

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20500

7/16/97

Bell:

I share this
FYI. The corporate
partners are prominent.
The 1997 competition
has already occurred,
but the opportunity
to recognize it has
yet to be scheduled.
— Bob, Daryl



FACSIMILE MESSAGE

From: Dia Stolnitz To: Dr. Jack Gibbons
 Date: June 20, 1997 Company: Executive Office of the President
 Re: Letter to President Clinton Fax: (202) 456-6021
 Note: For your information & help Pages (incl. cover): 3

Dear Dr. Gibbons,

Attached please find a copy of the letter we have sent to President Clinton for your information and help with confirming an invitation date. Also attached is the letter the President sent to the Competition participants at the National Championship this year.

Thank you for any assistance you can provide. We look forward to hearing from you very soon.

With respect,

DIA STOLNITZ

Dia Stolnitz
 Project Director,
 FIRST PLACE

*Daryl -
 This is an interesting
 "partnership" - and
 comments before we
 submit the scheduling
 request -
 Cull*

*Partnership
 Please pull
 last year's
 scheduling request
 call
 45
 55
 Science
 Please
 advise
 - See attached*

FOR INSPIRATION AND RECOGNITION OF SCIENCE AND TECHNOLOGY



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Rensselaer Polytechnic Institute

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Chairman
Motorola, Inc.

President Bill Clinton
The White House
Washington, DC 20500

June 5, 1997

Dear Mr. President:

It was with great honor that we read your letter to the 1997 FIRST Robotic Competition participants at Epcot in April. At this year's National Championship, FIRST (For Inspiration and Recognition of Science and Technology) brought together an unprecedented 7,000 participants made up of high school students from around the country along with teachers, families, professional engineers, and many leaders of industry concerned with the future of this country's work force. The crowd cheered to receive your praise and recognition. Then they went on to scream and cheer for the robots created by the engineers and their student partners in the largest cooperative science and technology event to involve industry, education, and the public. It was the third year Disney sponsored our finals, and it has now become the largest non-Disney event ever hosted in their park.

* Now we would like to ask you to extend an invitation to the 1997 Competition award winners to come and be honored in a White House ceremony.* In 1993 you honored the winning teams in a Rose Garden ceremony. Last year Vice President Al Gore welcomed the winning teams and operated the two winning robots. This year, a record 155 teams competed, representing major technology companies from throughout the United States. The award recipients of the 1997 Competition include the National Champions: *Beatty Machine and Manufacturing & Hammond Schools, Hammond, IN*; Chairman's Award: *Delphi Interior and Lighting (a division of General Motors) & Pontiac Central HS, Troy, MI*; and Founder's Award: *Chrysler Corporation and Francois Castaing*.

In welcoming the 1993 winners to the Rose Garden, you told them that you did so "...with great enthusiasm because this effort combines three principles in which I deeply believe: it demonstrates the power of partnerships between schools and corporations, it illustrates the effectiveness of empowering our students with modern skills, and it represents the need that we all have in this country to retool our work force and to rebuild our companies to develop the kinds of skills and the products we need to compete in the global economy."

Consistent with your vision on education, technology, and partnerships as presented in your State Of The Union message, and reiterated in your letter addressed to our participants at Disney, we hope very much that you will honor our winning teams whose work and dedication are "...a wonderful example of how creative partnerships between schools and corporations can help America's students excel in science and technology." FIRST is grateful for your continued support, and we look forward to your invitation to welcome our 1997 Competition winners.

With great respect,


Dean Kamen
FIRST Founder

FOR INSPIRATION AND RECOGNITION OF SCIENCE AND TECHNOLOGY

THE WHITE HOUSE
WASHINGTON

April 11, 1997

Congratulations to all of the participants in the 1997 FIRST Robotic Competition. You can be proud of your accomplishments in this year's engineering challenge.

If our nation is to remain a leader in the global economy, we must empower our young people with the knowledge and resources to succeed in the jobs of the future. This annual competition is a wonderful example of how creative partnerships between schools and corporations can help America's students excel in science and technology.

I am proud of the students participating in the FIRST Competition for using their energy and creativity to imagine a brighter future for themselves and our nation. I thank the families, teachers, engineers, and corporate leaders whose hard work and dedication to excellence have inspired these teams to discover that science can be fun, accessible, and the key to personal and professional fulfillment.

Best wishes for a memorable competition. You are all champions!

A handwritten signature in black ink, appearing to read "Bill Clinton". The signature is fluid and cursive, with a long horizontal stroke at the end.

U.S. FIRST, 1961 U.S. FIRST, UP

June 7, 1996

SCHEDULING PROPOSAL

☐ Accept	☐ Regret	☐ Pending
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TO: Stephanie Streett and Anne Walley
Deputy Assistants to the President and Directors of Scheduling

REQUESTED BY: Jack Gibbons
Assistant to the President for Science and Technology

REQUEST: Photo op with the winning teams of the 1996⁷ U.S. FIRST competition.

PURPOSE: To recognize the students' engineering achievements and a model industry-education partnership that is inspiring young Americans to pursue careers in science and technology.

BACKGROUND: U.S. FIRST (For Inspiration and Recognition of Science and Technology) was founded in 1991 to provide a new and exciting way to capture and maintain kids' interest in science and technology. U.S. FIRST teams high school students with experienced industry and academic engineers. The teams are provided with materials to build a robot they must design to accomplish a specific task in the competition. The teams have six weeks to complete their robots. The remote-controlled robots compete against each other in a competitive game.

U.S. FIRST was founded by Dean Kamen, a Massachusetts inventor and entrepreneur. Paul Allaire, CEO of XEROX, has been and continues to be deeply involved in U.S. FIRST. The 1996 competition was held at Epcot Center, Walt Disney's World on April 19-20, and sponsored by Procter & Gamble, Honeywell, and Motorola. Teams are sponsored by companies that include XEROX, Baxter Healthcare Corporation, Boeing, Chrysler, Lockheed Martin, Johnson & Johnson, MIT, and McDonnell Douglas. This year's champion was the team from Rochester, New York composed of Harris Corporation and Rochester Institute of Technology engineers and students from Edison Technical School. The Chairman's Award was presented to the team

of Procter & Gamble engineers and Walnut Hills High School students from Cincinnati, Ohio.

CBS Evening News did a story on the 1996 U.S. FIRST competition as an "Eye on America" piece on April 26, 1996. ESPN plans to run a piece on the competition as a "sporting event" during the first week of its fall schedule in September on both ESPN channels.

PREVIOUS

PARTICIPATION: The President addressed the 1993 U.S. FIRST winners in the Rose Garden on May 27, 1993. U.S. FIRST teams have not been received at the White House since 1993.

DATE & TIME: Any day in June or July; any time.

DURATION: 15 minutes

LOCATION: TBD. This event could take place in the East Room, Roosevelt Room, Rose Garden, South Lawn, or OEOB.

REMARKS: Brief remarks. Background information and assistance will be provided by OSTP to the President's speechwriters.

PARTICIPANTS: The President
The Vice President (optional)
Jack Gibbons
Dean Kamen, Founder of U.S. FIRST
Paul Allaire, U.S. FIRST Chair and CEO of XEROX
John Pepper, Chairman and CEO of Procter & Gamble
Gordon Brunner, Senior Vice President of Procter & Gamble
John Hartley, Chairman and CEO of Harris Corporation
The team of Harris Corporation/Rochester Institute of Technology & Edison Technical School (Rochester, NY) - Competition Champion
The team of Procter & Gamble & Walnut Hills High School (Cincinnati, OH) - Chairman's Award

SEQUENCE

OF EVENTS: The President will arrive at the site.
The President will proceed to the podium and give brief remarks.
The President will join the teams for a group photo.
The President will depart the site.

POSSIBLE OPTION:

The President meets in the Oval Office with CEO's.

PRESS

PARTICIPATION: Open press, no questions.

STAFF CONTACT: Tim Newell, 6-6020.

ADDITIONAL

PERTINENT

INFORMATION:

Paul Allaire has contacted the President's office requesting the President host an event on the South Lawn. The Chairmen and CEOs of Harris Corporation and Procter & Gamble have sent letters to the President requesting an event. The letters are attached for your information.

The two teams will bring their robots to the White House complex to provide a demonstration of their capabilities.

U.S. FIRST

(FIRST: For Inspiration and Recognition of Science and Technology)

DATE: July 19, 1996
LOCATION: Indian Treaty Room, OEOB
TIME: 11:20 a.m.

I. PURPOSE

The Vice President will congratulate the two winning teams of the 1996 U.S. FIRST national competition.

II. BACKGROUND

- U.S. FIRST (For Inspiration and Recognition of Science and Technology) was founded in 1991 to provide a new and exciting way to capture and maintain kids' interest in science and technology.
- U.S. FIRST teams high school students with experienced industry and academic engineers. The teams are provided with materials to build a robot they must design to accomplish a specific task in the competition. The teams have six weeks to complete their robots. The remote-controlled robots compete against each other in a competitive game. More than ninety teams and industrial sponsors were engaged.
- U.S. FIRST was founded by Dean Kamen, a New Hampshire inventor and entrepreneur. Paul Allaire, CEO of XEROX, has been and continues to be deeply involved in U.S. FIRST as Chairman.
- The 1996 competition was held at Epcot Center, Walt Disney's World on April 19-20, and sponsored by Procter & Gamble, Honeywell, and Motorola.
- Teams are sponsored by companies that include XEROX, Baxter Healthcare Corporation, Boeing, Chrysler, Lockheed Martin, Johnson & Johnson, and McDonnell Douglas.
- This year's champion was the team from Rochester, New York composed of Harris Corporation and Rochester Institute of Technology engineers and students from Edison Technical School. The Chairman's Award was presented to the team of Procter & Gamble engineers and Walnut Hills High School students from Cincinnati, Ohio.
- *CBS Evening News* did a nice story on the 1996 U.S. FIRST competition as an "Eye on America" piece on April 26, 1996. ESPN plans to run a piece on the competition as a "sporting event" during the first week of its fall schedule in September on both ESPN channels.

III. PARTICIPANTS

The Vice President

John H. Gibbons, Assistant to the President for Science and Technology

Ernest J. Moniz, Associate Director for Science, OSTP

Lionel S. Johns, Associate Director for Technology, OSTP

Mary Good, Under Secretary of Commerce (invited)

Martha Krebs, Director, Office of Energy Research, DOE (invited)

Dean Kamen, Founder, U.S. FIRST and President, DEKA Research & Development

James Camden, Vice President, The Procter & Gamble Company

George Vernon, Director, Corporate Packaging, The Procter & Gamble Company

Bruce Fennie, Vice President and General Manager, Harris RF Communications

William Kent, Vice President, Harris RF Communications

1996 National Championship team: Harris Corporation/Rochester Institute of Technology
and Edison Technical High School, Rochester, NY

1996 Chairman's Award team: The Procter & Gamble Company/Walnut Hills High
School, Cincinnati, OH

IV. PRESS PLAN

Open Press. Photographers will accompany each of the teams. Anticipate local coverage in Cincinnati, OH and Rochester, NY.

V. SEQUENCE OF EVENTS

11:00 a.m. Jack Gibbons welcomes the teams

11:10 a.m. Jack Gibbons and Ernie Moniz answer questions from the teams.

11:50 a.m. The Vice President arrives; proceeds to the podium.

Jack Gibbons will introduce the Vice President who will give brief remarks and take a photo with each team.

11:55 a.m. The Vice President operates one of the robots.

12:00 p.m. The Vice President departs

VI. REMARKS

Talking points to be provided by OSTP staff. Attached.

VII. STAFF CONTACT

Lisa Duffey, 456-6138

Remarks for the Vice President

U.S. FIRST event

Indian Treaty Room

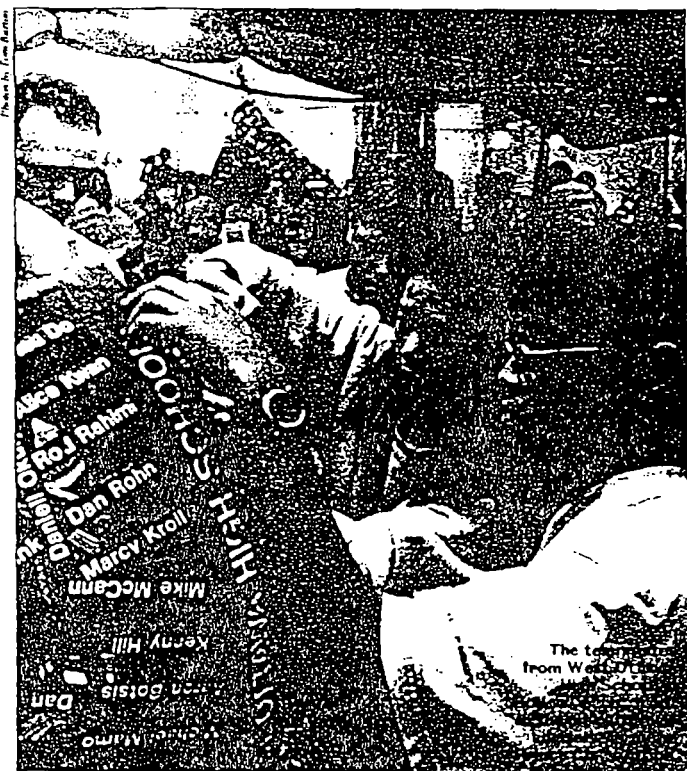
July 19, 1996

- I'm really pleased to be here with these two U.S. FIRST teams that have emerged from the competition with more than 90 others. I'm especially pleased to be with the students from Edison Technical School in Rochester, NY and from Walnut Hills High School in Cincinnati, OH.
- Tonight, the President will help open another competition, somewhat larger, called the Olympics, which will provide so many Americans with the thrill of seeing our young people compete athletically with their peers from around the world. Of course, the Olympics trace their history back over two millennia, when the Greeks staged competitions (often brutal ones) with games inspired by combat activities, very useful skills of that day and age.
- Today, we're on the threshold of a new millennium, with quite a different skill set required for your success. Your generation will need a much higher level of math, science, and technology skills together with a good deal of ingenuity and American know-how.
- That's what U.S. FIRST inspires. The combat between your "robo-gladiators" must be very exciting — I'm looking forward to getting a taste of it myself — but it's really the planning, the engineering, the teamwork that went into your effort that counts. It makes all 97 teams winners. And you are the medalists in these games, for which I offer you all the congratulations you have earned.
- Scientists and engineers, alongside athletes and entertainers and others, must become role models and even heroes in the technology age. And it's great to see these teams composed not only of students but also of engineers, teachers, and executives all willing to pitch in.
- President Clinton has stressed the need for partnerships and corporate responsibility. U.S. FIRST is an outstanding example of what partnerships between schools and the business world can do to help empower our students with the modern skills they will need in the global economy.
- We truly thank Dean Kamen, the founder of U.S. FIRST, and all the corporate executives who have given so much to our youth by bringing U.S. FIRST to almost one hundred high schools. I'm told you have a goal of 2000 schools in the year 2000. I admire your commitment and wish you success.
- This would be a tremendous societal contribution towards raising the level of awareness among our youth about the importance of science and technology and teamwork for their lives and, more importantly, about the fun they can have doing it.
- In fact, I'm sure all the professionals working with the teams must themselves have a great time and share the excitement of teamwork with bright young people. And speaking of fun, I need some coaching in driving one of these robots.

PARADISE

Kids team up to meet a challenge: Devise a robot that can carry a ball, score goals, block shots—and win!

