



STATE OF MICHIGAN
DEPARTMENT OF EDUCATION
LANSING



MICHAEL P. FLANAGAN
SUPERINTENDENT OF
PUBLIC INSTRUCTION

JENNIFER M. GRANHOLM
GOVERNOR

MEMORANDUM

TO: State Board of Education

FROM: Michael P. Flanagan, Chairman 

DATE: August 27, 2007

SUBJECT: Approval of 2007 Master Plan for Michigan's Mathematics and Science Centers

Section 99 of the School State Aid Act requires the development of a Master Plan for Mathematics and Science Centers. The Master Plan for August 2002 was reevaluated and updated by the department. The State Board of Education must approve the plan no later than September 30, 2007. The Michigan Department of Education, Office of School Improvement, solicited input and worked with educators, policy makers, and businesses over the past fourteen months to reevaluate and update the master plan based on today's education climate and mathematics and science needs.

The Mathematics and Science Centers are an established infrastructure that provides assistance, products, and services to students, teachers, and local school districts. Centers are designed to enhance the knowledge and skills of educators and students to improve the quality of mathematics and science education in Michigan. The attached Master Plan provides a strategy and that enables Michigan to achieve this goal.

It is recommended that the State Board of Education approve the 2007 Comprehensive Master Plan for Mathematics and Science Centers, as attached to the Superintendent's memorandum dated August 27, 2007.

Attachment

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2007-2012 MASTER PLAN

FOR THE

MICHIGAN MATHEMATICS AND SCIENCE CENTER PROGRAM



*Building a 21st-century workforce by inspiring and nurturing excellence in mathematics
and science for all Michigan schools, students, teachers, and communities.*



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THE NEED FOR MATHEMATICS AND SCIENCE EDUCATION IN MICHIGAN

Michigan's need for mathematics and science education is critical and undisputed. A variety of sources, from the Lt. Governor's Commission on Higher Education and Economic Growth to the recent Michigan Future, Inc., report, call for an emphasis in education that supports a knowledge-based economy. The Michigan Legislature created, and the governor signed into law, the new Merit Curriculum to better prepare Michigan's young people for success in college or the workplace.

While the Michigan Merit Curriculum outlines what students must know and be able to do to be successful, implementation remains the responsibility of each district.

The Michigan Mathematics and Science Centers Program (MMSCP, or the Program), through its Mathematics and Science Centers and the Network that supports them, provides important and effective programs, services, and resources that help Michigan's K–12 schools implement the new Merit Curriculum and supports the quest for mathematical power and scientific literacy of all Michigan students.

This five-year Master Plan for the Michigan Mathematics and Science Centers Program defines goals and services of the Michigan Mathematics and Science Centers Network and the 33 Michigan Mathematics and Science Centers throughout the state. The plan incorporates Michigan's current challenges and needs and redefines and reestablishes the required components of the Program to best support a prosperous Michigan.



In 1988, the Michigan Legislature created the Michigan Mathematics and Science Centers Program to establish 17 regional Centers in cooperation with school districts, higher education, science museums, and professional associations with the goal of providing equitable access to expertise and services in mathematics and science education to all K–12 schools in Michigan. The Michigan Mathematics and Science Centers Network (MMSCN), a coordinated body of directors, was established to foster Center development and evolution. Today, the Network comprises 33 strategically placed Centers to serve all Michigan school districts and *all* Michigan students.

Michigan's mathematics and science knowledge base stands at a crossroads alongside Michigan's future economic prosperity, which must begin to take shape as a knowledge-based economy to replace the downturn in manufacturing. While mathematics and science skills are more critical than ever to Michigan's growth, funding for the state's 33 Mathematics and Science Centers was slashed dramatically in the 2003/04 academic year and has not been restored.

A complete history and timeline regarding the Program is included in the appendices.

HISTORY OF PROGRAM FUNDING

The Michigan Mathematics and Science Centers Program was created by legislation that provided \$1 million in competitive grant funds to establish the Centers in cooperation with school districts, higher education, science museums, and professional associations. In 1991, 20 Centers were funded by legislation that included a new support category for accelerated programs. In that year, State support more than doubled to \$2.1 million. In 1991–92, funding was transferred to Section 99 of the State School Aid Act, and 20 Centers received grants totaling \$2.4 million. Funds were allocated according to population served (census data).

In the mid-1990s, the Michigan Legislature awarded \$6.2 million to the Centers and eight satellites. By 2001–2002, the Legislature provided funding of \$10.2 million, providing every school district in the state access to a fully funded Center. At this point, the Michigan Mathematics and Science Centers Network comprised 33 Centers.

The 2002 Master Plan revision provided an expanded direction to the Mathematics and Science Centers to maintain high expectations for teaching and learning, to increase the achievement of all students, and to assist high priority schools. A current map of the Centers, juxtaposed with school districts, ISDs, and higher education, is attached for reference.

In 2003–2004, the Michigan Legislature cut funding for the MMSCP by 75 percent to \$2.5 million, where it has remained through 2006–07. Despite this drastic reduction in funding, the Network and its constituent Centers have continued to work toward their missions and have operated according to the requirements of the 2002 Master Plan. Through 2006 the Network infrastructure has remained mostly intact, although Centers' staff and services have been severely cut due to financial shortfalls. To address this issue, this Master Plan includes a discussion of a recommended base funding level to maintain the Program with a functioning Network and 33 Centers.

A CONTEXT FOR THE FUTURE—MICHIGAN'S EDUCATION AND ECONOMIC CLIMATE

This is an important time for the Program, and a critical time for Michigan. The course of the next five years (the duration of this Master Plan) will likely determine whether the Program can flourish and be given the opportunity to serve Michigan at this critical time. Much has changed since the adoption of the last Master Plan in 2002. Michigan has slumped into what is often referred to as a "one-state recession." Job losses due to contraction of Michigan's automotive and manufacturing sectors continue to plague the state. State budget woes are severe. The last few years have seen \$3 billion cut from the budget, with predicted shortfalls continuing for the foreseeable future. Simultaneously, much attention has been focused on Michigan's deficits in educational attainment and the out-migration of young educated graduates to other parts of the country. Notably, Michigan ranks 31st in the nation in the number of residents with a four-year degree. As manufacturing jobs in Michigan and the United States have shrunk by 19 percent, the nation has experienced a 32 percent increase in knowledge-based employment, compared to only 17 percent growth of knowledge-based employment in Michigan.

Significant steps are being taken to address the components of these issues that involve education. In December 2004, the final report of the Lt. Governor's Commission (Cherry Commission) on Higher Education and Economic Growth was issued. This report concluded that education is at the root of much of Michigan's current economic malaise and made a compelling argument for "Michigan to raise the floor of preparation for all students ... [and] have the courage to move ahead boldly to develop more rigorous high school standards." The Commission's Preparation Workgroup set its first recommendation as "set high expectations for high school students through standards, curriculum, and assessment."

In April 2006, Governor Granholm signed into law one of the most comprehensive sets of high school graduation requirements in the nation, the Michigan Merit Curriculum, which defines a common set of required credits for graduation and provides educators with a common understanding of what students should know and be able to do for credit. This law is the result of an extraordinary partnership between the Executive Branch, State Board of Education, Superintendent of Public Education, and numerous education organizations. It also provides students the learning opportunity, knowledge, and skills they need to succeed in college or the workplace. There is considerable emphasis on mathematics and science education within the Merit Curriculum.

The second recommendation of the Cherry Commission's Preparation Workgroup specifically identified the "importance of effective professional development of teachers, administrators, and instructional leaders to support implementation of high-expectations standards at the high school level."

