

October 2011
vol 9 ♦ no 1

AMSD Calendar

October 7, 2011

Board of Directors Meeting, 7:00 a.m., TIES Building, St. Paul

October 28, 2011

Executive/Legislative Committee Meeting, 7:30 a.m., TIES Building, St. Paul

November 4, 2011

Board of Directors Meeting, 7:00 a.m., TIES Building, St. Paul

November 18, 2011

Executive/Legislative Committee Meeting, 7:30 a.m., TIES Building, St. Paul

December 2, 2011

Board of Directors Meeting, 7:00 a.m., TIES Building, St. Paul

AMSD's Mission

To advocate for state education policy that enables metropolitan school districts to improve student learning.



Association of
Metropolitan School Districts

Mahtomedi Public Schools Debuts World's First K-12 FABLAB

On November 12, Mahtomedi Public Schools is hosting the grand opening celebration of the district's innovative, ground-breaking FABLAB (or Fabrication Laboratory) at Mahtomedi High School. The Mahtomedi FABLAB will be one of only 42 in the United States, and the world's first in a K-12 school district setting.

"In our FABLAB, students will be able to design and make almost anything," explains Mary George, Mahtomedi Public Schools' district engineering program coordinator. "It is a place that will empower students to produce new creations to solve current problems through experimentation, design, creativity, and innovation. By using state-of-the-art technology, students will be able to take their concepts from imagination to reality."

The MIT Connection

The FABLAB concept was founded by Neil Gershenfeld at the Massachusetts Institute of Technology (MIT) to provide access to manufacturing technology for students, small businesses, and budding inventors. What started as an outreach project from MIT's Center for Bits and Atoms has grown into a global network. "Imagine our students working with other students from around the world on joint projects," says George. "All FABLABs have Polycom units connected to all other labs. This allows for worldwide problem solving and collaboration."



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From the Chair

Since 1969, Phi Delta Kappa International (PDK) in conjunction with Gallup has conducted an annual poll of the Public's Attitudes Toward Public Schools. This respected source of information helps us as educational leaders keep our finger on the pulse of what Americans have to say about our nation's public schools and compare the findings to what's happening on a state and local level.

Although there are many significant findings in this year's poll, I think three key findings are particularly relevant.

1. Public Support for Teachers is on the Rise

According to William Bushaw, executive director of PDK and co-director of the PDK/Gallup poll, "Americans expect, even demand, quality — in the food they eat, the clothes they buy, and the cars they drive. And they expect high-quality public schools. This year's poll shows that Americans believe the key to good schools is high-quality teachers."

It is very encouraging to see that despite the many challenges facing our schools today, Americans are significantly more supportive of public school teachers than they were in the past. Sixty-nine percent of Americans give public school teachers in their community a letter grade of an A or B, compared to only 50 percent in 1984.

2. Americans Believe Funding is the Biggest Problem Facing Schools

Minnesota schools have faced the challenges of inadequate funding for the last decade and it's clear that we are not alone. Thirty-six percent of Americans believe that lack of financial support is the single biggest problem facing schools today.

3. Vouchers Received Lowest Approval Rating in 10 Years

Vouchers received their lowest approval rating in the last 10 years, with only one of three Americans in favor of allowing students and parents to use public money to pay to attend a private school.

For more information about the PDK/Gallup poll visit www.pdfpoll.org

Pam Langseth, school board member from Minnetonka Public Schools, is chair of AMSD.

Mahtomedi opens state-of-the art FABLAB

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The “mothership” of Mahtomedi’s FABLABs will be housed at the Mahtomedi High School. It will be fully equipped with the latest in fabrication technology, along with the current foundry and woodshop, which will make it a national model. During the 2011-2012 school year, Mahtomedi High School is holding three sessions of “How to Make (Almost) Anything” in the FABLAB for students in grades 9-12.



