Location: Chicago

Funding Level: \$1,500 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Fran Smith 312 230-4894

Program Description: This program finds summer jobs for low-income high school students.

Program Title: Corporate Chicago/Hire the Future

Location: Chicago

Funding Level: \$10,000 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Fran Smith 312 230-4894

Program Description: This is a summer jobs program for high school students.

Program Title: Junior Achievement

Location: Chicago

Funding Level: \$10,000 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Fran Smith 312 230-4894

Program Description: AT&T supports Junior Achievement's programs to help youngsters grow emotionally and intellectually.

Program Title: Adopt-a-School

Location: Statewide

Funding Level: In-kind services

Funding Source: Local AT&T volunteers

AT&T Contact: Fran Smith 312 230-4894

Program Description: AT&T employee volunteers throughout Illinois have adopted schools to help the students stay in school and make the most of their education. AT&T employees serve as tutors, mentors and role models for the students. In addition, AT&T managers serve on a number of education advisory boards in the state.

INDIANA

Project Title: The Fund for Hoosier Excellence Inc./Lugar
Scholarship Fund

Location: Statewide

Funding Level: \$1,000 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Alex Cornella 317 633-5981

Program Description: Through this fund, low-income and minority students in Indiana receive scholarships to help them continue their education.

Program Title: MATHCOUNTS

Location: Statewide

Funding Level: \$1,000 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Alex Cornella 317 633-5981

Program Description: This program, which takes place in schools nationwide, works to help youngsters increase their math skills while learning to like working with numbers. The national MATHCOUNTS office provides material for state chapters. State chapters are managed by engineer volunteers.

Program Title: Odyssey of the Mind

Location: Statewide

Funding Level: \$1,500 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Alex Cornella 317 633-5981

Program Description: Students from 90 schools throughout the state compete in creative problem-solving as part of this program to encourage learning.

Program Title: Young Audiences

Location: Statewide

Funding Level: \$1,000 in each of two years, 1989-1990

Funding Source: Local AT&T funds

AT&T Contact: Alex Cornella 317 633-5981

Program Description: This program brings performing arts to schools around the state.

Program Title: Science Foundation

Location: Statewide

Funding Level: \$1,500 in 1989, \$10,000 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Alex Cornella 317 633-5981

Program Description: The Science Foundation works to encourage students to study and enjoy math and science. This is accomplished through science fairs held around the state and through scholarship programs.

LOUISIANA

Program Title: Adopt-a-School

Location: New Orleans

Funding Level: In-kind services in 1989, 1990

Funding Source: Local AT&T volunteers

AT&T Contact: Mickey Noah 205 969-4646

Program Description: Working with the local school board, AT&T has adopted an inner city grammar school. The program is headed by an AT&T sales manager and seeks donations of materials to improve the physical aspects of the school. In addition, AT&T has established a student recognition program to help improve attendance, and an exchange program in which a teacher spends a day with an AT&T employee, and the employee spends a day with the teacher.

MARYLAND

Program Title: Project ABC's to Success

Location: Baltimore County

Funding Level: \$21,000 in each of two years, 1988-1989

Funding Source: Local AT&T funds, employee volunteers

AT&T Contact: Dick Birkmeyer 301 584-6005

Program Description: In partnership with the Baltimore County public schools and three community colleges, AT&T worked to address the problem of illiteracy among teens and adults. AT&T employees served as tutors.

Program Title: Council on Economic Education

Location: Statewide

Funding Level: \$1,500 in each of three years, 1988-1990

Funding Source: Local AT&T funds

AT&T Contact: Dick Birkmeyer 301 584-6005

Program Description: This organization works to "teach the teachers"--both college and high school--in the area of economic education.

Program Title: Junior Achievement

Location: Central Maryland

Funding Level: \$1,000 in each of three years, 1988-1990

Funding Source: Local AT&T funds

AT&T Contact: Dick Birkmeyer 301 584-6005

Program Description: AT&T's contribution supports the variety of pre-college education programs sponsored by Junior Achievement.

Program Title: Career Fair at Canton School

Location: Baltimore area

Funding Level: In-kind services in last several years

Funding Source: Local AT&T volunteers

AT&T Contact: Dick Birkmeyer 301 584-6005

Program Description: Each year, AT&T Pioneers in Maryland sponsor a career fair at an urban middle school. Volunteers spend a full day with the students describing career opportunities in a wide variety of fields.

Program Title: Baltimore Science Fair

Location: Baltimore area

Funding Level: \$400 in each of three years, 1988-1990

Funding Source: Local AT&T funds

AT&T Contact: Dick Birkmeyer 301 584-6005

Program Description: The Pioneers provided U.S. Savings Bonds to six middle and senior high school students for their outstanding science exhibits at the fair.

Program Title: National Pause for the Pledge

Location: Baltimore

Funding Level: \$1,500

Funding Source: Local AT&T funds

AT&T Contact: Dick Birkmeyer 301 584-6005

Program Description: As part of this annual program to encourage national unity for the Pledge of Allegiance, outstanding high school students are brought to Baltimore--home of the "Star Spangled Banner"--to represent their states in special Flag Day ceremonies.

Program Title: Baltimore Vocational Advisory Committee

Location: Baltimore area

Funding Level: In-kind services

Funding Source: Local AT&T volunteers

AT&T Contact: Dick Birkmeyer 301 584-6005

Program Description: An AT&T Network Systems manager serves on this advisory committee for vocational education in the Baltimore City Public Schools.

MASSACHUSETTS

Program Title: Pine Ridge Student Exchange Program

Location: Andover

Funding Level: \$500 in each of two years, 1989-1990

Funding Source: Local AT&T funds

AT&T Contact: Paul Karoff 617 574-3198

Program Description: This program enables five students to spend two weeks during the summer on the Pine Ridge Indian Reservation in North Dakota so that they can gain an understanding of a different culture and report back to their classmates in the fall.

Program Title: Greater Lawrence Educational Collaborative

Location: Merrimack Valley area

Funding Level: \$1,000 in each of three years, 1988-1990

Funding Source: Local AT&T funds

AT&T Contact: Paul Karoff 617 574-3198

Program Description: Organized 15 years ago, the collaborative consists of several Merrimack Valley school districts that pool their resources to offer high-quality, cost-effective educational services. These services include educational, vocational and therapeutic programs for mentally, emotionally and physically handicapped children. The collaborative also coordinates intercommunity enrichment programs in the arts, athletics and recreation.

Program Title: Massachusetts Pre-Engineering Program

Location: Statewide

Funding Level: \$5,000 in each of three years, 1988-1990

Funding Source: Local AT&T funds

AT&T Contact: Paul Karoff 617 574-3198

Program Description: To meet the future scientific needs of American industry, this program, held at the Wentworth Institute of Technology, seeks to improve the math and science skills of high school students, particularly minorities, to prepare them for college-level studies in engineering, science, math and computer-based programs.

Program Title: University of Massachusetts Teams Competition

Location: Amherst area

Funding Level: \$500 in each of two years, 1989-1990

Funding Source: Local AT&T funds

AT&T Contact: Paul Karoff 617 574-3198

Program Description: AT&T co-sponsors this competition, held by the university's college of engineering, to test teams from 10 area high schools in physics, computer fundamentals, math, biology and chemistry, and English.

MICHIGAN

Program Title: Comprehensive Youth Training and Community Involvement Program

Location: Detroit

Funding Level: \$5,000 in each of four years, 1987-1990

Funding Source: Local AT&T funds

AT&T Contact: Lanice Collins 313 262-4966

Program Description: This program works to help young people, who are referred from the juvenile court system, to learn a trade.

Program Title: Magic Ride

Location: Lansing

Funding Level: \$5,000 in each of five years, 1986-1990

Funding Source: Local AT&T funds

AT&T Contact: Lanice Collins 313 262-4966

Program Description: Magic Ride works to educate the public about child abuse and ways to identify and prevent abuse.

Program Title: Pre-College Engineering Program

Location: Detroit area

Funding Level: \$5,000 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Lanice Collins 313 262-4966

Program Description: AT&T offers scholarships in this summer program to high school students who excel in math and science.

Program Title: St. Vincent and Sarah Fisher Center

Location: Farmington

Funding Level: \$1,000 in each of two years, 1988-1989

Funding Source: Local AT&T funds

AT&T Contact: Lanice Collins 313 262-4966

Program Description: The center serves as a home for pregnant teenagers.

Program Title: AT&T Family Strengthening Initiative: Southeastern
Michigan Health Association/ Detroit Young Parents
Resource Network

Location: Detroit

Funding Level: \$90,000 over two years, 1989-1990

Funding Source: AT&T Foundation

AT&T Contact: Lanice Collins 313 262-4966

Program Description: Like the other AT&T-funded teen parenting programs of its kind in major cities across the country, the network aims to prevent teen pregnancy through education and to help those teens who do become pregnant to learn parenting skills, finish school and find jobs.

Program Title: AT&T Assist

Location: Detroit

Funding Level: In-kind services in 1989 and 1990

Funding Source: Local AT&T volunteers

AT&T Contact: Lanice Collins 313 262-4966

Program Description: Twenty-three AT&T managers tutor high school sophomores in math and English once a week at AT&T's offices in Southfield.

MINNESOTA

Program Title: Bell Museum of Natural History/Many Faces in Science

Location: Statewide

Funding Level: \$10,000 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Mike Pruyn 612 334-2170

Program Description: Many Faces in Science is an exhibit that focuses attention on careers in science for minority students.

Program Title: Adopt-a-School

Location: Minneapolis

Funding Level: In-kind services

Funding Source: Local AT&T volunteers

AT&T Contact: Mike Pruyn 612 334-2170

Program Description: AT&T employees formed nine committees, including tutoring, mentoring, sports, fundraising, student, recognition, community relations, business education, and a book drive to help Northeast Junior High School increase the quality of education.

Program Description: Thanks to Teachers

Location: Minnesota and Wisconsin

Funding Level: \$1,000 in each of three years, 1988-1990

Funding Source: Local AT&T funds

AT&T Contact: Mike Pruyn 612 334-2170

Program Description: Thanks to Teachers is a local blue-ribbon panel that selects five teachers from the state to be recognized by the national Thanks to Teachers program.

NEW HAMPSHIRE

Program Title: Barron School Outreach Program

Location: Salem

Funding Level: In-kind services, 1988-1990

Funding Source: Local AT&T volunteers

AT&T Contact: Paul Karoff 617 574-3198

Program Description: Bell Labs engineers work with science teachers and students to improve the overall quality of science education in the Barron Elementary School. Bell Labs also donated a fax machine to help facilitate communication between the teachers and the engineers.

NEW JERSEY

Program Title: Science Teachers in Industry

Location: Statewide

Funding Level: \$70,000 over three years, 1987-1989

Funding Source: AT&T Foundation

AT&T Contact: Charlene Brown 201 221-6037

Program Description: Under the auspices of the New Jersey Science Teachers Association, this program works to upgrade science education by placing teachers in industry lab settings for two weeks during the summer. Teachers have worked side-by-side with volunteers at Bell Laboratories. For the last two years, the focus has been on urban teachers.

Program Title: Newark Literacy Campaign

Location: Newark

Funding Level: \$60,000 over three years, 1989-1991

Funding Source: AT&T Foundation

AT&T Contact: Charlene Brown 201 221-6037

Program Description: The Newark Literacy Campaign was created in 1984 to help people of all ages learn to read better. The agency has developed a literacy component to the Newark Teen Parenting Project, part of AT&T's Family Initiative. It will include literacy tutoring, a workshop series for families and a workshop series for service providers from the Urban League and other key agencies in the city.

Program Title: Academy for the Advancement of Teaching and Management

Location: Statewide

Funding Level: \$15,000 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Charlene Brown 201 221-6037

Program Description: AT&T has underwritten a special lecture series for the Academy's Staff Development Leader program.

Program Title: MATHCOUNTS

Location: Statewide

Funding Level: \$10,000 in each of two years, 1988 and 1989

Funding Source: Local AT&T funds

AT&T Contact: Charlene Brown 201 221-6037

Program Description: Similar to a spelling bee, MATHCOUNTS is a national competitive program for seventh and eighth graders that sharpens their math skills and increases their enjoyment of the subject. The program is administered by the New Jersey Chapter of the National Society of Professional Engineers.

Program Title: Newark Elementary Science Project

Location: Newark

Funding Level: \$10,000 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Charlene Brown 201 221-6037

Program Description: Working with the New Jersey Business/Industry/Science Education Consortium (BISEC), AT&T underwrote a hands-on elementary science program in the Newark public schools. The program uses simple experiments to help youngsters explore science.

Program Title: North Jersey Regional Science Fair

Location: North Jersey

Funding Level: \$2,000 in 1988, \$2,500 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Charlene Brown 201 221-6037

Program Description: Organized by AT&T Bell Laboratories' Murray Hill Science Education Club, the fair promotes excellence in science among high school students. AT&T underwrites a portion of the cost.

Program Title: PRIME

Location: Statewide

Funding Level: \$8,387 in 1989

Funding Source: Local funds

AT&T Contact: Charlene Brown 201 221-6037

Program Description: PRIME creates opportunities for minorities in engineering, pharmacy and other science- and math-related professions. The program involves students in supplemental math and science enrichment activities and tracks their progress from seventh through twelfth grade.

Program Title: New Jersey Department of Education/Governor's Teaching Scholars Program

Location: Statewide

Funding Level: \$12,000 in 1988, \$10,000 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Charlene Brown 201 221-6037

Program Description: AT&T underwrites the recognition dinner for this state-funded college-loan program for high school seniors who intend to pursue teaching careers and provides \$100 in long distance gift certificates to the winning students.

Project Title: Adult Literacy

Location: Statewide

Funding Level: \$2,680 in 1988, \$2,865 in 1989

Funding Source: Local funds

AT&T Contact: Charlene Brown 201 221-6037

Program Description: With the state Department of Education and with Literacy Volunteers of America, AT&T is one of a handful of corporate sponsors of a three-year pledge to recruit employees for an adult literacy training program. AT&T provides the facilities for training employees as tutors and underwrites the cost.

Program Title: New Brunswick Tomorrow/New Brunswick Math Project

Location: New Brunswick

Funding Level: \$90,000 over three years, 1989-1991

Funding Source: AT&T Foundation

AT&T Contact: Charlene Brown 201 221-6037

Program Description: AT&T teamed up with New Brunswick Tomorrow, a local revitalization agency, to fund a three-year project that is designed to improve the way the city's teachers instruct in math in grades K-6. The project is managed by the Rutgers University Center for Mathematics, Science and Computer Education. The project is expected to serve as a model for other school systems.

Program Title: AT&T Family Strengthening Initiative: Plainfield
Project/Newark Adolescent Parenting Program

Location: Plainfield and Newark

Funding Level: \$270,000 over three years, 1989-1991, for
Plainfield; \$225,000 over three years, 1989-1991,
for Newark

Funding Source: AT&T Foundation

AT&T Contact: Charlene Brown 201 221-6037

Program Description: AT&T participates in the Plainfield and Newark teen parenting projects, two of a number of similar initiatives in major cities across the country, providing services such as parenting skills training and job skills training to pregnant teens, to help them continue their education and pursue job opportunities.

Program Title: Project Adelante/Kean College Foundation

Location: Elizabeth

Funding Level: \$25,000 in each of three years, 1990-1992

Funding Source: AT&T Foundation

AT&T Contact: Charlene Brown 201 221-6037

Program Description: AT&T is working with Kean College on this initiative to increase the high school graduation rate of Hispanic youngsters. The program works specifically to improve the language, math and science skills of sixth, seventh and eighth graders in Elizabeth. The program consists of a five-week summer course for sixth graders, followed by Saturday classes during the school year. AT&T employees from HISPA volunteer as mentors for the program.

Program Title: A+ For Kids Teacher Network

Location: Statewide

Funding Level: \$13,500 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Charlene Brown 201 221-6037

Program Description: This is an educational program that focuses on classroom teachers and addresses such issues as creativity, professional isolation, lack of public recognition and limited training opportunities. AT&T funding helps underwrite the cost of urban teacher training workshops for teachers in five cities with exceptional classroom programs.

Program Title: Morris County Business and Education Together

Location: Morris County

Funding Level: \$10,000 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Charlene Brown 201 221-6037

Program Description: Business and Education Together is a network of volunteers from the business and education communities. AT&T is assisting the group by funding a project designed to educate students about cultural differences and ways to address race relations and discrimination. AT&T is also assisting in the design of a computer lab and in providing volunteers to tutor students.

Program Title: Essex County College/Integrated Partnership
Program

Location: Essex County

Funding Level: \$2,400 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Charlene Brown 201 221-6037

Program Description: Through this program, the college will link itself with high schools and businesses in the area to increase minority enrollment in specific technology programs. AT&T will provide an eight-week internship in its Newark offices for three high school juniors. AT&T will also contribute an amount equal to one-half of the intern's gross earnings, which will be set aside for that student's college tuition.

Program Title: Seton Hall University School of Law Mentor
Program

Location: Newark

Funding Level: \$2,500 in 1989, \$3,000 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Charlene Brown 201 221-6037

Program Description: Mentor is designed to help reduce the high school drop-out rate and increase the number of minority students who go on to professional school. The program pairs leading private and corporate law offices with inner-city schools to work with students.

Program Title: Fund for Educational Advancement

Location: Jersey City

Funding Level: \$5,000 in each of two years, 1988-1989

Funding Source: Local AT&T funds

AT&T Contact: Charlene Brown 212 221-6037

Program Description: AT&T's contribution will fund a work-study program at a Jersey City high school for one year. This will assist the entry of minority students into the work force. Students receive on-going support from a faculty advisor.

Program Title: Tom Skinner Associates Learning Center

Location: Newark

Funding Level: \$12,000 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Charlene Brown 201 221-6037

Program Description: AT&T's contribution paid for a videotape to raise public awareness about the center, which provides adjunct basic educational and leadership skills to enable minority students to prepare for college or for entry into the work force.

Program Title: Pre-College Engineering Program/Union County College

Location: Union County

Funding Level: \$2,500 in each of two years, 1989-1990

Funding Source: Local AT&T funds

AT&T Contact: Charlene Brown 201 221-6037

Program Description: The program works with students in grades seven through 12 to increase the number of minority students in college engineering programs. The college works to ensure that students are properly motivated and guided toward careers in engineering, that they take the proper preparatory courses and enroll in supplemental programs with an engineering slant.

Program Title: Newark Private Industry Council, Inc.

Location: Newark

Funding Level: \$5,000 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Charlene Brown 201 221-6037

Program Description: This organization provides worthwhile summer employment for 350 Newark high school students. The students work as apprentices in a variety of jobs to learn marketable skills. Students work 30 hours a week for eight weeks. The first 15 hours are paid by the employer, the rest through the program.

Program Title: Civic League of Greater New Brunswick, Inc.

Location: New Brunswick

Funding Level: \$1,350 in 1989, \$5,000 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Charlene Brown 201 221-6037

Program Description: AT&T's contribution will help fund the league's After School Support program, which pairs high school teachers and civic leaders with seventh and eighth grade boys and includes cultural and educational outings.

Program Title: The Urban League of Metropolitan Trenton

Location: Trenton area

Funding Level: \$2,500 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Charlene Brown 201 221-6037

Program Description: The program works with about twenty-five 14 to 16 year olds to motivate and encourage them to stay in school and develop marketable job skills.