Michigan has in place an infrastructure that supports excellence in the teaching and learning of mathematics and science and can significantly contribute to advancing the Merit Curriculum, teacher professional development, and student success. This infrastructure is the Michigan Mathematics and Science Centers Program. However, considerable risk to the Program exists owing to lack of funding at a time when Michigan needs the Program more than ever.

A five-year Master Plan for the Program was first called for by the Legislature in 1992. The first Master Plan, adopted by the Michigan State Board of Education in February 1993, established the current structure of the Centers and Network and specified the services to be offered. The 2002 Master Plan gave direction to the Centers in their efforts to maintain high expectations for teaching and learning, increase the achievement of all students, and assist high priority schools.

This Master Plan for the Michigan Math and Science Centers Program updates the blueprint for the Program so that it can best serve Michigan's educational community over the course of this pivotal five-year period and is aligned with important existing Michigan educational initiatives. Notably, the Program is directly aligned with the Michigan



The course of the next five years (the duration of this Master Plan) will likely determine whether the Program can flourish and be given the opportunity to serve Michigan at this critical time.

Board of Education's strategic goal and initiatives to "Attain substantial and meaningful improvement in academic achievement for all students/children, with primary emphasis on high priority schools."

Of equal importance is the fact that the Program is closely aligned with Michigan's School Improvement Framework, which has become an integral and necessary part of school and system reform. Michigan's School Improvement Framework lays out five areas of general focus, referred to as "strands:" I) Teaching for Learning; II) Leadership; III) Personnel and Professional Learning; IV) School & Community Relations; and V) Data & Information Management. The basic services and strategic plan requirements of the Program connect with this Framework and will help move Michigan's education agenda forward.

MASTER PLAN GOALS AND STRATEGIES FOR 2007–2012

This Master Plan presents new considerations relative to the 2002 plan. Substantive new discussion incorporated into this plan includes:

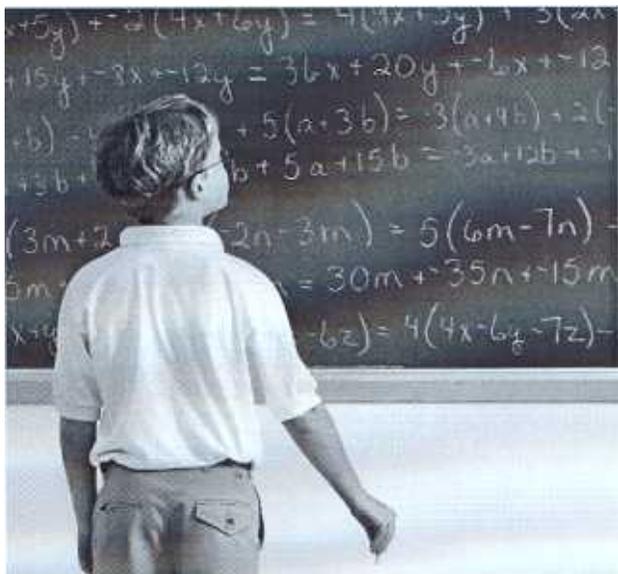
- A greater role for the Network and a change in its status to a 501(c)(3) organization. This status is critical, as it will allow the Network to receive outside grant monies and provide for staff support.
- Language that calls for a stronger emphasis on Centers being evaluated on outcomes. This plan calls for Centers' five-year strategic plans to demonstrate how they will move in this direction. Additionally, a matrix of relationships between Center services and outcomes is incorporated into the document.
- A call for greater accountability by all Centers to each other and the Network. Measures of accountability have been built into an "accountability matrix" that was adopted by the Network and is included in the appendices.
- Reinstatement of language that provides a recommendation for base funding of \$6.5 million to provide for a minimum level of Center services.

The goal of this plan is to provide a framework for the Michigan Mathematics and Science Centers Program to thrive and provide continued service to Michigan teachers and students for the duration of the plan and beyond. Five key strategies will contribute to this goal:

1. Building a Network organization that is self-sustaining and can provide support and service to the Centers as well as further develop and maintain the infrastructure within Michigan.
2. Creating a path to develop a more diversified and sustainable funding base for the Centers and the Network.
3. Creating a path for greater participation by other stakeholders, including business, in mathematics and science education in Michigan.
4. Establishing the essential services to be provided by the Network component of the Program.
5. Providing an imperative for greater accountability and more stringent measurement of Network and Center outcomes.

ROLES AND RESPONSIBILITIES: THE CENTERS

The Michigan Mathematics and Science Centers serve as catalysts and resources for improvement in the teaching and learning of mathematics and science. They provide services that enhance and extend beyond those available at local districts within their region. Each Center is charged with attending to the six basic services that have been integral to the Program since its inception. These services closely align with the strategic goals of the Michigan Board of Education and the School Improvement Framework. They allow key relationships to be developed and maintained with all stakeholders. The six basic services are:



A goal of the program is to ensure that all students and educators in Michigan have access to Center services.

1. **Leadership** to reflect national and state standards, research, and a shared vision for improving mathematics and science education.
2. **Student Services** to improve and enhance mathematics and science learning for all.
3. **Professional Development** to strengthen and update teaching practices based on current research and local needs.
4. **Curriculum Support** to help develop curricula in local districts that incorporate research in teaching and learning, as well as recommended national and state standards.
5. **Community Involvement** to increase awareness, nurture ownership, and identify resources for innovative and bold educational programming.
6. **Resource Clearinghouse** to collect and transfer information; to identify, acquire and distribute materials; and to locate and effectively utilize human resources.

Mathematics and science education for all Michigan students is a core value of the Legislature and the Program. Centers are directed to be mindful of this core value as they develop their strategic and operational plans. The needs of high-priority schools throughout Michigan are an important consideration for the Centers in their planning and delivery of services.

PROFESSIONAL DEVELOPMENT

Centers will:

- Provide professional development for mathematics and science educators based on identified needs.
 - During the time period encompassed by this plan, the Michigan Merit Curriculum is of particular importance to the state and will be an important component of the Centers' planning and service delivery.
- Ensure that professional development reflects and models state professional development standards, as well as state and national standards in content, teaching and learning, and assessment.
- Advocate that all educators who participate in Center professional development programming work toward attaining best instructional practices in their classrooms.
- Provide leadership development in mathematics and science, both within the Center and within targeted K–12 Local Education Agencies (LEAs).

CURRICULUM SUPPORT

Centers will:

- Help districts align local curriculum to implement the standards and benchmarks as outlined in the Michigan Merit Curriculum, Grade Level Content Expectations, School Improvement Framework, and other relevant standards and benchmarks identified by the Michigan Department of Education.

- Facilitate and model the integration of technology into the mathematics and science curriculum.
- Assist the Michigan Department of Education with initiatives in mathematics and science.
- Assist districts with statewide mathematics and science test alignment and analysis as they strive to close the gap in student achievement.
- Partner with regional stakeholders to support science and mathematics achievement in identified high priority schools.

STUDENT SERVICES

Centers will:

- Provide accelerated and/or enrichment programs and services for students.
- Encourage equal access to accelerated/enrichment programs and services for students.
- Advocate that programs and services for students be correlated with current state and national curriculum documents and reflect effective instructional practices.
- Work to ensure that accelerated/enrichment programs and services promote interest in, and exploration of, careers in mathematics and science.

LEADERSHIP

Centers will:

- Promote a shared vision of high expectations in mathematics and science education that:
 - Offers equal access to students and educators
 - Correlates with the Michigan Merit Curriculum, Grade Level Content Expectations, School Improvement Framework, other Michigan curriculum documents, Education YES!, and other materials as adopted by the Michigan Board of Education
 - Reflects effective instructional practices
 - Promotes interest in and exploration of mathematics and science career pathways
- Promote themselves as a “first-line” resource for teaching and learning in mathematics and science.
- Develop shared leadership and collaboration with organizations, agencies, businesses, and professionals at a regional, local, and statewide (where appropriate, in conjunction with the Network) level.