According to an article in *The Boston Globe*, Gershenfeld started teaching "How to Make (Almost) Anything" at MIT “as a way to introduce technical students to the expensive, industrial-size machines like laser and water cutters that he and his colleagues were using in their research. At first he gave formal lectures on each machine. But the students — many of them artists, architects, or science students without a technical background — ‘responded passionately to the tools,’ he says. Soon they stopped asking him for help. They worked alone and with each other to learn what they needed to build what they wanted.”

FABLABs Across the District

Mahtomedi Middle School’s FABLAB will be located in the school’s technology classroom and will house laser cutters and a silhouette fabricator, along with the computer software necessary for the Gateway to Technology classes required by all students. The elementary FABLAB will be located in O.H. Anderson Elementary School’s new Flex Lab. It will offer students the use of a laser cutter and silhouette fabricator and can be used in students’ Engineering is Elementary classes.

“Our students will gain valuable experience by applying their science and math knowledge using real-world tools and technology that incorporate the 21st century skills of critical thinking,

creativity, and collaboration preparing them for their next steps in education and the workforce,” says George.

The Mahtomedi FABLAB will allow students to use the latest fabrication equipment such as laser cutters, CAD programs silhouette fabricators, 3D scanners and printers, and milling machines. This is the same equipment that is currently used in the manufacturing industry.

All students in grades 3-12 will have access to the FABLABs in addition to community members such as scout groups, robotics teams, local artists, and innovative entrepreneurs. The FABLAB will be open before, during, and after school and weekends for student and community use. Examples of community use include an evening “How to Make Almost Anything” class for adults 18 and older as well as two Ladies Nights in the Lab, which are offered as fundraising events for the Mahtomedi Area Educational Foundation.

FABLABs can be used as “application labs” where all students have hands-on opportunities to apply what they have learned in their classes. For example, art students can design and build sculptures; chemistry students can program and print 3D models of molecules, math students can design and use lasers to create geometric shapes. This will lead to the next step of a FABLAB for our students to ask “what if” and then work in groups to answer that question.

The Mahtomedi Engineering Leadership Program

The Mahtomedi FABLAB is the latest addition to the district resulting from the district’s focus on engineering through the Mahtomedi Engineering Leadership Program. We envision an exciting world-class engineering program that empowers our students to solve future challenges by sparking curiosity, fueling creativity, and instilling a lifelong passion for innovation.

The mission of the Mahtomedi Engineering Leadership Program is to provide a high-quality education with a special emphasis on creativity, science, technology, engineering, and mathematics to prepare students for leadership in the 21st century. The program will support active partnerships with business, academia, and the community — all while focusing on inquiry-based, contextual learning with interdisciplinary approaches to teaching and learning.



Scan this QR Code with your mobile device to link to the Mahtomedi FABLAB’s website.

Inquiry-based learning will be applied in each discipline and students will be introduced to engineering education embedded in a systematic approach to problem solving throughout the curriculum. All students will benefit from the engineering program as they engage in the basics of engineering through hands-on and inquiry-based learning.

As leaders and innovators in engineering education, the Mahtomedi Public Schools expanded its engineering focus to include all students who attend our schools.

This month’s member spotlight was submitted by Carrie Ardito, Communications Coordinator, Mahtomedi Public Schools.

