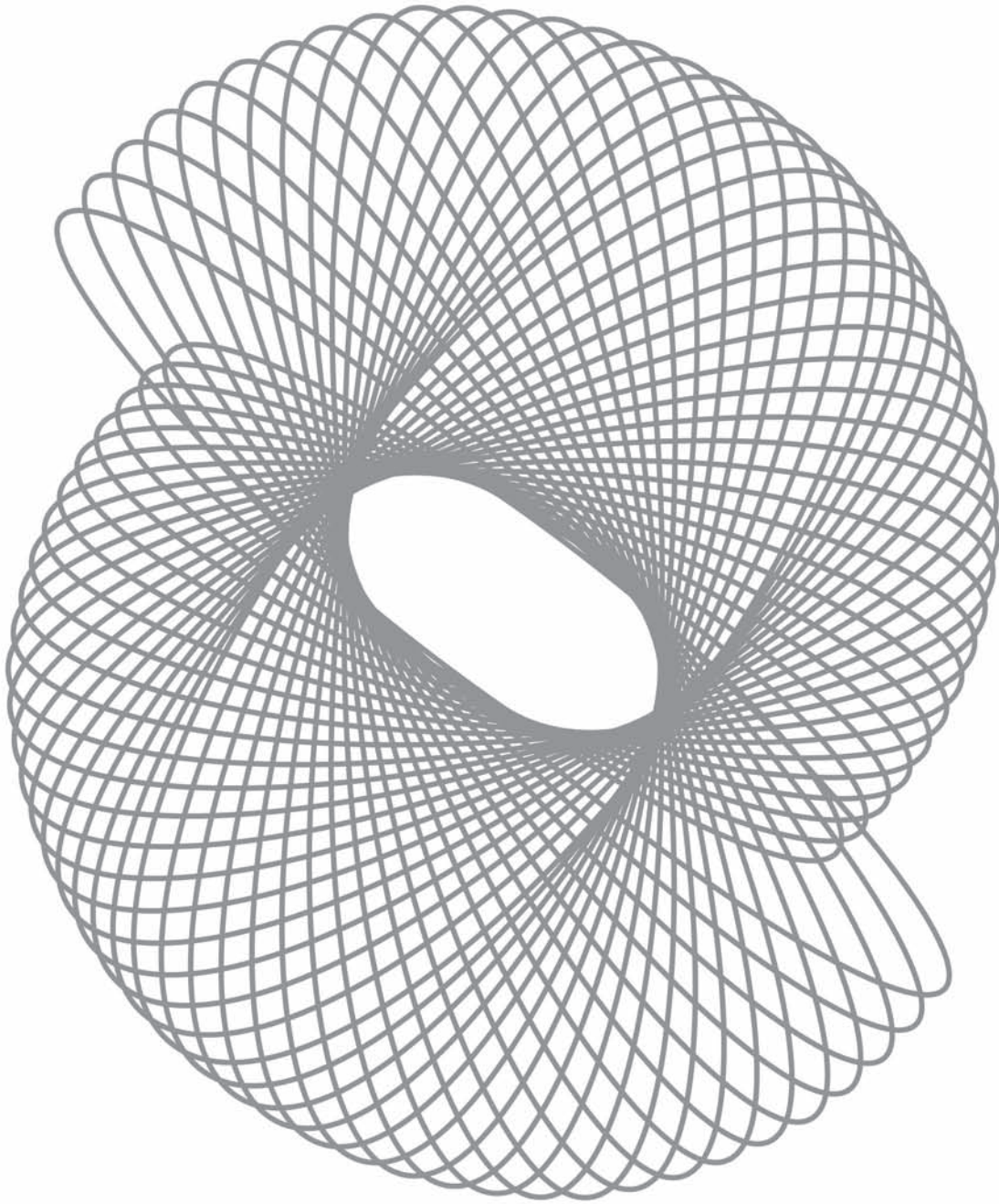


LINKING LEADERS

Community for Change:

Celebrating Ten Years



LINKING LEADERS HISTORY

The Education Challenge

In the mid 1990's, worrisome gaps were identified in the mathematical, scientific, and technological literacy of the U.S. population. Issues such as the under-representation of women and minorities in technical fields, student performance on international assessment instruments, and student readiness for the workplace emerged as critical weaknesses of the U.S. system. In conjunction, state educational standards for almost every subject became a nationwide trend.