NEW YORK

Program Title: The Fund for New York City Public Education

Location: New York City

Funding Level: \$100,000 over two years, 1989, 1990

Funding Source: AT&T Foundation

AT&T Contact: Susan Dessel 212 605-6677

Description: The Fund for New York City Public Education was founded in early 1989 to broaden the constituency of public education support, to assist in improving schools systemwide, and to develop long-term community and private-sector relationships to promote educational excellence. The grant is designated for the Professional Exchange Project, a professional development program for teachers.

Program Title: Comprehensive Math & Science Project/Columbia University

Location: New York City

Funding Level: \$25,000 in 1989

Funding Source: AT&T Foundation

AT&T Contact: Susan Dessel 212 605-6677

Program Description: AT&T funding enabled Columbia University to pair college students with high school students in a program to help improve math and science skills at the secondary school level. The college tutors came from five New York City engineering schools and were paid for their work, which trained them to work effectively in teams with teachers from the participating high schools.

Program Title: Select Program in Science and Engineering/The City College

Location: New York City

Funding Level: \$15,000 over two years, 1989-1990

Funding Source: AT&T Foundation

AT&T Contact: Susan Dessel 212 605-6677

Program Description: This program helps prepare minority high school students for college and careers in engineering by helping them complete advanced high school math courses.

Program Title: Junior Engineering Technical Society (JETS)

Location: New York City

Funding Level: \$25,000 in 1989

Funding Source: AT&T Foundation

AT&T Contact: Susan Dessel 212 605-6677

Program Description: JETS is a national organization that fosters interest in engineering, technology, math and science. Part of the funding went to the national arm. The rest went toward a summer program to introduce minority high school students to engineering.

Program Title: National Executive Service Corps

Location: New York City

Funding Level: \$25,000 over two years, 1988-1989

Funding Source: AT&T Foundation

AT&T Contact: Susan Dessel 212 605-6677

Program Description: The corps is made up of retired men and women who volunteer their services to a variety of non-profit organizations. In education, they work to strengthen college and pre-college instruction of math and science, and to develop programs to alleviate the shortage of pre-college math and science teachers.

Program Title: The Fund for New York City Public Education/Shelter Project

Location: New York City

Funding Level: \$25,000 in 1988, \$15,000 in 1989

Funding Source: AT&T

AT&T Contact: Susan Dessel 212 605-6677

Program Description: AT&T's contributions (through the Fund for NYC Education) are used to bring cultural services to homeless children living in temporary housing. The first formal inter-agency collaborative effort in the city, it brings together the Department of Cultural Affairs, the NYC Board of Education and the Human Resources Administration.

Program Title: The Storyteller Project/Save the Children - School District #1 Afterschool Program

Location: New York City

Funding Level: \$5,000 in each of three years, 1987-1989

Funding Source: Local AT&T funds

AT&T Contact: Susan Dessel 212 605-6677

Program Description: Storytellers work with children living in hotels and shelters in mid-Manhattan and attending schools in lower Manhattan to develop listening, reading, vocabulary and interpersonal skills. In its third year and final year of AT&T funding, the program is being used by the central Board of Education to develop a curriculum piece for teachers.

Program Title: The Big Apple Circus

Location: New York City

Funding Level: \$4,000 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Susan Dessel 212 605-6677

Program Description: AT&T arranged to purchase tickets for temporarily sheltered homeless children who had never seen a circus before.

Program Title: IMPACT

Location: New York City

Funding Level: \$1,250 in 1988, \$1,000 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Susan Dessel 212 605-6677

Program Description: This program pairs children in shelter hotels with volunteers for weekend outings, and involves their mothers, who are usually single heads of households, living in the hotels in a food co-op project.

Program Title: Queens Foundation Family Literacy Project

Location: New York City (Far Rockaway, Queens)

Funding Level: \$5,000 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Susan Dessel 212 605-6677

Program Description: The Family Literacy Project is a pilot program to teach teenage parents literacy skills through reading children's literature and to encourage them to spend time reading to their children.

Program Title: Staten Island Children's Museum

Location: New York City (Staten Island)

Funding Level: \$3,000 in 1988, \$5,000 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Susan Dessel 212 605-6677

Program Description: This contribution was for a pilot program and subsequent funding to bring children and mothers from two Staten Island shelters to the museum to raise their comfort level with museums and engage them in art projects.

Program Title: Youth Action Project-Construction Training Project

Location: New York City (East Harlem)

Funding Level: \$10,000 in 1988, \$8,000 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Susan Dessel 212 605-6677

Program Description: The program's purpose is to rehabilitate housing in East Harlem while preparing the project workers, who are usually high school dropouts, for an equivalency diploma. The program seeks to move its graduates into permanent construction jobs.

Program Title: ASPIRA

Location: New York City

Funding Level: \$5,000 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Susan Dessel 212 605-6677

Program Description: AT&T funded development of a middle school component of the ASPIRA Youth Leadership Program for Hispanic youth.

Program Title: The Outward Bound Urban Project

Location: New York City

Funding Level: \$10,000 in each of two years, 1988-1989

Funding Source: Local AT&T funds

AT&T Contact: Susan Dessel 212 605-6677

Program Description: This is a pilot project to develop a middle school component of Outward Bound's Leadership Skills project for inner city youth.

Program Title: Poets in Public Service

Location: New York City

Funding Level: \$3,500 in 1988, \$5,000 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Susan Dessel 212 605-6677

Program Description: This writing workshop was held in temporary housing for children and their parents, and included a poetry reading at AT&T's New York headquarters by children who had the lowest possible scores on the New York City reading test. The children's scores improved 15 percent on the 1990 test--a direct result of the program.

Program Title: Cityarts Workshop, Inc.

Location: New York City

Funding Level: \$5,000 in 1989, \$9,000 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Susan Dessel 212 605-6677

Description: Cityarts teams city youngsters with artists to replace graffiti with murals. AT&T also "matched" Cityarts with the NYC Office of the Chancellor, and an agreement was reached to develop a project for students and their parents to create murals inside and outside school buildings for the 1990/91 school year.

Program Title: ArtsConnection

Location: New York City

Funding Level: \$3,500 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Susan Dessel 212 605-6677

Program Description: AT&T funded the Class Acts Clinic, a five-seminar series to help professional artists develop a working understanding of the special needs, environment and politics of the schools. It seeks to maximize the artists' opportunity to motivate children through classroom projects.

Program Title: Bank Street College Middle School Project

Location: New York City

Funding Level: \$4,000 in 1988, \$5,000 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Susan Dessel 212 605-6677

Program Description: Started by the N.Y. Chamber of Commerce and Industry, the program works to involve local businesses with schools to give youngsters a better understanding of how their studies relate to the business world. AT&T's grant helped pay for a weekend seminar for teachers involved in the program.

Program Title: The Center for Public Advocacy Research

Location: New York City

Funding Level: \$5,000 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Susan Dessel 212 605-6677

Program Description: AT&T's contribution helped the center produce a series of position papers requested by the Schools Chancellor.

Program Title: The Children's Aid Society/Career Readiness Program

Location: New York City

Funding Level: \$5,000 in each of two years, 1988-1989

Funding Source: Local AT&T funds

AT&T Contact: Susan Dessel 212 605-6677

Program Description: The Career Readiness Program is being expanded in 1990 to the larger Prevention of Teen Pregnancy Program, which is an all-inclusive program designed to help teens avoid becoming pregnant and finish school. Hunter College will award a number of scholarships to students who complete the program successfully.

Program Title: Youth Leadership Conference

Location: New York City

Funding Level: \$4,000 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Susan Dessel 212 605-6677

Program Description: Students ages 12-19 attended the conference and came away with the tools--skills, information and resources--to return to their schools and neighborhoods and run their own leadership projects. This program works closely with grass-roots community councils and other local neighborhood groups.

Program Title: Downtown Music Productions

Location: New York City

Funding Level: \$2,000 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Susan Dessel 212 605-6677

Program Description: This group works with schoolchildren living on the Lower East Side to increase their appreciation of music.

Program Title: Friends of NYC Public Schools

Location: New York City

Funding Level: \$1,000 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Susan Dessel 212 605-6677

Program Description: This grant enabled a contingent of homeless children to participate in the "America Sings" Festival in Washington, D.C. with the chorus of P.S. 39, the only New York City School represented at the festival.

Program Title: The Little Orchestra Society/Chance for Children
Program

Location: New York City

Funding Level: \$5,000 in each of two years, 1988-1989

Funding Source: Local AT&T funds

AT&T Contact: Susan Dessel 212 605-6677

Program Description: AT&T's support enabled the orchestra to include homeless children and their parents and teachers in its dress rehearsals and concerts. This opportunity introduced the children to classical music and encouraged an appreciation of music as well as improved learning and perceptual skills.

Program Title: PS 159 Artist in Residence

Location: New York City

Funding Level: \$500 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Susan Dessel 212 605-6677

Program Description: This was an emergency grant to enable the school--in one of the city's worst neighborhoods--to maintain the presence of an artist on site.

Program Title: Soundance/Performing Arts Program for the Homeless

Location: New York City

Funding Level: \$750 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Susan Dessel 212 605-6677

Program Description: This is a collaborative program with the District One Youth Leadership Program. Soundance complements the school curriculum by providing education in dance, theater, music and the performing arts.

Program Title: Vineyard Theatre Holiday Program

Location: New York City

Funding Level: \$4,474 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Susan Dessel 212 605-6677

Program Description: This program introduced homeless children to the beauty of the Nutcracker Suite. Each child received a book about the Nutcracker and took simple dance lessons. At the end of the program, the children and their parents attended a performance of the ballet.

Program Title: Studio in a School

Location: New York City

Funding Level: \$5,000 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Susan Dessel 212 605-6677

Program Description: This program sets up a visual arts studio in schools to ensure lasting development in the arts for teachers and students. In addition, three AT&T graphics designers volunteered as mentors to help expose students and teachers to the uses of graphic arts in business.

OHIO

Program Title: Cleveland Initiative for Education

Location: Cleveland

Funding Level: \$5,000 in 1990

Funding Source: AT&T Foundation

AT&T Contact: Lanice Collins 313 262-4966

Program Description: The city of Cleveland, along with business and civic leaders, established this program to provide educational opportunities designed to encourage at-risk students to stay in school.

Program Title: Summer Sisters Program/Fund for Community Relations

Location: Cincinnati

Funding Level: \$1,000 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Lanice Collins 313 262-4966

Program Description: This program offers structured activities--both educational and social--during the summer for middle and high school girls from the inner city.

Program Title: American Youth Fund

Location: Cincinnati

Funding Level: \$1,000 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Lanice Collins 313 262-4966

Program Description: The fund provides a leadership training program for high school students.

Program Title: Youth Employment Service

Location: Cincinnati

Funding Level: \$1,000 in 1988

Funding Source: Local AT&T funds

AT&T Contact: Lanice Collins 313 262-4966

Program Description: The program finds summer jobs for youngsters between 16 and 21 years old.

Program Title: Greater Cincinnati for Economic Education

Location: Cincinnati

Funding Level: \$1,300 in 1988

Funding Source: Local AT&T funds

AT&T Contact: Lanice Collins 313 262-4966

Program Description: This program offers high school teachers the opportunity to increase their understanding of how to teach economics.

Program Title: Otterbein Batelle School Science Program

Location: Columbus

Funding Level: \$500 in each of two years, 1987-1988

Funding Source: Local AT&T funds

AT&T Contact: Lanice Collins 313 262-4966

Program Description: Through this program, high school students are encouraged to explore the world of science.

Program Title: Child Abuse Prevention Program/Children's Hospital

Location: Columbus

Funding Level: \$3,000 in 1988

Funding Source: Local AT&T funds

AT&T Contact: Lanice Collins 313 262-4966

Program Description: Administered through the hospital, the program provides education on how to detect and prevent child abuse.

Program Title: Miami Literacy Program

Location: Miami, Ohio

Funding Level: \$500 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Lanice Collins 313 262-4966

Program Description: Students at all grade levels are given access to this program, which provides an opportunity for them to advance reading and math skills outside the classroom.

OKLAHOMA

Program Title: Junior Achievement

Location: Oklahoma City, Tulsa

Funding Level: \$5,500 in 1990 for Oklahoma City; \$1,100 in 1990
for Tulsa plus in-kind services

Funding Source: Local AT&T funds, employee volunteers

AT&T Contact: Ed Beltram 405 491-3884

Program Description: AT&T funds help support the variety of programs run by Junior Achievement to encourage students to stay in school.

Program Title: AIM-HI

Location: Statewide

Funding Level: \$2,000 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Ed Beltram 405 491-3884

Program Description: AT&T is a co-sponsor of this program, which runs a competition for high school students to find solutions to complex math problems.

Program Title: State Fair Scholastic Contest

Location: Statewide

Funding Level: \$900 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Ed Beltram 405 491-3884

Program Description: This annual contest tests the overall ability of students from across the state.

Program Title: MATHCOUNTS

Location: Statewide

Funding Level: \$500 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Ed Beltram 405 491-3884

Program Description: AT&T funds help sponsor a math and science contest for elementary and middle school students. Similar contests are held in states across the country.

Program Title: Hugh O'Brian Youth Foundation

Location: Statewide

Funding Level: \$150 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Ed Beltram 405 491-3884

Program Description: The foundation offers a leadership training program for high-performing high school students throughout the state.

Program Title: Southwest American Livestock Foundation

Location: Statewide

Funding Level: \$500 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Ed Beltram 405 491-3884

Program Description: The Foundation offers an award for the prize animal shown by 4-H and Future Farmers of American at the State Fair.

Program Title: American Citizenship Center

Location: Oklahoma City

Funding Level: \$300 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Ed Beltram 405 491-3884

Program Description: AT&T is a sponsor of this special seminar on government for high school students.

Program Title: Adopt-a-School

Location: Oklahoma City

Funding Level: In-kind services in 1990

Funding Source: Local AT&T volunteers

AT&T Contact: Ed Beltram 405 491-3884

Program Description: One AT&T supervisor donates several hours of his free time to working with students from the Apollo Elementary School

Program Title: Adopt-a-Teacher

Location: Oklahoma City

Funding Level: \$250 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Ed Beltram 405 491-3884

Program Description: AT&T funds pay for one teacher to work at a drop-out prevention workshop for high school students in the city.

OREGON

Program Title: Close Up Foundation

Location: Portland

Funding Level: \$3,000 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Sue Carpenter 206 389-8106

Program Description: The Close Up Foundation sponsors a national competition--the Citizen Bee--to encourage high school students to acquire a greater understanding of American history, government, geography, economics and culture.

Program Title: Junior Achievement

Location: Portland

Funding Level: \$1,750 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Sue Carpenter 206 389-8106

Program Description: This program provides practical economic education to young people through partnerships with the business and education communities.

PENNSYLVANIA

Program Title: The Franklin Institute Futures Center

Location: Philadelphia

Funding Level: \$50,000 in computer equipment donated in 1989

Funding Source: AT&T

AT&T Contact: Patty Timson 215 557-4321

Program Description: AT&T contributed \$50,000 in computer equipment to the Franklin Institute Science Museum's new Futures Center. The equipment will be used to manage all ticketing, group admissions and visitor tracking. The new center, which opened in May, 1990, is expected to attract more than 1.3 million people annually.

RHODE ISLAND

Program Title: Community Preparatory School

Location: Providence

Funding Level: \$1,500 in each of four years, 1987-1990

Funding Source: Local AT&T funds

AT&T Contact: Paul Karoff 617 574-3198

Program Description: The Community Prep School is a five-year-old independent middle school (grades 4-8) that serves 55 low-income students who have been identified as excellent prospects for college.

Program Title: Project Success--Junior Achievement of Rhode Island

Location: Providence

Funding Level: \$3,000 in each year, 1987-1988; \$2,500 in each year, 1989-1990

Funding source: Local AT&T funds

AT&T Contact: Paul Karoff 617 574-3198

Program Description: Aimed at helping high school students who are at risk of dropping out, this program has been duplicated by other Junior Achievement organizations across the country.

Program Title: Public Education Fund

Location: Providence

Funding Level: \$2,500 in each of two years, 1989-1990

Funding Source: Local AT&T funds

AT&T Contact: Paul Karoff 617 574-3198

Program Description: The Fund works to encourage and support excellence in the public schools through a variety of grants and other programs for teachers and administrators.

Program Title: William D'Abate Adopt-a-School

Location: Providence

Funding Level: In-kind services in 1989, 1990

Funding Source: Local AT&T volunteers

AT&T Contact: Paul Karoff 617 574-3198

Program Description: AT&T employees have adopted the William D'Abate elementary school in one of the city's low-income minority neighborhoods. AT&T volunteers serve as tutors and mentors for the students, and provide holiday gifts for the children.

TEXAS

Program Title: Intercultural Development Research Association
(IDRA)

Location: San Antonio

Funding Level: \$120,000 in each of two years, 1987-1988

Funding Source: AT&T Foundation

AT&T Contact: Larry Norwood 214 851-4937
Foundation Staff 212 605-6008

Program Description: The IDRA is a research and public education organization. The association, working with the Dallas and Houston Independent School Districts and AT&T managers from Public Relations and the AT&T Foundation, has developed a program at two middle schools with large minority populations to help prevent students from dropping out and to foster overall academic achievement.

Program Title: AT&T Family Strengthening Initiative

Location: Dallas

Funding Level: \$225,000 over three years, 1989-1991

Funding Source: AT&T Foundation

AT&T Contact: Larry Norwood 214 851-4937

Program Description: SP-PAN (Serving Pregnant and Parenting Adolescent Needs) operates in five community health clinics, the Community Council of Greater Dallas and the primary public hospital to educate teens in pregnancy prevention, to help teens who do become pregnant to learn parenting skills, to finish school and to find employment. This is one of a number of teen parenting programs that AT&T is funding nationwide.

Program Title: University of Texas at San Antonio//Seminar on
Hispanic Mother-Daughter Program

Location: San Antonio

Funding Level: \$10,000 for 1990

Funding Source: AT&T Foundation

AT&T Contact: Larry Norwood 214 851-4937

Program Description: The University held a seminar for administrators from a number of campuses throughout the university system to train them to develop an Hispanic Mother-Daughter Program model, created at Arizona State University. This program has been recognized nationally as a model for getting Hispanic girls on a college-preparatory track. (See Arizona listing for details.)

Program Title: Dallas Independent School District

Location: Dallas

Funding Level: \$50,000 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Larry Norwood 214 851-4937

Program Description: AT&T provided support to the school district through efforts to help in teacher recruitment and in introducing first-year teachers to the arts in Dallas. Specifically, AT&T helped revamp recruiting materials, led a recruiting seminar, and produced a videotape on the arts in Dallas. In addition, AT&T developed a spouse resume referral program, along with 61 leading businesses in Dallas, to help the spouses of new teachers find employment.

VERMONT

Program Title: Governor's Institutes of Vermont

Location: Statewide

Funding Level: \$1,000 in each of three years, 1988-1990

Funding Source: Local AT&T funds

AT&T Contact: Paul Karoff 617 574-3198

Program Description: The governor's institutes are summer high school programs in the fields of science, the arts and international affairs. AT&T provides scholarships for students to attend the institutes.

Program Title: State House Trip

Location: Montpelier

Funding Level: \$500 in each of three years, 1988-1990

Funding Source: Local AT&T funds

AT&T Contact: Paul Karoff 617 574-3198

Program Description: Each year, state Representative Timothy Corcoran brings 250 sixth-grade students to the state capital to visit the state house and the Supreme Court and to meet with the governor in her office.

VIRGINIA

Program Title: Fairfax County Vocational Education Foundation

Location: Fairfax County, Va.