Referendum Revenue Provides Critical Funding

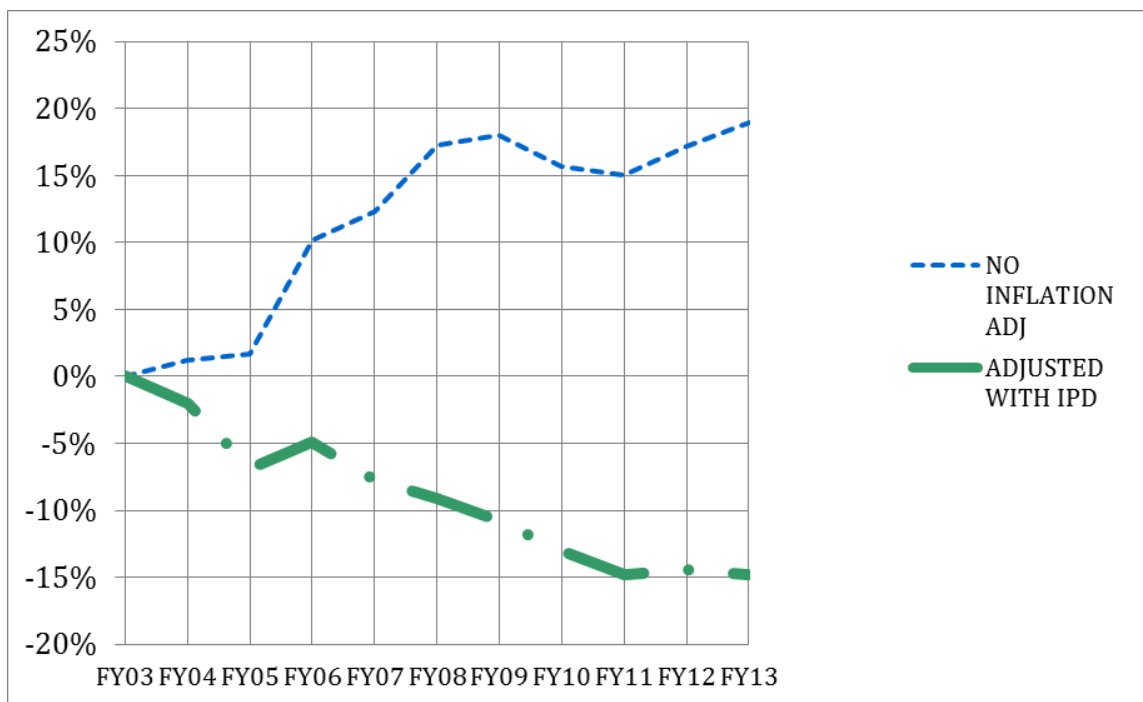
This fall, 113 districts across Minnesota are once again going to voters with operating referenda. And while the governor and legislators did what they could to protect education funding in the face of a \$5 billion budget shortfall last session, their actions did not begin to address inadequate funding over the past decade, or the new challenges facing our schools.

School funding is inadequate and has not kept pace with inflation.

A concrete way to show that funding for schools has been inadequate is by examining how state funding has not kept pace with inflation. Between 2003 and 2011, Minnesota’s basic per pupil funding formula increased from \$4,601 to \$5,124, an increase of 11.4 percent. During that same time period, inflation grew by 35.1 percent as measured by the Implicit Price Deflator (IPD) for State and Local Government Purchases.

In Figure 1, the percent change in state aid per ADM since FY 2003 adjusted for inflation. The \$50 per student, per year basic formula increase approved in the recent special session represents an increase of two percent over the next two years. Inflation is projected to be 3.3 percent over that same time period. Furthermore, it is expected that a portion of that increase will need to be used to cover borrowing costs associated with the shift.

Figure 1: Percent Change in State Aid Per ADM Since FY 2003



Source: Minnesota Department of Education, September 2011

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AMSD Members: Anoka-Hennepin, Bloomington, Brooklyn Center, Burnsville-Eagan-Savage, Columbia Heights, East Metro Integration District 6067, Eastern Carver County Schools, Eden Prairie, Edina, Elk River, Fridley, Hopkins, Intermediate District 287, Intermediate District 917 (Associate Member), Inver Grove Heights, Lakeville Area, Mahtomedi, Minneapolis, MSU Mankato Center for Engaged Leadership (Associate Member), Minnetonka, Mounds View, North St. Paul/Maplewood/Oakdale, Northeast Metro District 916 (Associate Member), Northwest Suburban Integration District (Associate Member), Orono, Osseo Area Schools, Richfield, Robbinsdale, Rosemount-Apple Valley-Eagan, Roseville, Shakopee, South St. Paul, South Washington County, Spring Lake Park, St. Anthony/New Brighton, St. Cloud Area, St. Louis Park, St. Paul, Stillwater, TIES (Associate Member), Wayzata, West Metro Education Program, West St. Paul, and White Bear Lake.