The Perfect Partnership

During this time, the National Aeronautics and Space Administration's (NASA) Educational Office concluded that a monolithic, one-size-fits-all model was inappropriate and ineffective for supporting technical education across America. NASA's education leadership sought to support the source of a coherent voice for the states' improvement agendas.

The National Alliance of State Science and Mathematics Coalitions (NASSMC) provided NASA with the perfect partnership opportunity. Initially formed in 1994, NASSMC grew out of a project sponsored by the Mathematical Sciences Education Board of the National Research Council. The purpose of NASSMC was to bring state coalitions of business, education, and policy leaders under one national umbrella. NASSMC set out to develop strategies to strengthen existing coalitions while at the same time building new ones.

Linking Leaders Emerges

The Linking Leaders program was established by NASA in collaboration with NASSMC. This partnership provided the ideal vehicle to support the separate and diverse reform efforts of individual state coalitions as a strategy for systemic change. NASA's commitment to education is based on the support of each state's education vision. If the sectors of education, state government, and business share a collective vision, then NASA resources can be aligned to support it. On the other hand, if education, policy, and business leaders are all working hard but at cross-purposes to improve education, then the vector sum of their efforts may be zero.

Linking Leaders for Systemic Reform was launched in 1995 and the first Linking Leaders Workshop was held in Cleveland, Ohio in 1996. With the assistance of NASA funding, NASSMC has extended the Linking Leaders program to twenty-three states. In addition to building new coalitions, the program has evolved in recent years to offer specialized support and technical assistance to the older, more well-established coalitions. Now called Linking Leaders for Systemic Improvement, the program has changed the dynamics of NASA's interaction with the states and has led directly to the establishment of coalitions in four states where no organization existed prior to the NASSMC/NASA presence.

From Linking Leaders I in 1996 to Linking Leaders IX in 2004, the program has been conducted in the states of Alabama, Colorado, Florida, Idaho, Illinois, Iowa, Kentucky, Maryland, Minnesota, Mississippi, Nebraska, New Hampshire, New Mexico, Ohio, Oklahoma, Pennsylvania, South Carolina, Tennessee, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.

NASSMC HISTORY

The National Alliance of State Science and Mathematics Coalitions (NASSMC) is an umbrella organization for state coalitions of business, education, and public policy leaders united for the improvement of mathematics, science, and technology education (MSTE) for all students. NASSMC is a network of thirty-seven state coalitions and serves as the national advocate for its member organizations.

Vision and Goals

A non-profit association, NASSMC works state-by-state in pursuit of its vision that all U.S. students will have the necessary knowledge of, understanding of, and skills in mathematics, science, and technology, so they can be productive in their personal, work, and civic lives. The nation will have a competent and competitive workforce that continues to meet the challenges of the global economy. NASSMC's member coalitions work to bring coherence and added value to the separate efforts of many individuals and organizations. Coalitions pursue goals not achievable by any one organization or sector working alone. All Americans need and deserve to receive the best possible education in mathematics, science, and technology for their personal and civic lives.

To this end, NASSMC performs a variety of beneficial activities:

- Helping each coalition develop a state-specific strategy to improve mathematics, science, and technology education;
- Linking state coalition leaders to each other and to major national initiatives;
- Serving as the national ears and voice of its member coalitions;
- Providing a national forum for the discussion of critical issues relevant to continuous and systemic improvement of mathematics, science, and technology education; and
- Supporting timely dissemination of information relevant to the continuous and systemic improvement of mathematics, science, and technology education.

