Publications & Reports
Speeches & Testimony
TIMSS
NAEP
Technical Assistance
Voluntary National Tests

AMERICA COUNTS

America Counts is guided by the following six strategic goals:

- Equip teachers to teach challenging mathematics through high-quality preparation and ongoing professional growth.
- Provide personal attention and additional learning time for students.
- Support high-quality research to inform best practices of mathematics teaching and learning.
- Build public understanding of the mathematics today's students must master.
- Encourage a challenging and engaging curriculum for all students based on rigorous standards.
- Promote the coordinated and effective use of Federal, State, and local resources.

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Last Updated -- July 16, 1999, (dls)

★ Equip teachers to teach challenging mathematics through high-quality preparation & on-going professional growth.

- **National Commission on Mathematics and Science Teaching for the 21st Century.** Former U.S. Senator and astronaut John Glenn is chairing a high-profile commission that will focus attention on the challenges of teacher recruitment , preparation, retention, and professional growth. In the fall of 2000, the Commission will produce a report describing specific action steps that policymakers can take to strengthen K-12 mathematics and science teachers.

- **Voluntary Standards.** The Department is supporting a broad-based consortium to develop voluntary standards for higher-education institutions that prepare future mathematics teachers. *Available in 2000.*

- **Teacher Quality Enhancement Grants.** This new program in the 1998 Higher Education Act will help fund the recruitment, preparation, and induction of new teachers who will be hired over the next decade, many of whom will teach some level of mathematics. $75 million was authorized to support three initiatives. *For more information contact Ed Crowe at (202) 260-8460, or Lois Venuto at 202 708-8847.*

- **Learning from Assessment.** This publication is a professional development tool that uses assessment items and examples of student work to better understand mathematics standards.

- **Eisenhower Regional Consortia.** The ten regional consortia help identify and disseminate promising and exemplary mathematics and science instructional materials, provide technical assistance in implementing teaching methods and assessment tools for K-12, and collaborate with other organizations engaged in mathematics and science education improvement.

- **The Eisenhower National Clearinghouse**. The Clearinghouse identifies effective curriculum resources, creates high-quality professional development materials, and collects and disseminates useful information and products in support of K-12 mathematics and science teaching and learning.

- **"Ideas that Work: Mathematics Professional Development."** This Eisenhower National Clearinghouse publication describes 15 core professional development strategies for mathematics teachers and provides examples of successful programs that exemplify each strategy. *To order, call 1-800-621-5785, or e-mail: editor@enc.org*

- **"Ideas that Work: Science Professional Development"** This Eisenhower National Clearinghouse publication describes 15 core professional development strategies for science teachers and provides examples of successful programs that exemplify each strategy. *To order, call 1-800-621-5785, or e-mail: editor@enc.org*

- **Attaining Excellence: A TIMSS Resource Kit.** This kit translates the Third International Math and Science Study (TIMSS) findings into a format that helps foster discussions on ways to improve mathematics curricula and instruction. *To order call (202) 512-1800 or e-mail: orders@gpo.gov*

- **Designing Effective Professional Development: Lessons from the Eisenhower Professional Development Program.** This report describes portfolios of Eisenhower activities and program operations, as well as the quality and self-reported effects of teachers' experiences in Eisenhower activities. This is the second publication from the

congressionally mandated National Evaluation of the Eisenhower Professional Program that is being conducted under contract by the American Institutes for Research (AIR).

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AMERICA COUNTS

ED HOME

Last Updated -- June 1, 2000, (mw)

★ Provide personal attention and additional learning time for students.

- **Math Tutoring and Mentoring.** To encourage colleges and universities to support mathematics tutoring, the Federal Government will pay 100 percent of the wages of work-study students who serve as mathematics tutors to elementary through ninth grade students. The work-study waiver enables college students who have an affinity for mathematics and science to gain valuable work experience while taking an active role in helping students prepare rigorous college-prepatory mathematics courses in high school.

- **21st Century Community Learning Centers (21stCCLCs).** This Administration initiative to keep children safe and provide them with extended learning opportunities will grant $200 million for after-school programs in fiscal year 1999. This appropriation will fund roughly 1,600 21stCCLCs in approximately 500-600 communities and will enable rural and inner-city schools in nearly every state to provide programs, including mathematics/science instruction and enrichment.

- **"Helping Your Child Learn Science"** This booklet provides parents, and other caregivers, with simple activities to help elementary school-aged children's foster an appreciation for science. *To order, call 1877-4ED-PUBS. Also available in Spanish.*

- **Gear Up.** To encourage more low-income students to stay in school, study hard, and prepare for college, this new competitive grant program supports early college awareness activities at both the local and the State level. Gear Up provides $120 million for multi-year grants to locally-designed partnerships between colleges and high-poverty middle schools, plus at least two other partners--such as community organizations, businesses, religious groups, state education agencies, parent groups, or non-profits. Competitive applications will include strong mathematics components.