They're Competing With Their Minds —And Loving It



"We act as if kids think that flexing their biceps is inherently more interesting than flexing their minds," said Dean Kamen. "I don't believe that. Just look at the joy any little kid takes in discovering new things, and you'll realize it's not true." In 1989 Kamen founded U.S. First, a national nonprofit organization, to motivate America's youth to learn science and math. Its hallmark program, the U.S. First Robotic Competition, tests the ability of kids to solve difficult engineering problems and pits their ideas against those of other students from around the country.

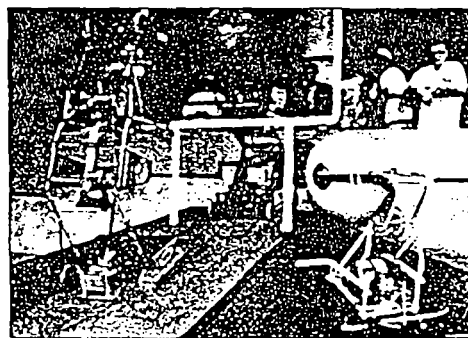
Kamen, 44, knows that everything he has accomplished in his own life came from his knowledge, and love, of technology—and he wants to communicate that excitement to young people. As a student, Kamen invented a successful insulin pump for diabetics. He

has gone on to invent devices in a variety of other fields and to build up his own manufacturing company.

"It's not true that kids aren't interested in technology," he told me. "They all have portable CD-players and Nintendos. They are the biggest technology consumers in the world. But they don't recognize that somebody had to invent those things. Any kid can give you the name of a famous football player or basketball player. Not one of them could tell you the name of the scientists who invented the Walkman or the compact disc or the air-filled sneaker."

Each year, Kamen and his volunteer advisers—led by the MIT engineering design professor Woodie Flowers—devise a game that will test the skills and imagination of high school students. This year, the competition was called Ramp 'N' Roll. Each team, aided by

faculty advisers and volunteer engineers from private companies, devised a robot that could pick up a vinyl ball, negotiate a steep ramp to a goalpost and pass the ball through the goal. Machines also had to be designed for defense—to block shots. No robot could exceed 70 pounds, and each could be made only from parts in a kit provided by U.S. First.



Machines operated by remote control compete for goals.

"We act as if kids think that flexing their biceps is more interesting than flexing their minds. I don't believe that."

—DEAN KAMEN, FOUNDER, U.S. FIRST

"Our vehicle was disqualified because we had an illegal part—we used a suction cup to pick up the ball," said Tom Karafonda, a junior at the Joseph C. Wilson School in Rochester, N.Y. "In a period of five days, we had to build a brand-new vehicle." With the aid of engineers from Xerox, its corporate sponsor, and many sleepless nights, the Wilson team made it under the wire and into the finals.

All-nighters were commonplace as teams from around the country raced

IT WAS THE DAY BEFORE the national championship, and Christy Schneider was pumped up. "In our last seeding round, we scored 135 points," said the senior from Aiken High School in Cincinnati. "No one's been able to beat that so far. Next time out, we're going to do even better."

I looked around the holding area and saw members of 47 other high school teams from around the country, all of them psyched up and ready to play. From the stands came the roar of happy fans whenever their team scored—and the groans of disappointment when a good play was blocked. It wasn't the Super Bowl or the Final Four, but the 1995 U.S. First Robotic Competition was filled with all the enthusiasm of a

prestigious national sports event.

You've probably never heard of U.S. First. That's okay; neither had most of the hundreds of passersby at Walt Disney World's Epcot Center in Florida. Many wandered by the stage where the event was taking place and lingered to marvel at the technological wizardry on display. They watched as machines, under remote-control orders, battled for dominance in a game that was part basketball, part football, part king-of-the-hill. The team whose robot maneuvered its ball between the goalposts the most times in two minutes would win. Loud cheers accompanied every goal.

The fifth annual Robotic Competition, held last April 1, exemplified what some visionaries hope will be our nation's future. Young people of various backgrounds working together to design the technologies for the next century.

B Y M I C H A E L R Y A N

to perfect their entries in time for the finals. "I didn't get a lot of sleep," admitted Richard Slagle of the Raychem Corporation, which sponsored the Woodside High School team from California. "I'd be at the school until 11 or 12 most nights, and all day on Saturdays, Sundays and holidays." Slagle and his colleagues not only helped Woodside build an awesome scoring machine but also inspired students simply by their presence.

"I always wanted to see what engi-

"The whole idea is to get young people excited about science. The competition is the icing on the cake."

—JEFF VAN HORN, ADVISER
TO 1995 WINNING TEAM



Victory photo: The Woodside High team and its advisers from Raychem Corporation.

neering was all about," Cesar Valencia, a junior at Woodside, told me. "This has been a great experience. Now I know what engineering is, and I want to be a mechanical or electrical engineer."

The U.S. First Robotic Competition gives young people a chance to engage their imaginations and emotions as much as any team sport. The teams ranged in size from 12 to 100 students and advisers, including designers and tinkerers, electronics experts and video crews who documented the experience.

"We have kids who are going to MIT next year and kids who have been borderline students," said Rick Hendricks, a teacher at the Wilson School. "There's something for every one of them to do in this project, and it develops an incredible level of enthusiasm."

The thing that impressed me most about U.S. First was that it offered recognition of the talent—not the background or social status—of the contestants. Rich suburban schools vied with public schools from the inner cities on an equal footing. Students

themselves as equals and saw that they could dream. "The first day I heard about it, I knew that this was something I wanted to do," said Laura Renée Johnson from Detroit's Cass Technical High. "Now I've decided to enter a field like biomechanical engineering."

At the end of the three-day tournament, Woodside High won the first-place trophy. The Wilson School team won for best sportsmanship, and Christy Schneider's group from Aiken High School High won the Team Spirit award. Most of the teams went home without awards, but they didn't leave unhappy.

"All the kids here today are winners," said Jeff Van Horn, who was a Raychem adviser to the Woodside team. "The whole idea is to get young people excited about science. The competition is just the icing on the cake." **IX**

Any high school is eligible to enter next year's U.S. First Robotic Competition. Registration is due by Dec. 1. For more information, write: U.S. First, Dept. P, 340 Commercial St., New Haven, CT 06510.

Today, it is my pleasure to welcome the winners of the U.S. FIRST Competition to the White House with great enthusiasm because this effort combines three principles in which I deeply believe: it demonstrates the power of partnerships between schools and corporations, it illustrates the effectiveness of empowering our students with modern skills, and it represents the need that we all have in this country to retool our work force and to rebuild our companies to develop the kinds of skills and the products we need to compete in the global economy. The goal of U.S. FIRST is to change the way America's children think about science and technology by creating and honoring heroes and role models, by engaging young peoples' imaginations and by demonstrating what they can achieve. One of its key programs is the annual competition these teams won, presenting science as a made-for-television sporting event complete with banners, boosters, television cameras, cheering squads and a play-by-play announcer.

U.S. FIRST is a four-year-old national non-profit organization aimed at exciting the next generation about science and technology using all the modern techniques of mass-marketing and media. Its central focus is not education per se but motivation; to make our young people see, feel, and respond to the challenges of science and its mysteries. It aims to make students want to learn math and science. Our children have the energy and the ability to be the best in the world. The challenge we face is how to best harness that ability and that energy.

This contest is a terrific idea. Held in a Nashua, NH gymnasium, "Rug Rage" pitted 25 teams from around the country against one another. Each team consisted of a high school class matched with a company or university. Engineers from the company and the young people from the class had six weeks to work together to design and build a remotely controlled robot vehicle to compete in the "Rage." Both design and operation involve strategy as well as engineering know-how.

Today we honor two winning teams. The Chairman's Award is given annually to that team showing the best and most creative partnering between its sponsoring organization and adopted school. This year's winner is the AT&T Bell Labs/Science High School team.--(Applause)--The National Champion is that team amassing the highest point total over two days of competition. This year's winner is the E-Systems/Dallas Christian High School team.--(Applause)--I'm proud of these teams, their teachers, and advisors. All of you have set a real example for other students around our nation, and for teachers and companies as well. With your help we can insure that every American student will be a winner in math and science education.

But I'm equally proud to be here today with leaders from the private sector and from our national government who believe so deeply in education technology and partnerships. I want to recognize in particular the founder and guiding spirit of U.S. FIRST: Dean Kamen. An inventor and entrepreneur from Manchester, NH whom I met a good while ago and whose energy is still the most inexhaustible resource I think I have ever seen in the U.S.A.--(Applause)--I also want to salute several corporations whose directors and executives have been heavily involved in U.S. FIRST including Baxter International, Boeing, Honeywell, Motorola, New England Telephone, Proctor & Gamble, and Xerox...I'd like to recognize them and extend our appreciation to them.--(Applause)--

I want to mention members of the National Advisory Board including Dr. Roland Schmitt, the President of Rensselaer Polytechnic, Kent Hughes former President of the Council on Competitiveness and soon to be on my team at the Commerce department and Dr. Robert Batscha, President of the Museum of Television and Radio. I also want to welcome my good friend Dick Celeste the former Governor of Ohio who now chairs the

Government/University/Industry Round Table. Finally I want to pay a special tribute to my Assistant for Science and Technology and the nation's science advisor, Jack Givens, and Frank Press the president of the National Academy for the Sciences who are here today. Their presence shows the high esteem in which the United States' scientific, engineering, and technological communities hold the U.S. FIRST Competition. --(Applause)--We also have some members of congress here today: Bob Menendez, Dick Swett, Ralph Hall, and Bill Zeff.

Most of you know that I believe technology is terribly important to this country. We announced a United States technology initiative in February so that we would have the full length of our term to implement an aggressive effort to build partnerships for technology, new jobs, and new opportunities for Americans. Like the goals of U.S. FIRST, our efforts in the long term are crucial to the success of the U.S. private sector and the whole quest we have to create a "highway" to a high growth community in this country.

Today, I hope what you have done will inspire other schools and other businesses and I hope it will be another step along the way to a remarkable new partnership between the American people and their government, to create the kind of high technology future without which none of these young people can live up to their God-given abilities. We owe you that, and I'm going to do my best to see that we give it to you.

--President Clinton
Remarks in the
White House Rose Garden
May 28, 1993



OFFICE OF SCIENCE AND TECHNOLOGY POLICY

Science Division
Executive Office of the President
436 Old Executive Office Building
Washington, DC 20502

202-456-6130
202-456-6027 (FAX)

FAX TRANSMITTAL SHEET

6/25/97

TO:

BILL KINCAID / MIKE COHEN

PHONE NUMBER:

FAX NUMBER:

6-7028

FROM:

DARYL CHUBIN

NUMBER OF PAGES (INCLUDING COVER SHEET):

7

ADDITIONAL MESSAGE:

Bill: Please copy for Mike
if necessary. Thanks,
D

Marky
Keph

PARTNERSHIPS TO IMPROVE MATHEMATICS AND SCIENCE EDUCATION

The Next Iteration
6/25/97

purpose / purpose?

A. Overview: Think Big

To encourage public engagement with mathematics and mathematics education will require the presentation of some compelling examples. This is one of three complementary strategies for re-envisioning K-12 education in mathematics: the *deductive* approach reflects what such an education should look like from abstract principles such as the NCTM Standards; a *behaviorist* approach is to announce the development of a national mathematics test; and finally, an *inductive* approach relies on hands-on engagement with compelling examples.

All three approaches have their place. The Federal role in each is limited but critical, as is often the case in education. For example, the government can: represent but not impose a national perspective; confer but not mandate prestige, attention, and motivation; and target but not always control strategic funding. Partnerships between federal agencies and other organizations can accomplish much more.

With respect to the inductive approach in particular, such a partnership might issue "Think Big" Challenges. Many of the same practical considerations come into play when educating the public in this way as when planning any kind of educational activity. Successful pedagogy in the classroom or in the national arena requires attention to (1) materials development, (2) effective presentation, (3) active feedback, and (4) systemic coordination.

B. Planning and Practical Considerations

1. Materials Development

There is no shortage of great mathematical exercises that could potentially engage the public in Thinking Big. Sources range from NASA's "Mission Mathematics" to the NCTM Standards and from the books of Martin Gardner to the Third International Mathematics and Science Study. The challenge is to select and package them appropriately. One mechanism would be to establish an editorial board within a nonprofit organization. Companies, agencies, and colleges that join this organization as sponsors would suggest particular exercises and rationales for the editors to consider publicizing through this program, but under their own names.

The problems selected should be simple to state without relying on formulas or graphs. Ideally, a fourth grader should be able to understand each, and make some progress on the easiest cases. The target level would be eighth grade, however. Each exercise should have the potential to expand into much harder challenges as well. Reasoning, statistics, probability, algebra, and geometry would be more appropriate subjects than routine arithmetic calculations or story problems. The challenges need not be "real world" ones as long as it is possible to communicate explicitly why each is important, especially by supplying similar examples and extensions.

2. Effective Presentation

Exercises would appear regularly, say every week or two, with the same recognizable format in many different places. Albert Shanker's columns are an example of such a strategy. Each of these would be introduced by a different celebrity or important figure who would explain why they and the organizations they represent find the exercise that follows especially interesting or important. Along with this would be information on how to find hints, help, and related materials both in person locally and also on-line. Possible print outlets might include USA Today and Parade Magazine, among others. Video or radio versions could also be available. The Ad Council has been quite helpful planning similar campaigns in the past.

3. Active Feedback

Every student should be able to find an individual or group to work on these and related exercises with. It might be a teacher, a volunteer from local industry, or a telementor. Coaches and teams who register with the nonprofit coordinating organization would be listed through 800 numbers, the Web, and other readily accessible sources. They would enter into a contract with the coordinating nonprofit to receive support, training, and materials in exchange for following recommended guidelines and standards for this work. As with READ*WRITE*NOW, such efforts would do well to focus during the summer, at least initially. Student solutions could be systematically passed around among teachers and exemplary ones publicized.

4. Systemic Coordination

The exercises presented to the public should not just be random good ones, but rather suggest, as a whole, a vision of high-quality middle school mathematics. Most important would be for these problems to serve as sound preparation for the voluntary National Mathematics Test under development. They should also be tagged to the NCTM Standards and, wherever possible, to state mathematics frameworks. The explicit involvement of employers, professional societies, and Federal agencies in the nonprofit coordinating organization should also help.

C. Next Steps

1. Vetting

This part of a plan seems consistent with the principles for improving mathematics education that have come up so far in discussions with parties ranging from the Conference Board in the Mathematical Sciences (CBMS) to the National Council of Teachers of Mathematics (NCTM) and from the American Association for the Advancement of Science (AAAS) to the National Alliance of State Science and Mathematics Coalitions (NASSMC). Notes from these rather open-ended conversations are attached. Specific reactions and suggestions concerning this plan for presenting mathematics to the public are needed now.

2. Organization

The value of nonprofit, third-party coordinating organizations in education reform has come up many times. Is that the appropriate structure here? Could an existing one, such as NASSMC, take on this task? Does it make sense to think in terms of sponsoring members that are Federal agencies, corporations, universities, etc.? What kind of contract should they enter into to become members? For example, in addition to paying the development and advertising costs for an exercise to be published in their name, perhaps institutional members should also supply dues, coaches, and other forms of support. What about the structure of coach and team agreements?

3. Participants

Assuming that an organizational structure like the one sketched above makes sense, a few high profile participants must sign up initially in each of the different categories: editors, sponsors, publishers, coaches, teams. MSEB would be a good source for editors. NASA, NSA, CBMS, AMS, IEEE, Microsoft, Intel, or any of the 240 high-tech corporations already pledged to national standards seem like natural sponsors. Some of these might have celebrity spokespeople of their own, or more could be contacted. *USA Today* and *Parade Magazine* are prospective media outlets, but the Ad Council would have more suggestions. There are many state and local organizations already working with students, many of whom might be happy to join up and register as coaches for this project.