COMMUNITY INVOLVEMENT

Centers will:

- Collaborate with community groups to cosponsor mathematics and science programs and services.
- Involve the community in planning and implementing programs through advisory boards and task forces.

- Acquire and leverage direct and in-kind human and financial resources to provide the six basic services in mathematics and science.
- Promote public understanding of the goals and issues in mathematics and science education.

RESOURCE CLEARINGHOUSE

Centers will:

- Furnish information and access to educational materials (e.g., books, documents, and electronic resources) and classroom teaching equipment in mathematics and science.
- Create and sustain an Internet presence to support mathematics and science education.
- Maintain an inventory of available human and material resources in mathematics and science.

DELIVERY OF CENTER SERVICES: A FOCUSED ROLE FOR CENTERS IN THEIR COMMUNITIES

Centers deliver basic services in different ways. Regions vary considerably in geographic area, population, educational needs, and educational resources available. (See attachments: Map, Listing of Centers.) Services are determined by needs and priorities of Center stakeholders through collaborative strategic planning as identified in each Center’s strategic plan and in accordance with the system of accountability developed by the Network and Michigan Department of Education (MDE). This planning results in localized combinations of programs, resources, and consultative arrangements to build the capacity of teachers and others to provide successful mathematics and science education as evidenced by student achievement outcomes.

Programs are offered directly to teachers through professional development and to students through enrichment activities and/or accelerated programs. Increasing the participation and achievement of underrepresented students is also a high priority for Centers to assist schools in their efforts to ensure that no child be left behind.

Centers are expected to provide curriculum enhancement program options for students. In addition, some Centers provide a full-year program for students with high ability. These full-year programs must include a multiyear, coordinated curriculum for a minimum of 450 hours per year with a minimum of two and one-half contact hours per student per day. Students receive high school credit in mathematics, science, and technology from their local schools for successfully participating in such a Center-based program.



CENTER STATUS

A goal of the Program is to ensure that all students and educators in Michigan have access to Center services. A sufficient number and appropriate distribution of Centers are essential to achieving this equity without duplication of services. In 2007 there are 33 Centers across the state (see Map). A fully operational Center is subject to all Michigan Department of Education requirements and provides the full range of services, as described in this Master Plan, and implemented according to its individual strategic plan.

Each Center, on a rotating basis, must submit a five-year strategic plan. An external panel reviews the plan and makes recommendations to the Michigan Department of Education for funding approval. The external panel consists of Department staff and Center and/or Network representatives. It often also includes mathematics and science educators, representatives from universities and community colleges, and personnel from business and industry. A Center whose five-year strategic plan is approved by the Department maintains its operational status.

Each year, Centers submit an application that includes an updated strategic plan and budget. The yearly application must address the following, keeping in mind that any Center's ability to conform to these criteria is commensurate with its current level of funding:

- Delivery of basic services described in the Master Plan.
- Employment of a qualified (as determined by MDE) full-time director and staff designated to coordinate and deliver services.
- Detailed budget with rationale.
- Membership in the Michigan Mathematics and Science Centers Network with full participation as required by the accountability measures set by the Network, including regular attendance at Network meetings and performance determined by the Network's accountability matrix and supported by the Michigan Department of Education.
- Participation in statewide initiatives of the Network that focus on student achievement and contribute data related to student achievement.
- Other criteria as defined by the Michigan Department of Education.

Each Center must provide an annual report that details expenditures, outlines accomplishments, compiles statistical indicators, and shows evidence of progress toward defined outcomes described in its five-year strategic plan.

A schedule of detailed events and timing requirements related to the yearly application and annual report is attached.

In interim years, funding approval for Centers is based on a review of each Center's annual report and updated application as defined by the Michigan Department of Education. Approval by the Department permits the Center to maintain its operational status.

GOVERNANCE AND ADVISORY GROUPS

Each Center shall have an appropriate governance structure that conforms to the requirements in place at that Center. The governance plan is part of the foundational documentation of the Center.

Centers are also required to establish an Advisory Group that includes key stakeholders from schools (e.g., principals, superintendents, teachers from elementary, middle or junior high, and high school), and community partners. While the governance structure is unique to each Center, all Centers shall include representation from their respective fiscal agents and from teachers with knowledge, skills, and interest in mathematics and/or science, from all three grade group levels: elementary, middle, and high school. It is also important that one or more principals with knowledge/interest in these subject areas be represented. Each Center may also include non-school partners (colleges, museums, business, higher education) in its governance structure. Centers may use various mechanisms to build stakeholder representation into their governance structure. To the extent possible, the governance structure should be representative of the population for which it serves. Changes in the governance structure will be subject to peer review and external review with final recommendation by the Michigan Department of Education, in the same manner as changes to the Center's strategic plan.

STATE AND LEVERAGED FUNDING FOR CENTERS

To maintain and strengthen Michigan's leadership in mathematics and science education, it is essential that the Centers receive stable and significant state funding to support basic infrastructure for their services, facilities, and staff. Through the delivery of basic services, the Mathematics and Science Centers support the efforts of the Michigan Department of Education in its program to assist high priority schools, support high expectations, and help to close the gap in achievement. Some Centers successfully raise funds and, with this in-kind support, offer special programs and projects in their service area. Equipment, facilities, and human resources are provided to many Centers by schools, ISDs, universities and community colleges, businesses, industries, and community and other governmental agencies.

The funding of Mathematics and Science Centers is based on the appropriations made by the Michigan Legislature under Section 99 of the State School Aid Act, 2002 Public Act 191. Funding is based on full-year student programs and student population, and adjusted by specific appropriation amendments made by the Legislature over the years. The allocation to a Center shall not be changed unless the Legislature changes the appropriation or a Center changes its funding basis. If the total allocation is changed, the formula will be revisited to address the issue of equity of the number of students served by each Center.

Annual funding recommendations are presented by the Michigan Department of Education to the Governor through the Department of Management and Budget. The Legislature acts on the governor's recommendation in its approval of the State School Aid Act. Based upon the Department of Education's review of each application and strategic plan, individual awards are given under the State School Aid Act.

The MDE and the Centers agree that making essential services and important programs in mathematics and science accessible to all of Michigan's K-12 teachers and students through the work of the 33 regional Centers requires investment.

Across Michigan, Centers vary in the number of K-12 students they serve. "Large" Centers (currently, there are 6) require more funds than do "medium" Centers (14) and "small" Centers (13). Regardless of size, every Center needs a base level of funding in order to, at a minimum, employ a qualified Center Director (as required in the Center Status section) and cover the costs of essential operations. MDE estimates the current level of base funding to be \$6.5 million, based on funding levels from 1993.

Granted this base funding, Centers are committed to obtaining additional funds through the restructuring of the Network (as outlined by this Plan). The Network will use the base funding allocated by the Legislature to leverage support for Centers from other sources. Without base funding, Centers 1) are unable to provide adequate and

equitable services throughout the state, 2) lack the human capital to leverage additional money to benefit Michigan's K-12 students and teachers, and 3) fail to diversify the sources of funds to improve mathematics and science education in Michigan.

DATA COLLECTION AND EVALUATION OF CENTER OPERATIONS

To ensure that funds are used effectively, Centers evaluate their programs and services continuously on an informal and formal basis. Evaluation of the goals and outcomes of each Center's strategic plan is a necessary step in obtaining continued funding and has three major purposes to:

1. Provide information to Center staff (and the Network) to guide decision making and strengthen efforts.
2. Determine the impact of programming on students, teachers, and schools.
3. Communicate progress and achievement to stakeholders.