Funding Level: \$5,000 in 1989

Funding Source: Local AT&T funds

AT&T Contact: Margo Lockard 202 457-4143

Program Description: An AT&T representative serves on this advisory council to public schools throughout the county. AT&T also sponsored an education conference, "Outlook 2010," with the Fairfax County Public School System and key corporate and government leaders to discuss education reform.

Program Title: MATHCOUNTS Foundation/National Society of Professional Engineers

Location: Alexandria

Funding Level: \$25,000 in 1990

Funding Source: AT&T Foundation

AT&T Contact: Guido Schlesinger 212 605-6685

Program Description: AT&T is helping to underwrite the cost of MATHCOUNTS 1990-91 School Handbook, which reaches more than 30,000 schools across the country. MATHCOUNTS, which operates programs in almost every state, holds competitions similar to spelling bees to help sharpen the math skills of seventh and eighth graders. Numerous AT&T engineers volunteer with the organization at the state level.

Program Title: MATHCOUNTS

Location: Alexandria

Funding Level: \$15,000 in 1989

Funding Source: AT&T Foundation

AT&T Contact: Guido Schlesinger 212 605-6685

Program Description: AT&T helped fund production of an audio-visual presentation designed to stimulate the interest of junior high school students in engineering careers. MATHCOUNTS also includes a competition, similar to a spelling bee, to help sharpen the math skills of seventh and eighth-grade students. MATHCOUNTS programs operate in almost every state.

Program Title: Junior Achievement

Location: Roanoke, Va.

Funding Level: \$750 in each of two years, 1989-1990

Funding Source: Local AT&T funds

AT&T Contact: Lowell Connor 804 343-5141

Program Description: AT&T's contribution helps support the various education programs offered through Junior Achievement in the Roanoke area.

Program Title: Montgomery College Foundation

Location: Montgomery County, Va.

Funding Level: \$3,000 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Margo Lockard 202 457-4143

Program Description: The foundation runs a summer program for county high school students who are at risk of dropping out although their grades are good to excellent.

Program Title: Adopt-a-School

Location: Fairfax, Va.

Funding Level: In-kind services

Funding Source: Local AT&T volunteers

AT&T Contact: Margo Lockard 202 457-4131

Program Description: AT&T employees serve as tutors and mentors for the local high school to encourage students to finish school and make the most of their education.

WASHINGTON

Program Title: Pacific Science Center

Location: Seattle

Funding Level: \$6,000 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Sue Carpenter 206 389-8106

Program Description: The program's goal is to give students an appreciation of science, math and technology through science exhibits and wards to teachers in the elementary and high schools.

Program Title: International Trade Education Foundation

Location: Seattle

Funding Level: \$250 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Sue Carpenter 206 389-8106

Program Description: The Foundation works to increase awareness of the importance of international trade through workshops and curriculum development. Its audience is students and teachers in high school, community colleges and universities.

WASHINGTON, D.C.

Program Title: Mathematical Sciences Education Board/National
Research Council/National Academy of Sciences

Location: Washington, D.C.

Funding Level: \$200,000 over two years, 1990, 1991

Funding Source: AT&T Foundation

AT&T Contact: Anne Alexander 212 605-6008
Guido Schlesinger 212 605-6685

Program Description: AT&T will fund a major portion of the Mathematical Sciences Education Board's National Summit on Assessment in Mathematics, which will take place in April, 1991, and the regional meetings of educators and state officials leading up to the Summit. Key outcomes of the Summit are expected to be national assessment standards and a national plan for implementing math education reform and assessment--critical activities in achieving the President's national goals for education in the next decade.

Program Title: National Board for Professional Teaching Standards

Location: Washington, D.C. (also office in Detroit)

Funding Level: \$500,000 over four years, 1989-1992

Funding Source: AT&T Foundation

AT&T Contact: Anne Alexander 212 605-6008
 Guido Schlesinger 212 605-6685

Program Description: AT&T will help with start-up funding for the National Board for Professional Teaching Standards, a non-profit, non-governmental organization whose mission is to establish high and rigorous standards for what teachers should know and be able to do, to certify teachers who meet those standards, and to advance related reforms to improve learning throughout the country. A number of major corporations are making contributions to this critical initiative. The standards are for experienced teachers, and will not replace the state teacher certification process.

Program Title: AT&T Family Strengthening Initiative: Teen
Pregnancy Prevention/ Greater Southeast Healthcare
System, the DC office of Maternal and Child Health
and the Anacostia Coordinating Council

Location: Washington, D.C.

Funding Level: \$225,000 over three years, 1989-1991

Funding Source: AT&T Foundation

AT&T Contact: Margo Lockard 202 457-4143

Program Description: Like the other teen pregnancy prevention programs funded by AT&T across the country, this one aims to educate teens in preventing pregnancy and to help those teens who do become pregnant to learn parenting skills, finish school and pursue job opportunities.

Program Title: National Science Foundation

Location: Washington, D.C.

Funding Level: \$10,000 in 1990

Funding Source: AT&T Foundation

AT&T Contact: Margo Lockard 202 457-4143

Program Description: AT&T helped fund National Science and Technology Week, held each year in April. The National Science Foundation marked the week with a variety of activities, including sending educational materials to elementary and secondary schools throughout the country, conducting teacher workshops and holding science competitions.

Program Title: National Urban Coalition

Location: Washington, D.C.

Funding Level: \$80,000 over two years, 1989, 1990

Funding Source: AT&T Foundation

AT&T Contact: Gina Warren 212 605-6708

Program Description: AT&T is supporting the "Say YES to a Youngster's Future," a project designed to help families instill pride in their youth and help prepare African American, Hispanic and Native American students for math and science-related studies and eventual careers.

Program Title: Armed Forces Communications and Electronics
Association (AFCEA)

Location: D.C. area

Funding Level: \$4,000 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Margo Lockard 202 457-4143

Program Description: Each year scholarships are awarded to high school seniors who plan to concentrate their studies in the field of engineering.

Program Title: The Children's Education Foundation

Location: D.C. area

Funding Level: \$2,000 in 1990

Funding Source: Local AT&T funds

AT&T Contact: Margo Lockard 202 457-4143

Program Description: AT&T funds this organization as part of its family initiative program aimed at preventing teen pregnancy through education and counseling.



②



AT&T Bell Laboratories

subject: Bell Labs Support for High School Education

date: January 28, 1991

 from: A/T. English
 Org. 79131
 MH 6A-405A
 K3691

Mr. D. S. Allen:

Dave:-

Here is what I could find:

The group size
has ranged from
30 to
over
60.

- For the past few summers, Bell Labs has hosted visits by ~~top~~ science students from NJ high schools who participate in the New Jersey Governor's School at Drew University in Madison, NJ. Recent visits occurred on August 7, 1989, and on July 25 and August 8, 1990. ~~The program is directed by Dr. Alan Candiotti and Dr. Robert Fenstermacher. The group size has ranged from 30 to over 60. These arrangements are coordinated by Dept. 79131.~~
- There are two programs in place, both of which are scheduled during summertime, when ~~Area II~~ ^{our} researchers host ~~outstanding~~ high school physics teachers who were nominated/selected from candidates in the northern N.J. area. Participants work with BL researchers in their labs to become more familiar with current research interests and also with how that work is carried out. One of these programs provides for two weeks of contact with about 20 teachers, selected in collaboration with the N.J. Federation of Teachers. The second ~~(organized by Gordon Thomas)~~ is a more extended, ten-week program for a group of four teachers identified as especially likely to benefit. Both programs look for candidates in urban school systems in the area.
- ~~Area II~~ ^{Our Research division} generally has hosted a day visit by a group of 50 or so physics teachers attending the Rutgers University program that has been inspired and led by Sid Millman. This program presents to the teachers several "modules" of subject matter developed for use by the teachers in their schools. (This was the subject of an article in the current *Physics Today*.)
- Ken Lyons ~~of Dept. 1114~~ has been associated for a number of years with the Science Education Club ~~(originally a MH activity)~~ and has been instrumental in organizing the North Jersey High School Science Fair, with participants from up to 40 schools in the region. The Science Education Club is still flourishing and provides, among other things, a speaker bureau and sponsorship of the series of Saturday morning lectures in Arnold Auditorium.

During 1990, ~~Area II~~ ^{our} researchers participated in a nationwide program for high-school age students coordinated by and conducted at the Boston Museum of Science. A group of some 700 youngsters spent a long weekend sleeping and working in the Museum buildings. In support of their activities a group of BL people met at MH and spent a long evening as technical resource people for the students in Boston. Communication was "instant" through a group of fax machines, telephone and e-mail. (This group of scientists at MH was one of several scattered around the country.) The idea was to showcase the capabilities of telecommunications facilities to give access to information. ~~Our participation was sponsored by AT&T Consumer Communications Services BU. Carolynn Ogelsby coordinated BL participation in this event.~~

AT&T Bell Laboratories Summer Science Programs



Join the Excitement!



AT&T Bell Laboratories

Summer Science Programs

Eligibility Guidelines

SUMMER SCIENCE PROGRAMS	BASIC	HIGH ACHIEVER	HIGH STEP
OBJECTIVE	CREATE OR FOSTER AN INTEREST	NURTURE INTEREST	CONTINUED MOTIVATION AND FOLLOW-UP
ACADEMIC PERFORMANCE	C	B	B+
GRADE COMPLETION	8TH	9TH	10TH/11TH/12TH
INTEREST IN SCIENCE OR MATH	✓	✓	✓
APTITUDE FOR SCIENCE OR MATH	✓	✓	✓
RESIDENCE	PROXIMATE TO A BELL LABORATORIES RESEARCH FACILITY		
SELF-MOTIVATION (specific examples)	✓	✓	✓
RECOMMENDATIONS FROM HEAD(S) OF SCIENCE OR MATH DEPARTMENTS AND GUIDANCE COUNSELOR(S) OR DIRECTOR(S)	✓	✓	✓
AVAILABILITY FOR SUMMER SCIENCE PROGRAMS	JULY	JULY	JUNE THROUGH AUGUST
PARENTAL APPROVAL	✓	✓	✓
WORKING PAPERS	-	-	✓

AT&T Bell Laboratories
University Relations



3

November 1990

To: AT&T Foundation Trustees
From: Anne Alexander

Re: Recommendation for a Grants Program in Teacher Education

Following two meetings of the Trustee Program Committee on Pre-College Education, on August 6 and November 12, we are recommending an initiative that focuses on improving the preparation of teachers for urban school systems. In this process the Committee reviewed material that outlined reform issues from the state policy, district and school site perspectives; material on programs of other corporations; and material on AT&T's activity over the last several years; as well as several versions of the new proposal.

The attached proposal summarizes key issues in education reform, reviews the evolution of AT&T's involvement in K-12 education, and then outlines a general direction for a program in teacher preparation that focuses on fundamentally strengthening what is known as the "clinical" phase of training.

Our past support of K-12 education has focused on specific needs as defined at a given moment in a particular community. Under separate cover, we are forwarding a report on the Company's education support over the last several years.

The current proposal would result in a major program with the single theme of teacher preparation as a framework for the bulk of the Foundation's pre-college activity over the next three years. It highlights the critical national issue of developing the human resource base for education professionals as one key to successful schools and student achievement over the long-term.

In developing this proposal we have consulted with a number of educators and national leaders and we are confident that we have identified a vital area in which little corporate leadership has been demonstrated. Several agencies have indicated that they would like to cooperate with us, among them the American Association of Colleges for Teacher Education (AACTE), which represents our target constituency; the Education Commission of the States (ECS), which represents governors and education commissioners; the Council of Great City Schools, which represents the nation's large urban systems; and the U.S. Department of Education. Our likely nonprofit partner in this endeavor would be the AACTE. Contingent on approval of the general direction of the program, we would complete negotiations with that agency following the December 3rd meeting. In addition, The President of ECS has indicated that they want to work with AT&T to be sure that what is learned from the project gets translated into appropriate state policies.

In conceptualizing the future direction of the Education and Social Action Programs, Gina Warren and I have been working together to shape programs that target those closest to children: teachers and

parents. This recommendation represents the result of that thinking for the Education Program. Later the Social Action Program's Committee on Family Strengthening will be meeting to review specific directions to follow the Family Initiative.

Summarized below are the specific approvals we are requesting on December 3rd. The full proposal is attached.

RECOMMENDATION FOR THE AT&T TEACHERS FOR TOMORROW PROGRAM

Program: Establish grants program to reform teacher preparation at universities serving targeted urban areas.

Scale: Budget up to \$3,000,000 over three years

\$2,800,000 to be expended on 5 or 6 sites. Grants to go to universities and possibly school systems. Proposal guidelines will require collaboration among universities, urban school systems and unions.

Up to \$200,000 to be granted to nonprofit partner for developing specific guidelines, consistent with AT&T Foundation goals and targets (paid in individual grants, not to exceed \$25K per grant); for convening meetings of university, school system, union representatives from the sites; for technical assistance including developing evaluation instruments and benchmarks.

Timeline:

December 3: Request for approval of program direction and budget.

December '90: Finalize requirements of grant to nonprofit partner and payment of first grant.

January-February '91: Final identification of sites; announcement of program; convening of site representatives.

Checkpoints:

March 1991: Report on progress to trustees.

June or Sept. '91 Trustee meeting: Presentation of specific site grant recommendations to full board.

Note:
Program is
approved, as
written.

AT&T TEACHERS FOR TOMORROW PROGRAM

Goals

1. To develop a national framework for the AT&T Foundation's work in pre-college education by targeting a critical area in which AT&T can make a difference with relatively limited dollars.
2. To fundamentally change programs of teacher preparation in selected urban centers in order to achieve longterm improvement in student achievement.
3. To measurably increase the pool of teachers effectively prepared for service in urban schools by improving the clinical phase of training and, as a result, to substantially reduce the attrition rate of new teachers in their first five years of practice.
4. To act as a catalyst in making the leadership in higher education more aggressively accept its shared responsibility for the quality of American schooling.
5. To structure a program that will have high visibility for AT&T nationally and in selected markets, but that will require minimal local staff support.

PROPOSAL TO AT&T FOUNDATION TRUSTEES
for a new grants program:

AT&T FOUNDATION
"TEACHERS FOR TOMORROW PROGRAM"

A grants program to foster
collaborations between higher education, school systems, and unions
to improve the preparation of teachers for America's schools

I. BACKGROUND ON AT&T AND K-12 EDUCATION AND THE ROLE OF THE AT&T FOUNDATION

AT&T's commitment to education rests on the conviction that a quality educational system at the elementary, secondary and higher education levels is essential to the sound functioning of a democratic society and to the health of the nation's economy.

The company's support of both higher education and elementary education emerge from a corporate concern, deriving from the human resource needs of business, and from the concern of individual AT&T people who are involved in education in a variety of ways -- serving on local school boards, mentoring students, serving on visiting committees and as visiting professors at colleges and universities.

The current environment of school reform

It is clear that there is an educational crisis in America today. Current statistics place American students low on the achievement scales in numerous areas including basic math and reading in comparison to students of other industrialized nations.

At the same time, social and demographic changes have radically altered the family structure and will fundamentally affect the workforce of the future. As we enter the 21st century minorities will make up nearly 50% of the workforce, yet today in the inner cities, half of America's minority children are living on welfare, and many are at risk in school. Without doubt, the school dropout rate for all groups remains too high. At the same time that the nation's schools have deteriorated, the requirements of the economy are becoming more demanding. Most of the jobs to be filled in the future will require more than a high school education.

In short, as was stated in the 1983 report that launched the latest wave of educational reform, we are "a nation at risk."

In the last few years, numerous reports have outlined and lamented the problems of the schools, and many have suggested possible reforms. There is general agreement on a number of actions necessary for reform, among them: (1) restructuring management and governance of school systems, particularly in large urban bureaucracies; (2) developing serious accountability systems for educational results, systems that take into account the complexity of learning; (3) developing equitable, efficient, and effective accountability systems for financing and budgeting for

education; (4) upgrading the quality of the education infrastructure; (5) improving the content and delivery of curricula; (6) addressing the social and health needs of students in an holistic way; (7) and upgrading and reforming the preparation of education professionals, which will require serious reforms in higher education.

In spite of all these important structural and policy actions, the question of "what works" in educating children really comes down to a few simple principles. First of all, we must believe all children can learn and we must act on that belief. Secondly, it is clear that the essential people who serve the children -- teachers, principals and counsellors -- must first have the skills and resources they need to support children holistically. They must also have authority to select appropriate materials, the facility to use different teaching techniques, and the training to work in teams to make the whole school successful. They must also be trained to address the needs of diverse student groups. Finally, an essential part of the team around the child must also be the parents, even when the family may be dysfunctional.

While elected officials, school board members, educators, parents, and the general public may "know" these general common-sense principles, clearly problems arise in translating them into the structure of what we call public schools.

Evolution of the AT&T Role

Today AT&T is involved with pre-college education in four primary ways: (1) AT&T employees are active on their community boards of education and many work as volunteers in school and after school programs, from tutoring and mentoring to participation in Junior Achievement. (2) In geographic areas where the company has major facilities, local AT&T management has provided in-kind and cash contributions to numerous school-related projects. In recent years, AT&T executives and managers have taken an active role in municipal school reform efforts, from San Francisco to Chicago to New York, to New Jersey, Miami, and Dallas (3) Working with local AT&T management, the AT&T Foundation is supporting school reform in states and cities where the company has a major concentration of employees and (4) The Company is offering an incentive to pursue teaching careers to qualified employees who take early retirement.

While the primary focus of the AT&T Foundation remains on higher education, in 1986 the Foundation began supporting urban school programs in a substantial way with its sponsorship of the Hispanic Mother Daughter Program, a joint effort of Arizona State University and the Phoenix schools. That program has been successful in getting eighth grade girls to pursue a college-

track, and a number of girls in the program have entered college. The model has now been exported to Texas where a small AT&T grant brought together administrators from a number of University of Texas campuses for a workshop on how to start a "mother-daughter" program.

Since then, a program retreat of the foundation trustees resulted in expanded activity at the K-12 level. Under the rubric of the Urban Schools Initiative, the Foundation has made grants to the Achievement Council for a program to improve school management in Los Angeles and to the Intercultural Development Research Association for middle school interventions in Dallas and Houston. In 1989-90, the Urban Schools program has focused on New Jersey, San Francisco, Atlanta, New York, and Chicago. In the latter city the Foundation's grant to De Paul University was our first effort in reform of teacher education.

The goals of the Urban Schools Initiative are to (1) address a major social problem -- the deterioration of schools and student learning -- by funding model projects that can be replicated or integrated into school systems permanently and (2) to focus on urban communities with a major AT&T presence and with large minority populations and (3) to position AT&T in key cities as a company concerned about education and thereby enhance the Company's leadership image and ties to elected officials, business leaders and customers.

Recognizing that change occurs at the state and local level, where school governance is lodged, local AT&T management and Foundation staff worked together to identify local "change agents" and leadership in school improvement efforts. We aimed to support priority needs identified in a particular school system with projects that promoted collaboration among key players and that had prospects of being incorporated into ongoing educational practice. We took this approach because our experience was teaching us that the dynamic in each city is very different. We tried to respond to local needs, rather than come up with a "blanket" business solution. We have found that while numerous programs are replicable, they must first be "owned" by the educational leadership of a given community.

Generally speaking, grantees have been third-party conduits (universities, or grass-roots community organizations, rather than school systems themselves). The thematic content of the grants has included: professional development for teachers at the critical middle school years; curriculum reform in math; mentoring programs and enhancement of the environment for learning; advancing governance and structural reform; supporting the professional and management development of teams of teachers, counsellors and principals. All these programs have involved collaborative efforts among various agencies.