4. Other Initiatives

This project concerns the public understanding of high-quality mathematics. There are at least three other aspects of improving mathematics education that also deserve immediate attention: sharing classroom "best practices" among experienced teachers as is done in other countries; recruiting more of our best students to go into teaching as other countries do by making it a more attractive and respected profession; and learning more about mathematics education through continuing cooperative research with other countries.

Further Reflections on Partnerships
(6/18/97 meeting and related phone conversations)

1. Goals of partnerships I heard at yesterday's meeting:

- a. preparing for the national 8th grade mathematics test
- b. changing the national climate for aspiring to high standards (i.e., why math is important)
- c. helping organizations work smarter: "nudging" them toward effectiveness
- d. creating new organizations that facilitate teacher/student performance and mobilize communities to improve what schools do.

All of these goals require the production of materials, some "technically" oriented and available to specialists such as math teachers, others more popular and geared to audiences reached through the mass media (esp. newspapers and TV). (In response to the demand for "where's the math?" Danny will take the lead in describing appropriate math problems for kids grades 5-8. The rest of this document addresses issues of dissemination and support, which a partnership might assist.)

2. Partnerships can help achieve any of the four goals.

The local school district can be the most omnipresent partner, though some activities would not involve the formal system -- at least not initially. Each goal would require the participation of different organizations. The key categories are: Federal agencies, professional societies, higher education organizations, private foundations, State math and science coalitions, media organizations, and business/industry. Note that the State math and science coalition is the principal body, in the form of a preexisting 501(c)3 organization, that acts as a clearinghouse/liasion/third-party honest broker. (In a research context, NAS plays this role; there is nothing comparable for "action" or implementation of reform with a "national" reputation and record of performance. That is probably good, given our sensibility about local control, local choice, and one size not fitting all.

3. Lessons from the National Alliance of State Science and Mathematics Coalitions (NASSMC): Call to Joan Donahue 6/18

- a. NASSMC was created by NRC/MSEB in 1989; it became independent in April 1995 as a (mostly volunteer) membership 501(c)3 organization with intellectual roots in mathematics research and employment
- b. its chief partners are NASA and NSA (Fed), Exxon Ed Found, Ed Commission of the States, and NASA contractors (e.g., TRW)
- c. Donahue and Ken Hoffman have been involved in the systemic reform movement from its beginnings, with some state coalitions becoming NSF SSLs (e.g., Nebraska)

- d. most of NASSMC's funding is core support; it clearly plays a clearinghouse role, using NASA's interests and network to create pilot projects in CO, MS, and OH; a second wave of development is beginning in LA, WY, and MD, with Exxon providing dollars through NASSMC for infrastructure building in these states, which are matching Exxon dollars
 - e. because NASA has an MOU with 30 corporations, they are about to revisit the terms of agreement
 - f. other items of note: (i) NASSMC is exploring a connection to CPRF, which would couple implementation with a research base; (ii) the best state example of connecting K-12 and higher ed, according to Donahue, is KS; (iii) NASSMC has functioned as a kind of technical assistance provider, especially states not awarded SSIs. Now that SSI is ending and most states will not be awarded phase 2 awards, scale-up and institutionalization become even bigger issues. And state professional associations have not been successful in providing continuing support of existing infrastructure, so NASSMC, SSI, and 501(c)3 organizations are the only alternatives.
4. Professional Associations of Mathematics Educators: Conversation with Linda Rosen and Gail Burrill (6/16)
- a. Among the organizations to surface - and logical participants in math partnerships - were The Business Roundtable, AFT, and science centers, in addition to NCTM and AMTE (among others)
 - b. Both "Math in the Mall" and a "Math Walking Tour" have a populist, community-based feel (which suggests to me that in addition to the Boy/Girl Scouts and ASTC, I would get back to Yolanda George to identify site-specific organizations known as good partners). CPMSA is school-based; AISES, which also came up, is a professional association with the predictable strengths and weaknesses.
 - c. In addition to the names mentioned by Linda and Gail - Jack Kahn (sp?) and Penny Booth, I would call Mac West (who knows the informal science world and whose perspective would augment ASTC's Bonnie Van Dorn).
 - d. In general, I applaud what was stated as needed in this conversation, including the Federal role as disseminator of materials/models and matchmaker. But just by being associated with an effort the visibility brought by the Fed Gov could undercut local effectiveness. This chat was short on specifics and offered few "grabbers."
5. System-wide Considerations in Forming/Using Partnerships: A Conversation with Richard Cole and Yolanda George (6/11)
- a. Big messages: Create quid pro quos; MOUs state expectations explicitly; partnerships need a deliverable (for accountability) and not just a mission statement; forge school-home-community links
 - b. A dissemination sequence should be thought of as public relations information on academic success → district message.

- c. The outsider role is unique because it brings expert credibility, but no political baggage; its strength is independence, the weakness is its detachment from SEAs (the difference in persuading individuals and imposing on them).
- d. Another difference between these two individuals and the others is their expectation that even potential partners will disagree, that the process of coalescence is fraught with tension, in need of resources, staff, rewards, and sanctions for performance.

*Math-Sci
Partnership*

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ADDITIONAL MESSAGE:

This is just to help stir further thinking about partnerships. For an example of what a recent National Partnership roll-out looks like, see the Vice-President's Welfare-to-Work material released today.

Dan

SCIENCE EDUCATION PARTNERSHIPS:
Manual for Scientists and K-12 Teachers

Edited by Art Sussman, Ph.D.

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A FRAMEWORK FOR SCIENCE EDUCATION PARTNERSHIPS

BY ART SUSSMAN

An early criticism of the partnership movement was that it involved a lot of people running around doing things, but that the whole added up to less than the sum of its parts. Today, on the other hand, one can make a convincing case that a consensus has emerged regarding the kinds of reforms that are needed in precollege science education. As a result, partnership activities tend to address the same constellation of issues in similar ways. While we have not yet reached the goal of a coordinated, coherent reform movement that maximizes the integration of partnerships with a variety of other resources, the agreements about a general framework help make science education partnership efforts more fruitful and more focused.

This framework has several key features. Perhaps most important, it aims to reach all students. Science is not a subject that is reserved for an elite group of white males who hate sports. Everybody can enjoy and succeed in science. All members of our society need to be scientifically literate for their own well-being and for the health of our society. From a society perspective, this argument is usually made in narrow economic terms, that the new global marketplace requires a technically literate workforce. More generally and importantly, our democracy depends on the ability of citizens to think well, solve problems, address technical issues, and make wise choices for themselves, our country and the planet.

The need to reach all citizens is particularly challenging with respect to groups that are underrepresented in science. Current gross inequities

with respect to ethnic minorities and females reflect deficiencies in our educational system and in our society. The new pedagogy must incorporate approaches and practices that encourage, rather than discourage, those who come from groups that are currently underrepresented in scientific fields. For example, what aspects of our curricula, school culture, and testing procedures are brick walls that exist simply because currently successful scientists and teachers surmounted them in the past? We need the wisdom to see these brick walls for what they are, and then replace them with guided gateways. Even more daunting is the need to overcome the devastating handicaps of poverty and disintegrating communities.

Successfully educating all students also requires a radical change in the roles of the student and the teacher. The term constructivism is often used to describe the new approach. The student constructs her or his own meaning as she or he integrates new learning experiences with prior conceptions. The teacher does not lecture and thereby pour facts and information into empty vessels. Rather the teacher acts as a facilitator who provides an environment where students directly experience rich situations and then, often working in cooperative groups, they utilize higher-order thinking and problem-solving skills to make sense of the world. The problems that they study relate directly to their lives and reflect the real world of science. Excellence and equity go hand in hand. Many of the changes that make it easier for underrepresented groups to succeed — such as replacing lessons that emphasize lecture and vocabulary with student-centered learning involving a high proportion of hands-on experiences — also improve everyone's science education.

Radical reform in science education also necessitates radical change in the nature of schools and the teaching profession. A teacher is probably one of the only professionals in America who does not have her or his own phone at work. As a profession, teachers have low status in the community, are poorly trained to do the job that the modern world requires, lack essential equipment and supplies, lack planning and preparation time, do not have the power to make the changes that are needed in their workplace, and are isolated from each other and from the adult world.

Many of the programs described in this book are models of how partnerships can address these issues. Curriculum experts at the Lawrence Hall of Science tell how they work with teachers and school district administrators to develop curricula that engage students in meaningful hands-on activities and then integrate these lessons within a multiyear course sequence. University scientists from Chicago, San Francisco and Washington state describe workshops that integrate new curricula with teacher training and with other efforts to change the existing school culture. Famous scientists regard and treat teachers as professional equals. Many programs bring the richness of the scientific world directly into the classroom for students to experience scientists as normal human beings and scientific issues as being relevant to them and within their grasp. Female and ethnic minority role models from universities, health professions, and industry prove that the technical world can be open to all.

An important feature of science education partnerships is that they are beginning to effectively weave together the different strands of the science reform movement. Earlier reform efforts tended to emphasize just one aspect of the problem. World famous experts wrote new curricula in the expectation that improved textbooks and lesson plans would fix science education. Instead the products sat on the shelves. A current popular misconception is that the tests are the main problem, and if we could replace multiple choice exams with performance assessment we would fix science education. The better partnerships recognize the many dimensions of the current situation that need to be addressed simultaneously. Teachers need instruction in new content and skills; they need lessons and materials that embody the new philosophy; they need samples of and training in alternative assessment tools; and they need support back in the school and the community or else the vast inertia of the existing school culture will doom all our efforts.

"Systemic reform" or "systemic change" is the current buzz word for this kind of integrated, comprehensive and radical change. In addition to projects at the local level, the systemic change movement has a national and a state policy component. One articulation of the systemic reform model emphasizes the description of a vision of excellence in the form of standards. Three panels under the aegis of the National Research Council (the principal operating agency of the National

Academy of Sciences and the National Academy of Engineering) are currently developing national science education standards in the areas of curriculum, assessment and teaching.

The science curriculum standards will define the kinds of experiences that produce the science learning outcomes we desire. They will also provide a broad view of what students should learn — the scientific information (facts, concepts and big ideas) as well as the modes of reasoning and proficiency in conducting science investigations. The curriculum standards will also call for students to have the skills and desire to apply this knowledge outside the classroom.

Assessment is the tool that is supposed to inform us if we are going in the right direction, if we are achieving the outcomes that we desire. Assessment plays important roles at the daily classroom level by teachers as well as at the school, state and national levels. The most common headlines about schools appear right after the announcement of the latest round of mediocre to terrible student test scores on state, national or international examinations.

In addition to being a diagnostic tool, assessment also very directly tells students, teachers and parents what the education system thinks is important. Teachers and students often make the test a focus of their efforts. If we want the entire educational community to place a high value on hands-on experiences and higher order thinking skills, we sabotage our efforts if we then grade students using multiple choice tests that reward them for memorizing vocabulary and isolated facts ("the mitochondrion is the part of the cell that makes energy"). The new science assessment standards will define protocols for assessing students' accomplishments in ways that are valid and that reinforce the learning outcomes that we desire.

The teacher is the key to effective science reform. All the other pieces can be in place, but the reform movement will fail if classroom instructors do not have satisfactory training, knowledge and support systems. Science teaching standards will define the skills and knowledge that teachers will need as well as the necessary components of professional training programs for certifying beginning teachers and providing essential staff development for the large pool of existing teachers. The new teaching standards will also define the support systems and

resources that need to be in place at the school site itself.

How can these national standards help make changes at the local school sites? On a grass-roots level, they provide powerful support that reform advocates can use with school boards and education administrators at state, county and site levels. On a more formalized state level, many states adopt science curriculum frameworks that describe the parameters for science education in that state. These documents vary in the

Partnerships can play a vital role in translating these standards, frameworks and assessments from the realm of abstract principles to the world of actual classroom practice. As testified by the many articles in this book, science education partnerships are a very flexible tool for bringing rich scientific resources into the hands and minds of teachers and students.

scope and authority, but they can have great influence on classroom teaching. Many states are already revising their science curriculum frameworks so that they embody reformed standards such as those emerging from the National Research Council or are contained within the Project 2061 documents of the American Association for the Advancement of Science. Many states are also changing the tests that they administer, moving away from recall-based multiple choice examinations to more authentic instruments that emphasize higher order thinking skills and the performance of tasks that require the application of scientific skills and knowledge to solve problems. A prominent feature of the systemic reform movement is this embodiment of world-class standards within new curriculum frameworks coupled with assessment instruments that are based upon and reinforce the new standards.

Partnerships can play a vital role in translating these standards, frameworks and assessments from the realm of abstract principles to the world of actual classroom practice. As testified by the many articles in this book, science education partnerships are a very flexible tool for bringing rich scientific resources into the hands and minds of teachers and students. In addition, the scientists who participate in these programs can then contribute much more meaningfully to the continuing

efforts to define and implement a truly effective science education system. The committees developing standards, frameworks and assessment include scientists who have some real knowledge of elementary and secondary schools because they have actually worked inside classrooms and side-by-side with teachers as a result of partnership programs.

Science education partnerships are providing the training ground for t-RNA people, a new breed of hybrid professionals who have experience, respect, knowledge and skills in both the scientific research world and in the precollege education community. Living systems operate with two languages — the nucleic acid code that is the basis for information storage (heredity) and the protein assemblies of amino acids that provide the foundation for all cellular structures and functions. Transfer RNA (t-RNA) is the translator molecule in the cell that speaks both languages and enables the information that is stored in the nucleotides of DNA to be translated into the sequence of amino acids that make up proteins. Most scientists had very atypical experiences in their schooling and live in a very different world from elementary and high school classrooms. Most teachers, especially at the elementary level, have a very limited background in science. Even those who have taken more than one college course that includes a "laboratory" section have never experienced science as it is practiced in modern laboratories. More t-RNA people are needed to speak both languages and make the vital connections across both worlds.

Many of this book's authors are these hybrid professionals who, despite institutional resistance and the frustrations of obtaining funding, have persisted in creating living partnerships. There is no single formula for creating an effective partnership. Many different models have worked in different communities. The following article by Bruce Alberts describes one general recipe for getting started.

10-STEP RECIPE FOR STARTING A PARTNERSHIP PROGRAM

BY BRUCE M. ALBERTS

The UCSF Science and Health Education Partnership (SEP) was started by myself and David Ramsay, the vice chancellor for academic affairs. I had accidentally discovered David's interest in the schools when he and I were seated together during one of those interminable, official university dinners, which I had been obligated to attend as chairman of the Department of Biochemistry and Biophysics. The fact that David and I held positions of authority at UCSF was a great help in getting the UCSF program started quickly. The individual who attempts to start such a program will generally lack the advantages that the two of us had, and I have written this "how to" essay with this in mind. If you are energetic, tenacious, and believe that the reinvigoration of public education is of critical importance for the future of our democracy, you might find satisfaction by exploiting the following plan:

- 1. Find six or more outstanding teachers in a local school district.** Nothing can be done in a partnership program without first recruiting a small team of dedicated, talented teachers to provide informed leadership. You and your colleagues will be both educated and inspired by your interactions with these energetic individuals from the "front lines." Ask the first outstanding teacher you find for the names of others.
- 2. Get the superintendent of the teachers' school district to support the formation of your new partnership.** Use the advice of your teacher group concerning how to proceed. Sell this idea by cit-

ROUGH DRAFT

DISCUSSION PAPER -- PARTNERSHIPS TO SUPPORT THE MATH STRATEGY

June 17, 1997

#1 Partnership to Improve Math Teaching in Grades 5-8

- Make sure every teacher preparation program provides a strong preparation for those who will be teaching 5-8 mathematics.
 - Prepare paper/statement on what works in teacher preparation for 5-8 math
 - Recruit teacher prep programs to sign-on to principles and develop network of schools
 - Do POTUS event with college presidents and deans in the fall, and challenge additional ed schools to adopt principles
- Make sure that every state (or school district) has a solid middle school/junior high math certification for new teachers.
 - Conduct study on current state licensure practices
 - Get INTASC, or identify another entity, to develop a content-strong model middle school math certification
 - Enlist math-science/business community to push for adoption at state level
- Get at least one National Board certified math teacher in every middle school/ junior high
 - Announce that NBPTS will complete middle school math certification next
 - Commit support for [one teacher/school/year] to prepare for and undertake the NBPTS assessment (99 budget)
 - Private sector match or other form of support?
 - Support one or more networks of middle school teachers preparing for NBPTS certification

(Key issue: whether to focus on honing skills of good teachers or devote more funds to help a broader range of teachers improve their skills)
- Ensure that TIMSS and proven practices are incorporated into continuing professional development for teachers.