Centers participate in common data collection around key indicators that provide the Department of Education, the Network, and the Centers themselves with knowledge about performance of the Centers and their effectiveness in reaching teachers and students in their regions, about dollars leveraged to support mathematics and science education in their regions, and about the staff and facilities the Centers provide. Areas of common data collection may include performance indicators of services provided to each district in the region as well as outcome measures for district improvement in mathematics and science. Every effort should be made to measure student achievement tied to Center activities.

Assessment and data collection activities occur at individual Centers and across the entire group of Centers. This data is reviewed and summarized with a formal yearly report prepared by an external technical assistance provider (currently provided by the Science and Mathematics Program Improvement [SAMPI] Office, Western Michigan University). Each Center evaluates itself with a common Michigan set of program and organizational performance indicators that provide evidence used to improve Center programming and ensure accomplishment of goals. Each Center summarizes the results of its self-evaluation in an annual report organized around the six basic services and tied to the goals and outcomes of the Center's strategic plan. This annual report is submitted to the Michigan Department of Education and reviewed by the State Superintendent.

OUTCOMES

Over the course of the five-year Master Plan, Centers will be asked to integrate outcome goals and measurement, with a particular emphasis on student achievement, into their five-year strategic plans. The relationship between the Centers' basic services and overall Program outcomes is detailed in the table that follows.

The Centers: Relationship Between Six Basic Services and Program Outcomes

Outcomes	Services	Professional Development	Student Services	Curriculum Support	Community Involvement	Leadership	Resource Clearinghouse
Teacher math & science content knowledge improved		X			X		X
Teacher pedagogical skills & classroom practice improved		X		X	X		X
Teacher, administrator, and other educator knowledge and skills to support math & science improved		X		X	X	X	X
Opportunities for ALL students to learn math & science in challenging and effective ways			X	X	X	X	X
Improved student achievement/ accomplishments in math & science			X	X	X		X
High quality math & science curriculum based on Michigan standards and benchmarks in place in K-12 schools				X		X	
Collaborations and partnerships with local/regional/state organizations/institutions/agencies that support teacher and student learning in math & science		X	X		X	X	
Provide local/regional leadership to improve math & science education in ALL K-12 schools			X	X	X	X	X
Build leadership capacities at local, regional and state levels to support improved math & science in K-12 schools		X			X	X	
Math & Science instructional materials, specialized equipment and non-school site facilities available to teachers and students in K-12 schools		X	X	X		X	X

THE MICHIGAN MATHEMATICS AND SCIENCE CENTER NETWORK: EXPANDING THE NETWORK'S ROLE IN SERVICE TO MATH AND SCIENCE EDUCATION IN MICHIGAN

Historically, the Michigan Mathematics and Science Centers Network occupied a role secondary to the Centers themselves. While this is understandable given the stated mission, resources, and parameters, it has worked to the detriment of both the Network and the Centers. The lack of a strong Network function has likely contributed to recent difficulties, particularly with respect to funding, and must be corrected if the Network and the Centers are to deliver much-needed services to Michigan at the time they are critically necessary.

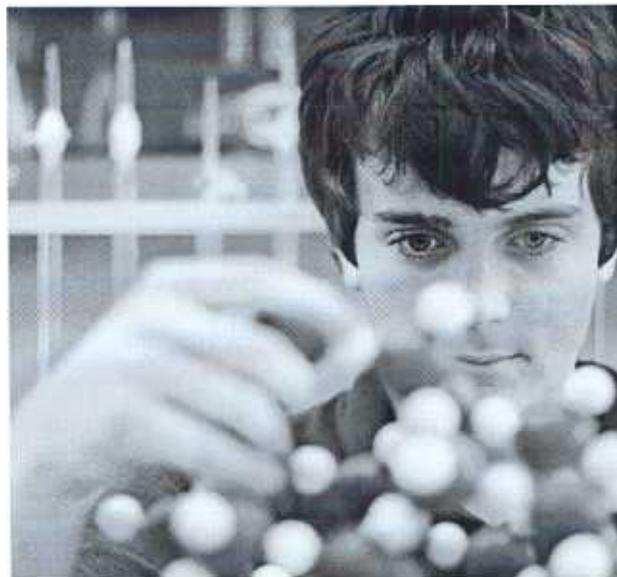
The Network is currently led by a president and executive board and supported by standing committees. These roles are all strictly voluntary and are responsibilities that are added to existing workloads of Center directors. Though these individuals are deeply committed and work long and hard, the lack of a dedicated and focused leadership at the statewide level has limited the Network's ability to fully organize itself to pursue further funding, and alignment of potential resources has not been fully realized.

This Master Plan addresses the role of the Michigan Mathematics and Science Centers Network to a greater degree than have past plans. Given the limitations of the current state budget juxtaposed with the tremendous need for the services and outcomes of the Centers, an elevated and expanded role for the Network is called for at this time.

The Network will become a 501(c)(3) organization that can seek and accept grants and must have a governing board comprising its members (the Center Directors) and stakeholders.

The Network exists to support Michigan's individual Mathematics and Science Centers for the purpose of maintaining high expectations for teaching and learning, increasing the achievement of all students, assisting high priority schools, and advancing mathematics and science education in Michigan.

The greatest opportunities for an expanded Network role is in providing statewide outreach, partnership development, and funding development activities in support of the Centers. Ultimately, the expanded roles of the Network are to pursue new avenues of funding from all sources (philanthropic, business, grants, and so on) and provide the greatest leverage possible to the state's base funding of the Michigan Mathematics and Science Centers Program.



This Master Plan addresses the role of the Michigan Mathematics and Science Centers Network to a greater degree than have past plans.

DELIVERY OF NETWORK SERVICES

Essential Network services are:

1. Statewide outreach and partnership development.
2. Funding development.
3. Coordination of statewide initiatives undertaken by its member Centers.

The Network will operate with a very small staff: a full-time Network Director (ND) and part-time support staff. The primary role of the Network will be to:

- Secure long-term funding for Network activities and Center services from all sources: government, business, philanthropy, and other.
- Develop, strengthen, and promote the Network as Michigan's leader in advancing mathematics and science education in Michigan.
- Pursue, broker, coordinate, and nurture partnerships with statewide, regional, and local entities in order to provide better educational opportunities in mathematics and science to all students and deeply integrate the Michigan Mathematics and Science Centers Network (and its member Centers) with other groups closely aligned with the Network's purpose. The Network must reach out to the business, philanthropic, and higher education communities in pursuit of these partnerships.
- Promote the Mathematics and Science Centers Network and its member Centers as a "first-line" resource for professional development, teaching, and learning in mathematics and science and convene these resources throughout the state to support them.
- Assure Network/Center representation on Michigan's Science, Technology, Engineering, and Mathematics (STEM) Coalition.
- Convene a statewide advisory board consisting of representatives of business, philanthropy, policy/government, MDE and education to assist in planning and implementation of programs and services provided by the Network. Convene the Network's member Centers as necessary to assist the Centers in performing essential Center services.
- Collaborate with representatives from other sectors to cosponsor and otherwise support mathematics and science programs and services throughout Michigan.
- Assume primary responsibility for community involvement in those instances in which the community is understood to be the entire state of Michigan, while continuing to encourage the Centers to collaborate with local and regional groups for their individual activities.
- Support the efforts of the Michigan Department of Education to hold Centers accountable to standards of performance and participation associated with awards made through the Michigan Mathematics and Science Centers Program (see Accountability Matrix in Appendix F). To this end, the Network will coordinate mentoring among its Centers to ensure the greatest probability of success for all Centers.