- **Mars Millennium Project.** This interdisciplinary project, which will be launched in fall 1999, challenges K-12 students nationwide to work in collaborative groups to design a livable town for 100 earthlings on the planet Mars in the year 2030. This project will inspire debate and in-depth research, as students integrate the arts, mathematics, and sciences to create scientifically sound communities on this distant planet.

- **"Yes, You Can."** This guide helps schools and other organizations establish high-quality mentoring programs. Many examples focus on mathematics and science. *To order, call 1-877-4ED-PUBS.*

- **"Early Childhood: Where Learning Begins—Mathematics."** Families and caregivers can play an important role in helping children develop an early appreciation for mathematics. This booklet provides sample activities that can be done at home, or in a preschool or childcare setting, with children aged 2-5 to help build basic mathematical understanding. *To order, call 1-877-4ED-PUBS.*

- **"Helping Your Child Learn Math."** This booklet helps families participate in their elementary school-aged children's mathematical learning. By using materials found inside the home and transforming routine tasks, such as shopping or cooking, into enjoyable educational experiences, parents will reinforce mathematical skills while developing their children's appreciation for mathematics. *To order, call 1-877-4ED-PUBS. Also available in Spanish.*

- **"E-Math"** This guide to e-mail based volunteer programs designed to help students master challenging mathematics, science, and technology demonstrates how professionals can serve as resources to students and teachers using the Internet.

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ED HOME

Last Updated -- June 1, 2000, (mw)

★ Support high-quality research to inform best practices of mathematics teaching and learning.

- **Mathematics Learning Study.** A National Academy of Sciences study, scheduled for completion in spring 2000, will examine the factors that lead to successful mathematics learning and will provide research-based recommendations for the improvement of mathematics teaching and learning.
- **A Study on Calculus, Biology and Physics Advanced-Placement Programs.** A National Academy of Sciences study, scheduled for completion in 2001, will explore whether secondary mathematics and science instruction and assessment programs help students develop world class advanced compentencies.
- **Interagency Education Research Initiative.** $30 million for 50 grant awards is available in FY1999 in support of research directed toward understanding how to make substantial improvements in the following areas: school readiness for learning reading and mathematics; K-3 learning in reading, mathematics, and science; and education of preK-12 mathematics, reading and science teachers in content knowledge and science underlying cognitive development and learning.
- **"Improving Mathematics in Middle School: Lessons from TIMSS and Related Research."** This publication synthesizes for policymakers and the public lessons learned from TIMSS and other research about student achievement, curriculum content, and teaching. *To order, call 1-877-4ED-PUBS, or e-mail: edpubs@inet.ed.gov*
- **"Mathematics Equals Opportunity."** An analysis showing that high school students who take algebra, geometry, and other rigorous mathematics courses are more likely to go to college. This is particularly true for students from low-income communities.
- **National Center for Improving Student Learning and Achievement/Math and Science (NCISLA).** The purpose of this center--which is operated out of the University of Wisconsin at Madison--is to craft, implement in schools, and validate a set of principles for the design of classrooms that promote understanding in both mathematics and science.

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ED HOME

Last Updated -- November 5, 1999, (mhm)

★ Build public understanding of the mathematics today's students must master.

- **"Figure This!" Math Challenges for Families**
  This series of engaging mathematical challenges provides parent-friendly learning activities for families to do together, based on high quality, real life middle grades mathematics. Efforts are underway to make the individual challenges available through various media outlets, product packaging, and public service advertising. *You can access all 15 challenges today by visiting or by calling toll-free, 1-877-GO-SOLVE.*

- **"The Formula for Success: A Business Leader's Guide."** American business leaders are increasingly aware that most students leaving school do not possess the necessary skills to succeed in their industries. This publication promotes involvement strategies for business leaders, encouraging them to actively participate in improving mathematics and science achievement in schools. *To order, call 1-877-4ED-PUBS or e-mail: edpubs@inet.ed.gov.*

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AMERICA COUNTS

ED HOME

Last Updated -- June 1, 2000 mw)

★ Encourage a challenging and engaging curriculum for all students based on rigorous standards.

- **Exemplary and Promising Mathematics Programs.** To help teachers and administrators select and implement high-quality curricula, an expert panel has released the first of an annual list of mathematics programs and instructional materials, which it identifies as promising or exemplary. The expert panel is currently working on identifying high quality science programs. *To order, call 1-877-4ED-PUBS.*

- **Federal Resources for Educational Excellence (FREE).** This web site connects teachers, students, and parents to instructional and learning materials in mathematics and science from over 40 Federal agencies.

- **Gateway to Educational Materials (GEM).** This web site is the key to one-stop access to educational resources on the Internet, providing links to collections of educational materials--including mathematics--found on various Federal, State, university, non-profit, and commercial Internet sites.

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ED HOME

Last Updated -- June 1, 2000, (mw)

★ Promote the coordinated and effective use of Federal, State, and local resources.