- Prepare targeted materials on research findings, successful models and materials.
- Disseminate or place in publications for state board of education members, key state legislators, local school board presidents and superintendents, principals
- Could also target info to vocal groups in math-science community (e.g. engineers) to equip them to “ask the right questions” of superintendents, principals, etc.

#2 Partnership to Provide After-School, Weekend, and Summer Math Enrichment and Homework Help Opportunities

- Could focus on several types of activities, based on community interest, personnel and resources:
 - Math enrichment activities (such as problems that draw on local resources such as libraries or museums), math games, and solving “the problem of the week.”
 - Skilled assistance for students with math homework
 - Using paid or volunteer 5-8 math teachers
 - Teachers could be on-site or serving multiple sites via video conferencing/Internet telementoring/homework hotlines
 - Using teacher prep candidates and others knowledgeable about math and math education
 - Engineers or others with strong math background with proper training?
 - Peer assistance for students with math homework
 - Draw on older students, especially aspiring teachers
- Could be held on school site, in libraries or children’s museums, at colleges/universities, at federal facilities/offices, or at other locations
- Could be sponsored/facilitated by businesses, math-science community (e.g. Engineers), higher ed
- ED/NSF could provide templates for local programs (as ED has for Read*Write*Now) and high-quality materials with suggested activities

#3 Partnership to Develop, Disseminate, and Engage the Public with a “Math Problem of the Week” to Increase Interest in and Support for Challenging Math

- Problem would demonstrate the caliber of math necessary to succeed on 8th grade math test
 - If successful, could add additional grades
- Contract out for preparation of problems, solutions, and more in-depth discussion of underlying math principles and opportunities for additional practice and learning
- Secure commitment of newspaper publishers to publish new question each week, as well as a brief version of solution to the previous week’s problem
 - Make additional/supplementary materials available from a 1-800 #, on the web, or through NCTM, etc.
- Encourage families to discuss at home, teachers to use as extra credit/go over in class, use as activity for after-school/weekend/summer programs, boy scouts/girl scouts.
- Perhaps could use as basis of local/regional student competitions

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- ED/NSF could provide templates for local programs (as ED has for Read*Write*Now) and high-quality materials with suggested activities

#3 Partnership to Develop, Disseminate, and Engage the Public with a “Math Problem of the Week” to Increase Interest in and Support for Challenging Math

- Problem would demonstrate the caliber of math necessary to succeed on 8th grade math test
 - If successful, could add additional grades
- Contract out for preparation of problems, solutions, and more in-depth discussion of underlying math principles and opportunities for additional practice and learning
- Secure commitment of newspaper publishers to publish new question each week, as well as a brief version of solution to the previous week’s problem
 - Make additional/supplementary materials available from a 1-800 #, on the web, or through NCTM, etc.
- Encourage families to discuss at home, teachers to use as extra credit/go over in class, use as activity for after-school/weekend/summer programs, boy scouts/girl scouts.
- Perhaps could use as basis of local/regional student competitions

Partnership

Partnership would be focused on improving math teaching in grades 5-8

objectives:

- ✓ making sure that every teacher preparation program provides a strong preparation for those who will be teaching late elementary/middle school/junior high level mathematics.

Had been thinking about holding off on teacher preparation--getting something done on what works in teacher prep--Carol Lacampagne is reaching out to AACTE, etc. to have them involved in developing; then Goroff would take the lead in getting people to sign up; do an event with POTUS in late fall/winter saying that we sign on and challenge others to do the same

- ✓ making sure that every state and school district has a middle school math certification.

Wants to verify that this should be a goal

Not sure what INTASC has done--will check out

In plan to do study on licensure

- ✓ Push to get at least one NBPTS certified math teacher in every middle school and junior high.

NBPTS will be next out of the gate with--18 months

Could announce that this will be next--would need to let them know

**If we could get 50 million, could prepare every teacher
some need NBPTS prep**

**or could fund good teachers becoming great teachers
that would be funding teacher networks for middle school**

Work to insure that every state board member, every local board president and superintendent, every middle school or junior high principal and every middle school or junior high teacher has been presented with the findings of the 8th grade TIMSS studies and is encouraged to benchmark local curriculum and instructional practices against the TIMSS findings.

Fine--but not talking about benchmarking

Get NSBA to send a letter to every school board member

*TIMSS & other proven practice
incorporated into
existing P.d. for teachers
models {n.b.}*

Federal government would support by:

1. Hosting a conference in fall 97 on middle school math, that partnership reps would participate in
2. Commissioning/assembling a paper on model middle school math prep programs and principles, to be released at the fall 97 conference
3. Funding INTASC to develop a model middle school math teacher certification; possibly could also fund a survey of existing state certification practices in this area.
4. Funding an additional X teachers to get NBPTS certification in middle school math, as soon as

certification becomes available

5. Disseminating TIMSS videos, tool kit and other appropriate materials to state and local partnership participants.

6. Networking

Participants

NEA

AFT

NCTM

AACTE NCATE?

State Math and Science Partnerships

Business Partners

CCSO

NSBA

AAAS

MAA
Engineers?

MSEB recommendations

Maybe too teacher-bashing

Mike Smith's thinking is that people want to do things--need to give them an avenue

Math associations--math professors/engineers

business

Diagnostic test for teachers (special tools for helping teachers prepare their students for students for the tests)

NASBE *① higher ed*
② Chicago Academy - math/sci comm
③ business comm role - in pd /
board cert
- math/sci / engineer in
business to help further
understand math/applic
- business comm part
in final improv
p. d. academi /
for the 6th
cert

Project driven for CTSSI
Head of Connecticut Academy for Education, Middletown
Richard Cole, Connecticut; conference call
Will try to set up for early afternoon

AAAS - Lillemor Dean chair
Yolanda George, Shirley Malcolm's deputy, science linkages in the community--lots of work in
building partnerships--cities over time; on the road a lot; maybe a conference call
Rochester, Chicago, Kansas City

Can't do tomorrow

Thursday--
maybe early afternoon

Friday tight

Engineering -
BD of Engineering education Denise Denta
Bill Wolfe

Acad of Engineering -
Focused on standards in technology education

International Tech Ed Assoc

Also involved in supply side -

not sure how to do it

Bring up, connect to the next.

Good at running design competitions

Partnership possibilities - from J. J.

CBMS

DOT- they are making contacts with specific companies that might be interested

High tech companies joining in CA announcement

BRT

NAB

All the national engineering organizations

NAS- MSEB and Engineers

NCTM

Elementary and Secondary Principals

NEA

AFT

National Middle School Assn

PTA

NASSMC

AAAS

Math-Science Action Strategy

Report

Wurtzel has revised, focusing on policy discussion rather than intro; Corwin likes; Sunley doing small edits

Circulating to working group ~~tomorrow~~ *to day*

Will have them meet Friday or Monday and get input

Then will need to do ED/NSF and other agency clearances *(via OMB)*

I have a working copy *the*

Need to recalibrate timeframe

Partnership

Sketched out objectives and federal support for a more focused partnership

Daryl and Judy have discussed and like

Judy will discuss with MS

Daryl has arranged 2 pm conference call with CT SSI director and AAAS

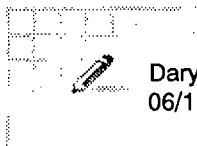
Daryl is calling leaders of national association of state math and science coalitions (NASMC) to set up a call-- Joan Donahue and Ken Hoffman

Judy -- Linda Rosen and Gail Burrill will call or meet with us Monday or Friday

Danny will speak with Engineers

Also:

Judy has been talking with Jon about involving the 240 CEOs group in telementoring or software development re: math.



Daryl E. Chubin
06/11/97 03:29:47 PM

Record Type: Record

To: Michael Cohen/OPD/EOP, William R. Kincaid/OPD/EOP, judy_wurtzel @ ed.gov @ inet, Lwilliam @ nsf.gov @ inet

cc: Daniel L. Goroff/OSTP/EOP

Subject: pushing on partnerships: a conference call

I have arranged for a conference call tomorrow -- Thursday, June 12 at 2 pm -- to inform our thinking about partnerships. Two persons with considerable experience will be patched in: Richard Cole, CT Academy of Science and Head of the CT SSI (phone: 860/346-1177), and Yolanda George, Deputy Director of Education and Human Resources at AAAS (phone: 202/326-6677) who, among other duties, oversees the SLIC (Science Linkages in the Community) project. Each has fostered, formed, and tried to sustain partnerships in the K-12 math and science arena. Richard starts with the formal system and works out to the community, Yolanda starts with the community and seeks to connect the resources of informal education with schools. Each will offer what should be valuable advice. Before 2 pm, Bill or I will call each of you. If your schedule permits, please join us.

Thanks, Daryl

Notes for Rosen, Burrill conversation

As you know, the Department, NSF, and others have been working on an action strategy for better using federal resources to help states and school districts meet challenging standards for 8th grade math, and for involving the math, scientific and technical communities in support of those efforts.

One of the areas that we have been exploring is that of establishing one or more partnerships that would engage outside groups, educators, higher ed, business people, and the math and science community in specific aspects of improving math education.

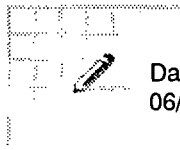
We think that the effort should be highly visible, and should provide opportunities for lots of people to become engaged. Whatever we do, we want to be sure and focus on what will be most useful.

We don't have lots of money, but we do think we could bring a lot by way of the bully pulpit, and leveraging of resources.

Two of the areas that we have been talking about are in the areas of supporting teaching, and hands-on work with students.

We would like to get your ideas on what kinds of activities would make sense strategically for one or more partnerships, that we would help to pull together.

Is there either something that isn't taking place now that should be, or activity that is currently taking place that we could help give a boost to. Something that we could add value to.



Daryl E. Chubin
06/11/97 03:29:47 PM

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Thanks, Daryl

Notes from Rosen, Burrill conversation re: partnerships June 16, 1997

Importance of understanding the importance of math in kids lives

understanding the kinds of mathematical abilities--
getting leaders of industries to buy in

getting support for summer opportunities and year-out sabbaticals for teachers where they get a chance to see what's taking place hands-on

There are examples of places that are taking place--

such as Fermi, energy centers

hands-on work with students
don't want to suggest that teachers knowledge on the side

Burrill -- If could bring together business people, math and science people so everyone could understand better. Need for a conversation for those who know about the content area or will be getting their students as employees. Venue.

Rosen -- more by way of competitions for all students -- MAA and NCTM -- task force -- need for affirming types of competitions. Proposal into NSF for a modeling competition.

Burrill -- children's museums and science museums could be a good source of activity.

Wurtzel -- Any good models of ongoing activities?

Burrill --

Baltimore

Rosen--

Boy scouts and girl scouts -- merit badges.

NSF/CPMSA -- lots of proposals for programs

See lots of this on Indian Reservations

Teacher preparation

Burrill -- Key area -- don't have a good handle on dimensions so far. Big problems in magnitude and diversity-- lots of prep going on at small schools. Assoc. Of Math teacher educators.

NCTM--lots of members are teacher educators. AACTE. Nervous that going to be forever in a catch-up area. Some things that we clearly know -- thinking and reasoning skills. Unless we help those who are teaching the teachers come to grips with this...how to get beyond skill and drill. Lots of first-year teachers.

Rosen -- issue is often those already teaching, and in-service --

Burrill and Rosen, start with middle school, than bring on K-4 and then 9-12. What's going on in early childhood -- makes sense, but then it follows.

NSF -- OH State, IL State, etc. funded to develop a specific middle school prep program--not much known about these programs--whether they were successful or not. Would be nice to know. Chubin hasn't heard anything about it.

In Michigan, they were almost ready to mandate a middle school certification there -- undermined by other parts of the community -- universities didn't have the resources to focus on middle schools. Relation to size of schools.

Burrill --

If going to focus on NTSB, having a scaling up problem -- haven't begun the middle school math assessment.

Standards doc that they have just went out to the field a couple of weeks ago.

Were building assessment development on the funding opportunities that they had.

Rosena nd Burill both like the idea of focusin on middle school certification

Important to develop that is different, and has own rewards and challenges.

Goroff--

Lasting effect on campuses minimal -- chapter from book.

IL State, Portland State, etc.

Burrill--

Hasn't paid attention yet to INTASC

Both could become very powerful

If certification requires, then states and institutions will have to figure this out.

Wurtzel--

Concerned that its only K-12 (not grade level), and little on content--mostly pedagogy.

Could get NCTM to sit down with them on a formal level--had done this with NBPTS

Chubin--

Has this been done?

Rosen will look at.

Burrill --

AFT--have they done this?

AFT is very keen on making a difference here.

NEA talks about it, but not doing much on it right now.

Rosen--

Reluctance to identify something

Burrill--

People who get involved have to come with a higher level of understanding of math
Volunteer era

Link up H.S. and college students with middle schools

Wurtzel--

In reading, we have college work-study

Burrill--

Used to do this for kids at top and the bottom--

Would assign high school kids to provide tutoring

H.S. kids, middle school kids, and the parent

MAA, etc.

Mentoring all the way down.

Engineering groups--

Anxious to roll up their sleeves--but want to make sure can do in a useful way.

Need to empower people to talk to school boards and principals--
to help ask the right questions, etc.

NSBA has approached NCTM--

Can hardly keep up with the educative process that they need -- can we put a good brochure in
their hand for the decisions

Not a middle school piece, but a math piece

Would be helpful to educate the public

NASMC

Burrill--

Links to the kids--

Away to use media, tv, newspapers--

Setting up homework hotlines?

From 4-5 a teacher is online or on tv, teacher answers the questions. Not just the teacher, but if a
way that teachers in the school can work with teachers -- public volunteers can help with. Just
need a TV or a telephone. Penny Booth. Would need teachers and the community. Could tape
and do homework clubs. Have a curriculum.

Telementoring?

Internet is often one-one one. Whereas TV

Genetech, DBN and others are doing.