NETWORK GOVERNANCE, FUNDING, AND EVALUATION

The first-year planning effort for the expanded Network will define strategies and tactics for the Network in greater detail and must address status, governance, funding, and evaluation.

- **Governance:** The governing body for the Network is a Board of Directors (composed of the Directors of its constituent Centers) and an Executive Committee of that Board, as outlined in the Network's bylaws (included in the appendix).
- **Funding:** Funding for the Network is apart from MDE's base funding recommendation. As outlined in the Network responsibilities section of this Plan, pursuit of additional funding is a primary responsibility of the Network.
- **Evaluation:** An outside evaluator for Network activity and outcomes is recommended. Network evaluation must be based on its goals: levels and sources of funding, building enduring partnerships, cultivating enduring participation of statewide community stakeholders from all sectors, and advancing mathematics and science education in Michigan.

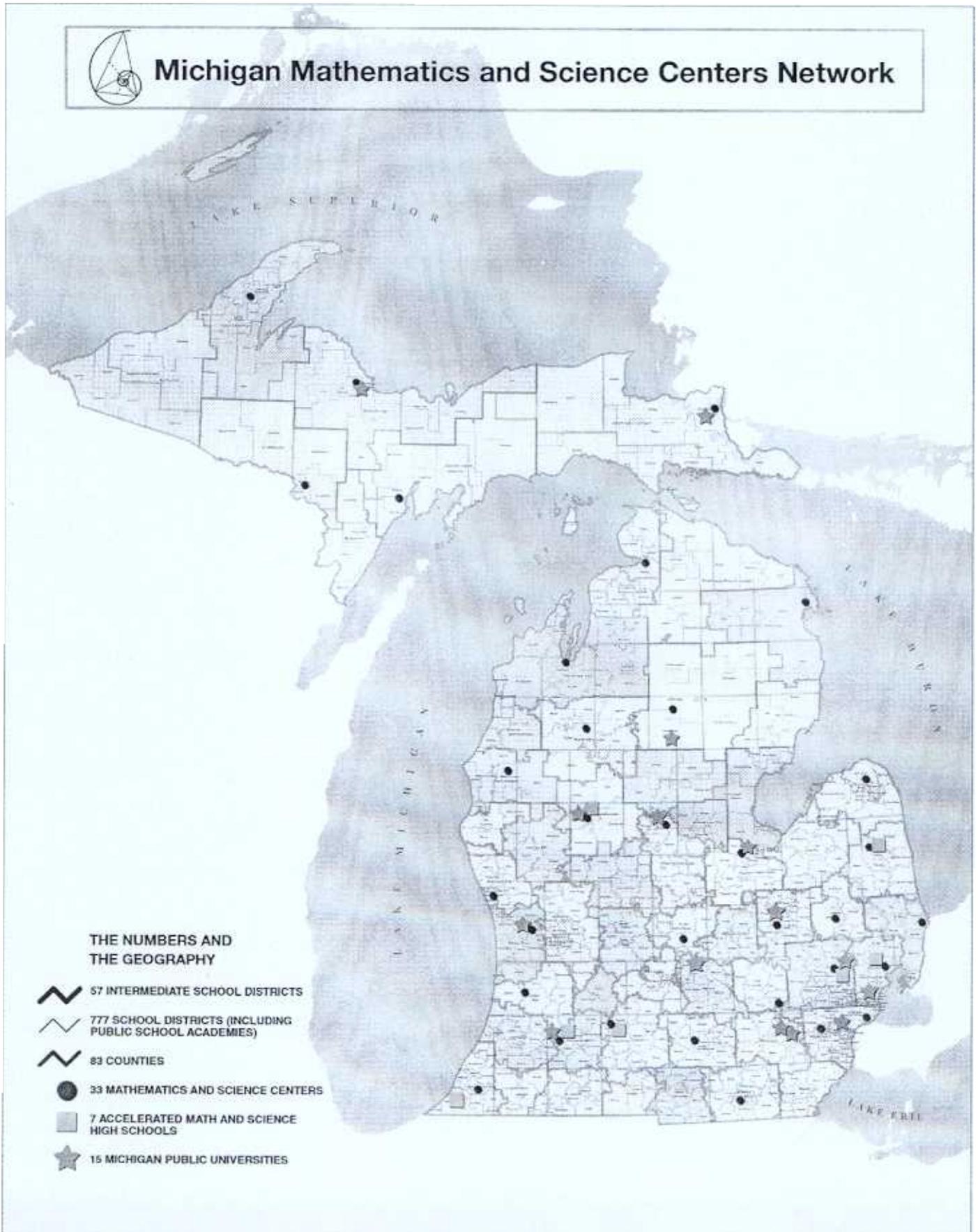
SUMMARY

The challenge to Michigan is clear. The time is now. Opportunity exists. Michigan has in place an effective statewide infrastructure in the Michigan Mathematics and Science Centers Network. This Master Plan advances the excellent work already accomplished by the Centers and enacts an approach that can further enhance and expand the reach and impact of both the Network and its constituent Centers. This Master Plan is a significant step forward in assuring the vitality of mathematics and science education for all Michigan students and providing the great state of Michigan with the human capital to restore itself to educational and economic leadership.

LIST OF ATTACHMENTS

- Appendix A: Updated map of Centers, counties, and school districts
- Appendix B: Listing of Centers by name
- Appendix C: History of Program document
- Appendix D: Yearly Timeline for Center Activity
- Appendix E: Funding Formula
- Appendix F: Network Accountability Matrix

APPENDICES



Appendix B: Listing of Center by name

LISTING OF CENTER NAME
WITH 2005-06 STUDENT POPULATIONS
May 2007

<u>Center Name</u>	<u>ISD/RESA</u>	<u>Student Population</u>	<u>Total Population</u>
Allegan/Van Buren M/S Center 310 Thomas Street Allegan, MI 49010	Allegan+ Van Buren	15,205 17,501	
Alpena-Montmorency-Alcona/Iosco M/S Center Educational Service District 2118 US-23 South Alpena, MI 49707	Alpena Alcona Montmorency Iosco	7,058 5,149	
Battle Creek Area M/S Center 765 Upton Avenue Battle Creek, MI 49037	Calhoun Branch Barry	26,703 6,458 5,163	
Berrien County M/S Center 711 St. Joseph Avenue Berrien Springs, MI 49103	Berrien Cass	27,194 7,512	
Central Michigan S/M/T Center 101 Ronan Hall- CMU Mt. Pleasant, MI 48859	Clare Gladwin Isabella Griiot	8,755 14,544	
COOR M/S Center 11051 North Cut Road Roscommon, MI 49930	Crawford Ogemaw Roscommon Oscoda	9,318	
Western UP Center for S/M/EE Copper Country ISD, P. O. Box 270 Hancock, MI 49930	Keweenaw Baraga Houghton Ontonagon Gogebic	6,928 3,175	
Northwoods M/S Center 2525 Third Avenue South Escanaba, MI 49829	Delta Schoolcraft	7,565	
Detroit M/S Center 5057 Woodward, Room 932, Detroit, MI 48202	Detroit	131,568	<u>131,568</u>
Dickinson-Iron/Menominee M/S Center 1074 Pyle Drive Kingsford, MI 48902	Iron Dickinson Menominee	6,344 6,463	
Eastern UP M/S Center 315 Armory, P. O. Box 883 Sault Ste. Marie, MI 49783	Chippewa Luce Mackinac	8,228	

Appendix B: Listing of Center by name (continued)