At the same time the Foundation has focused on a number of national efforts affecting K-12 education such as its grant to the National Board for Professional Teaching Standards and its grant to the Mathematical Sciences Education Board to develop assessments for mathematics education.

Almost all of these K-12 projects funded by the Foundation and by local AT&T corporate contributions are summarized in a separate document, AT&T Goes to School. In the case of Foundation projects in the Urban Schools Initiative, most have been multi-year efforts, so the long-term effects of the programs are not yet clear. While there have been significant accomplishments in each city so far, we have run up against what business often deals with: No matter how successful a particular program might be, the vagaries of budgets and personnel changes in city school districts create a situation in which no corporation can be assured that its funded projects will result in permanent change.

Where do we go from here?

As we have worked on school reform projects in various states, we have become increasingly concerned about the role of higher education in advancing school reform. In many situations, colleges that produce teachers and administrative staff for schools have not been at the table of reform discussions. We became concerned about the future pipeline of teachers, coming teacher shortages, and the quality of preparation for professionals who would be serving in urban schools. Many undergraduate and graduate training programs are teaching an education curriculum with little connection to realities and needs of students in urban schools, and particularly the needs of disadvantaged students of all races, who may not arrive at school ready to learn.

No matter what programs business supports or actions it takes with its own training programs and no matter what the pace of structural reform, fundamentally the future quality of education will depend on the quality and training of the talent going into the education profession.

Business needs to advocate for governance and structural reform and to seed local initiatives that can move change forward, but we must recognize that the human resource base for the future teacher, counsellor, and principal corps is central. In order to reinvigorate our schools, we will need to enrich the current teaching force, aggressively recruit talent into teaching, and create a flow of second-career talent into teaching if the U. S. is to have an adequate number of teachers in the next century.

In February of 1990, the President and Governors adopted the following national goals: (1) All children will start school ready to learn; (2) The high school graduation rate will increase

to at least 90 percent; (3) Students will demonstrate in the fourth, eight and 12th grades that they can handle such subject matter as English, mathematics, science, history and geography; every school will make sure its students learn to use their minds well so they will be ready for responsible citizenship, further learning, and productive employment. (4) American students will rank first in math and science; (5) Every adult American will be literate, with the knowledge and skills to compete in a global economy and exercise the rights and responsibilities of citizenship; (6) Every school will be free of drugs and violence and offer a disciplined environment conducive to learning.

Whether or not one views these goals as achievable in the relatively near term, one thing is clear: none of them can be achieved in the twenty-first century without a teacher corps trained to do the job.

The proposal below outlines a recommended Foundation initiative focused on the preparation of teachers for service in the urban setting.

This recommendation evolved after investigation and consultation with educators and public policy researchers about critical issues and current gaps in the range of support of school reform by the corporate and foundation sector. The arena of higher education's role in teacher training emerged as one in need of attention and one where a corporation can make a difference. Fundamental reforms on the part of universities in their teacher preparation programs are as necessary as the governance and management reforms now taking place in schools. Such academic reforms must be developed and delivered in collaboration with practicing urban teachers. In other words, the talent of our best current teachers needs to be engaged in training the future teachers and needs to inform university practice.

If the AT&T Foundation were to highlight the area of teacher preparation, we believe that the Company could not only contribute to essential changes for the future success of schools, but also provide a public service by increasing the attention of the tax-paying public, policy makers, and educators to the critical issues in teacher education.

II. TEACHERS AT THE CENTER OF A NATIONAL NEED

Issues in Teacher Education

Addressing the problems of the nation's schools requires action on many fronts. One of the key agents for changing schools is the teachers in them. Teachers represent the school's most versatile and valuable instructional resource. Indeed, one could

argue that the single most important function of any school system or school is to make the point of contact between teacher and student as fruitful as possible so that learning takes place. Further, the costs of teachers (salaries and benefits) represent from 75% to 85% of a school's budget. Clearly, the teacher is critical to what we expect from schools. Just as clearly, the investment we make in teachers needs to be as productive as possible.

Today, there are approximately 2.5 million teachers serving in the nation's public schools in kindergarten through 12th grade. The greater number of these teachers were hired in the 1960s to meet the demands of the baby boom. From the mid-1970s until the early 1980s, following a decline in new births and consequent lower enrollments in schools, the hiring of new teachers decreased substantially. As a result, many of the teachers in the current teaching force are older and near retirement.

As we enter the 1990s, once again the demand for new teachers is increasing. Projections made by the National Center for Education Statistics of the U.S. Department of Education indicate that for the next five years 500,000 to 625,000 new teachers will need to be hired to fill vacancies.

Given this situation, it becomes clear that an important opportunity for a funding agency interested in reforming schools would be that of improving the development of new teachers -- the teachers we will depend on to teach the students of today who will shortly be the citizens and workers of the 21st century.

Yet within the field of teacher training alone, there is a complexity of issues to be addressed, some of which are surrounded by controversy.

In the U. S., unlike some other industrialized nations, there are no national requirements or standards for entering the teaching profession. Requirements for licensure for teaching are determined by the states and localities. At best across the country, current requirements for entrance to the profession merely indicate minimum competence or completion of courses.

Beyond questions of licensing, there are numerous others: Who should be recruited, how should candidates be admitted? What should the components of their general education be? Should undergraduate or graduate degrees be required for starting teachers? What makes up the professional core curriculum (pedagogy, methods, liberal arts, sociology, conflict resolution)? Should alternative teaching certification tracks be heavily used? How do we train teachers to work in the new school-based management environment? How do we train them to work effectively with students in our cities who are confronting

numerous social and health problems? What kind of incentives should there be with respect to salaries and scholarships to attract people to the profession?

Yet there is one element of training that virtually everyone in the field believes is critical if we want teacher effectiveness, and that is what is known as the "clinical phase," or practice teaching, or clinical teaching.

Currently, new teachers come to their craft from various sources. Most of them, over 80%, come from collegiate programs in teacher education, either undergraduate or graduate. Most of the balance of them come under arrangements for "alternative" certification that permit college graduates with majors other than teacher education to become teachers. A small remainder are former teachers who return after an absence.

Regardless of the route to teaching, all prospective teachers must go through a phase called clinical training, internship, or practice or cadet teaching. This phase can extend from a period of several weeks to several months to a year or more.

This "clinical phase" is the "make or break" point of transition for the teacher candidate as he/she moves from student to practitioner. As such, it represents a critical opportunity for intervention and improvement that would have substantial effect on the overall quality of schooling over time.

III. RECOMMENDATION FOR A GRANTS PROGRAM IN TEACHER TRAINING

Preparing new teachers for urban schools -- the Clinical Phase

Outlined here is an opportunity to address a problem related to this critical "clinical phase" in the preparation of teachers.

Consistent with the AT&T Foundation's practice of supporting minority communities, we recommend focusing a program in teacher education on major market cities with large minority populations and a significant AT&T presence.

If one accepts the basic premise that the teacher is at the center of the educational enterprise and is the key resource to help students learn, then one might ask whether to concentrate on new or experienced teachers.

We believe that the best investment for the future is to target the new teachers who will be carrying our students into the 21st century.

In relation to state-level policy reform, this proposal is particularly timely because a number of states (including New York and Florida) have legislatively mandated specific clinical components in teacher preparation.

This recommendation focuses on current and future teacher education candidates in colleges and universities which are located in and around large urban areas and whose graduates are subsequently employed in urban schools. Specifically, the grants program would request proposals to improve the clinical phase of training.

A program would be structured (1) to achieve a manageable focus and clearly identified universe of sites with sufficient similarities to warrant the development of generalizations valid for urban centers throughout the country; (2) to connect, conceptually and programmatically, the three essential parties which formally shape teacher education, and which informally shape teacher development, namely colleges and universities, school systems, unions; (3) to require the collaboration of these three essential parties in productive ways for teacher development; (4) to have these projects serve as nationally significant prototypes of how urban school sites can be useful clinical locations for the professional development of teachers; and (5) to demonstrate that schools which are used as clinical bases for teacher education can become stronger educational institutions themselves and represent the best practice.

Since this phase of preparing teachers focuses more on practice rather than on coursework, it is imperative that it have a situational context that is related to practice. Therefore, university training programs must be much more closely connected to working schools. We expect medical doctors to intern in hospitals, pilots to train in airplanes. Similarly, the setting for teacher training must be the school.

Few would disagree that the focus for the clinical training of teachers ought to be a school. What is at issue is what kind of school. Too often it has been the laboratory or demonstration school, usually related to a college or university. Many such laboratory schools were located on the college campus. They were experimental, sheltered, and often better staffed and equipped than public schools. In sum, they were not clinics that prepared professionals for the real environment of urban public schools. In the future, the typical clinic for training prospective teachers needs to be a "real" school.

Key Players in Clinical Training and Induction

Three parties must be engaged in the clinical phase of teacher preparation: (1) colleges and universities; (2) school systems in whose schools training takes place; 3) teacher organizations which, necessarily, through bargaining agreements, professional practice programs, and expectations determine induction and staff development activities for their members.

Currently, the colleges assume most of the responsibility for the clinical phase of teacher preparation. However, the "supervision" of candidates-in-training by higher education faculty members is inadequate for a variety of reasons. Not the least of these is that such responsibility is not consistent with existing rewards and incentives for academic faculty (e.g., research, publications, strengthening their traditional academic credibility). Currently, schools and school systems are not obligated to be responsible for this clinical phase. They make few if any adjustments for the trainees or for teachers in schools who are assigned to trainees. The supervisory, mentoring role of an experienced teacher is often an ad-hoc assignment, and generally not viewed as a core professional task. Teacher organizations and unions have no role or responsibility for this phase despite the fact that the clinical component is the transition phase crucial for novices to qualify for the profession. Ideally, these three parties need to be collectively responsible for clinical training and induction.

The guidelines would assume certain principles but would recognize that a wide range of plans and proposals might emerge. Those assumptions would include: (1) that any initiative in clinical training must involve school systems, universities and unions as partners and demonstrate that each agency will put up resources of its own for the project (2) that practicing teachers be selected and trained to mentor and teach the teachers in training in the school setting with the assistance of university faculty (3) that there must be a critical mass of trainees in a school so that the school commits to the role of clinical training just as it does to the education of children (this would require released time of school teachers) (4) that in their clinical training, prospective teachers would have opportunities to experience a diversity of students and of instructional methods and styles (5) that the length of the clinical training would be an extended period, at least one year.

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Such a grants program would accomplish a number of educational objectives, including:

- (1) fundamentally changing programs of teacher preparation in higher education in order to improve educational results in schools over the long term;
- (2) focusing attention on the problems of urban schools, which are in greatest need of assistance and which have greatest difficulty recruiting and retaining competent instructors;
- (3) strengthening and reforming the clinical phase of teacher education and development -- a phase essential to and found in all teacher preparation programs;
- (4) fostering necessary collaboration among key educational partners (schools, colleges, unions) in an essential area of teacher education in which each of these parties has an important stake;
- (5) creating more supportive environments in schools for learning -- for teachers and students;
- (6) developing demonstrations of urban clinical schools that could have applicability in a large number of systems throughout the country.
- (7) forcing higher education leaders to take hold of their responsibilities in K-12 reform.

At the end of the grants program, in a number of sites, there should be permanent university programs and school sites that would be examples of the best practice in teacher education and induction.

Structure of Grants Program

Working with one or more national nonprofit agencies as a partner and with AT&T regional organizations, we would identify sites for the initiative and one or more primary teacher education institutions in those cities. In particular, we would focus on sites where there is a clear readiness on the part of one or more universities and the school system to move aggressively on teacher education reform. (See attached list for potential target cities.)

We would launch the program through a Request for Proposals process. Once the cities are finalized, the RFP package with detailed guidelines, developed with our nonprofit partner, would

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be sent to each city's school superintendent, inviting them to identify a university president and partner to submit a joint proposal. The process would require that a team be put together representing the dean, faculty, practicing teachers, a union representative, principal, and other appropriate education professionals to plan a program. The group would also include a local AT&T liaison. Actual grant outlays would go primarily to the university but might be divided between the university and the school system.

A Review Committee of outside educational experts would review proposals. This group would consist of professionals such as: practicing teacher, superintendent, dean of education, union representative, current or former state education department commissioner or a governor's education aide.

As part of the grants package, we recommend funding technical assistance and in-depth evaluation components to be coordinated by the nonprofit partner. We would hope the final evaluation could lead to a report of findings that could be disseminated nationally and could link constructive results of the AT&T program to recommendations for state and municipal education policy initiatives in both higher education and in schools.

Because the program would require substantial collaborative efforts among agencies, we may want to consider a modest planning grant phase.

Further we recommend that through a grant to the nonprofit partner, AT&T support a meeting of site representatives to launch the program and at least one national workshop of participants each year, facilitated by an appropriate expert in the field. The workshop would allow for exchange of ideas among grantees and would also be a checkpoint on progress of the program for the AT&T Foundation.

For the total program, we recommend authorizing up to \$3,000,000 payable over three years, or \$1,000,000 per year. Up to \$200,000 would be payable to the nonprofit partner for planning, convening meetings, providing technical assistance and evaluation. The remaining \$2,800,000 would be distributed to five or six sites. Following recommendations by the review committee and Foundation staff, each specific site grant would be presented to the trustees for approval. The actual outlay will depend on the specifics of the guidelines and the final number of sites approved for funding by the trustees.

A timeline and list of target cities are attached.

IV. CONCLUSION

Foundation staff recommends this grants program in teacher education as one which will address a fundamental, systemic issue in the multi-billion dollar education business in America.

It aims to send a message that just as business understands that its success depends on the quality of talent of its employees and on the quality of the education and training they receive, so the quality of our educational enterprise depends on the human resources -- the people -- that are part of it.

We make this recommendation with the assumption that at the local level AT&T will continue to support numerous school improvement projects out of local resources and will frequently collaborate with other businesses in working with schools in communities across the country. The "Teachers for Tomorrow" program is intended to complement those efforts.

We also make it with the understanding that many other changes must take place in public agencies so that schools are structured to allow teachers to use their talents for the benefit of children.

While we and other companies will continue to support sound local initiatives, in the long run if the future cadre of fully effective professionals is not there to do the job of delivering educational services, there is little that business or any other agency can do to improve student learning in America.

Att. I

Possible Timeline for Teacher Education Program (to be worked out with nonprofit partner)

November 1990 -- Meeting of AT&T Foundation Trustee Subcommittee on Pre-College Programs.

Complete process of identification of partner.

December 3, 1990 -- Request to AT&T Foundation trustees for authorization of grant outlay of up to \$3,000,000 over three years for the Teacher Education Program. During the period of the program, specific grant recommendations for sites would be presented to the trustees prior to awarding of grants to university-school collaborations.

December 1990 - January 1991

-- Final negotiations with nonprofit partner; target cities finalized.

--Requests for Proposal mailed to target institutions.

February 28, 1991 -- (possible) Announcement of program at Annual meeting of American Association of Colleges for Teacher Education; convening of site representatives.

March 1991 -- Report on progress to trustees.

May 1991 -- Planning grant proposals due (possible).

May 1991 -- Planning grants under \$20,000 awarded.

June 1991 -- Report on planning grant recommendations reported to AT&T Foundation trustees.

August 1991 -- Full proposals due. Review Committee meets.

September -- Site grant recommendations presented to Foundation trustees.

Att. II

POSSIBLE TARGET CITIES
FOR AT&T TEACHER EDUCATION
PROGRAM
(all with 1991 PR Presence)

*Atlanta
Boston
Chicago (major grant in teacher education at De Paul already
underway)
Denver
*Houston
*Jacksonville
Los Angeles
*Miami
Minneapolis
New Jersey (Possible sites: Newark, Trenton, Camden,
Jersey City)
*New York
Philadelphia
Phoenix
*San Francisco
Washington, D.C.

(*Best target cities based on research so far.)

11/90

AT&T Public Service Activity 1988/1989 A Biennial Report

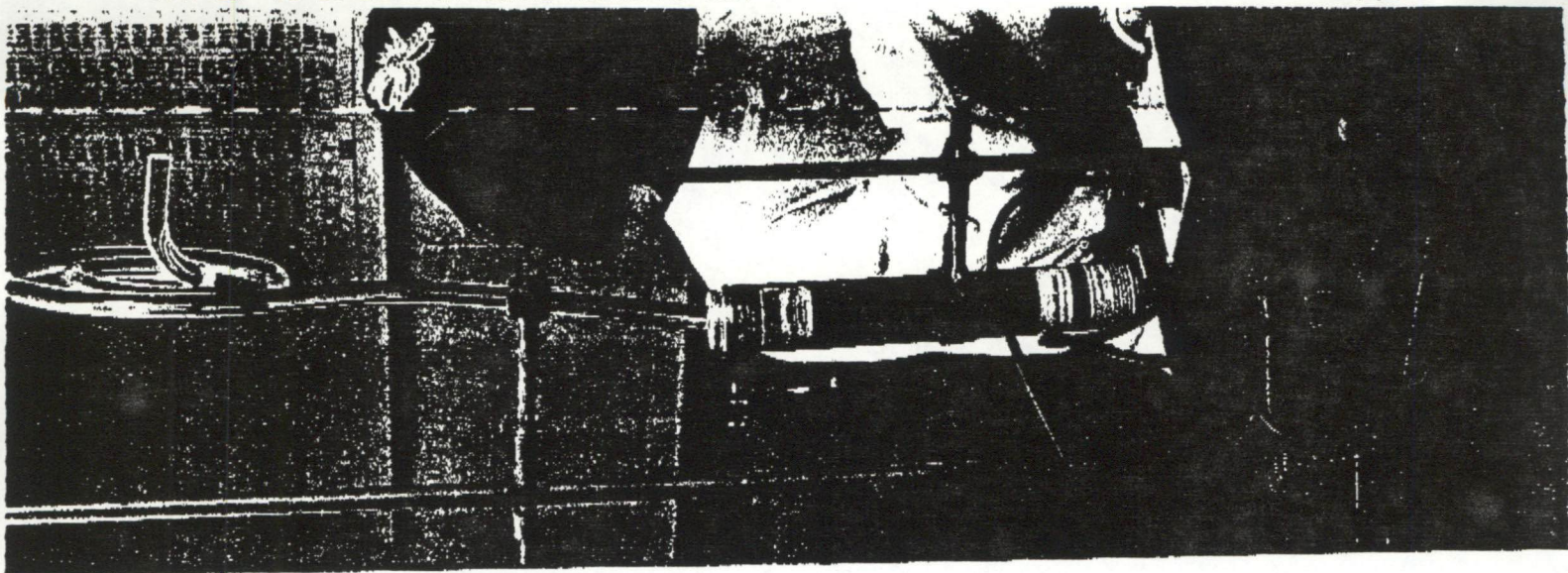
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P.3

4



Education



economic well-being, the Foundation has recently expanded its education program to include projects at the elementary and secondary levels.

The focus of this initiative is on helping students and educators in the inner-city schools of urban centers where AT&T has significant concentrations of employees.

HIGHER EDUCATION PROGRAMS

The majority of AT&T Foundation educational grants support the study of science and engineering at leading colleges and universities and are awarded through invitational competitive programs.

AT&T people, many of whom are leading experts, are keenly involved in continuing dialogue with faculty and students. They serve as technical advisers on curriculum, as visiting faculty, and as mentors to students pursuing the frontiers of technical knowledge.

The Foundation's Special Purpose Grants program awards funds to support research and teaching at leading universities engaged in training the future scientific and engineering talent for the nation. Among recent grants, AT&T Foundation-funded work engaging faculty and graduate students at the Massachusetts Institute of Technology has yielded significant progress with high speed superconductors and ultrahigh magnetic fields.