NCTM Board meeting in July



Judy_Wurtzel @ ed.gov
06/12/97 03:09:00 PM

Record Type: Record

To: William R. Kincaid

cc:

Subject: NCTM contact

linda's number is 703-620-9840 x 110 - she will connect w. Gail. What time are we shooting for?? Judy

Wurtzel
chdsn / caraff
→ Burrill
→ Rom

Val -
401-0275

1/20

Winter

Olympiad
Awards

Ø 10-10:45
noon - 2. 11-12

Ø 1:00-2:00

[2 ok
prep at 3:30

11-12

2-3:30 [2:15]

3:30

Miss

✓
ORGANIZATIONS IN ***THE PROMISE BOOK*** THAT ARE PRIME CANDIDATES
FOR A PARTNERSHIP TO IMPROVE MATH AND SCIENCE EDUCATION

from
Daryl
Chubin

Specific Commitments to Math or Science

AFL-CIO
America Online
Amoco
Council of Chief State School Officers
Elementary Science Education Partners (ESEP)
Eli Lilly and Company
Entertainment Coalition for Education
Department of Transportation
Glaxo Wellcome
Hewlett-Packard
MCI
National Council of Negro Women
Pfizer, Inc.

profiles
follow

General Commitments to Education or Technology

ASPIRA
AT&T
Bank of America/Seafirst
Bonner Foundation
Continental Cablevision (USWEST)
Elderhostel
Fleet Financial Group
Generations United
Microsoft Corporation
National PTA
NationsBank
Nature Conservancy
NetDay 2000
Procter & Gamble
Project NEAT (National Education Advancement Team)
Steering Committee of College Presidents
Sun Microsystems
United Airlines
US West

AMERICA'S PROMISE

THE ALLIANCE FOR YOUTH

America's Promise – The Alliance for Youth is the multi-year, national campaign that will take the mission and goals of the Summit forward. Officially launched here in Philadelphia, America's Promise will aid in ensuring that our nation's young people have access to the five fundamental resources by coordinating involvement of organizations and individuals from the private, public and non-profit sectors. Working with Task Forces in each of the five resource areas, America's Promise is designed to be a fluid alliance of entities that will, among other things, encourage new promises, and enhance, manage and monitor existing ones.

AMERICA'S PROMISE BOARD OF DIRECTORS

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Colin L. Powell, *General, US Army (Ret)*

Vice Chairs

Lynda Johnson Robb
Chairman, Reading is FUNdamental

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Foundation

909 North Washington Street, Suite 400
Alexandria, VA 22314-4556
Fax 703.684.7528 • Tel. 703.684.4500
www.americapromise.org

How To Use "The Promise Book"

The first section of this book is an alphabetical listing of all promise makers as of April 18, 1997. In the second section, you will find a detailed description of each promise made. The final (5) sections will be a directory broken down by promise type.

For more information,
or to make a promise,
call 1-888-555-YOUTH.

The Advertising Council

The Ad Council will launch a new campaign for the Summit and its successor organization, America's Promise. The Ad Council will deliver 2.1 billion exposures to messages and will forward the names of respondents from a special June 1997 Reader's Digest section focusing on the needs of children.

AFL-CIO

AFL-CIO and its affiliate, the American Federation of Teachers (AFT), will mobilize its membership through AFT locals and the network of AFL-CIO state federations and central labor councils to provide a school-to-work experience for 500,000 high school students by the year 2000. By utilizing the existing ties between the AFL-CIO, its 78 national and international union affiliates and workplaces across the country, along with the relationships that already exist between AFT and high schools, students will visit workplaces or participate in presentations from union members to see and hear America at work to stimulate their thinking about the jobs and careers that could be available to them. The importance of achieving high academic standards and graduating from high school in order to pursue these opportunities will be a significant component of this experience.

Aid Association For Lutherans

The Aid Association For Lutherans will mobilize youth to provide over one million hours annually to volunteer community service and will increase its annual investment in youth leadership development and life skills training by \$5 million.

Allstate Foundation

The Allstate Foundation is funding a new crime prevention program for young people age 11-13, with the Boys and Girls Clubs of America. "Street Smart" is an 8-10 week program that will help teenagers understand and avoid gangs, violent behavior, juvenile delinquency, and anger, while reducing the likelihood of their becoming involved in any of these activities. Allstate is supporting the work of the Summit and America's Promise with \$26.25 million in cash and in-kind contributions between now and the year 2000.

Alliance for Justice

The Alliance for Justice will strengthen the voices of young people as community problem solvers by funding delivery of their new youth training program in at least 50% of the Summit communities and expanding their First Monday program engaging lawyers as mentors for young people.

America Online

AOL will mobilize AOL's 8 million members and 6000 employees in making a contribution to their communities through volunteer work. The value of the contributed media is \$630,000; AOL projects that its online support has the potential to generate 3,000,000 hours of volunteer service. AOL will create Volunteers Online, an area intended to educate the public about the Summit and America's Promise; PSA's to promote the Summit; AOL is developing several educational initiatives to advance the use of online technology in America's classrooms. AOL will enter into a partnership with Big Brothers Big Sisters in the National Capitol Area, and other DC-area initiatives.

American Academy of Pediatrics

The American Academy of Pediatrics will expand their CATCH program, Community Access to Child Health. The CATCH Program is a network of 9000 pediatricians and over 600 community

based programs that address access to health care by providing a medical home for infants, children and adolescents. The AAP commits to training an additional 1000 pediatricians in the concepts of the CATCH program. They will in turn develop 1000 new community-based programs that will provide medical homes for underserved children. The AAP anticipates that this promise will provide a medical home to 500,000 children currently without access to health care.

American Association of Homes and Services for the Aging

The AAHSA will reach out to its 5,000 continuing care retirement communities, nursing homes, senior housing facilities, and home and community-based service organizations to encourage mentoring of young people, recruitment of young volunteers in service to the elderly, and development of relationships of not-for-profit homes and services for the aging with local schools.

American Association of Museums

The American Association of Museums will provide safe places for children to learn and grow through programming delivered both on-site and in schools and community centers. The Association counted forty-eight million acts of service to school children. The American Association of Museums commits to doubling the number of young people engaged in programs over the next five years. AAM has already sent a call to action letter to its membership, placed an item about becoming a promise maker at the local level in its newsletter and created a website link. They have already received over 75 responses from museums wanting to make a promise to the goals of the Summit at the local level.

American Booksellers Association

Through their 3,500 member bookstore

communities in two phases over the next three years at a cost of \$2.5 million.

The American Legion

The American Legion will establish over 10,000 "Safe Kids Communities" through their community-based posts nationwide over the next seven years. Each "Safe Kid Community" will incorporate programs tailored to address their specific needs including child identification and personal safety awareness, safe houses, mentoring, acquisition and development of suitable outdoor recreation sites, and the promotion of programs designed to keep youth activities and instill within them a sense of pride in their communities, state, and nation.

The American Legion Auxiliary

The 120,000 Junior members of the American Legion Auxiliary (18 years of age and under) will establish voluntary service projects in 4,000 communities nationwide. Each group will identify needs in the community and select age-appropriate projects to encourage volunteerism beginning at an early age. Junior members in grades nine through 12 will be asked to devote at least 100 hours per year to community service.

American Lung Association

The American Lung Association will increase the number of schools participating in the Open Airways for Schools initiative to 15,000, reaching 150,000 children. By the year 2000, Open Airways for Schools will have reached 960,000 of the 1,063,000 children aged 8-11 with asthma.

American Medical Association

The American Medical Association will encourage its 35,000 medical students and the nation's 125 medical schools to volunteer time as mentors and tutors in schools. Additionally, the AMA will develop and implement a

comprehensive alcohol control strategy to reduce underage drinking. The AMA will also develop and implement a comprehensive tobacco control strategy to reduce smoking among youth.

American Society of Association Executives

American Society of Association Executives has committed to enlist 1,000 association and industry partners to engage in activities that support the goals of the Summit. In addition, the Association will develop a home page to communicate and coordinate the post-Summit association activities.

American Society of Directors of Volunteer Services

The American Society of Directors of Volunteer Services commits to involve 15,000 children, particularly those at risk, in Health Adventures, in partnership with the American Hospital Association, over the next five years. The Saturday morning monthly educational experience spans ten months and involves volunteer mentors to introduce children to hospitals, health careers and health-care professionals, community volunteering, and healthy living.

AmeriCorps Alums

AmeriCorps Alums will encourage all association members to commit at least 10 hours per month to ongoing service leadership. Local alumni leaders across the country will coordinate with local service providers to provide volunteer people power. The service leadership opportunities will focus on the five Summit goals, with preference given to programs supporting ongoing relationships with young people.

Amoco

Amoco will invest more than \$7 million in educational partnerships such as Celebrating Science (an elementary school hands-on science

curriculum supplement), IMPACT (a junior high school science program), and Junior Achievement (economic education curriculum) which will reach more than 10,000 schools and hundreds of thousands of students, teachers, and parents.

AMVETS

AMVETS quarter of a million veterans and their 1,300 Posts nationwide commit to providing safe places to learn and grow by sponsoring community activities for the nonprofit Summit partners, specifically Special Olympics, the Boy Scouts, and the Junior ROTC. Furthermore, Amvets will set a goal of 100% participation in youth service programs by their state departments.

ASPIRA

ASPIRA will train 2,000 Puerto Rican and other Latino parents by the year 2000 in parent involvement and leadership skills, and encourage them to advocate for the overall academic and personal growth of their children.

Association of Junior Leagues International, Inc.

The Association of Junior Leagues commits to strengthening the capacity of Junior Leagues to work collaboratively in the delivery of quality services to children and youth in all five fundamental resource areas. Within two years, all 280 Junior Leagues in the US will be using a new assessment tool which will enable them to identify barriers and implement solutions for more effective collaborations with their communities. The Association also will introduce an expanded children and youth service program development best practices program which it projects will be implemented by over 75% of the Junior Leagues within 5 years. Finally, the Association will support Junior Leagues in increasing the number of volunteer hours devoted to serving children and youth by 10% in each of the next 5 years from 600,000 to 880,000.

AT&T

AT&T will provide at least 100,000 hours of mentoring, tutoring, and coaching in 40 communities through its AT&T Cares program; provide information to two million families in support of the healthy development of their children; direct at least \$30 million in grants and \$60 million in product services toward converting America's schools to their Information Superhighway by the year 2000; and sponsor Youth Service of America's National Youth Service Day to encourage young people to participate in efforts to improve their communities. AT&T will sponsor the opening day luncheon of the President's Summit on April 28.

Bain & Company

Bain & Company is committing \$1 million from their employee partners to your programs by the year 2000.

BankBoston

BankBoston will provide 500 inner city teens with a job, a mentor, and at least one volunteer in their schools. The bank will also provide \$2 million in philanthropic support in the five resource areas, and will deploy the 5,000 employee Eagle Corps of volunteers in related community service projects.

Bank of America/Seafirst

Bank of America volunteers will commit to completing 1,250,000 hours of volunteers service (a 25% increase) by the end of the year 2000 through the TeamAmerica volunteer network to address the goals of the Summit. In addition, Seafirst is committing an additional \$1 million in educational scholarships that will be provided through the year 2000.

Bell Atlantic and NYNEX Foundations

Bell Atlantic and NYNEX Foundations commit to donating at least \$100 million over the next three years toward the five focus areas of the Summit; donating \$1.5 million toward the

service by the year 2000. Three million children could be the beneficiaries of this multi-million-dollar annual promise. Continental will also provide technology training to teachers in 5,000 schools up to \$3 million in computers and training to teachers this year alone.

The Corporation for National Service

The Corporation for National Service will ask all participants in national service programs to make the maximum contribution toward achieving all five conditions for the success of young people, with a special emphasis on the fifth goal of all young people serving. Working with the Summit Task Forces for each goal, the Corporation will: help recruit one million additional tutors; engage 100,000 students through college work-study, and if Congress concurs, deploy an additional 11,000 AmeriCorps members for America Reads; enlist 10,000 high school and college students to serve at least 100 hours per year for and with youth in school-age care programs; support immunization initiatives; work with the new Partnering Initiative on Education and Civil Society to engage high school students in service-learning; and work to engage an additional 2 million young people in 100 hours or more of service each year, 100,000 additional young people who serve 1,000 hours a year through public/private partnerships and independent, full-time youth corps, and ask colleges and universities and students to commit at least 500,000 work-study positions to community service.

Costco Wholesale

Costco Wholesale commits to expanding their employee volunteer program in its more than 200 warehouse and depot operations from 135 volunteers to 5,000 volunteers. Costco volunteers are participating in programs focused on young people such as Communities in Schools and Adopt-a-School Fresh Start Backpack program, in which school supplies are distributed to

elementary school children. By the year 2000, the program will reach 200,000 children in more than 220 schools.

Council of Chief State School Officers

The Council of Chief State School Officers will work with states to increase the number that include and support service learning as a key strategy for building civic responsibility, improving the quality of life in our communities, and improving academic achievement for all students. Over the next three years, CCSSO will provide resources and technical assistance to help more states develop their policies and practices, reaching 25 states by the year 2000.

The Council on Foundations

The Council will co-sponsor a series of regional post-Summit meetings to bring together foundation, business, and government representatives to plan for fulfilling the goals of the Summit. The Committee on Community Foundations of the Council, on behalf of its membership of 400 community foundations, pledge to more than double their resources (from \$12 billion to \$25 billion) available to meet community needs and will double their grantmaking for children and youth by the year 2005.

Cybermark

Cybermark will commit to funding, deploying and managing 5 pilot projects which will track a young person's use of safe places and provide bonus points for rewards. Cards with customized text and graphics will be issued to community center participants. Terminals will be deployed to verify eligibility, update card data and store transaction data. Customization and technical support services will also be included to bring the project from planning to full operation.

Dayton Hudson Corporation

Dayton Hudson commits to a "Weekend of Giving," a three-year effort to engage employees through its 1,000 stores in projects that encourage young people to get involved in their local communities. Dayton Hudson's, Marshall Fields, and Mervyns stores will recruit 30,000 young people and their families in service projects over a weekend in June.

Easter Seals

Easter Seals will develop and expand children's early intervention and integrated daycare to 100 programs throughout the country over the next three years. These programs offer young children hands-on physical, occupational, and speech-language therapy services and support for their families to ensure that children with disabilities build the skills to succeed at school. Additionally, Easter Seals will expand its services annually to an additional 5,000 children with and without disabilities.

Edelman Public Relations Worldwide

Edelman Public Relations Worldwide is providing both communications and program planning support for The Presidents' Summit for America's Future. It is doing so with a significant pro-bono contribution. In addition, to further America's Promise - The Alliance for Youth, which is the campaign to be launched by the Summit, Edelman has committed itself to the following by the year 2000:

- An expanded intern program that will provide two additional internships for inner-city youth in their Washington, D.C., New York and Chicago offices located in Atlanta, Dallas, Houston, Los Angeles, Sacramento, San Francisco and Silicon Valley.
- A program of pro-bono public relations counsel wherein each of Edelman's U.S. offices, each year through 2000, commits to providing a nonprofit volunteer or service organization in its area with a program for gathering support

for its efforts to deliver to young people one or more of the five resources targeted by the President's Summit.

Elderhostel

Elderhostel commits to engage 15,000 older adults, tripling their expected growth, to short-term public service opportunities that will directly benefit 15,000 young people. Elderhostelers will teach or tutor 115,000 students per year in elementary, middle, and high schools. At camps for special children, Elderhostelers will mentor and provide one-to-one attention to an estimated 5,000 young people per year. At conservation projects in state and national parks, Elderhostelers will work together with 3,000 young people to help improve and preserve the environment for a safe and healthy future, and will serve with 2,000 young people in Habitat for Humanity builds. And to provide an incentive to senior citizens who volunteer for these activities, Elderhostel will offer 500 educational scholarships to participants in the National Senior Service Corps who volunteer at least 15 hours per week at their local elementary schools.

The Elementary Science Education Partners (ESEP)

Programs of Emory University and Morehouse School of Medicine, over the next three years will double the number of undergraduate student science partners in elementary school classrooms from 150 to 300, providing 3-4 hours/week of mentoring for a total of 6000 Atlanta Public School children. ESEP will develop an after school/Saturday program of Health Science Guides for 1000 elementary and middle school children in the Metro Atlanta area, staffed by medical, nursing and public health students. ESEP will produce text and video instructional materials designed to encourage other educational institutions in Georgia and the nation to establish partnerships with schools in their own communities.