<u>Center Name</u>	<u>ISD/RESA</u>	<u>Student Population</u>	<u>Total Population</u>
Genesee Area M/S/T Center 2413 West Maple Avenue Flint, MI 48507-3493	Genesee	83,299	
GVSU Regional M/S Center 328 Henry Hall Allendale, MI 49401	Ottawa Kent Montcalm	46,657 105,634 13,211	<u>165,502</u>
Huron M/S Center 711 East Soper Road Bad Axe, MI 48413	Huron	5,252	
Capital Area S/M Center 1013 South U.S. 27, Suite A St. Johns, MI 48879	Eaton Ingham Clinton Shiawassee Ionia	14,628 47,402 10,218 14,248 11,802	
Jackson County M/S Center 6700 Browns Lake Road Jackson, MI 49201	Jackson	26,768	
Kalamazoo Area M/S Center 600 West Vine Street, Suite 400 Kalamazoo, MI 49008	Kalamazoo St. Joseph	34,758 11,724	
Lapeer County M/S Center 690 N. Lake Pleasant Rd. Attica, MI 48412	Lapeer	15,255	
Hillsdale-Lenawee-Monroe M/S Center 4107 North Adrian Highway Adrian, MI 49221-9309	Hillsdale Lenawee Monroe	7,291 18,365 25,403	
Livingston and Washtenaw M/S Center 1819 S. Wagner Rd. P.O. Box 1406 Ann Arbor, MI 48106-1406	Livingston Washtenaw	30,409 48,102	<u>78,511</u>
Macomb County M/S/T Center 44001 Garfield Road Clinton Township, MI 48038	Macomb	139,489	<u>139,489</u>
Manistee/Wexford-Missaukee M/S Center 9905 E. 13th Street Cadillac, MI 49601	Manistee Wexford Missaukee	3,572 9,460	
Mason-Lake/Oceana M/S Center 2130 West US Highway 10 Ludington, MI 49431-9307	Mason Lake Oceana	5,824 3,553	

Appendix B: Listing of Center by name (continued)

<u>Center Name</u>	<u>ISD/RESA</u>	<u>Student Population</u>	<u>Total Population</u>
Mecosta-Osceola M/S/T Center 15760 190th Avenue, P. O. Box 1137 Big Rapids, MI 49307	Mecosta Osceola	10,017	
Muskegon-Newaygo M/S Center 630 Harvey Street Muskegon, MI 49442-2398	Muskegon Newaygo	32,325 9,524	<u>41,849</u>
Oakland Schools M/S/T Center 2100 Pontiac Lake Road Waterford, MI 48328-2735	Oakland	202,127	
SVSU Regional M/S Center 7400 Bay Road, University Center Saginaw, MI 48710-0001	Arenac Bay Midland Saginaw Tuscola	18,965 14,328 34,645 11,555	
St. Clair RESA M/S Center 499 Range Road, Box 5001 Port Huron, MI 48061-5001	St. Clair	27,838	<u>27,838</u>
Sanilac County M/S Center 175 East Aiken Road Peck, MI 48466	Sanilac	8,191	
SEE-North 220 Park Avenue Petoskey, MI 49770	Emmet Charlevoix Cheboygan Otsego Presque Isle	10,915 10,258	
The Glenn T. Seaborg Center for Teaching and Learning Science and Mathematics 1401 Presque Isle Marquette, MI 49855	Marquette Alger	10,200	
Traverse Bay Area M/S Center 880 Parsons Road Traverse City, MI 49686	Antrim Benzie Kalkaska Grand Traverse Leelanau	25,132	
Wayne County M/S Center 33500 Van Born Road Wayne, MI 48184	Wayne Detroit	352,993 *-131,568	<u>221,425</u>

* Number reflects the population of Detroit being removed from the Wayne County total population

HISTORY OF PROGRAM

The Mathematics and Science Centers Program, established during the 1988-1989 school year, provided grants to establish Mathematics and Science Centers in cooperation with local and intermediate school districts, universities and community colleges, science museums, and state and national mathematics and science associations, as well as with leaders from business and industry. Since its inception, the Program has undergone several changes through revised legislation.

The name of the Program changed from the Mathematics and Science Challenge Grant to Mathematics and Science Center Program Grant. The Program initially required that public or private sources provide matching funds; that requirement no longer exists. Today, however, nearly every Center obtains external funding in addition to that provided through the state's Mathematics and Science Centers Program. Some Centers have formed excellent partnerships with local businesses and industries, while others have tapped community groups or foundations. The result has been an impressive and collaborative effort by the schools, Centers, and communities to improve the quality of mathematics and science education in Michigan.

The initial Program required each Center to conduct both accelerated programs for secondary students and outreach activities to improve mathematics and science in kindergarten through 12th grade. Today, all Centers provide the opportunities for intensive student programs. Several Centers provide academic-year, shared accelerated programs for students with high ability.

In 1988-1989 potential Centers applied for grants totaling \$1,000,000 from the Department of Education Appropriation Bill. Twenty-five awards went to 17 Centers. The initial categories included planning (create a five-year plan-\$25,000), start-up and development (develop an accelerated program-\$200,000), and outreach (extend the impact of the Center, coordinate K-12 curriculum reform, and facilitate systemic change-\$100,000). The Mathematics and Science Centers Network (coordinated body of directors) was established to foster developing and operating Centers by providing communication channels, leadership, and resources for their evolution.

In 1989-1990, 27 awards totaling \$2,117,100 went to 20 Centers which now included a continuing support category (support accelerated program-\$75,000).

In 1990-1991, 24 grants totaling \$1,872,100 went to 16 Centers.

In 1991-1992, funding was transferred from the Department Appropriation Bill to Section 99 of the State School Aid Act in the categories of Planning, Start-up and Development, Outreach, and Continuing Support. Twenty Centers received awards totaling \$2,372,100. Six Centers received legislatively-designated grants based on the population of their service area. The other 14 Centers received competitive

grants. Planning, start-up, and development became one category with funding also based on the population of the service area. Centers serving populations of over 500,000 received the maximum grant award of \$250,000; \$200,000 was provided for Centers serving populations of 100,000 to 500,000; and \$150,000 for populations of 100,000 or fewer. Since 1991, the Network has used the services of the Science and Mathematics Program Improvement program (SAMPI) at Western Michigan University to assist in the Centers' data collection and program evaluation.

In 1992-1993, Section 99 of the State School Aid Act awarded \$2,372,100 to all Centers funded in 1991-1992, in the same amounts that they received in 1991-1992. The legislation also required the Department, in cooperation with the House and Senate Fiscal Agencies, to develop a Master Plan for funding and operating the Centers. The first Master Plan, approved by the State Board of Education, was submitted to the House and Senate appropriations subcommittees in February 1993.

In 1993-1994, the House and Senate raised appropriations for the 20 Centers to \$2,850,000.

In 1994-1995, Section 99 of the State School Aid Act, adopting and adapting the words and ideas of the Master Plan, awarded \$6,240,000 to the Centers and eight Satellites as specified in the Master Plan. Great growth in equity was experienced during this time. For the first time ever, all students, teachers, and schools had access to the services of their own regional Mathematics and Science Center.

In 1995-1996, Section 99 of the State School Aid Act awarded \$7,614,000 to the Centers. With the increase in funding, the 28 Centers and eight Satellites were able to expand services as detailed in the second Master Plan.

From 1996-1997 through 1998-1999 funding continues at approximately \$7,600,000.

In 1999-2000 funding increases to \$8,304,870.

Legislative action in 2000-2001 brought Full-Center status to four of the eight Satellite Centers and requested an update of the Master Plan. Funding increased to \$9,665,270.

In the State School Aid Act of 2001-2002, the remaining four Satellite Centers achieved Full-Center funding, bringing the total Centers to 33 with funding totaling \$10,232,300. An updated third Master Plan was adopted by the State Board of Education on August 8, 2002.