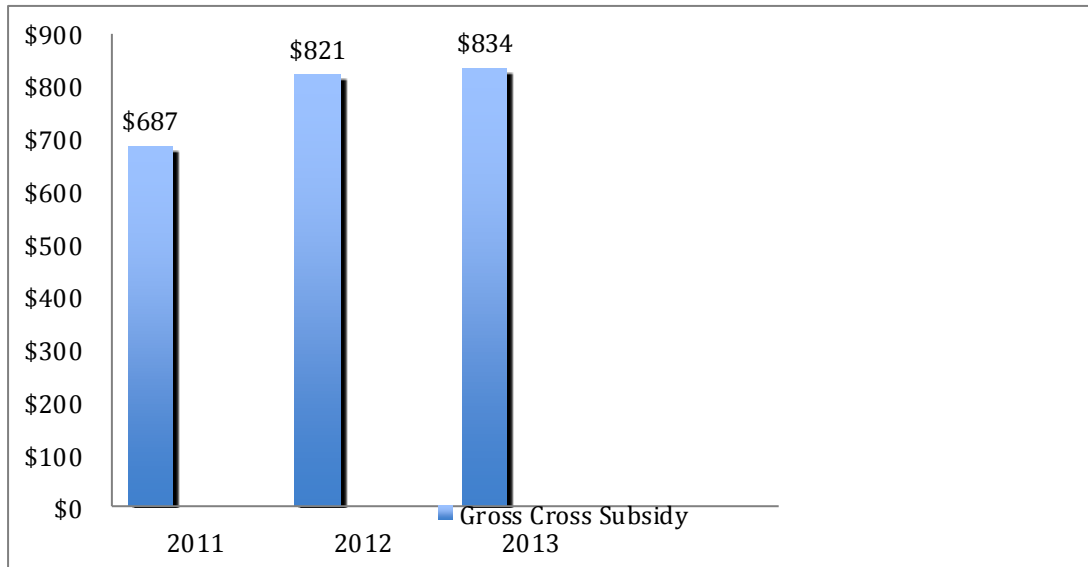
School Districts Depend on Referendum Revenue

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The State is not paying its share of special education costs.

According to the Minnesota Department of Education, special education costs exceeded state and federal special education aid by \$563 million or \$687 per pupil in FY 2011. Figure 2 reflects the expected special education gross cross subsidy for FY 11-FY13. The expiration of the federal special education aid provided through the American Recovery and Reinvestment Act will increase the unfunded cost of special education to \$695 million, or \$834 per student, by FY 2013 -- an increase of \$147 per pupil. In other words, the \$50 per year increase in the basic formula provided in the 2011 Education Finance Bill will be more than offset by the \$147 increase in the unfunded cost of special education over the next two years.

Figure 2: Special Education Cross Subsidy Per Pupil



The funding shortfall for 2011 is lower than it would otherwise be because of a large influx of one-time federal stimulus aid, which expired after FY 2011. Source: Minnesota Department of Education, September 2011

Schools are faced with a more challenging student population than ever before.

Since 2003, the number of Minnesota students eligible for free or reduced price lunch has increased from 27 percent to 37 percent. The percent of students with limited English proficiency increased from 6.2 percent to 7.7 percent and the number of students eligible for special education services increased from 13.2 percent to 14.8 percent.

School districts rely on referendum revenue.

Of the 113 districts that will be going to voters this fall, 15 are AMSD districts, and 10 of those 15 are seeking a renewal. The number of districts with levy authority has been on a steady climb, growing from 47% in 1986 to 90% in 2012. Many districts will be asking voters to simply renew their operating referendum in order to maintain existing funding. These renewals are critical, as the operating referendum has become a basic component of how schools are funded.

Other school districts are seeking to increase their referendum level to make up for inadequate state funding so they can provide the learning opportunities their students need to be successful. Until the state steps forward and fulfills its constitutional duty to provide a “general and uniform” and “thorough and efficient system of public schools,” districts will continue to depend on voter-approved funding to provide basic programming to their students.