Eli Lilly and Company

Eli Lilly and Company will dedicate at least 80,000 volunteer hours and over \$13 million in cash and product contributions through the year 2000 to highlight the program areas of the Summit goals. Specifically, the volunteer hours will be directed toward assisting Junior Achievement, Scouting and Explorer Troops, Big Brother and Big Sister, and tutoring in business and science education. Medicines will be donated through the Lilly Cares program to needy young people. Additionally, Lilly will provide up to 50 college scholarships through the Learning Diabetes Scholarship program and Diabetic Summer Camp program.

The Entertainment Coalition for Education

The Entertainment Coalition for Education, an emerging group of leading entertainment industry studios, agencies, companies, artists and educators, commits to develop a major public awareness campaign designed to support education initiatives in America. This two year campaign will be launched by the fall of 1997, and will ask all citizens to become more involved in teaching and learning and will issue a call to young people to help their peers and build stronger schools and communities through service.

EVEREN Securities, Inc.

EVEREN Securities, Inc. will expand its public school tutoring program to 10 cities during the 1997-98 school year, and to an additional 10 cities in 1998-99. These efforts will result in 1,000 volunteers providing 72,000 hours of corporate work-release tutoring during 1997-98, and 2,000 volunteers providing 144,000 hours during 1998-99. The volunteers will interact with 35,000 elementary school children in 1997-98 and 70,000 in 1998-99.

Every Child By Two

Every Child By Two will work with 12 cities around the United States to promote infant

immunizations through the enhancement of public/private partnerships, a defined agenda with managed care organizations, and technical assistance and training to develop pre-school immunizations at school based health centers.

Family Service America

Family Service America will serve 35,000 children and their parents or primary caretakers through FAST (Families and Schools Together), a collaborative prevention and parental involvement program designed to address the issues of substance abuse, violence, delinquency, and school dropout among children and youth. As a national partner in the Points of Light "Family Matters" volunteer project, FSA will actively involve 500-1000 families in ten new pilot programs.

Fannie Mae Foundation

The Fannie Mae Foundation will support the Presidents' Summit for America's Future with a \$5 million pledge to engage youth in aiding homeless efforts in the Washington DC metro region over the next four years. In keeping with the Presidents' Summit's emphasis on the nation's youth, the Fannie Mae Foundation will engage 50,000 young people as volunteers to reduce homelessness by the year 2000. This commitment broadens the scope of Help the Homeless, an annual effort by the Foundation, celebrating its 10th anniversary of raising awareness and money for nonprofit organizations and community groups that serve the homeless in the Washington area.

Farmers' Insurance Group of Companies

The Farmers' Insurance Group of Companies is expanding their American Promise program, a service-learning program that has been operating in 15,000 schools. The program will be expanded to 150,000 schools by the year 2000. Farmers' Insurance Group has also committed to creating the American Promise Foundation and will provide \$1 million to the American Promise

Education Department

The Department of Education commits to increase its Summer Reading Partner program by increasing the volunteer tutors from 300,000 to 450,000, increasing the number of children reading over the summer from 1 million to 1.5 million. With the concurrence of Congress, the Department plans to launch 1,000 new after-school programs nationwide.

Interior Department

The National Park Service proposes to allocate \$1-2 million per year to expand youth service opportunities to restore trails and facilities in the national parks. The Department will launch two internet-based initiatives: the National Junior Ranger program for children aged seven to eleven, to stimulate interest, knowledge, and career interest in natural resources and the National Park Service Volunteer Opportunity System, a nationwide volunteer opportunity listing service.

Federal Emergency Management Agency

FEMA will offer high school seniors with new service opportunities through a Spring Break Program.

Veterans Affairs

The Veterans Affairs Voluntary Service program will increase by 50% the number of student and youth volunteers in its facilities, bringing the number of volunteers to 15,000.

School-to-Work

The School-to-Work program commits to tripling the number of employers in their program so that approximately 600,000 companies have mentoring initiatives, and bring students and teachers into the workplace by the year 2001.

The Peace Corps

The Peace Corps will triple the number of partnerships with teachers in its World Wise Schools program which pairs returned Peace Corps volunteers with teachers in the schools, and will tell 50,000 young people a year about service opportunities in the US.

The Department of the Treasury

The Treasury Department commits to teach an additional 35,000 elementary and middle school students to avoid gangs and violence through the GREAT program and its 2,000 law enforcement volunteers.

Transportation Department

The Department commits to establish a new tutoring, mentoring and education curriculum, the Garrett A. Morgan Technology & Transportation Futures Program, to reach 1 million students by the year 2000.

EPA

The Environmental Protection Agency will launch a new partnership that will link senior citizens, the fastest growing segment of the population, to environmental service, including teaching children how to protect the health and environment of their communities.

Housing and Urban Development

HUD will expand its Neighborhood Networks program to create 500 computer centers in assisted or insured housing by the year 2000, more than doubling its current program. HUD is also committing its resources to a partnership with the NCAA to support education camps in four empowerment zone/enterprise communities next year, and 25 communities by the year 2000.

OPM

The US Office of Personnel Management will give the federal agencies the personnel tools they need to support federal employee participation in communities service.

The Selective Service System

The Selective Service will expand their information on serving the nation to include information on community and national service opportunities that arise out of the Presidents' Summit to the nearly 5,000 men turning 18 years old every day.

volunteers, in addition to direct service such as tutoring, will facilitate the delivery of effective Head Start programming, including supervised mentoring relationship with young parents, assisting with health screening, nutrition education, and training in effective behavior management skills.

General Electric

General Electric employees will annually volunteer one million hours in community service for our nation's youth – doubling the current service of the "GE family." The GE effort will be led by Elfun, the company's volunteer service organization of 36,000 members in 73 locations.

General Federation of Women's Clubs

The General Federation of Women's Clubs pledges to establish and support volunteer tutoring and literacy projects in each community represented by their 6,500 clubs across the country by the year 2000.

General Mills

General Mills will commit an incremental \$2.1 million to the Challenge U program to provide scholarship grants awarded to students who stay in school and achieve good grades. The program, targeted to youth at risk, will fund an additional 700 \$2000 awards. It will also print the America's Promise number, website and message on more than 50 million boxes of its Wheaties and Total cereals. The company will triple its promise to mentoring, with over 1000 of its employees and family members engaged in mentoring relationships by the year 2000.

Generations United

Generations United will commit to developing an infrastructure to provide training, technical assistance and resource-sharing to a minimum of 500 agencies of youth and aging organizations desirous of developing successful intergenerational programs to support children and youth. In addition, Generations United is

committed to advocating for the needs of the over 1.2 million children being raised by their grandparents. Through the 130 national organization members, representing over 70 million Americans, Generations United will lead a national effort of children and aging organizations to advocate for public policies that support the health, economic, educational and legal protections for the children and kin who are raising them. We will develop a process of electronic dissemination of successful programs, provide a series of educational forums and briefings to national and state policymakers, and work with advocates for children and their grandparents to spearhead the program and policy support they need.

Girl Scouts of the U.S.A.

The Girl Scouts will dedicate 8.5 million hours of community service by scouts beginning this year, their 85th anniversary, and continuing through the year 2000. The hours will be devoted to achieving the five resources for, and in this case with, America's youth.

Glaxo Wellcome

Glaxo Wellcome will expand its employee volunteerism to support 300,000 hours of employee volunteer time, worth \$4 million, focused specifically on tutoring kindergarten through third grade students to improve their reading skills and enhance their interest in science. Glaxo Wellcome will also partner with AmericaReads to establish collaborative agreements between school systems, colleges and universities in North Carolina which will involve 1,000 college students to serve as tutors. GW will also donate \$10 million to schools and organizations that emphasize school-to-work initiatives.

Golden Books Family Entertainment

Golden Books will donate 500,000 books a year through the year 2000. These books will serve as the foundation for the Golden Books Storytelling

Hecht's/Strawbridge

Hecht's/Strawbridge has made a promise of \$250,000 over four years to help Big Brothers/Big Sisters of America reach its goal to double the number of matches by the Year 2001. Strawbridge's will focus its activity in department store locations in the Mid-Atlantic states with an emphasis in the Philadelphia Tri-State region. Strawbridge's will encourage its 8,000 employees to get involved as mentors at Big Brothers/Big Sisters local agencies and assist Big Brothers/Big Sisters of America in its recruitment efforts.

Hewlett-Packard

Hewlett-Packard will launch a new Diversity Partnership Initiative, providing more than \$4 million to kindergarten through twelfth grade and university partnerships in urban areas that are engaging students in math and science. By the year 2000, Hewlett-Packard has committed to provide over 190,000 employee volunteer hours and \$24 million in cash and equipment to kindergarten through twelfth grade schools (an increase of 15 percent).

Highmark Blue Cross Blue Shield

Between 1997 and 2000, Highmark will subsidize full medical home care for 40,000 children in poor working families. This promise is valued at \$20 million.

Honeywell, Inc.

Honeywell, Inc. will mobilize 8,000 employee volunteers, comprising one-fourth of their workforce in the U.S., to developing mentoring relationships with children in grades 4-12; recruit 4,000 volunteers to build affordable housing for low-income families; and donate 10,000 home thermostats to Habitat for Humanity. Additionally, Honeywell, Inc. will contribute a total of \$20 million to educational programs, one-fourth targeted to early

childhood programs including those that support a healthy start. Finally, Honeywell will engage 1,000 retiree volunteers in programs supporting children and youth.

HOPE for Kids

HOPE for Kids volunteers will devote the following to children's health initiatives through the year 2000; in one hundred cities, volunteers will devote one million manhours in order to reach three million children through door-to-door canvassing to identify at-risk children, educate parents about the importance of immunizations, and register children for immunization appointments.

Houston Reads

The Houston Reads Commission, a coalition of civic leaders, citizens groups, and national and community service programs, commits to recruit 20,000 new volunteers for children and family literacy. This effort will quadruple the number of literacy volunteers currently serving the children of Houston, Texas.

Hugh O'Brian Youth Foundation

The Hugh O'Brian Youth Foundation will implement a service component in their leadership development seminars, for the first time in their history, asking the 14,000 sophomores who attend to undertake a community service project requiring a minimum of 100 hours. This effort will result in at least 1,400,000 volunteer service hours each year. To step up efforts to help young people realize the personal and social benefits of volunteerism and service, HOBY will create \$1,000,000 in Community Service Scholarships over the next five years, to be funded half by corporations and half by participating colleges and universities.

IBM

IBM has committed through its Team Tech Volunteer program to provide technology and technical services to over 2,500 health and

to at least 400 youth volunteers; and commit to provide each of their newly recruited youth leaders with mentors in their own communities.

Maryland Youth Service Action Committee

Maryland Youth Service Action Committee will develop in the twelve months following the Summit, a statewide network of 300+ youth service and leadership organizations across Maryland and encourage each of these to adopt community service as part of their mission.

McDonalds – Ronald McDonald House Charities

McDonalds – Ronald McDonald House Charities commits \$100 million in grants over the next five years to continue their mission of providing comfort and care to children and families. Ronald McDonald House Charities makes grants to thousands of national and local children's programs including Ronald McDonald Houses. The \$100 million promise will fund programs that address serious issues such as preventing child abuse, youth suicide, substance abuse and much more. They will also reach deep into local communities across the nation through grants to programs such as barrier-free playgrounds and unique educational opportunities for inner city youth. The promise is a full team effort, made possible thanks to the generous support of time and money from McDonald's customers, franchisees and suppliers, and individual and corporate donors, who are the lifeblood of the organization.

McGraw Hill

McGraw Hill commits to launching a new philanthropic initiative to provide economic and business information to the classroom through a combination of cash, product donation and volunteer involvement. McGraw Hill will sponsor teacher training and classroom educational activities in ten cities, contributing \$500,000 in software and \$1 million in cash contributions. McGraw Hill will develop a new

employee volunteer initiative. McGraw Hill will also donate \$1 million of ad space in McGraw Hill publications, including Business Week, to Summit organizers to help promote mentoring and other youth development, as well as develop a new employee volunteer initiative.

MCI

MCI, in partnership with leading US educational organizations (National Endowment for the Humanities, the American Association for the Advancement of Science, the National Council on Economic Education, and the Council of the Great City Schools), will bring Internet-based learning to classrooms across America in all core academic disciplines from science and mathematics to economics and the humanities. This partnership, with a cash grant from MCI of \$1.1 million, offers up to 8 million students, teachers and parents specially tailored Web sites, customized search engines, teacher training, and teacher/student interactive materials. MCI has donated MCIFAXREPLY services for the Summit and has contributed a toll free 1-888 55YOUTH number between now and the Summit to help secure more promises for America's youth.

MTV

MTV will launch a new on and off air pro-social campaign entitled "You Are Here." Focused on themes of community service and personal responsibility, the channel will commit on-air programming time and will partner with its cable affiliates to involve its 62 million viewers on a more grass roots level. In line with MTV's "Choose or Lose" campaign, which devoted more than 100 hours of programming, valued at \$72 million, "You Are Here" will use concerts, promos, news and special events to speak directly with its audience about personal involvement and responsibility. Through outside partnerships and 800 numbers, we will provide our viewers with the information necessary to become active members of their communities.

75,000 young people will improve their chances of developing marketable skills through effective education.

National Council of Negro Women

The National Council of Negro Women will mobilize its 36 national affiliates and 250 community-based sections to deliver the five resources for young people including: deploy 150,000 individuals to provide one-on-one mentoring and tutoring relationships; provide specialized training and internships, especially to stimulate interest and skills in math and science; encourage family volunteering as a part of the Black Family Reunion Celebrations all across the country; and hold Leadership Round Tables in twenty cities to address issues which impact the lives of families and communities.

National Council on Economic Education

The National Council on Economic Education will increase the number of active volunteers from 1,000 to 2,500 by working with local programs on community outreach programs. Volunteers will help with teacher training and follow up for economic education. Additionally, through its ongoing programs, NCEA will reach an additional 250,000 children per year with effective economic education – thereby reaching an additional one million young people by the year 2000.

National Council of Volunteer Centers

The National Council of Volunteer Centers will commit the Volunteer Centers that are members of the Point of Light Foundation to develop 400 new collaborations, on new or expanded youth initiatives, connecting one million young people with caring adults and/or with the opportunity to serve.

The National Court Appointed Special Advocate Association

The National Court Appointed Special Advocate Association will recruit 35,000 new volunteers and increase representation of abused and neglected children over the next five years by 205,000. The CASA and volunteer Guardian ad litem network – currently more than 38,000 volunteers – will expand to more than 175 new communities.

National Crime Prevention Council

The National Crime Prevention Council will create the online Crime Prevention Resource Center, with support from the Allstate Foundation, to serve as an electronic community resources center for victims and communities hurt by crime. The resource will feature educational games and activities for children, materials and best practices for adults who work with youth, and training on neighborhood action to prevent crime. The NCPC is also committing to enroll 100,000 more youths in 20 new sites in its Youth as Resources program, which helps young people design and carry out service projects that address social programs, resolve community issues, and improve their communities. In partnership with Ameritech, the Council will hold a national conference on preventing crime to share with mayors, police chiefs, citizen practitioners, youth, and others the best and latest information on programming to make communities safer and more vital. Also, Radio Shack will give out more than 30 million crime prevention brochures, will host four satellite trainings per year, and will provide the videotape to the public free of charge.

National Education Association-Retired

The National Education Association-Retired will expand its programs by the year 2001 to help teach over 50,000 youth to read independently by the end of the third grade; to involve over 100,000 youth in intergenerational and mentorship programs in at least 30 states; to

young people in "at-risk" situations so that they may reach their fullest academic potential. This promise represents a doubling of their mentoring relationships.

One to One/National Mentoring Partnership, Inc.