For the fiscal year 2002-2003, total funding to the Centers remained the same as they were funded in 2001-2002. This amount is a decrease to each Center since fiscal year 2000-2001. This decrease was due to several factors: state budget cuts, the eight Satellite Centers

Appendix C: History of Program document (continued)

receiving Full-Centers status, and the movement of one Center into a new funding level as a result of an increase in the total population based upon the 2000 census figures.

In 2003-2004, Section 99 of the State School Aid Act radically decreased state funding for the 33 Centers to \$2,500,000. Anticipating reduced funding, some Centers reduced services in 2002-2003 and used carryover money to sustain existing programs in 2003-2004.

For 2004-2005, the funding level remained at \$2,500,000 and carryover funds disappeared. Many Centers were forced to reduce services, cut programs, and consolidate staff. One of the accelerated-program high schools closed, with two others ready to close.

For 2005-2006 reduced funding continued at \$2,500,000. Centers exist through competitive grants and support from their fiscal agents. Many of the Centers reduce services to only those in alignment with their fiscal agent's services. Many directors became part time employees of their Center and took on other responsibilities outside the Math/Science Center's basic services. Legislatively mandated work on a new mandated Master Plan was started.

In 2006-2007, state funding continued at \$2,500,000 for all Centers with an additional \$1,000,000 allocated for Centers to use for implementing the new high school Michigan Merit Curriculum. While 33 Centers are still in existence, some Centers no longer have the additional capacity or resources needed to fully utilize available money. An updated fourth Master Plan was developed, creating a Center network organization to assist Centers with state-wide services. The Master Plan will be presented for adoption at the September 11, 2007 State Board of Education meeting.

Appendix D: Yearly Timeline for Center Activity

<u>Date</u>	<u>Action</u>
July 1- June 30	Program Year
July 1- June 30	Collection of Outcome Data
July 31	Annual Statistical Data Due to SAMPI
July	State Aid Act signed
August (last Friday)	Application Due to MDE (assuming State Aid Act signed at least 3 weeks prior)
September	Center applications needing revision returned to Directors from (two weeks from MDE application date)
September (last Friday)	Revisions Due to MDE
October 1	Fiscal Year Begins
October/ November	MDE Approval of Application
October/ November	Award Letters to Centers from MDE
October	Payment sent to Centers from MDE
October 30	Annual Narrative Report Due – Mail to MDE and SAMPI Includes annual Statistic Data and Financial Resource Information
November 1	If applicable, Carryover Request Letter Due to MDE. Carryover Funds must be spent by June 30 of the coming year.
December/ April	External Review with approval of new five-year strategic plans
January	M/S Center Network Annual Report Distributed to Exec. Board
February (Network Meeting)	Final M/S Center Network Annual Report distributed to Centers/MDE

Appendix E: Funding Formula

Each year's state funding allocation will be distributed among the 33 Centers according to the following formula:

Each Center starts with a base amount, called "x".

- 1a) Those Centers classified as "small" Centers (<20,000 student population in most recent state-reported data) will have a multiplier of 1.0000 times "x"
- 1b) Those Centers classified as "medium" Centers (between 20,000 students and 90,000 students in the most recent state-reported data) will have a multiplier of 1.3333 times "x"
- 1c) Those Centers classified as large" Centers (>90,000 student population in most recent state-reported data) will have a multiplier of 1.6666 times "x"
- 2a) Those Centers currently providing a full-year student program will have an additional multiplier of 1.1538 (1.5/1.3) times the above multiplier in step 1
- 2b) Those Centers not providing a full-year student program will have an additional multiplier of 1.0000 times the above multiplier in step 1

The value for "x" will be calculated from the total state allocation using each Center's final multiplier. Each Center's allocated amount will equal its base amount, "x" multiplied by its final multiplier.

Note: Current Center Size determination and the 2006-2007 Center allocation table are listed at the bottom of this appendix for clarification.

CHANGES IN CENTER MULTIPLIERS:

Two types of changes can occur that result in changes in annual allocations to Centers:

- Changes in population served by individual Centers
- Changes in full-year student programming at individual Centers

CHANGES IN POPULATION SERVED BY A CENTER:

If the student population served (as defined in Master Plan) changes and results in an increased change of Center size, and thus an increased allocation multiplier to that Center per the funding formula; then allocations to existing Centers are decreased proportionally in order to fund the mandated increased allocation to the Center in question.

If the student population served (as defined in Master Plan) changes and results in a decreased change of Center size, and thus a decreased allocation multiplier to that Center per the funding formula; then the surplus funds shall be distributed proportionally among all Centers based on the current allocation formula.

CHANGES IN PROGRAMMING AT A CENTER:

If a Center's full-year student programming status (as defined in the Master Plan) changes and results in a scheduled increased allocation to that Center per the funding formula:

If existing Centers are not receiving minimum funding defined in the current Master Plan (\$6.5 million), then no additional funds shall be allocated to support the change in full-year student programming at the Center in question.

If existing Centers are receiving minimum funding stated in the current Master Plan (\$6.5 million) and if additional funds above the minimum funding are available through the State's award to the Centers and if all necessary adjustments related to population served have been made, then the Center shall receive full or pro-rated funding due it according to the Master Plan. Once additional funds are given to the Center for the full-year student programming, the Center will continue receiving funding via its multiplier in subsequent years, even if the Centers no longer receive minimum funding.

If the full-year student programming status (as defined in the Master Plan) at a Center changes and results in a scheduled decreased allocation for that Center per the funding formula:

If existing Centers are not receiving minimum funding stated in the current Master Plan, then these funds shall be distributed proportionally among all Centers based on the current allocation formula. If the Center reinstates full-year student programming in a later year, no additional funds will be allocated to support the change until existing Centers are again receiving minimum funding stated in the current Master Plan (\$6.5 million) and additional funds above the minimum funding are available through the State's award to the Centers and all necessary adjustments related to population served have been made.

If existing Centers are receiving minimum funding stated in the current Master Plan, then extra funds shall be distributed among the Centers or ear-marked to support collaborative projects of the Centers' Network, according to a plan developed by MDE in counsel with the Centers.

Note that no additional funds can be granted for changes in full-year student programming unless, a) all Centers are receiving minimum funding (\$6.5 million) stated in the current Master Plan and, b) all Centers are receiving appropriate funding proportional to the student population they serve.

Appendix E: Funding Formula (continued)

Center Size based on most recent (2005-2006) student population
to be used for 2007-08 Section 99 grant funding

Center Name	Population Category	Population (Student) 2005-06
Huron M/S/T Center	A	5,252
Northwoods Math Science Center	A	7,565
Sanilac County S/M Center	A	8,191
Eastern Upper Peninsula	A	8,228
COOR	A	9,318
Mason-Lake-Oceana M/S Center	A	9,377
Mecosta-Osceola M/S/T Center	A	10,017
Copper Country	A	10,103
Seaborg Center - NMU	A	10,200
Alpena Montmorency Alcona Iosco	A	12,207
Dickinson Iron	A	12,807
Manistee Regional M/S Ctr (Wexford-Missaukee)	A	13,032
Lapeer	A	16,255
SEE-North	B	21,173
Central Michigan S/M/T Center	B	23,299
Grand Traverse Area Regional M/S/T Center	B	25,132
Jackson County M/S Center	B	26,768
St Clair M/S/T Network	B	27,838
Allegan/Van Buren	B	32,706
Berrien County M/S Center	B	34,706
Battle Creek Area M/S Center	B	38,324
Muskegon-Newaygo	B	41,849
Kalamazoo Area M/S Center	B	46,482
Hillsdale-Lenawee-Monroe M/S Center	B	51,059
Livingston/Washtenaw M/S Center	B	78,511
SVSU Regional M/S Center	B	79,493
Genesee Area M/S/T Center	B	83,299
Capitol Area S/M Center	C	98,298
Detroit Mathematics and Science Centers	C	131,568
Macomb M/S/T Center	C	139,489
GVSU Regional M/S Center	C	165,502
Oakland Schools M/S/T Center	C	202,127
Wayne County M/S Center	C	221,425
Total		