NASSMC's Development

NASSMC evolved from a 1989 project of the Mathematical Sciences Education Board of the National Research Council. For five years, the project focused on developing coalitions of state-level leaders committed to promoting adaptation and implementation of new state standards for school mathematics and later, science based upon national models. In 1994, directors of the state coalitions initiated by the project decided to establish NASSMC as a national nonprofit organization with headquarters in Washington, DC. At the direction of its Board, NASSMC adopted a larger mission of supporting its member coalitions in the promotion of systemic improvement of mathematics, science, and technology education for all students in grades K-16.

In pursuit of its mission, NASSMC has designed and executed projects testing processes and materials for strengthening the structure and programs of its member coalitions. In collaboration with the Education Commission of the States and the NASA, it has developed a state-based model for working with business, education, and policy leaders to address continuous improvement in school mathematics, science, and technology. NASSMC also established the NASSMC Briefing Service, an Internet-based service providing leaders across the nation with concise and timely information about programs, research results, and public opinion relating to mathematics, science, and technology education.

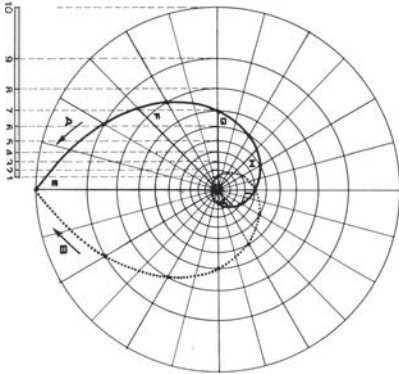
In August of 2002, NASSMC moved its offices to the National Science Teachers Association (NSTA) Building at 1840 Wilson Boulevard, in neighboring Arlington, Virginia. In this new location, NASSMC works in close proximity to the Triangle Coalition for Science and Technology Education and with the programs and operations of NSTA. The organization continues, through the efforts of its member coalitions, to support comprehensive and coordinated change in mathematics, science, and technology education and to promote public awareness and understanding of the need for such change.

VITAL STATISTICS

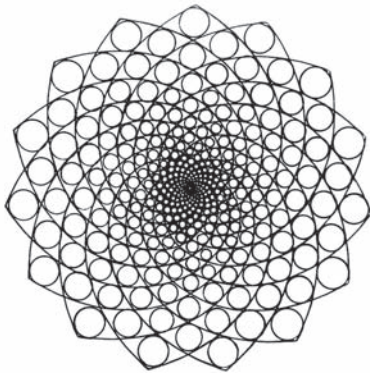
Linking Leaders Class
2003

Coalition Milestones
Founded - 1991

Website URL
www.mmscnet.org



The coalition was started in 1991 as the Maryland Mathematics Coalition, in response to the National Science Foundation Statewide Systemic Initiatives (SSI) program. The proposal to NSF was not funded but participating members continued to launch the coalition nonetheless. Professor Martha Siegel played a leadership role in maintaining organization of the coalition, and was assisted by a small grant from the Mathematical Sciences Education Board of the National Research Council. The original source of grant funds was the Exxon Education Foundation. The coalition also received early support from the Abell Foundation.



A statewide Summit on Mathematics and Science Education planned for 2005 will generate consensus language on how the coalition will provide leadership, focused attention, information, objective advice, coordination, action programs, and sustained attention to all of these activities in the years ahead.



FEATURE STORY: *LOCAL CHANGE CREATES SYSTEMIC CHANGE*

The Howard County Public School System - located in a relatively affluent community - is one of the best systems in Maryland (as measured by state assessments). Despite this fact, the county finds it a great challenge to meet the increasing demands for improvement in achievement by all students as mandated by the federal "No Child Left Behind" legislation. It has become increasingly clear to the Chair of the Mathematics Advisory Committee, which advocates for mathematics in the budget process, that new approaches are required to meet the challenge.