Nearly half of all AT&T Foundation grants support educational institutions and projects with an emphasis on people: people who want to learn; people who want to teach.

Over \$30 million was distributed through the Foundation's education program in 1988-89. AT&T people are involved in many educational grants, serving in roles that range from advisor at a leading university to volunteer tutor at a local public school.

And, AT&T people vote with their own dollars on the direct distribution of nearly 20 percent of the Foundation's annual education budget. AT&T employees make personal donations to colleges and universities of about \$3 million each year, matched evenly by the Foundation.

The primary goal of the education program is to advance research and strengthen the quality of teaching in the physical and computer sciences, engineering, communications and information technology, and manufacturing.

In addition, recognizing the fundamental role that effective pre-college schooling plays in determining America's future social and

Sixteen schools were selected in 1989 by the Foundation to receive multi-year funding in the Manufacturing Technology Grants program. These grants support the development of graduate and undergraduate curriculum and facilities that can help make American manufacturing more competitive through graduates who are equipped with working knowledge of the most up-to-date manufacturing practices.

Examples of these grants include: support for developing a Center for Computer Integrated Manufacturing at Oklahoma State University; curriculum and lab development in electronics manufacturing at the University of Arkansas; and a new master's degree program in Manufacturing Systems Engineering at the New Jersey Institute of Technology.

Another key component of AT&T's support for higher education is the AT&T Foundation Bell Laboratories Ph.D. Scholarship program, which aims to increase the pool of highly trained technical talent available to industry and academia in disciplines such as chemistry, physics, electrical engineering and computer science. Over the past several years, about one-third of the recipients of these scholarships has gone on to teach at the

Education

The Foundation program to support liberal arts education brought *glasnost* close to home by enabling a unique connection between Americans and Russians. A grant to help the University of Richmond arrange for visiting foreign scholars and artists allowed Tatyana Tolstaya, an outspoken writer from a noted Russian literary family, to spend three months in Richmond. During that time, she afforded many Americans an advance look at the trend toward freedom in Soviet literature that fore-shadowed major political changes to follow.

URBAN SCHOOLS INITIATIVE

The crisis in K-12 education that alarms many Americans can only be resolved with the cooperation of all involved—students, parents, educators, elected officials, community and business leaders. Without the commitment of all parties to fundamental reforms, the U.S. will be unable to produce the human resources needed to meet the requirements of democratic society in an information-based economy.

The need for change is urgent. American students trail their counterparts in every other industrialized nation in mathematics proficiency. Shortages of qualified teachers, scientists and engineers are widely forecast for the next century.

university level, helping to ease the faculty shortage in some of these fields.

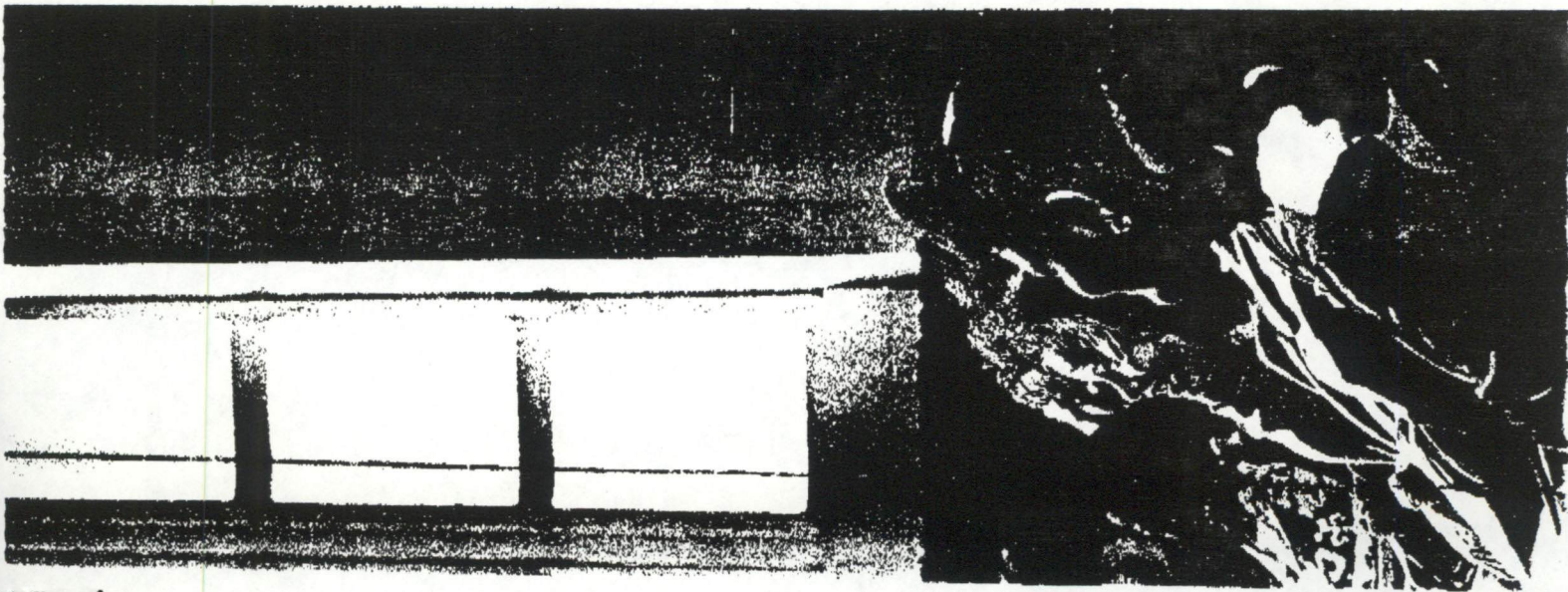
In 1989, the Foundation approved three-year grants totaling \$1.5 million to support engineering or computer science programs at ten historically black colleges and universities. In addition to cash grants, AT&T Bell Laboratories scientists or engineers serve as visiting professors, and the company provides complementary donations of laboratory equipment and AT&T computer systems.

Also in the area of minority support, AT&T Foundation grants helped build the programs and services of the Hispanic Association of Colleges and Universities. Representing schools with 25 percent or more Hispanic enrollment, HACU was established in 1986 with support from the AT&T Foundation, and has grown to over 50 member schools.

AT&T's commitment to minorities and technical education is also reflected in six scholarship programs sponsored by AT&T Bell Laboratories, four of which have a target of developing minority students in science and engineering.

At the national level, the Foundation has supported several school improvement programs. Probably the most important is a leadership grant awarded to the National Board for Professional Teaching Standards, which addresses the long-term human resource needs of American education. In developing a system of voluntary certification for experienced teachers, the Board is striving to strengthen the teaching profession for the 21st century.

At the local level, the AT&T Foundation pre-college programs are tailored to local needs by supporting local leadership and initiative in selected cities where AT&T has a major presence. These grants are initiated by the Foundation and local AT&T management. They are designed to move structural reform forward and help students and teachers achieve to their fullest capacity.



Education



Cassandra Ayers

CASSANDRA AYERS, AT&T Employee, and Member Local School Council, Hyde Park Corner Academy, Chicago, IL

coalitions to advocate for school improvements with state legislators and educational practitioners. Nowhere has the partnership of business and education been more evident than in Chicago, where a major reform program is underway in the nation's third largest school system.

The business community was a major force in the move for state legislation prescribing a decentralized approach to school reform through school-based management and governance by elected Local School Councils. It is a source of pride to AT&T that eighteen employees are among the parents and community members elected to these councils, each of which includes two teachers and the principal.

AT&T support also helped to create Leadership for Quality Education, which serves as a link among Chicago business, the Board of Education, community organizations and other groups working to implement school reform.

The connection among all of AT&T's education grants is a stress on individual achievement. Whether dollars and resources are destined for junior faculty at a top research university, or for students and teachers in an urban middle school, the emphasis of AT&T's gifts is squarely on people, and on enabling them to get things done.

In California, AT&T Foundation support is helping the San Francisco School Volunteers and the San Francisco Unified School District to train middle school teachers on techniques of cooperative learning. A Foundation grant enabled New Jersey science and math teachers from urban middle and high schools to work side by side with scientists at AT&T Bell Laboratories and other leading industrial research facilities during the summer.

Another grant, to the Rutgers University Center for Math, Science and Computer Education, is speeding implementation of a new mathematics curriculum for elementary students in New Brunswick, NJ.

In Texas, the AT&T Foundation made a two-year grant to test model programs for dropout prevention among Hispanic students. The program provides support services for students, including teachers serving as mentors and tutors, and training and services for parents to increase their involvement with the school and their children's learning.

Other AT&T efforts in pre-college education focus on building

your husband and your dog and your cat all depending on you, and you can still say, 'I can do this, I'm going to make this happen,' how can we go wrong?

"I think a lot of AT&T employees just want to share part of our good fortune. For me, it's most rewarding to see a kid who might once have been falling by the wayside become a shining star in college. That gives me a lot of pleasure."

AT&T has played a broad-based role in the school reform process underway in Chicago city schools: providing leadership with other businesses in advancing reform; training employee volunteers; establishing an employee resource bank; and extending an AT&T Foundation grant to the Community Renewal Society for publication of Catalyst, a technical assistance and informational journal intended for all involved in making Chicago's new school structure work.

There were so many graduates from Chicago schools who couldn't read or write well enough to pass employment tests that businesses and politicians and regular citizens like myself all decided to come together to help our children learn. Not just to pass from grade to grade, but to really teach them how to read, how to write, to reason for themselves and make their own way in the world.

There's enough of us who are concerned, willing to work hard, and give of our time to make sure our children are prepared to meet their future. When you have your kids,

Phil Keller

PHIL KELLER, Physics/Chemistry Teacher,
Long Branch High School, Long Branch, NJ

Working with a scientist at
AT&T Bell Laboratories on the
chemical kinetics of an epoxy cure
reaction was great experience for
me as a science teacher.

"The Science Teachers in Industry
program gave me some real enthusi-
asm for what can go on in science.
But it also influenced my thinking
about how we prepare young people
who might pursue scientific careers.

"My two weeks at Bell Labs con-
vinced me of how rigorous we need
to be. If my students are to aspire to
that level of science, there's no room
to soften their lead or spoon-feed
them hard material. You have to
constantly challenge and push peo-
ple to give you everything they can,
because that's what it takes.

"The people I met this summer were
doing jobs they really liked. If I can
help my students connect with that
kind of intellectual pleasure, they'll
really take off."

The Science Teachers in Industry program is
co-sponsored by AT&T and the New Jersey
Science Teachers Association, and funded by
an AT&T Foundation grant. 1989 participants
represented schools in Atlantic City, Camden,
Jersey City, Newark and other urban areas.



Donner

FRANK ROMERO, Principal,
L.M. Stockard Middle School, Dallas, TX

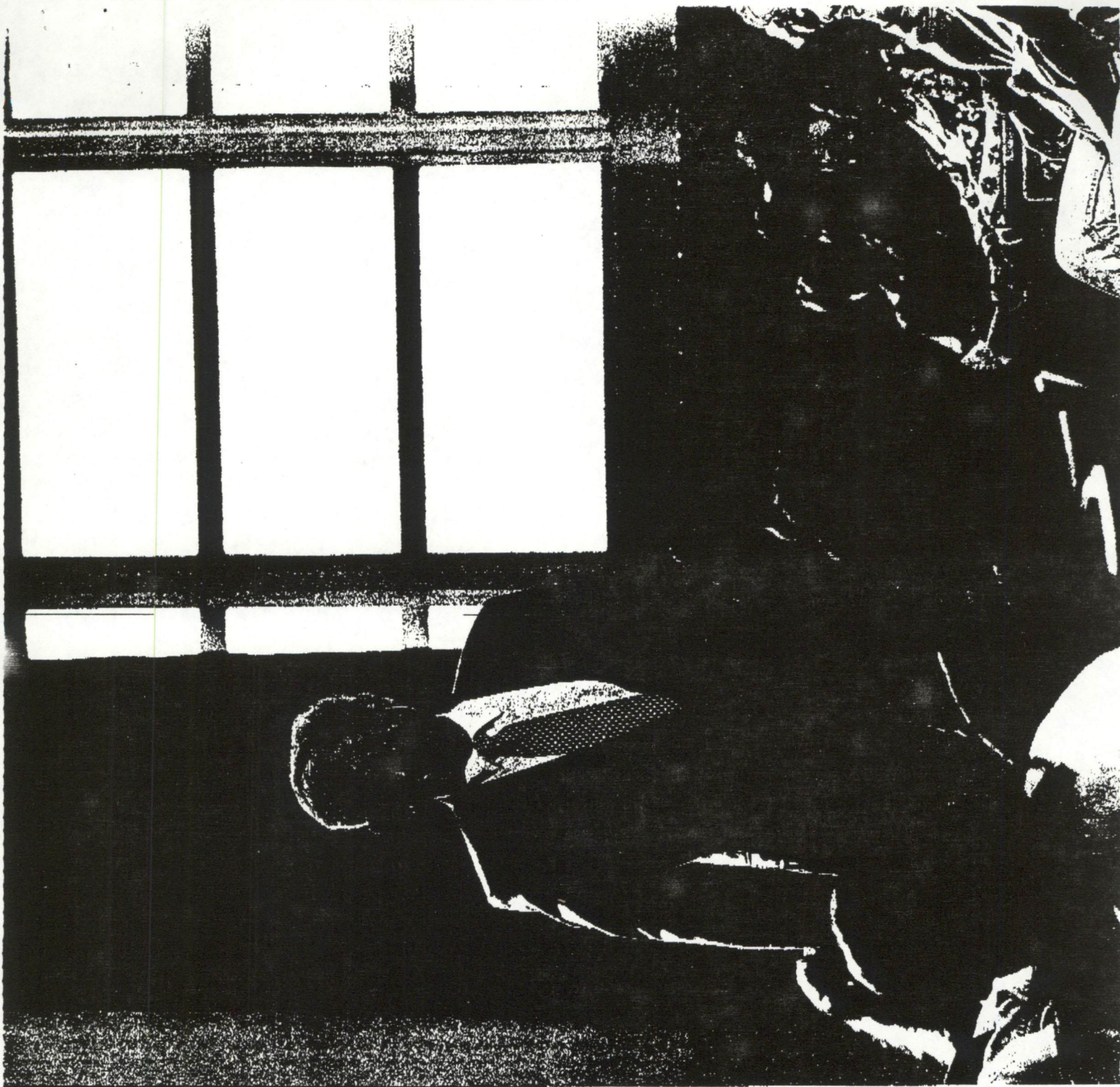
"I see my job as preparing kids for a successful four year high school career. If I can get them out of middle school, I can almost guarantee you they're going to make it through high school.

"To me, the Parent/Teacher Center for Valued Youth program is saying to our kids, 'You can learn. No qualifications.' And parents are finding it they support the school, they can become better parents as their kids learn more.

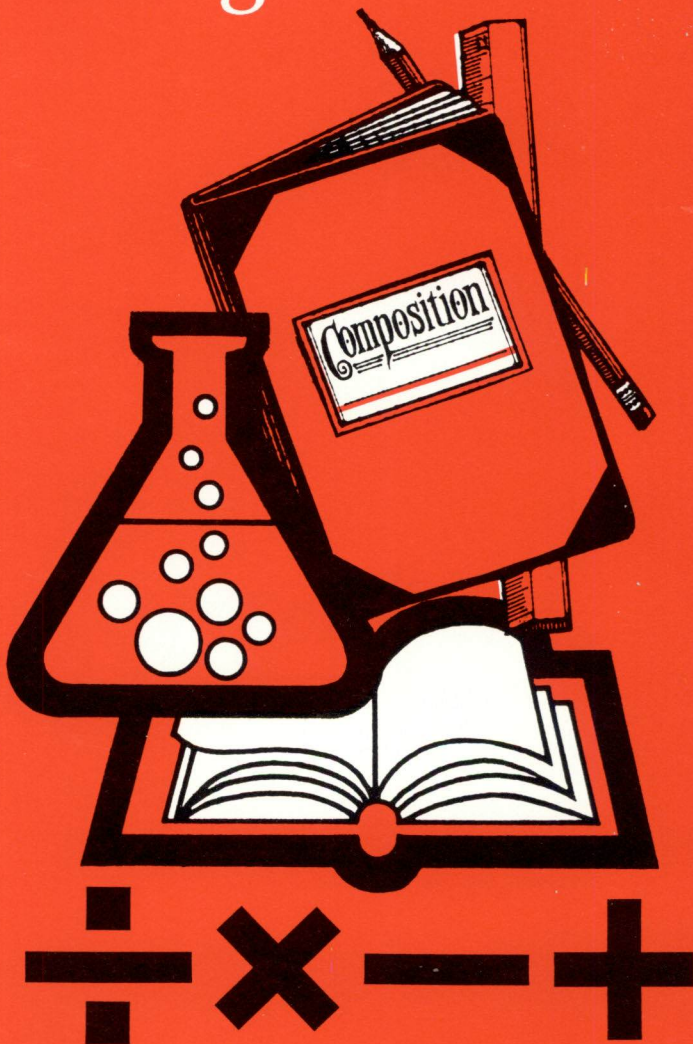
"We've got people talking to people that we couldn't get together before—parents who didn't talk to the teachers or to their own kids; kids who didn't talk to each other. Now, they're all out in force, studying together, having picnics and all kinds of activities.

"Our students' social skills have blossomed, and their achievement has moved up. The program has pulled parents out of the house and it's been very instrumental in making them believe in the school and the teachers. They've discovered we're human beings too, and we have the same interests—their kids."

The Parent/Teacher Centers for Valued Youth, two pilot programs to help keep high-risk students in school, were designed by the Intercultural Development Research Association of San Antonio and administered in conjunction with Communities in School—Houston and the Dallas and Houston Independent School Districts. Financial support came from a two-year ADBI Foundation grant.



National Assessment of Educational Progress



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Office of Educational Research
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June 1991

More Information

For further information on the National Assessment of Educational Progress, contact Gary W. Phillips, Acting Associate Commissioner, National Center for Education Statistics, 555 New Jersey Avenue NW, Washington, DC 20208-5653, or call (202) 219-1761.



NCES 91-1258

National Assessment of Educational Progress

Scant numbers of us can conjure up pleasant memories when we think of report cards. Ah, to be one of those happy few who received rave reports in every subject—with outstanding attendance, effort, and behavior! For most people, report cards were a necessary event of school, and our performance over time was a more accurate barometer of our achievement than any individual report. We may remember the lecture or the praise, but it was the comparison of this year's report with last year's that fueled our parents' hopes or fears.

Although report cards may be time-honored indicators of individual performance, the notion of a report card as an indicator of national achievement is relatively new.

Why do we need the National Assessment of Educational Progress?

The idea of an indicator of student achievement at the national level first emerged in 1963, when then Commissioner of Education Frank Keppel decided to collect information on how well the Nation's schools were doing. In 1969, a National Assessment of Educational Progress (NAEP) was designed as a voluntary, cooperative program to answer questions such as: Are students learning more today than they did in the past? Is greater progress being made in some subject areas than in others? What education problems exist nationally?

Current legislation, passed in 1988, defines the purpose of NAEP as a means to "improve the effectiveness of our Nation's schools by making objective information about student performance in selected learning areas available to policymakers at the national, regional, state, and local levels."

Over the past 20 years, NAEP has generated more than 200 reports spanning 11 instructional areas. Commonly known as "the Nation's report card," it is the only ongoing, comparable, and representative assessment of what U.S. students know and can do. It is a unique resource for monitoring student achievement in the United States.