One to One/National Mentoring Partnership, Inc. will help the nation forge two million new mentoring relationships over the next five years. In addition, One to One will support national and local leaders who have already made mentoring a priority and mobilize others to do the same. Its goal is to educate Americans and their organizations about responsible mentoring and what they can do to make it available to every child in this country. It will serve as a resource to mentoring initiatives nationwide; and will teach children how to find caring and trustworthy adults to mentor them, and adults how to connect with opportunities to mentor children.

Operation Hand In Hand

The 30 chapters of this organization will provide free hand care – surgery, rehabilitation, and therapy – to 20,000 children with acquired or congenital hand defects by the year 2000.

Optional Health Care

Options Health Care will create stipended internships for 300 at-risk youth in its eight service centers across the country and Puerto Rico, which manage behavioral health care services for Medicaid and other public sector consumers. These interns will receive training, experience, and exposure to a working environment in a field which is a growing segment of the economy.

PacifiCare Health Systems

PacifiCare Health Systems is committing to providing basic medical screenings, immunizations, medical and dental care to two million uninsured and under-insured children

in at-risk communities. These services are valued at more than \$50 million. In addition, PacifiCare is committing \$3.25 million to improving childhood health education.

The Partnering Initiative on Education and Civil Society

America's leading education associations and organizations, representing 106,000 schools, colleges, and universities and approximately 64 million students are launching a ten year campaign to revitalize American classrooms and communities by involving students in "learn and serve" programs in more than one million non-profit neighborhood organizations. Millions of students will be learning by serving as volunteers in non-profit and community programs including environmental protection, care of senior citizens, working with the homeless and disabled, tutoring, historic preservation, and the arts. The coalition is establishing 10,000 partner schools to serve as resource centers to move the nation's students into community service, citizen-education, and character education programs. Partners include Communities in Schools, Campus Compact, National Association of Secondary School Principals, National Association of Elementary School Principals, Council of Chief State School Officers, The National Youth Leadership Council, The Community Service Learning Center, the Department of Education, the Association for Supervision and Curriculum Development, the Foundation on Economic Trends, The Closeup Foundation, the Corporation for National Service, the Constitutional Rights Foundation, Council of Chief State School Officers, American Association of everything in the world and then some, etc.).

Pfizer, Inc.

Pfizer, Inc. has made a promise of \$5 million to promote the health and wellness of children through the year 2000. To support a commitment to a healthy start at home, Pfizer will provide \$1 million in philanthropic grants to

health-care nonprofits for which its employees and families volunteer. Two million dollars in children's medicine will be provided free of charge through a network of 350 community-based health centers. Also, \$2 million will be donated to support organizations that promote health and wellness, and provide access to health care for young people. To support the development of marketable skills, Pfizer will build math and science fundamentals by linking schools in all of the company's 17 domestic locations and in its 10 locations worldwide. Pfizer scientists will serve as tutors as well as provide guidance for those seeking careers in math and science.

PFLAG

Parents, Families and Friends of Lesbians and Gays is committed to significantly increasing safe places and local support for gay, lesbian, bisexual and transgendered youth and their parents, friends, and family members by expanding their programming to 500 communities across the United States by 2002. This promise represents 100 new communities and over 10,000 families currently not served by PFLAG volunteers. PFLAG is also committed to working with youth services providers and agencies to help them meet the needs of at-risk sexual minority youth in programming and services, offering family-to-family training in a minimum of 50 additional cities by the year 2002.

The Pillsbury Company

The Pillsbury Company, headquartered in Minneapolis is launching "Caring Adults and Kids," a comprehensive commitment to help economically disadvantaged young people build and sustain relationships with caring adults. The Pillsbury Company will direct \$1.75 million in grants to mentoring organizations in 1997 alone. In addition to funding, Pillsbury volunteers will provide 50,000 hours of quality one-to-one mentoring to 250 young people in ten communities across the U.S. through their new

School-Plus Mentoring program, a partnership between Big Brothers/Big Sisters of America, elementary schools, and the company.

Pitney Bowes

Pitney Bowes has made a comprehensive commitment to cover all five goals of the Summit. They will increase their employee volunteer activities through a global day of employee service to help in particular the South End Neighborhood Revitalization Zone in Stamford, Connecticut. They are also donating over \$4 million worth of real estate of non-profit organizations for economic revitalization. In addition, they are giving a \$100,000 start-up grant for a local Success By Six program as well as developing a Student Advisory Council which will give students a chance to design a marketable skills program.

The Points of Light Foundation

The Foundation has made three commitments in support of the Summit/Alliance:

- To continue to build the Connect American coalition to achieve its goal of 10 million Americans "committing to connect" in the next five years.
- To engage 150,000 families in volunteer activities nationwide including the creation of a Family Matters site in the nation's capital; and,
- To work in partnership with selected national entities to coordinate development of a training/technical assistance consortium that will respond to new demands growing out of the Summit/Alliance effort.

Procter & Gamble

Procter & Gamble will increase financial support for the Cincinnati K-12 initiative by \$3.3 million, provide \$50 million in support for U.S. educational institutions and programs, create 5,000 jobs for youth in Greater Cincinnati, and involve 4,000 employee/retiree volunteers in K-12 education and youth service activities by the year 2000.

Discussion Paper: The National Partnership for Math Achievement

REVISED DRAFT -- June 2, 1997 a.m.

This paper proposes the basic framework for a new national partnership focused on raising U.S. math achievement and preparing students for the national 8th grade math test. It also describes some of the initiatives that such a partnership could undertake. The paper is intended to capture previous discussions and focus attention on key issues that still must be resolved, some of which are broken out and highlighted. However, all features of this description should be considered subject to improvement.

Overview

The National Partnership for Math Achievement will bring states and local school districts together with the mathematics and science community, business, higher education and federal agencies in a national effort to improve math education and prepare students for the national test in 8th grade mathematics in 1999 and beyond. Such a partnership is needed to elevate the importance nationally of math achievement, to provide clear avenues for interested members of the math and science community and others to contribute to efforts to raise math achievement, to provide support for and intensify national, state and local efforts to improve math education, and to more sharply focus such activities on the critical task of preparing students to meet national standards in 8th grade math. The Partnership will focus on issues including:

- Rewarding and promoting excellence in math teaching;
- Developing and distributing high quality instructional materials;
- Helping schools use technology for math teaching and learning;
- Providing opportunities for students to learn about math at home, after school, and during the summers;
- Promoting public awareness of the importance of math achievement.

Membership and Organization

The National Partnership will serve as an umbrella organization, providing a framework within which participants will undertake activities at the national, state and local level to raise U.S. math achievement. Membership in the National Partnership will be open to a broad array of national, state and local organizations. Types of organizations expected to participate include:

- States (including governors, chief state school officers, and state boards of education)
- School districts (including mayors, superintendents, and teachers' unions)
- Math and science community (including national organizations such as the National

Academy of Sciences/MSEB, professional societies (e.g. engineers), existing state math and science coalitions,, etc.)

- Business community (NAB, NAM, BRT, Chamber of Commerce, high-tech CEO's, etc.)
- Higher education (ACE, individual colleges and universities, education schools, etc.)
- Education organizations (NCTM, CCSO, NSBA, AASA, AFT, NEA, etc.)
- Federal agencies (ED, NSF, NASA, DOE, DOT, NSA and others)

Issue: An important consideration in organizing the Partnership is where the support structure would reside, who would provide leadership, and how it would be staffed.

Location: Some options include: a) within the Department, NSF, or some combination thereof; b) within an existing organization, such as the Academy of Sciences, perhaps under contract; c) formation of a new non-profit, such as the Welfare-to-Work Foundation.

Leadership: It would be ideal to identify someone who could provide a day-to-day leadership role for the Partnership analogous to the role that Carol Rasco plays for America Reads--somebody with stature who would be well-received within the math and science community.

Support: Wherever the organization is housed, from the minute it is announced, dedicated staff needs to be available to provide information to prospective members and the public, to provide a point of contact for confirmed members, insuring that they receive a regular stream of information, and to encourage and track the activities of partners. If the Partnership is housed within a federal agency, some support could be attained via detailees from other agencies.

The Partnership will have a 10 to 20 member national steering committee, with initial membership comprised of leading representatives of key organizations, business supporters, and federal agencies, as well as distinguished math educators, willing to commit substantial efforts and resources to the Partnership and willing to take lead roles on specific activities.

*Issue: should we also include reps of states or school districts that have made an **early commitment to the national tests?** All such states?*

Task forces of the Partnership will be organized to acknowledge and capitalize on the different interests and capacity of different members. These task forces may be comprised of specific classes of members (e.g. business members, local educators, federal agencies and so on) or may include multiple classes organized to carry out specific partnership activities (such as improving teacher preparation, summer math, or mentoring).

Issue: would we want to designate some of those task forces on the front end, and ask prospective members which one(s) they would like to join? Or assign them automatically based on their commitment to participate in specific initiatives?

E-mail and fax networks and other dissemination strategies will be used to keep participants up to date on partnership activities and to help participants communicate with each other. National, regional or state conferences may be organized to focus on specific issues or initiatives.

The Partnership will also have a high-profile honorary chair who will help get out the word about the urgency of improving our nation's math instruction.

Membership Requirements

In order to join the National Partnership, all participants will be asked to make two types of commitments:

I. A general, organization-appropriate pledge to:

- work to raise public awareness of the importance of mathematics as a critical skill for citizenship and success in postsecondary education and the 21st century economy;
- work to improve mathematics education; and
- provide support and encouragement for students to achieve at higher levels on local and state math assessments, as well as the national 8th grade math test.

Issue: Are these the right general commitments? Will they encompass the interests and capacity of all potential members?

Issue: Does it make sense to make support for the 8th grade test an absolute requirement for affiliating? For all members or just states and school districts?

II. A more specific activity commitment to actively participate in at least one particular National Partnership initiative.

Issue: Alternatively, partners could be given the option of committing to a self-defined activity that is consistent with the overall purposes of the Partnership (some partners may have ongoing activities that we would want to count as a part of the national effort).

Issue: Do we want to require partners--or a subset of partners--to make a commitment to participating in some form of a) reporting on their activities, or b) participating in meetings or other gatherings?

Partnership Activities

A small, focused list of initial activities will be announced at the time the National Partnership is rolled out; additional activities can be added as the Partnership grows and matures and as the national tests near. As a core set of partners is recruited in preparation for the roll-out, ED and NSF will discuss with them a tentative set of activities; the initial set would be finalized based on their feedback. Initial activities are expected to include:

- A national public service campaign to promote the importance of strong math achievement;

Principal participants: business partners, math and science community, education organizations, federal agencies.

Issue: how would this add to/differ from previous or planned activities such as Math is Power or NCTM campaign?

- A nationwide effort to reward and promote excellence in math teaching, focusing on pre-service, in-service, and teacher certification activities;

Principal participants: states and school districts; higher education; math and science community; education organizations; business partners.

- A summer mathematics initiative (to begin in the summer of 1998) to build on and complement the Department of Education's successful Read*Write*Now program;

Principal participants: math and science community; federal agencies; business partners; school districts.

- An initiative through which professional societies in math, science and engineering provide guidance for their members on how to interact productively with teachers and students;

Principal participants: math and science community; federal agencies; school districts; education organizations.

- Formation of telementoring networks allowing students to get skilled guidance on challenging math problems;

Principal participants: math and science community; business partners; federal agencies; higher education.

- An initiative to help students draw connections between math in the classroom and math in the workplace.

Principal participants: math and science community; business partners; federal agencies.

- An interagency effort to focus educational activities and resources more keenly on helping students achieve national standards in math.

Principal participants: federal agencies; math and science community; education organizations.

- A national effort to form local/regional mathematics circles/networks that would engage in regular periodic discussions of a series of math problems and how they illustrate the standards, and discuss/promote the importance of math for future education and work options.

Principal participants: school districts; education organizations; math and science community; higher education.

Issue: This seems like too many activities, at least initially, and there may be others that would most effectively carry out the purposes of the partnership and draw upon the strengths of members. What should be the top priorities?

Issue: Does there need to be an activity specifically focused on developing high caliber materials? What would this entail?

Issue: Should there be something more focused on drawing connections between higher education, federal agencies and others partnering with local K-12 schools to provide support for teachers and administrators carrying out reform activities? Again, what would this entail?

A National Partnership to Improve Math Education

DRAFT -- May 13, 1997

The National Partnership for Math Achievement will bring together the math and science community, businesspeople, and local educators in support of a national campaign to improve math education. Federal agencies concerned with improving math performance will be another important part of the partnership. The National Partnership will serve as an umbrella organization sponsoring a variety of activities directed at raising U.S. math achievement. Initial activities are expected to include a summer mathematics initiative (to begin in the summer of 1998) to build on and complement the Department of Education's successful Read*Write*Now program; a telementoring network allowing students to get skilled guidance on challenging math problems; an initiative helping students draw connections between math in the classroom and math in the workplace; and a nationwide drive to boost awareness of the importance and excitement of math.

All participants in the National Partnership will make a broad commitment to helping and encouraging young people to improve math achievement; partners may also be asked to make a specific commitment to get involved in one of the initial areas of partnership activity. The Partnership will have a 10 to 20 member national steering committee, with initial membership comprised of leading representatives of key organizations, business supporters, and federal agencies, as well as distinguished math educators. The broad umbrella of the Partnership may include a small number of specific classes of members (including business members, local educators, federal agencies and so on) and task forces focused on leading specific activities (such as the summer math project or the mentoring initiative) and sharing helpful information, but membership in the partnership will be open equally to organizations both large and small, national and local. The Partnership will also have a high-profile honorary chair who will help get out the word about the urgency of improving our nation's math instruction.

Use of resources
Ple - service mtr

April 28, 1997 ROUGH DRAFT

Presidential Leadership on Improving U.S. Math and Science Education

Today, in a White House ceremony honoring America's top elementary and middle school math and science teachers, Education Secretary Richard Riley and National Science Foundation Director Neal Lane presented President Clinton with an action strategy for lifting the nation's math and science achievement. The President endorsed the strategy and directed Riley and Lane to work with the math and science community, states, school districts, and other federal agencies to carry out the plan.

The President also immediately took three steps in response to the strategy. First, he announced a private competition for a new generation of middle school math textbooks and materials that would match the high expectations of the new voluntary national test of 8th grade mathematics. Second, he announced that the Department of Education and NSF would establish a world wide web site allowing classroom teachers to conveniently access high quality instructional units in math and science. Finally, he announced the formation of a new public-private partnership that will conduct a nationwide campaign to improve middle school math achievement, with XXX as its spokesperson.

An Action Strategy for Raising Achievement in Math and Science. Prepared in response to a March presidential directive, the action strategy was developed by an inter-agency working group led by the Department of Education and the National Science Foundation, with input from outside partners. The strategy places a strong focus on middle school mathematics, a critical gateway to college and further learning, and is designed to help students prepare for the voluntary national test in 8th grade math, which will be given for the first time in 1999.

The strategy includes specific steps for mobilizing federal and non-federal resources behind four key objectives: improving teaching; getting more challenging materials into the classroom; harnessing the latest technology; and strengthening public and student understanding of the importance of mastering mathematics. Some highlights of the action strategy include:

- Using Federal programs to foster closer ties among school districts, colleges of education, and math and science faculties to insure new teachers are ready for real-world classrooms;
- New products that states and local school systems can use to compare their instructional practices with those used in high performing countries and outstanding U.S. districts;
- A new guide to selecting high quality math and science instructional materials;
- Support for performance-based teacher certification that stresses subject matter and pedagogical expertise;

The President endorsed the action strategy and asked Secretary of Education Richard Riley and NSF Director Neal Lane to take the lead in implementing the strategy.