The Chair of the Committee is drawing upon personal contacts with the NASSMC community in her capacity as Executive Director of the state coalition. There are two key notions to this endeavor: (1) that science, technology, engineering, and mathematics (STEM) must work together, and (2) that systemic reform of

the combined STEM disciplines requires strong linkage with the business community.

Howard County is starting a process of linking STEM education reform to the institutions of the local business community - building upon existing business-education linkages in the county. The local business community has publicly expressed concerns about the state of STEM education.

The main themes of interest are public awareness, teacher professional development, and the use of technology. The business community is looking beyond its normal support of education (school partnership and the school visits) to something more systemic that will have a larger impact in the process of improving STEM education for all students. The business community is considering a bigger commitment in the hopes of a bigger payoff.

COALITION RESULTS



In 1996, the coalition – having become the Maryland Mathematics and Science Coalition – worked with the Maryland Space Grant Consortium to run a workshop exposing people around the state to the newly created Maryland State Performance Assessment Program (MSPAP).



The MMSC hosted the 1997 annual national meeting of The National Alliance of State Science and Mathematics Coalitions.



In 1999, MMSC received funding from NASSMC to hire a consultant to interview key stakeholders in Maryland about educational needs in mathematics and

science education. The resulting report, which highlighted teacher preparation and public outreach, was used to try to reinvigorate MMSC.



The coalition's ideas have motivated Howard County (Maryland) to apply them on a local scale. This activity was initiated by the Mathematics Advisory Committee and the Science Advisory Committee - two committees of citizen volunteers who advise the Howard County Public School System. These committees are bridging the gap between the business community and the education community by engaging the Howard County Economic Development Authority and the Howard County Chamber of Commerce in STEM education reform.

FUTURE GOALS

MMSC has identified a key goal for education initiatives in the years ahead:

1) To hold a successful Summit in May of 2005 and to launch the New Maryland Mathematics and Science Coalition.

The MMSC's current effort to host a statewide Summit on Mathematics & Science Education is having good success in recruiting state education, business, and policy leaders to lend their names and their support to the Summit effort. It is expected that Summit invitations will be issued by the Governor.

CONTACT INFO

Dr. Joan Aron
Executive Director, MMSC

(410) 740-0849
joanaron@mmscnet.org



MEMBER AFFILIATIONS

Summit Organizing Comm.

Kenneth M. Hoffman
MMSC Chairman
Prof. Emeritus, MIT

Joan Aron
MMSC Executive Director
Science Communication
Studies, Columbia, MD

Buzz Bartlett
Director of Corporate &
Foundation Relations
Univ. of Maryland,
College Park

Robert Gabrys
Director of Education
NASA Goddard Space
Flight Center

Richard Steinke
Deputy Superintendent
Maryland State Dept. of Ed.

Nancy Shapiro
Assoc. Vice Chancellor for
Academic Affairs
Univ. System of Maryland

Joan Donahue
Consultant

Diane Householder
Science Coordinator
Maryland State Dept. of Ed.

Harold Stinger
President
Maryland Space Business
Roundtable

Vera Zdravkovich
Vice President for Instruction
Prince George's Community
College

LESSONS LEARNED

NASSMC's Annual Meeting produces an endless stream of good ideas. The difficulty is to find the time and resources to implement them.



NASSMC Staff & Contact Info

Jim McMurtray
Executive Director
jmcmurtray@nassmc.org
(703) 516-5973

Jessica Venable
Program Officer
jvenable@nassmc.org
(703) 516-5974

Deborah Jones
Senior Program Officer
dtjones@nassmc.org
(703) 516-5971

Jane A. George
Program Officer
jgeorge@nassmc.org
(703) 516-5972

Write, telephone, or send a fax to
NASSMC's headquarters office:

NASSMC
1840 Wilson Blvd., Suite 200
Arlington, VA 22201-3000
(703) 516-5970
(703) 516-5979 (fax)
info@nassmc.org