- **High Standards in Mathematics for Every Student: A Guide to Effective Use of Resources.** This report will summarize the lessons learned at three 1998 regional conferences that focused on strategies for using Federal, State, and local resources to improve student achievement in mathematics. *Forthcoming Summer 2000.*
- **"Coordinating Resources to Support Standards-Based Mathematics Education Programs."** This report—based on the results of a 1998 seventeen-district survey and five in-depth district case studies—examines the ways in which Federal, State, and local resources were effectively coordinated in support of improved student achievement in mathematics.
- **Self-Assessment Guide.** This tool assists administrators in thinking creatively about the use of Federal and other State and local resources for improving mathematics teaching and learning. It poses critical questions to districts to help them build concrete strategies for improving mathematics instruction with federal resources.

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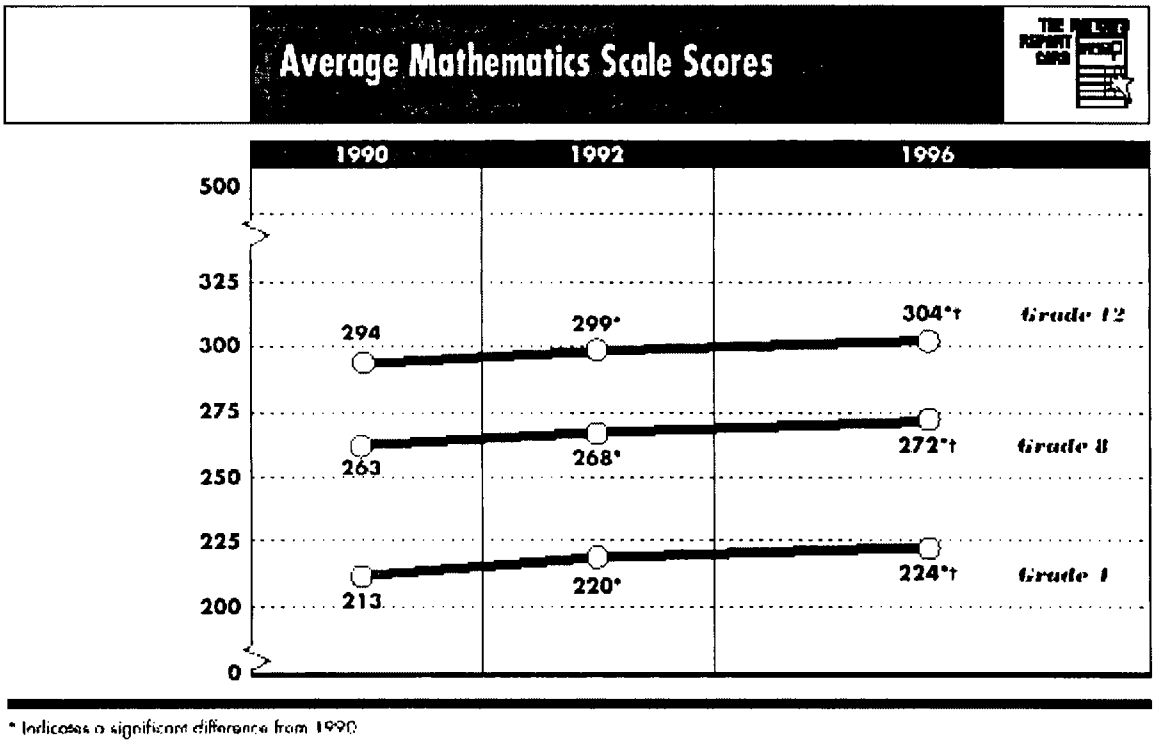
ED HOME

Last Updated -- June 1, 2000, (mhm)

Scores Up on All Levels

Scores were higher in 1996 than in 1992 for all three grades, and higher in 1992 than in 1990. The national average scale score for fourth graders in 1996 was 224, an increase of 11 points over the national average for 1990. The average for eighth graders in 1996 was 272, an increase of 9 points, and the average score for twelfth graders was 304, an increase of 10 points.



* Indicates a significant difference from 1990.
† Indicates a significant difference from 1992.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992 and 1996 Mathematics Assessments.

Figure 2.1, *NAEP 1996 Mathematics Report Card.*

For more information about these and other findings, see the 1996 Mathematics Report Card.

Last updated 21 January 2000 (JBJ)

1) America Counts Initiative (Math Initiative)
↳ volunteer tutors (including Fed. work-study students)
↳ challenge colleges to join this initiative.

scores go to drop in middle school!

2) 1997 Presidential directive to
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National Science Foundation } work together & develop action strategy on using Federal Resources in support of improving student performance.

6 Focuses of program

1) high quality Teacher Prep & Growth
↳ Chaired by John Glenn
↳ Report due out in Fall 2000
↳ Voluntary standards prep
Math teacher curriculum