A = Service to area with student population to 20,000
 B = Service to area with student population over 20,000 up to 90,000
 C = Service to area with student population over 90,000

2006-2007 Center Allocation

Center Name	Size	Pull Out	Base	Size Weighting Factor	Pull Out Weighting Factor	Multiplier (x)	Allocation
Allegan County Mathematics and Science Center	B	N	57,659	1.3333	1	1.538399615	76878
AMA-Iosco Mathematics and Science Center	C	N	57,659	1	1	1	57659
Battle Creek Area Mathematics and Science Center	B	Y	57,659	1.3333	1.1538	1.538399615	88702
Berrien County Mathematics and Science Center	B	Y	57,659	1.3333	1.1538	1.538399615	88702
Central Michigan Mathematics, Science and Technology Center	B	N	57,659	1.3333	1	1.333333	76878
Capital Area Science and Mathematics Center	A	N	57,659	1.6666	1	1.66666625	96098
COOR Science and Mathematics Center	C	N	57,659	1	1	1	57659
Western UP Center for Science, Mathematics and Environmental Education	C	N	57,659	1	1	1	57659
Detroit Mathematics and Science Center	A	Y	57,659	1.6666	1.1538	1.922999619	110878
Dickinson-Iron-Menominee Mathematics and Science Center	C	N	57,659	1	1	1	57659
Eastern UP Mathematics and Science Center	C	N	57,659	1	1	1	57659
Genesee Mathematics and Science Center	B	N	57,659	1.3333	1	1.333333	76878
Grand Traverse Regional Mathematics, Science, and Technology Center	B	N	57,659	1.3333	1	1.333333	76878
GVSU Regional Mathematics and Science Center	A	N	57,659	1.6666	1	1.66666625	96098
Hillsdale-Lenawee-Monroe Mathematics, Science and Technology Center	B	N	57,659	1.3333	1	1.333333	76878
Huron Mathematics, Science, and Technology Center	C	N	57,659	1	1	1	57659
Jackson County Mathematics and Science Center	B	N	57,659	1.3333	1	1.333333	76878
Kalamazoo Area Mathematics and Science Center	B	Y	57,659	1.3333	1.1538	1.538399615	88702
Lapeer County Mathematics and Science Center	C	N	57,659	1	1	1	57659
Livingston-Washtenaw Mathematics and Science Center	B	N	57,659	1.3333	1	1.333333	76878
Macomb County Mathematics and Science Center	A	Y	57,659	1.6666	1.1538	1.922999619	110878
Manistee Regional Mathematics and Science Center	C	N	57,659	1	1	1	57659
Mason-Lake-Oceana Mathematics and Science Center	C	N	57,659	1	1	1	57659
Mecosta-Osceola Mathematics, Science and Technology Center	C	Y	57,659	1	1.1538	1.1538	66527
Muskegon-Newaygo Mathematics and Science Center	B	N	57,659	1.3333	1	1.333333	76878
Northwood's Mathematics, Science and Technology Center	C	N	57,659	1	1	1	57659
Oakland Schools Science, Mathematics, and Technology Center	A	Y	57,659	1.6666	1.1538	1.922999619	110878
Sanilac County Science and Mathematics Center	C	Y	57,659	1	1.1538	1.1538	66527
The Seaborg Center-Northern Michigan University	C	N	57,659	1	1	1	57659
SEE-North Center	B	N	57,659	1.3333	1	1.333333	76878
St. Clair ISD Mathematics and Science Center	B	N	57,659	1.3333	1	1.333333	76878
SVSU Regional Mathematics and Science Center	B	N	57,659	1.3333	1	1.333333	76878
Wayne County Mathematics and Science Center	A	N	57,659	1.6666	1	1.66666625	96098
Totals						43.35845915x	2499995
Base Calculation						57658.87554	

Responsibility	Verification	Funding Level*	Consequence	Person or Entity Responsible***
ASSURANCES <i>Each Center shall:</i>				
1. Honor all assurances on page 2 of the Sec. 99 application	Network Meeting Minutes, records	Mandatory at all levels of funding	State and federal penalties exist for failure to achieve compliance.	Director, Supervisor MDE verifies
2. Submit a strategic plan for approval by MDE	Plan approved by MDE	Mandatory at all levels of funding	Funding withheld until plan is submitted and approved by MDE	Director MDE verifies
3. Employ qualified staff	Sect. 99 Application	Mandatory at all levels of funding	Funding for un-qualified personnel withheld until personnel issue resolved	Director MDE verifies
4. Access available to all qualified students and professional staff, including nonpublic	(Letter of invitation is on file)	Mandatory at all levels of funding	Funding withheld until compliance is verified	Director MDE verifies
5. Participate in Michigan M/S Centers Network (4 full meetings per year)	Network Meeting minutes	<i>State Funding*/Attendance Req?</i> 40-99% funding: 3 meetings/year 100% funding: 4 meetings/year	10% loss of funding for each non-compliance (one meeting can be via distance-video)	MSN Secretary MDE verifies
6. Have an Evaluation Plan on file	Plan available	Mandatory at all levels of funding	Funding withheld until compliance is verified	Director MDE verifies
7. Submit an Annual Report to MDE by November 30	Report on file	Mandatory at all levels of funding	Funding withheld until compliance is verified	Director MDE verifies

Responsibility	Verification	Funding Level*	Consequence	Person or Entity Responsible***
<p>STRATEGIC INITIATIVES - Priority Funding</p> <p>The State Board of Education has mandated that each Center address one or more Strategic Initiatives. The Strategic Initiatives are</p> <ol style="list-style-type: none"> 1. Ensuring Excellent Educators 2. Elevating Educational Leadership 3. Embracing the Information Age 4. Ensuring Early Childhood Literacy, and 5. Integrating Communities and Schools 	<p>Each center shall address one or more initiatives in their Annual Report</p>	<p>Mandatory at all levels of funding</p>	<p>10% loss of funding.</p>	<p>Director MDE verifies</p>
<p>SIX BASIC SERVICES</p> <p>Each Center performs basic services as outlined in the State School Aid Act and as directed in the Master Plan approved by the State Board of Education</p> <ol style="list-style-type: none"> 1. Leadership 2. Professional Development 3. Student Services 4. Curriculum Support 5. Community Involvement 6. Resource Clearinghouse 	<p>See Annual Report and SAMPI** Data.</p> <p>Each Center will complete the Strategic Plan Evidence Form, attached. Evidence should be entered in the SAMPI** database so it can be verified</p>	<p>Mandatory at all levels of funding; however, fewer people are served with lowered funding, as has been documented.</p> <p>75% of Strategic Plan objectives must be met in each service area selected.</p>	<p>100% loss of funding for failure to provide basic services as directed by State School Aid Act and State Board of Education Master Plan.</p>	<p>Director MDE verifies</p>

- * Refers to percent funding compared to recommended base funding level of \$6.5 million for 33 Centers serving all of Michigan
- ** Refers to the Science and Math Program Improvement Center at Western Michigan State University. SAMPI conducts an annual data collection effort to tabulate the numbers of students and professional staff who take advantage of Network programming.
- *** Top line refers to the person responsible for collecting the data; the bottom line refers to the person who verifies the data was collected. MDE Verification may include a team made up of MDE, Office of Field Service, and assigned Center Directors.