What are NAEP's Limitations?

School-based tests provide curriculum-specific results so that teachers and administrators can alter classroom practice. As currently designed, NAEP cannot provide the kind of diagnostic data that relate to individual students. Instead, it profiles the performance of groups of youngsters at a given time—and across time—without promoting particular approaches in curriculum or prescribing actions for particular school districts. Therefore, NAEP by itself is an inappropriate tool for making local decisions. Yet, combined with other information, NAEP is a valuable resource for making comparisons and is one piece of assessment information that teachers, administrators, and policymakers ought to consider as they make decisions about schools.

NAEP does not promote or drive a national curriculum. Rather, NAEP represents what a variety of subject-matter experts agree that students reasonably might be expected to know and be able to do. Reports *describe* American students' academic achievement, providing background for those whose job it is to *prescribe* action based on the facts at hand.

about the material at hand; how do teachers and students spend time in the classroom; and what kinds of classroom activities encourage students to master the facts, explore their implications, and reason persuasively.

NAEP helps teachers and administrators understand the national climate of assessment and emphasis on student performance. Furthermore, it can answer such questions as what are the discrepancies between what we know from research to be good practice and what is happening in schools; is my school following or leading national trends; and are national instructional problems or gaps also the ones my school faces?



In April 1991, the President unveiled a new education strategy, entitled "**AMERICA 2000**," designed to move the country toward the National Education Goals that were adopted by the President and the Governors in 1990. The National Education Goals Panel, set up to determine the most appropriate measures of progress toward the goals and to make annual reports, is working on ways to use NAEP data to describe progress toward student achievement.

Beyond measuring progress toward the national goals, NAEP is an integral part of our evaluation of the condition and progress of education in the Nation. Its data enable us to compare and contrast what has been learned about successful practice with what teachers and students report is happening in American classrooms.

Starting with the 1990 assessment, NAEP will have sufficient data to report on the performance of private as well as public schools.



What is NAEP?

NAEP reports on U.S. student performance with comprehensive information about what students at grades 4, 8, and 12 know and can do in various subject areas. It provides descriptions of students' strengths and weaknesses in basic and higher-order skills; comparisons of achievement by race/ethnicity, gender, type of community, and region; and trends in performance across the years. It also describes relationships (not causal) between achievement and certain background variables collected about students (i.e., homework, employment, reading materials in the home, TV watching) and about instruction (amounts of instructional time and hands-on learning).

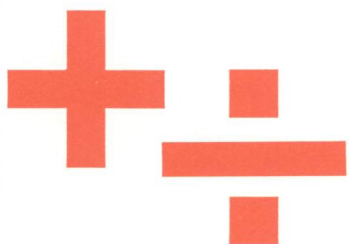


What are NAEP's Strengths?

NAEP gives estimates for "group" performance—that is, it tells educators how students across the country or across a state are doing. Thus, NAEP is an *indicator* of achievement. Although NAEP results don't directly help *individual* schools or students improve performance, they provide a benchmark for states or districts to measure against. States or districts wishing to collect their own data on similar topics can see where they are in relation to everyone else and in what direction they should head.

NAEP data help administrators understand their own schools in relation to national trends and add depth to discussions of policy at the local level. School professionals responsible for choosing the means to the end of improved student performance can use NAEP as an impartial source of information about patterns across time. For example, the data suggest that while student learning of facts and basic skills has improved slightly over the past 20 years, more advanced reasoning abilities—higher-order thinking skills—have declined. This sort of information may encourage school administrators to ask what kinds of readings and academic work assignments enable students to understand and develop ideas

AMERICA 2000 calls for development of a new, voluntary, nationwide examination system called the American Achievement Tests that will be given in five core subjects: English, math, history, geography, and science. These tests would be tied to world class standards that will be developed in conjunction with the National Education Goals Panel. In addition, Congress will be asked to authorize NAEP regularly to collect state-level data in grades 4, 8, and 12 in all five core subjects, beginning in 1994, and to permit use of NAEP tests at district and school levels by states that wish to do so. Since the new standards and achievement test system will take some years to develop fully, individualized versions of NAEP tests will be prepared as interim tests.



How does NAEP work?

NAEP is a congressionally mandated project of the U.S. Department of Education's National Center for Education Statistics (NCES), carried out through competitive awards to qualified organizations. Currently, the project is conducted under contract by Educational Testing Service (ETS) (Princeton, New Jersey), with its subcontractors, Westat, Inc. (Rockville, Maryland), and National Computer Systems (Iowa City, Iowa).

NAEP reports directly to the Commissioner of Education Statistics, who is also responsible for providing continuing reviews—including validation studies and solicitation of public comment—on the project's conduct and usefulness.

In the 1988 Hawkins-Stafford Amendments (P.L. 100-297), Congress created the National Assessment Governing Board to formulate the policy guidelines for NAEP. The Board is responsible for selecting subject areas to be assessed (which may be in addition to those specified by Congress); identifying appropriate achievement goals for each age and grade; developing assessment objectives; developing test specifications; designing the assessment methodology; developing guidelines and standards for data analysis and for reporting and disseminating results; developing standards and procedures for interstate, regional, and national comparisons; improving the form and use of NAEP; and ensuring that

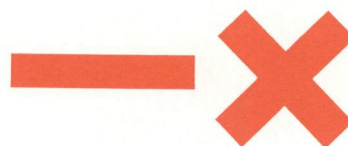
all the selected items are free from racial, cultural, gender, or regional bias.

The NAEP development process ensures that none of its assessments is tied to any single method of instruction or any individual curriculum. This impartiality is achieved through a nationwide consensus-building process. It involves a large number of people who represent various points of view on instruction and testing, as well as a variety of professional positions in education.

Every 2 years, NAEP assesses nationally representative samples of more than 120,000 students aged 9, 13, and 17. Recently, the project added samples of the Nation's 4th, 8th, and 12th graders and collected information about their classroom experiences, interactions with teachers, and home support for learning. Students are selected randomly and their names are not collected. NAEP does not provide individual student or school-specific results. Scientific sampling procedures ensure reliable national and regional results. Since schools are sampled and no one student is asked to participate for more than an hour, the burden on schools and students is slight.

Trial State Assessment

The Hawkins-Stafford Amendments added a new dimension to NAEP, authorizing—on a trial basis in 1990—a voluntary assessment of eighth-grade mathematics at the state level. In spring 1990, data were collected on the mathematics achievement of a stratified random sample of public school eighth grade students in 37 states, the District of Columbia, and two territories. Those results were available on June 6, 1991, providing policymakers with more and better state-level information. The legislation precludes the use of data from this trial effort to compare or rank schools, districts, or individual students within states. Rather, the data will be used as an indicator against which states can compare themselves over time. States may also compare the mathematics proficiency of their eighth graders with that of eighth graders in the Nation as a whole and in other states.



$$e=mc^2$$

FEDERAL COORDINATING COUNCIL
FOR SCIENCE, ENGINEERING AND TECHNOLOGY (FCCSET)
COMMITTEE ON EDUCATION AND HUMAN RESOURCES (CEHR)

BRIEFING ON

THE PRESIDENT'S FISCAL YEAR 1992 BUDGET REQUEST
FOR MATHEMATICS AND SCIENCE EDUCATION

Tuesday, February 5, 1991
1:00 P.M.

Forrestal Auditorium
U.S. Department of Energy
Washington, D.C.

WELCOME

Peggy Dufour
Executive Secretary,
FCCSET Committee on Education and Human Resources

REMARKS

Dr. D. Allan Bromley
Assistant to the President for Science and Technology
Director, Office of Science and Technology Policy

Admiral James D. Watkins
U.S. Navy (Retired)
Secretary of Energy
Chairman, FCCSET Committee on Education and Human Resources

BUDGET OVERVIEW

Dr. Luther S. Williams
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National Science Foundation
Vice Chairman, FCCSET Committee on Education and Human Resources

PRECOLLEGE

Christopher Cross
Assistant Secretary,
Office of Educational Research and Improvement
U.S. Department of Education
Co-Chairman, FCCSET-CEHR Working Group

UNDERGRADUATE

Jean Vanski
Education and Human Resources Directorate
National Science Foundation

GRADUATE

Richard E. Stephens
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U.S. Department of Energy

PRESS QUESTIONS

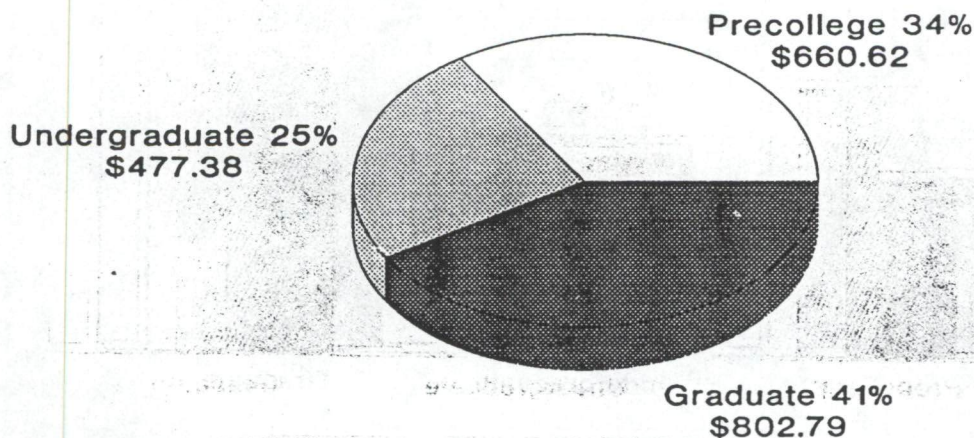
The President's FY 1992 Math/Science Education Budget Request

	<u>FY 1991 Enacted</u>	<u>FY 1992 Request</u>	<u>Requested Increase</u>	
Precollege	\$514	\$660	\$146	28.4%
Undergraduate	\$417	\$477	\$ 60	14.3%
Graduate	\$784	\$803	\$ 19	2.4%
TOTAL	\$1715	\$1940	\$225	13.1%

dollars in millions

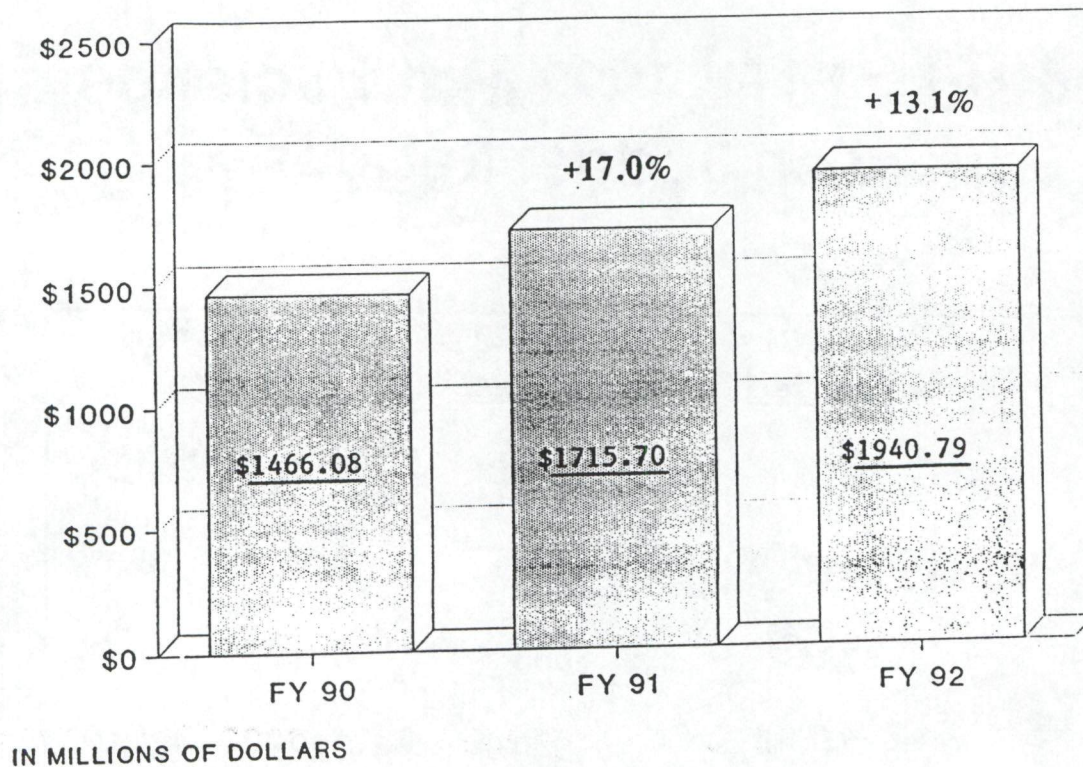
MATH/SCIENCE EDUCATION BUDGET FY 1992 BUDGET REQUEST

TOTAL: \$1940.79 MILLION

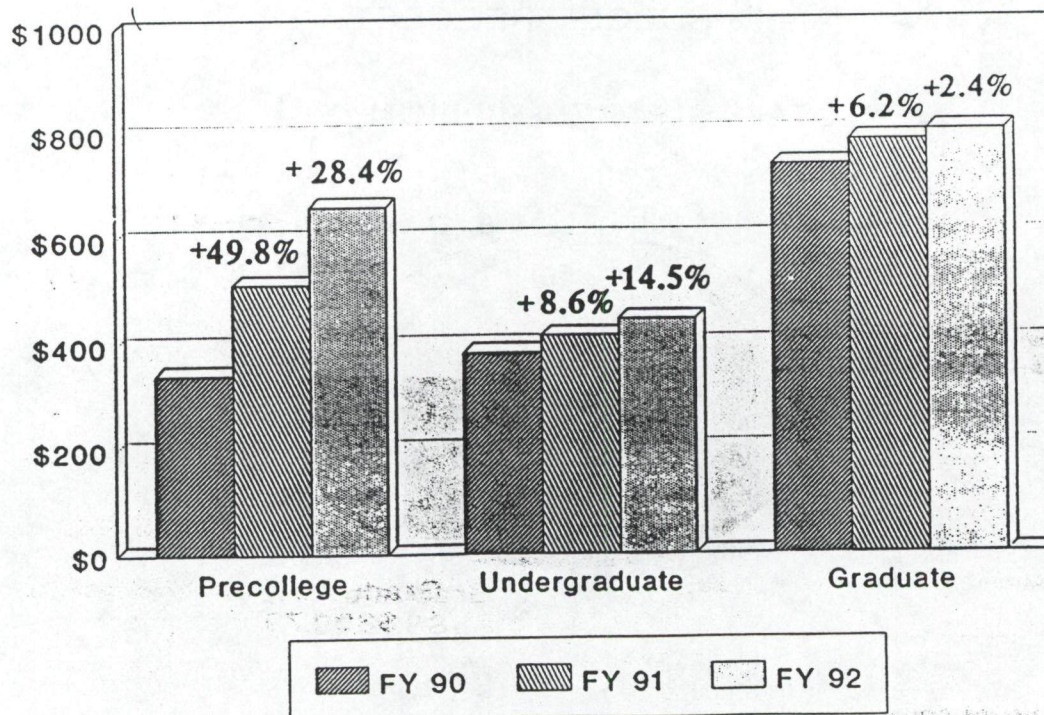


in millions of dollars

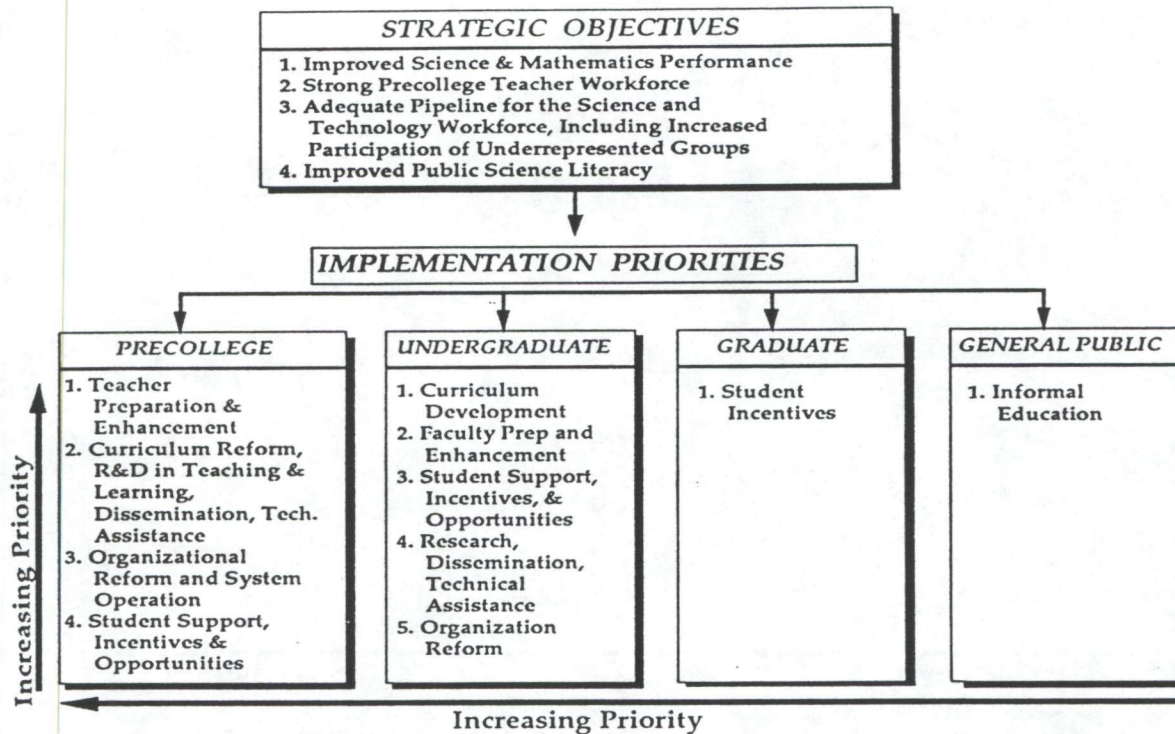
Increases in the Math/Science Education FY 1990-1992 Budget



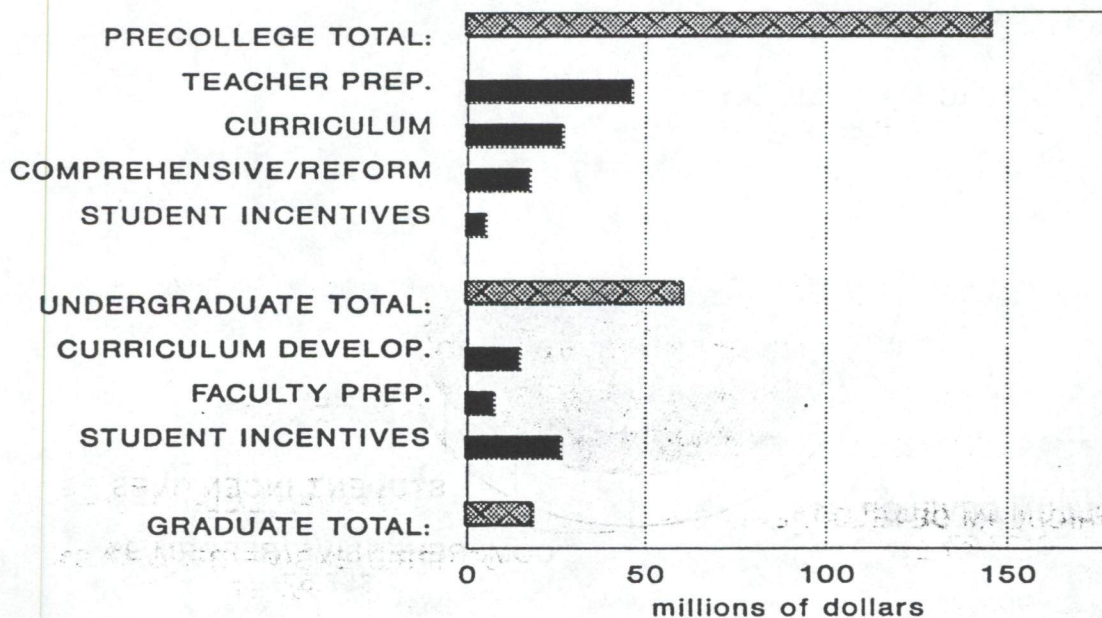
Increases in the Math/Science Education FY 1990-1992 Budget