A Presidential Challenge on High-Quality Textbooks. The President announced that a private consortium headed by X, and with members including Y and Z, would hold a nationwide competition for the development of a high-quality middle school math textbook and related materials that would allow students to master challenging material and succeed on the 8th grade tests. The competition would be funded by the X foundation. The President stated that he will invite leading textbook publishers to the White House to review the findings of TIMSS and other studies and to challenge them to take part in this vital national effort.

A Web Site to Help Teach Math and Science to High Standards. The President announced that the Department of Education and NSF would establish a joint world wide web site enabling classroom teachers to use a simple, yet powerful search tool to conveniently access proven quality instructional units geared to high standards in math and science.

A National Campaign to Improve Middle School Mathematics. President announced the formation of a nationwide partnership to help prepare students for the national test in 1999. The partnership will be led by A, and will include many agencies, including X, Y, and Z. The President was accompanied by the new national spokesperson for the effort, _____, who has agreed to host town hall meetings and travel the country for the next two years, discussing the importance and excitement of mathematics.

HOW THE ACTION STRATEGY WILL HELP IMPROVE MATH AND SCIENCE EDUCATION

March 6, 1997

The working group led by the Department of Education and the National Science Foundation (NSF) will identify and recommend key strategies for coordinating federal resources to help states and school districts upgrade teaching and learning in math, as well as in science. For example, the working group could recommend...

Easy Access to Resources for Teaching to High Standards:

- An easy-access joint Department of Education – NSF Internet site where teachers could go to get challenging, classroom-tested instructional units or materials that are linked to national standards.

Spreading the Word on Best Practices:

- A strategy for producing and disseminating products (such as videos and CD-ROMs that compare classroom teaching approaches in the U.S., Germany and Japan) that states and local school systems could use to compare their instructional practices with those used in high-performing countries and outstanding districts in the U.S.

Preparing Teachers for World-Class Teaching and Learning:

- A plan for using Department of Education and NSF programs to foster closer collaboration among school districts, colleges of education, and math and science faculties to incorporate the insights of TIMSS and ensure that teachers graduating from pre-service programs are prepared to excel in real classrooms.

Textbooks that Challenge Students to High Math Achievement:

- A privately-funded, nationwide competition for the development of a high-quality middle school math textbook that embodies the high standards of the national exam.

A Public Service Campaign Linking Academic Performance With Work Success:

- A highly visible, nationwide public service campaign that would help parents and children understand the real-world importance of basic and advanced math and science skills for success in the 21st Century economy.

Creating a New Partnership for Math and Science Learning

- A new partnership among federal agencies, laboratories, higher education, and community organizations to promote greater involvement of professionals with strong math and science backgrounds in consulting with teachers to help students and parents understand the real-world applications of what students are learning.

Fostering Community Schools that Promote Math Excellence

- Develop principles for new community schools focusing on math instruction geared to high standards, with after-school, weekend and summer programs to enrich classroom learning, strong parental involvement, and ongoing opportunities for teachers to stay abreast of the latest developments in their field.

Working Group Ideas

Objective 1

Bonus pool for Eisenhower

Hold national conference of Title I coordinators, math supervisors, SSI's and Eisenhower state coordinators to review TIMSS and other data and best practices on math and science

Use framework of the test to develop a network of teachers committed to improving math and science instruction

FOCUS INTASC/state certification and licensure efforts on middle school math instructors

Issue challenge on high quality pre-service course for teachers headed for middle school math (and science) teaching.

Objective 2

Announce new NASA 5-8 document--Mission mathematics: Linking Aerospace to the NCTM standards

Announce partnerships with 2-4 other agencies to carry out similar projects with NCTM, linking agency holdings/resources with NCTM standards for middle school students; possibly announce funding through federal source or find private source (Smaller agencies can partner with larger ones)

Roll out NSF guide to selecting top-quality curriculum materials--get a middle school guide out the door first. Timing?

Objective 3

Announce ED NLE web site with instructional units; use frameworks for national math and reading tests as organizing principle for the site? Or at least include crosswalk

Hold national summit on standards-based educational software development in math and science for school market; target software development grants better

Objective 4

Retrain agency education staff to understand and incorporate national math and science standards and help states and districts draw connections between holdings and the national tests.

NASA as the model

Work with Commerce/NIST and others to mobilize the business community on the math issue--

Possibly a job shadowing initiative

Announce formation of National Partnership on Improving Math Education

Something modeled on Athena project at MIT--24 hour on-line mentoring/Virtual office hours project being funded by OERI; also, access excellence project run by Genentech, providing interaction with real scientists

Highlight the Newsweek kids

Discussion Paper: The National Partnership for Math Achievement

REVISED DRAFT -- June 1, 1997

This paper proposes the basic framework for a new national partnership focused on raising U.S. math achievement and preparing students for the national 8th grade math test. It also describes some of the initiatives that such a partnership could undertake. The paper is intended to capture previous discussions and focus attention on key issues that still must be resolved, some of which are broken out and highlighted. However, all features of this description should be considered subject to improvement.

Overview

The National Partnership for Math Achievement will bring states and local school districts together with the mathematics and science community, business, higher education and federal agencies in a national effort to improve math education and prepare students for the national test in 8th grade mathematics in 1999 and beyond. The Partnership will focus on issues including:

- Rewarding and promoting excellence in math teaching;
- Developing and distributing high quality instructional materials;
- Helping schools use technology for math teaching and learning;
- Promoting out of school learning about math;
- Promoting public awareness of the importance of math achievement.

Membership and Organization

The National Partnership will serve as an umbrella organization, providing a framework within which participants will undertake activities at the national, state and local level to raise U.S. math achievement. Membership in the National Partnership will be open to a broad array of national, state and local organizations. Types of organizations expected to participate include:

- States (including governors, chief state school officers, and state boards of education)
- School districts (including mayors, superintendents, and teachers' unions)
- Math and science community (including national organizations such as the National Academy of Sciences/MSEB, existing math and science coalitions, engineers, etc.)
- Business community (NAB, NAM, BRT, Chamber of Commerce, high-tech CEO's, etc.)
- Higher education (ACE, individual colleges and universities, education schools, etc.)

- Education organizations (NCTM, CCSO, NSBA, AASA, AFT, NEA, etc.)
- Federal agencies (ED, NSF, NASA, DOE, DOT, and others)

Issue: An important consideration in organizing the Partnership is where the support structure would reside, who would provide leadership, and how it would be staffed.

Location: Some options include: a) within the Department, NSF, or some combination thereof; b) within an existing organization, such as the Academy of Sciences; c) formation of a new non-profit, such as the Welfare-to-Work Foundation.

Leadership: It would be ideal to identify someone who could provide a day-to-day leadership role for the Partnership analogous to the role that Carol Rasco plays for America Reads--somebody with stature who would be well-received within the math and science community.

Support: Wherever the organization is housed, from the minute it is announced, dedicated staff needs to be available to provide information to prospective members and the public, and to provide a point of contact for confirmed members, insuring that they receive a regular stream of information and are included in Partnership activities. If the Partnership is housed within a federal agency, some support could be attained via detailees from other agencies.

The Partnership will have a 10 to 20 member national steering committee, with initial membership comprised of leading representatives of key organizations, business supporters, and federal agencies, as well as distinguished math educators, willing to commit substantial efforts and resources to the Partnership and willing to take lead roles on specific activities.

Task forces of the Partnership will be organized to acknowledge and capitalize on the different interests and capacity of different members. These task forces may be comprised of specific classes of members (e.g. business members, local educators, federal agencies and so on) or may include multiple classes organized to carry out specific partnership activities (such as improving teacher preparation, summer math, or mentoring).

One or more e-mail networks and other dissemination strategies will be used to keep participants up to date on partnership activities and to help participants communicate with each other. National, regional and state conferences may be organized to focus on specific issues or initiatives.

The Partnership will also have a high-profile honorary chair who will help get out the word about the urgency of improving our nation's math instruction.

Membership Requirements

In order to join the National Partnership, all participants will be asked to make two types of

commitments:

I. A broad, organization-appropriate commitment to:

- raising public awareness of the importance of mathematics as a critical skill for success in postsecondary education and the workplace;
- working to improve math education;
- and providing support and encouragement for students to achieve at higher levels on local and state math assessments, including the national 8th grade math test.

Issue: Are these the right general commitments? Will they encompass the interests and capacity of all potential members?

Issue: Does it make sense to make support for the 8th grade test an absolute requirement for affiliating? For all members or just states and school districts?

II. A more specific commitment to actively support and participate in at least one particular National Partnership initiative.

Issue: Alternatively, partners could be given the option of committing to a self-defined activity that is consistent with the overall purposes of the Partnership (some partners may have ongoing activities that we would want to count as a part of the national effort).

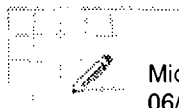
Issue: Do we want to require partners--or a subset of partners--to make a commitment to participating in some form of a) reporting on their activities, or b) participating in meetings or other gatherings?

Partnership Activities

A small, focused list of initial activities will be announced at the time the National Partnership is rolled out; additional activities can be added as the Partnership grows and matures and as the national tests near. As a core set of partners is recruited in preparation for the roll-out, ED and NSF will discuss with them a tentative set of activities; the initial set would be finalized based on their feedback. Initial activities are expected to include:

- A national public service campaign to promote the importance of strong math achievement;
- A nationwide effort to reward and promote excellence in math teaching, focusing on pre-service, in-service, and teacher certification activities;
- A summer mathematics initiative (to begin in the summer of 1998) to build on and complement the Department of Education's successful Read*Write*Now program;

- A telementoring network allowing students to get skilled guidance on challenging math problems;
- An initiative helping students draw connections between math in the classroom and math in the workplace.
- [Additional/different activities]



Michael Cohen
06/02/97 09:11:24 AM

Record Type: Record

To: William R. Kincaid/OPD/EOP, Judy_Wurtzel @ ed.gov @ inet, Daryl E. Chubin/OSTP/EOP, Williams @ nsf.gov @ inet

cc:

Subject: Follow up to Friday's meeting

Here is what I think we did on Friday, plus some additional thoughts:

1. Partnership: One key focus of the announcement of the interagency math strategy ought to be the announcement of a partnership that focuses on helping prepare students for reaching 8th grade standards. Bill Kincaid is going to take a shot at describing options for how the partnership would work, and Luther and Judy (I think) were each going to develop lists of the organizations that might be included in the partnership.

In our discussion we roughly agreed that the partnership would focus on issues including: (1) rewarding and promoting excellence in math teaching; (2) developing and distributing instructional materials; (3) helping schools use technology for math teaching and learning; (4) promoting out-of-school learning; and (5) promoting public awareness of the importance of math learning. Our notion was that these issues formed a framework that would enable different partners to fill "niche responsibilities" at the local, state or national level.

I believe we also sensed that the job of building this partnership, at least initially, would involve identify those organizations (e.g., state math and science coalitions) that are already active or preparing to get involved, and bringing them together in some fashion, more so than it would involve reaching out to brand new players. We also agreed that the partnership clearly must include state and local school systems.

We also discussed the need to figure out how to organize and maintain the partnership over time. Except for the sense that this would be a shared responsibility of ED and NSF, I don't think we made much headway on this.

Teaching Announcement: We also agreed that the announcement of the strategy should include an announcement of specific steps to be taken to improve math teaching. I had argued for finding some way of announcing that we were going to support an effort to prepare at least one board-certified math teacher per middle school. This became slightly more difficult when Judy informed us that NBPTS does not yet have a certificate for middle school math. Nonetheless, Luther was going to look to see what NSF resources, perhaps already in the pipeline for announcement, could be focused on something in this area.

I discussed this idea with Mike Smith over the weekend, and he was quite supportive of figuring out some way of accomplishing this. Our back-of-the-envelope calculations indicated that, for \$15 million a year over three years we would have enough to underwrite the cost of one middle school math teacher per school sitting for the board exam. If these numbers are in the right ballpark, we thought we might be able to scrape this together, and see if it could be matched with state or local funds (or Eisenhower funds) to help support teacher preparation efforts. I'd like us to work on this further over the next few days.

The event itself: I've attached a very rough draft of a one-page press handout that describes what one version of an announcement event might look like. Essentially, as we discussed, it envisions the math strategy being announced at the same time that an additional group of states sign up to participate in the test, so that the overall message is that this math partnership is going to be tied to state and local efforts to prepare kids to meet the standards.

As I drafted this, several things became apparent to me. First, this could be a very complicated event to pull off, if it requires us to pull together national partners and state to pull together state partners at the same time. Not impossible; but clearly more complicated than getting the governor, chief and state board of education on board in 1 or 2 states at a time.

Second, as you can tell, I had a difficult time in clearly describing both the partnership and the teaching component. Just a reminder that we've got our work cut out for us in these areas.

Here is the draft press statement

INTERAGENCY MATH STRATEGY

EVENT POLICY ANNOUNCEMENT

Every state should adopt high national standards, and by 1999, every state should test every 4th grader in reading and every 8th grader in math to make sure those standards are met...The point is not to put our children down but to lift them up.

Bipartisan leaders of four states support national tests in 4th grade reading and 8th grade math: Today President Clinton announced that state officials from Kentucky, New York, Colorado, Utah, and Nevada [states are illustrative; none are committed yet] joined those from Maryland, Michigan, North Carolina, West Virginia, Massachusetts and California in endorsing the President's plan for national tests in 4th grade reading and 8th grade math, geared to challenging national standards. Governors and chief state school officers from these states were joined by educators, parents, business leaders in pledging to participate in the testing program in 1999, and to prepare all students to meet the standards.

National Partnership to Improve Math Learning Formed: President Clinton announced the

launching of a new national partnership -- focused specifically on helping to prepare students to meet national standards in 8th grade math -- comprised of national, state and local groups representing mathematicians and scientists, math educators, higher education, business, state and local school systems, as well as federal agencies.

Specific partners include the National Council of Teachers of Mathematics, the Mathematical Sciences Education Board, the American Council on Education, the Council of Chief State School Officers, AFT and NEA, NSBA, AASA, xxx, yyy, math and science coalitions currently operating in 42 states, including those states signed up for the test. Participating federal agencies include the Education Department, the National Science Foundation, NASA, and the Department of Transportation.

Partners will work to (1) improve and reward excellence in math teaching; (2) develop and distribute high quality instructional materials; (3) support and promote the effective use of technology to improve teaching and learning of mathematics; (4) provide out-of-school mathematics learning opportunities for students at home; after school and during the summers; and in community settings such as libraries and museums; and, (5) promote greater understanding by students, parents and the public, of the value of mathematics for further learning, citizenship, and participation in the workforce of the 21st century.

Focus on Improved Mathematics Teaching in Grades 5-8: President Clinton announced a series of steps by the National Science Foundation and the Education Department to help upgrade math teaching in the middle grades.

ORGANIZATIONS IN ***THE PROMISE BOOK*** THAT ARE PRIME CANDIDATES
FOR A PARTNERSHIP TO IMPROVE MATH AND SCIENCE EDUCATION

Specific Commitments to Math or Science

AFL-CIO
America Online
Amoco
Council of Chief State School Officers
Elementary Science Education Partners (ESEP)
Eli Lilly and Company
Entertainment Coalition for Education
Department of Transportation
Glaxo Wellcome
Hewlett-Packard
MCI
National Council of Negro Women
Pfizer, Inc.

General Commitments to Education or Technology

ASPIRA
AT&T
Bank of America/Seafirst
Bonner Foundation
Continental Cablevision (USWEST)
Elderhostel
Fleet Financial Group
Generations United
Microsoft Corporation
National PTA
NationsBank
Nature Conservancy
NetDay 2000
Procter & Gamble
Project NEAT (National Education Advancement Team)
Steering Committee of College Presidents
Sun Microsystems
United Airlines
US West