FCCSET CEHR BUDGET PLANNING PRIORITIES

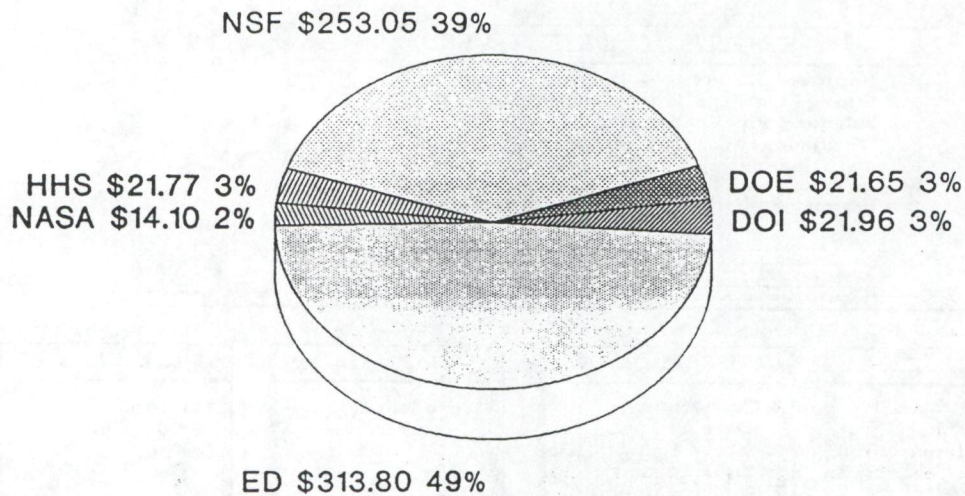


GROWTH IN BUDGET PLANNING PRIORITIES ABSOLUTE GROWTH: FY 1991-1992



PRECOLLEGE MATH/SCIENCE EDUCATION
FY 1992 BUDGET REQUEST

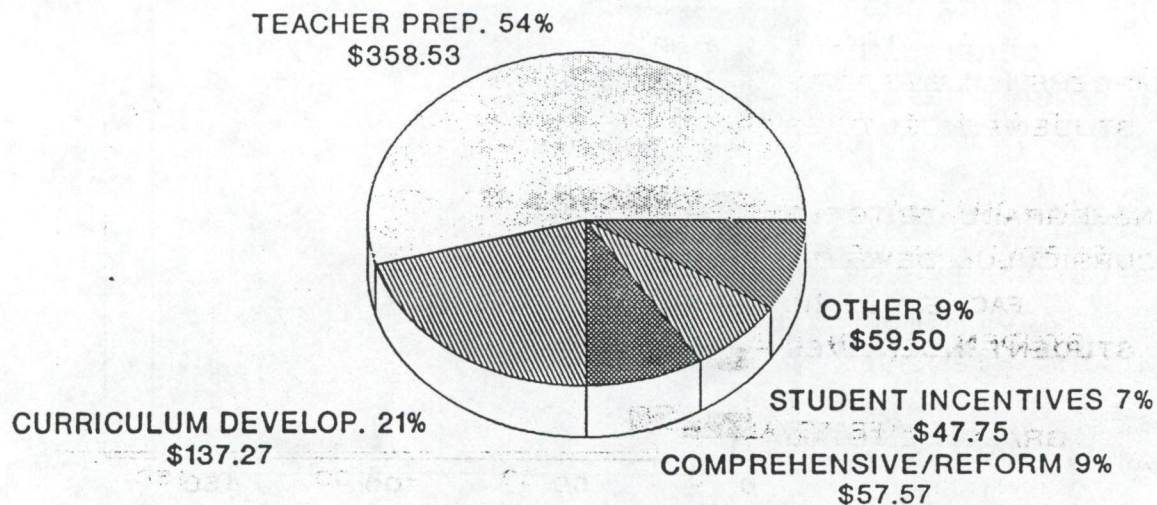
TOTAL: \$660.62 Million



OTHER: \$14.29

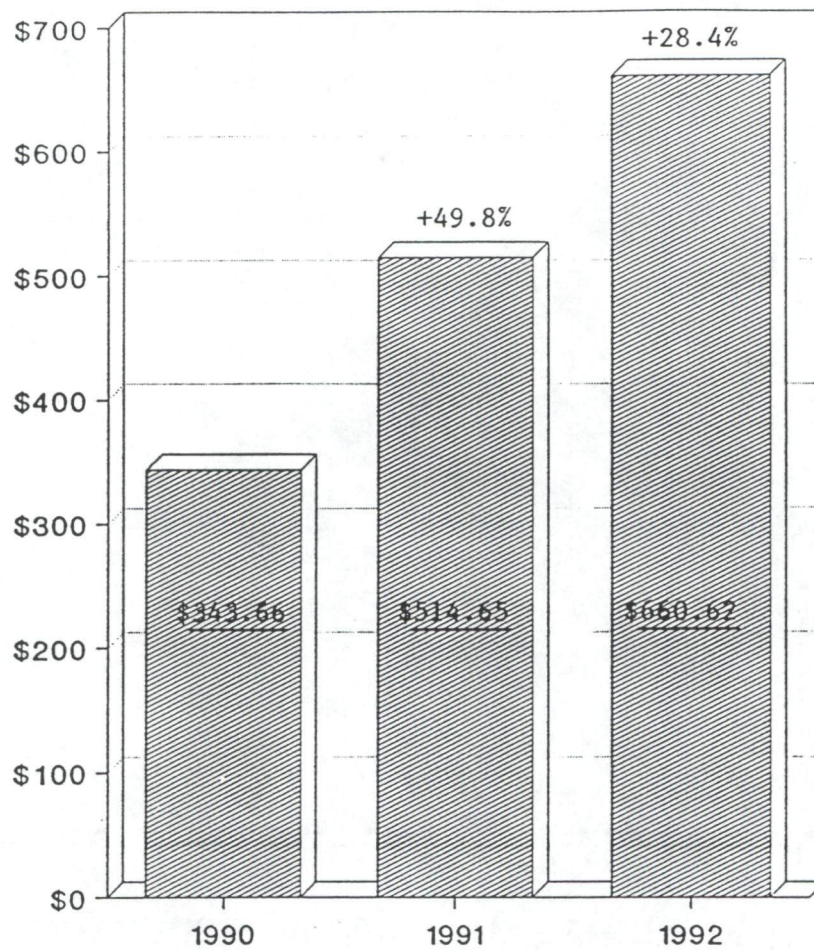
in millions of dollars

PRECOLLEGE MATH/SCIENCE EDUCATION
BY PRIORITY
FY 1992 BUDGET REQUEST



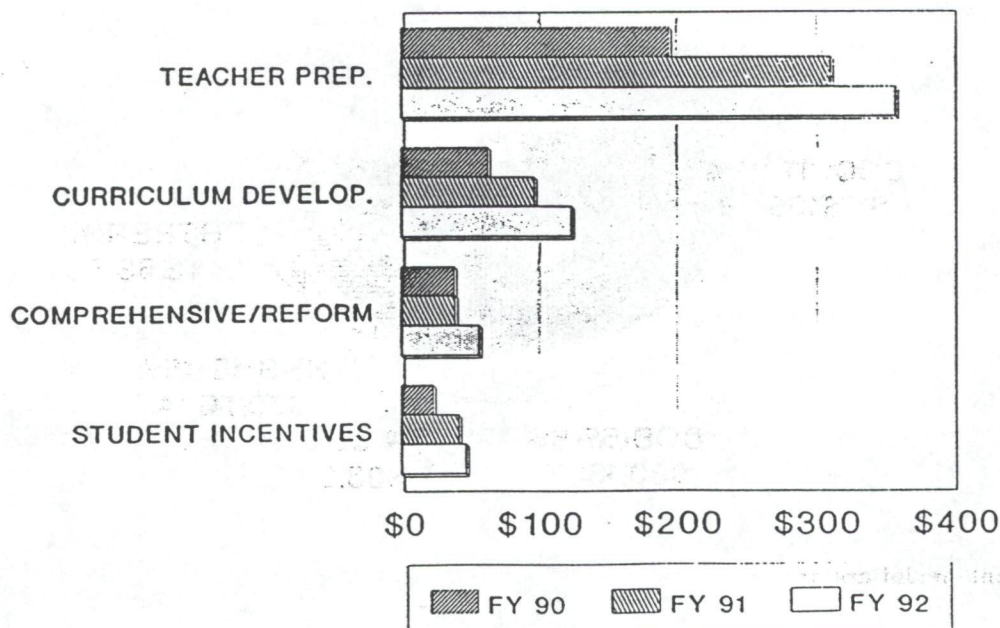
in millions of dollars

PRECOLLEGE MATH/SCIENCE EDUCATION BY YEAR



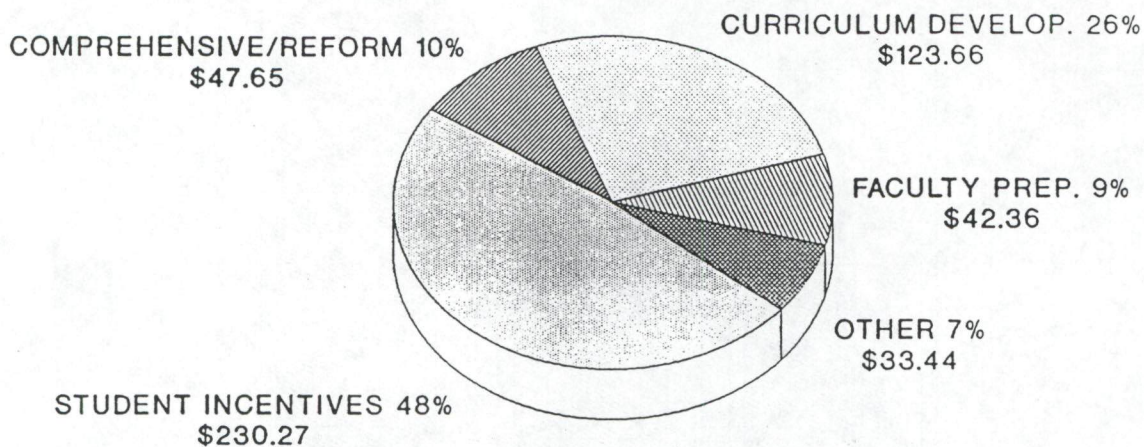
in millions of dollars

PRECOLLEGE MATH/SCIENCE EDUCATION BY PRIORITY AND YEAR



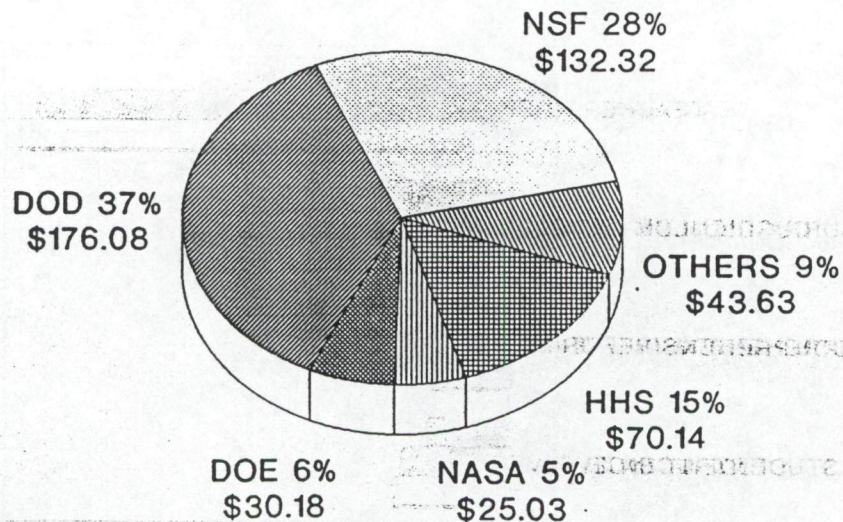
UNDERGRADUATE MATH/SCIENCE EDUCATION FY 1992 BUDGET REQUEST

TOTAL: \$477.38 MILLION



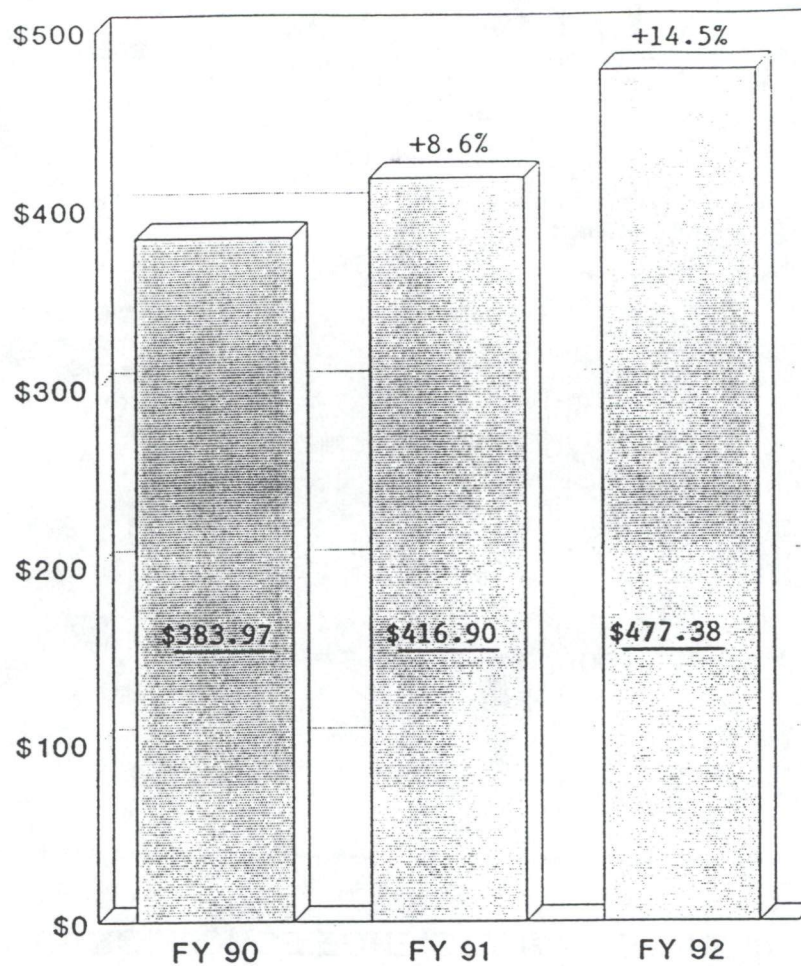
in millions of dollars

UNDERGRADUATE MATH/SCIENCE EDUCATION FY 1992 BUDGET REQUEST BY AGENCY



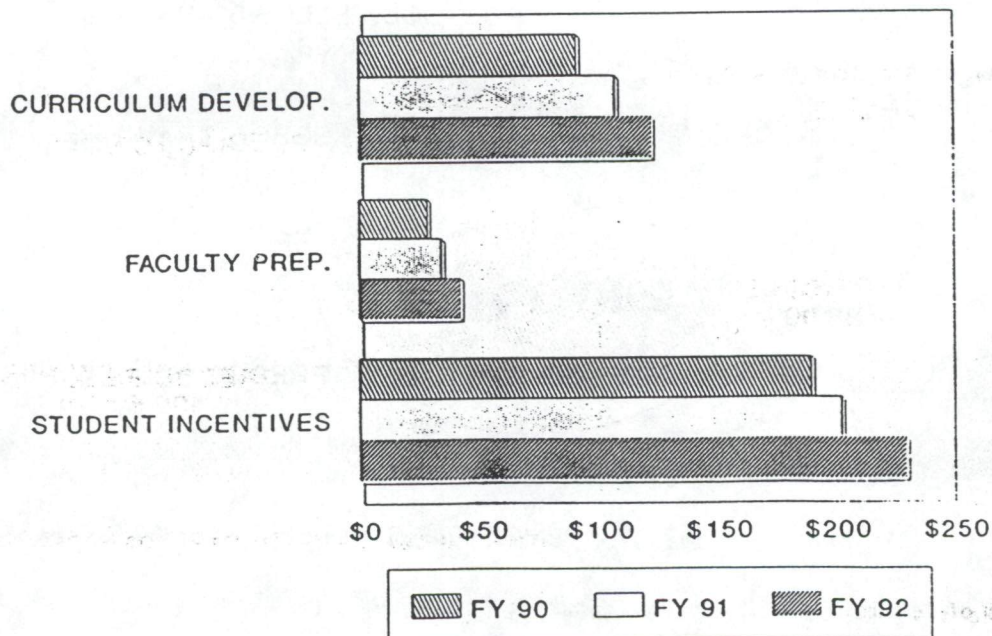
in millions of dollars

UNDERGRADUATE MATH/SCIENCE EDUCATION GROWTH BY YEAR



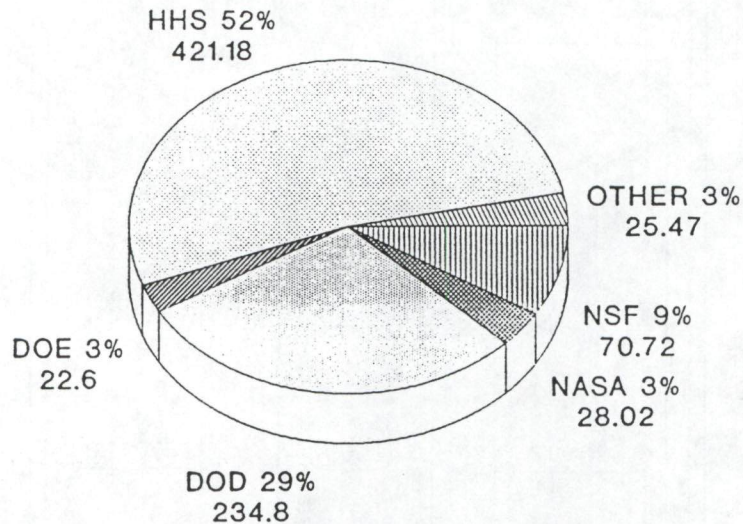
in millions of dollars

UNDERGRADUATE MATH/SCIENCE EDUCATION BY YEAR & PRIORITY



IN MILLIONS OF DOLLARS

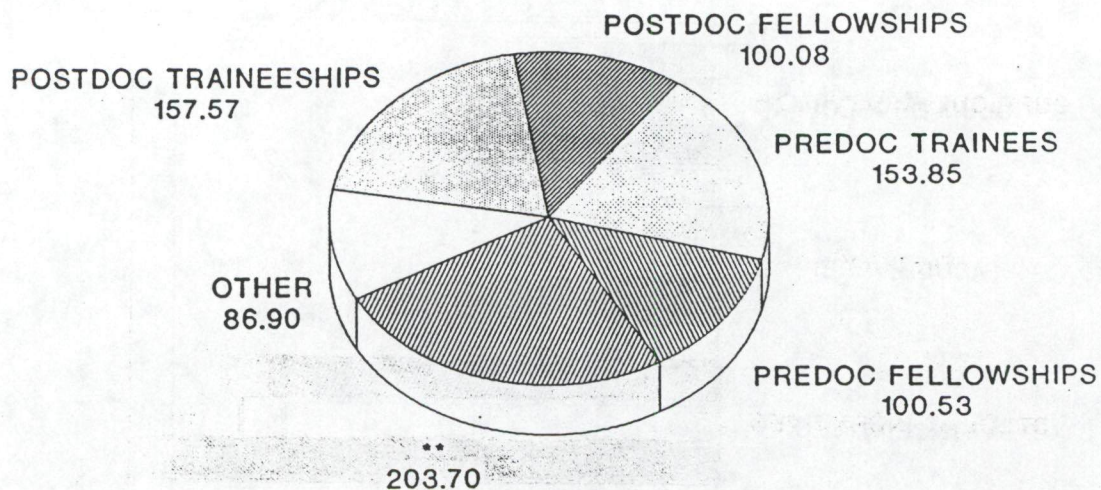
GRADUATE MATH/SCIENCE EDUCATION
FY 1992 BUDGET REQUESTS
BY AGENCY



in millions of dollars

GRADUATE MATH/SCIENCE EDUCATION
PRE- AND POST-DOCTORAL
FY 1992 BUDGET REQUEST

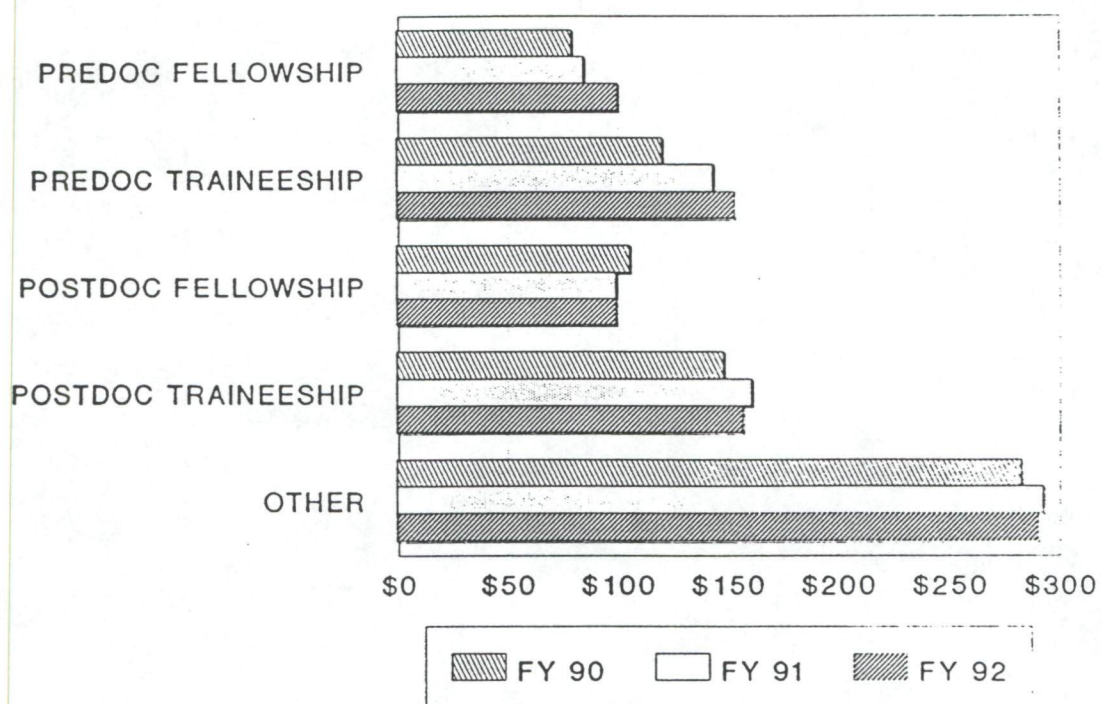
TOTAL: \$802.79 MILLION



•• TUITION SUPPORT AT MILITARY POST-GRAD SCHOOLS

in millions of dollars

GRADUATE MATH/SCIENCE EDUCATION BY YEAR AND CATEGORY



in millions of dollars

SCIENCE LITERACY POP QUIZ

2/5/91

[From The New York Times, January 13, 1991]

1. **Summer is hotter than winter because:**
 - A. Light from the sun travels in a straight line in summer.
 - B. The Earth is closer to the sun in summer.
 - C. The Earth is tilted on its axis.
 - D. The moon reflects more sunlight in summer.
2. **An atom differs from a molecule because:**
 - A. Molecules are made of atoms.
 - B. Atoms are made of molecules.
 - C. Gas is made of molecules, but solids are made of atoms.
 - D. Atoms are molecules are two words for the same thing.
3. **Earthquakes occur in California because:**
 - A. California is sinking into the Pacific Ocean.
 - B. California is sinking into the Atlantic Ocean.
 - C. Giant underground explosions occur every few years.
 - D. Two blocks of the Earth's crust are grinding past each other.
4. **A semiconductor is:**
 - A. An essential component of all wire.
 - B. A material that protects you from electric shock.
 - C. A key substance in every piece of microelectronics.
 - D. An important type of oven insulation.
5. **Genetic engineers can create new life forms because:**
 - A. Scientists can build living things atom by atom.
 - B. All genes are written in the same genetic code.
 - C. Scientists in Japan and the United States have collaborated.
 - D. All life is made from the same type of cell.
6. **Galaxies, like our Milky Way, are made of:**
 - A. Hundreds and hundreds of stars.
 - B. Thousands and thousands of stars.
 - C. Millions and millions of stars.
 - D. Billions and billions of stars.
7. **Why do physicists want the Superconducting Super Collider?**
 - A. To help develop fusion energy sources.
 - B. To probe the basic structure of matter.
 - C. To test radiation therapies for cancer.
 - D. To improve propulsion systems for jet engines.
8. **The most abundant gas in our atmosphere is:**
 - A. Oxygen.
 - B. Carbon dioxide.
 - C. Nitrogen.
 - D. Smog.

9. Acid rain is caused by:
- A. The decay of dead trees near lakes and streams.
 - B. Poorly run chemical plants that manufacture acids.
 - C. Agent Orange.
 - D. Nitrogen and sulfur compounds released into the air from burning coal.
10. The ozone layer in the Earth's atmosphere is important because:
- A. It blocks harmful ultraviolet radiation.
 - B. It reduces the greenhouse effect.
 - C. It keeps the planet smelling fresh and clean.
 - D. It prevents oxygen from leaking into space.
11. Which of the following facts cause scientists to worry about "the greenhouse effect" most?
- A. A variety of synthetic gases contribute to "the greenhouse effect."
 - B. The concentration of atmospheric carbon dioxide has increased dramatically during the past century.
 - C. An inevitable byproduct of burning fossil fuels, our primary energy source, is carbon dioxide.
 - D. All of the above.
12. Which of the following does not travel at 186,000 miles per second (the speed of light)?
- A. Microwaves in your microwave oven.
 - B. Radio waves from your local radio station.
 - C. The solar wind.
 - D. Light from a fluorescent light bulb.
13. The blueprint for every form of life is contained in:
- A. The National Institutes of Health, in Bethesda.
 - B. DNA molecules.
 - C. Proteins and carbohydrates.
 - D. Viruses.
14. Sexual reproduction is important in evolution because:
- A. Having a mother and father increases chances of survival.
 - B. Sexual reproduction produces more offspring.
 - C. Sexual reproduction allows offspring to differ from either parent.
15. Since 1950, the amount of water used in the U.S. for household, industrial, agricultural and other purposes has:
- A. Remained the same.
 - B. Doubled.
 - C. Tripled.
 - D. Declined.

ANSWERS

1. C
2. A
3. D
4. C
5. B
6. D
7. B
8. C
9. D
10. A
11. D
12. C Solar wind contains matter, which, according to Einstein, cannot travel at the speed of light.
13. B
14. C
15. B Total U.S. water use grew from about 180 billion gallons per day in 1950 to to about 400 billion gallons per day currently.

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Answers 1-14 from Jon Miller, as reprinted in The New York Times, Jan. 13, 1991.

Answer to question 15 from U.S. Geological Survey, Department of the Interior.

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February 1, 1991

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**PRESIDENT'S BUDGET REQUESTS UNPRECEDENTED \$1.9 BILLION
FOR SCIENCE AND MATHEMATICS EDUCATION**

The President's budget for Fiscal Year 1992 includes \$1.94 billion for mathematics, science, and engineering education at the precollege through post-doctoral levels. This is an increase of \$225 million or 13 percent over FY 1991.

Precollege mathematics and science education received the largest portion of this new proposed funding, with an additional \$146 million requested, an increase of 28 percent to \$660 million.

Undergraduate education received the second largest increase, \$60 million or 14 percent, raising it to \$477 million. An additional \$19 million, 2 percent, is being requested for graduate education, which is the largest educational component at \$803 million.

D. Allan Bromley, Assistant to the President for Science and Technology, stated that "This increase reflects the President's strong commitment to both educational and scientific excellence in America. This is a subject that he wants to keep at the very top of the national agenda."

The \$1.94 billion request was detailed in a report prepared by the Committee on Education and Human Resources (CEHR), chaired by James D. Watkins, Secretary of Energy, under the Federal Coordinating Council for Science, Engineering, and Technology (FCCSET). The report, entitled "By the Year 2000: First in the World," released today, contains the first coordinated interagency budget in science and mathematics education ever produced by the Federal government.

-MORE-

"By the Year 2000," which is the product of seven months of deliberations by the 16-agency Committee on Education and Human Resources, includes detailed budget crosscuts going back to FY 1990. It also contains program descriptions from all participating agencies or institutions and information on whom to contact, so that the public can more easily participate in the programs presented. A summary of the FY 1992 budget proposal is attached.

Citing the National Education Goals developed by the President and the Governors, Watkins stated, "The President is sending a clear message that education is a top priority in this Administration, even in difficult budget times. Our nation's children are our future, and this budget puts resources where they can do the most to reach the Goals -- in precollege education, with greatest emphasis on our teachers."

Highlights of the report include:

- o The level of Federal effort in science and mathematics education was far greater than previously recorded, and no mechanism has previously existed for extensive interagency planning, funding, coordination, or evaluation.

- o The FCCSET established strategic objectives and priorities for the Federal effort in reaching the National Education Goals, with precollege teachers the number one priority.

- o There was already significant precollege program growth in several agencies following the Education Summit, through Secretary- or Administrator-directed agency reallocations. Between FY 1990, the baseline year, and the FY 1992 request, precollege science and mathematics education has grown by 98 percent.

- o Virtually every Federal agency relies on scientists, mathematicians, engineers, and technicians to carry out its mission. Many of these men and women could work in an expanded educational capacity with our nation's schools.

- o The Federal government owns a vast complex of scientific facilities that could be more widely used to train teachers and students in cutting-edge science at relatively low cost.

- o By coordinating its efforts, the Federal government can make most efficient use of resources, more rapidly disseminate effective programs, and link its work to the important reforms underway in the States and the private sector.

The Committee on Education and Human Resources has already begun the process of further evaluating the hundreds of programs represented in the report, an effort expected to continue through 1991.

-MORE-

The Vice-Chairmen of the Committee on Education and Human Resources are Ted Sanders of the Department of Education and Luther Williams of the National Science Foundation.

Copies of the report may be obtained from Peggy Dufour, Committee on Education and Human Resources, Department of Energy, 1000 Independence Ave., S.W., Washington, D.C. 20585, phone (202) 586-7970.

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FCCSET Committee on Education and Human Resources

The President's FY 1992 Budget Request for Mathematics and Science Education

MAJOR CATEGORIES	Total Request	NSF	ED	DOE	DOD	DOC	NASA	DOI	HHS	EPA	USDA
GRAND TOTAL	1940.79	456.09	329.90	74.43	415.85	7.60	67.15	41.71	513.09	13.37	21.60
Precollege Total	660.62	253.05	313.80	21.65	4.97	0.55	14.10	21.96	21.77	8.07	0.70
Teacher Preparation/Enhancement	358.53	97.30	239.00	6.20	0.63	0.25	5.57	2.06	5.15	2.37	0.00
Curriculum Development*	137.27	84.75	34.80	1.90	0.00	0.09	5.60	3.60	4.52	2.01	0.00
Comprehensive/Organizational Reform	57.57	47.55	0.00	6.40	0.00	0.00	0.28	0.50	0.60	2.04	0.20
Student Incentives	47.75	11.00	0.00	5.75	4.34	0.21	0.55	14.32	10.87	0.21	0.50
Other	59.50	12.45	40.00	1.40	0.00	0.00	2.10	1.49	0.62	1.44	0.00
Undergraduate Total	477.38	132.32	16.10	30.18	176.08	1.90	25.03	8.84	70.14	4.30	12.50
Faculty Preparation/Enhancement	42.36	27.55	0.00	2.40	0.00	0.00	9.65	1.84	0.02	0.90	0.00
Curriculum Development*	123.66	63.66	6.10	11.60	38.90	0.20	1.81	1.12	0.19	0.10	0.00
Comprehensive	47.65	14.95	0.00	3.85	6.80	0.00	1.68	0.53	6.34	1.00	12.50
Student Incentives	230.27	24.81	10.00	12.33	100.50	1.70	11.73	4.30	62.59	2.30	0.00
Other	33.44	1.35	0.00	0.00	29.88	0.00	0.16	1.05	1.00	0.00	0.00
Graduate Total	802.79	70.72	0.00	22.60	234.80	5.15	28.02	10.92	421.17	1.00	8.40
Predoctoral Fellowships	100.53	51.52	0.00	10.04	16.70	0.85	13.80	0.03	6.79	0.80	0.00
Predoctoral Traineeships	153.85	4.40	0.00	0.00	3.90	0.00	4.70	10.41	126.44	0.00	4.00
Postdoctoral Fellowships	100.08	9.85	0.00	10.05	10.50	3.35	9.10	0.48	52.15	0.20	4.40
Postdoctoral Traineeships	157.57	4.00	0.00	0.00	0.00	0.00	0.00	0.00	153.57	0.00	0.00
Other*	290.75	0.95	0.00	2.51	203.70	0.95	0.42	0.00	82.22	0.00	0.00

* includes program assessment and evaluation

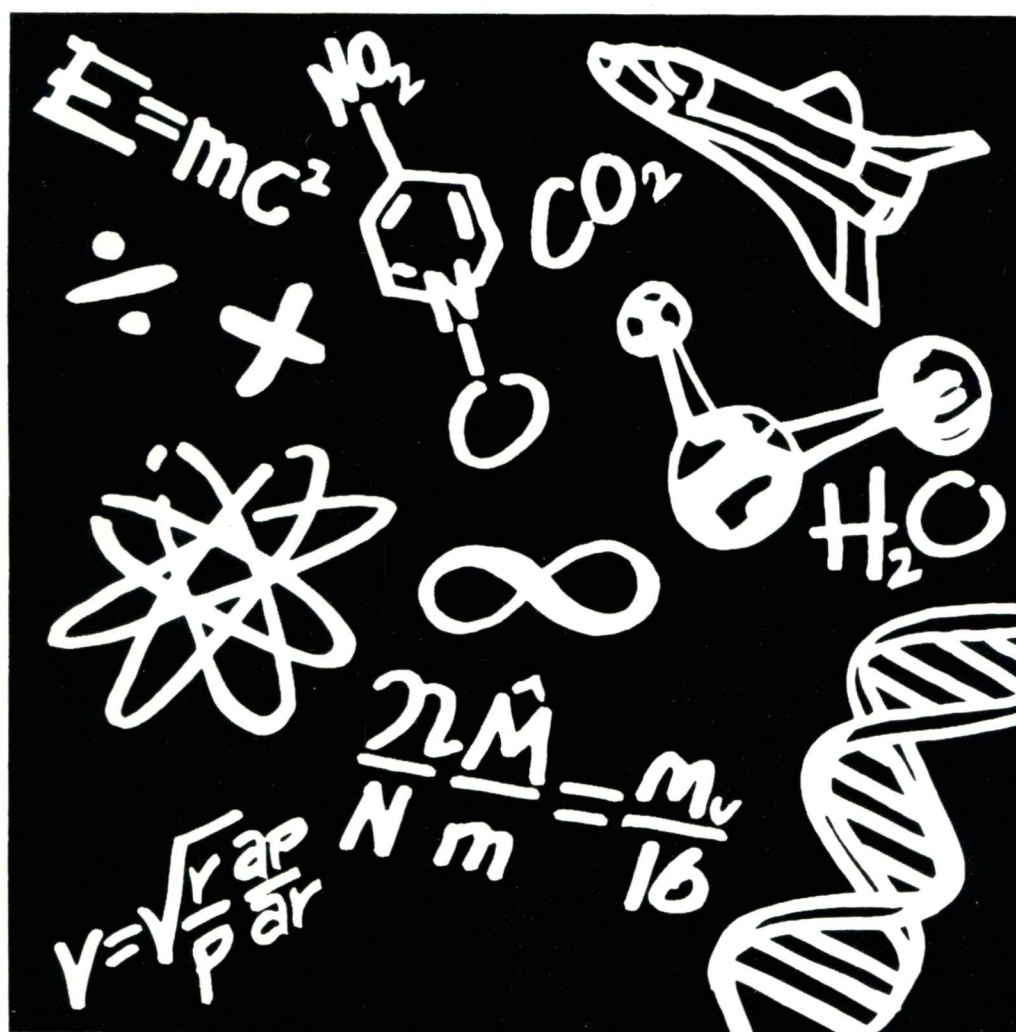
dollars in millions

Education Level/ Major Program Areas	FY 1990	FY 1991	FY 1992 Request	Percent Increase for FY 90-92	Percent Increase for FY 91-92
Grand Total	\$1466.09	\$1715.70	\$1940.79	32.4%	13.1%
Precollege	343.65	514.60	660.62	92.2%	28.4%
Teacher Preparation/ Enhancement	197.16	312.02	358.53	81.8%	14.9%
Curriculum Development*	68.28	107.69	137.27	101%	27.5%
Comprehensive Programs Organization Reform	38.89	39.51	57.57	48.0%	45.7%
Student Incentives and Opportunities	23.25	42.18	47.75	105%	13.2%
Other	16.07	13.24	59.50	273%	349.4%
Undergraduate	383.97	416.90	477.38	24.3%	14.5%
Faculty Preparation/ Enhancement	28.47	34.48	42.36	48.8%	22.9%
Curriculum Development*	92.07	108.58	123.69	34.3%	13.9%
Comprehensive Programs Organization Reform	32.28	37.46	47.65	47.6%	27.2%
Student Incentives and Opportunities	190.93	203.60	230.27	20.6%	13.1%
Other	40.23	32.79	33.44	-16.9%	2.0%
Graduate	738.46	784.15	802.79	8.7%	2.4%
Predoctoral Fellowships	79.59	85.34	100.53	26.3%	17.8%
Predoctoral Traineeships	120.96	144.06	153.85	27.2%	6.8%
Postdoctoral Fellowships	106.09	100.02	100.08	-5.6%	0.1%
Postdoctoral Traineeships	148.80	161.67	157.57	5.9%	-2.5%
Other*	283.03	293.06	290.75	2.7%	-0.8%

* includes program assessment and evaluation

dollars in millions

BY THE YEAR 2000



FY 1992

Report of the
FCCSET Committee
on Education and
Human Resources