



ACCESS^{ED}

Connecting state legislators to policy resources that support higher education access for women and minorities

AccessEd

Quarterly Publication Volume 2: Issue 4 December 2006



*Senator Beverly Hammerstrom
Michigan State Legislature*

PREPARING FOR COLLEGE AND WORK: MICHIGAN ESTABLISHES MERIT STANDARD CURRICULUM

In March, 2004, Gov. Jennifer Granholm, recognizing the importance of education to Michigan's future, announced the formation of a commission focusing on higher education. Led by Lt. Governor John Cherry, their mission was to develop a plan to double the number of Michigan residents with college degrees or other certifications and ensure that our higher

education system provided residents with skills they would need for 21st century jobs. The Michigan Merit Standard Curriculum is part of that plan.

Michigan was one of only eight states that did not have statewide high school graduation requirements in all four core subject areas. The only statewide requirement was one semester of civics. Graduation requirements were set by local school districts, and therefore varied across the state. Not all children were being educated at the same level and thus graduating with different skill sets. One had only to look at the number of college freshmen who needed to take remedial classes at the college level (even students with high GPA's) to know that something was wrong. Not only were we failing our kids, but it was costing the state and parents hundreds of millions of dollars annually.

For these reasons the Michigan State Board of Education worked with legislators to develop standards and expectations for high school students to meet in order to graduate. The Governor signed them into law in April 2006. Beginning with the 2008-09 school year, no high school will have state accreditation unless it ensures that its students have access to all of the elements of the Michigan Merit Standard curriculum. The new curriculum requirements include English language arts; advanced math and science; social sciences; visual, performing or applied arts; health and physical education; and a second language. Students will also be required to participate in an online course.

One important aspect is the flexibility that is built into the requirements. As long as a student is taught the content required, the presentation does not necessarily have to be only within individually-named classes. For example, a student can receive partial to full credit for Algebra I if some or all of the content of an Algebra I class is taught in an automotive class.

Districts will determine whether or not students successfully complete credits, but that determination must be based, in part, on the student's performance on one or more assessments aligned with the content expectations developed by the Department of Education or the local school district.

High school academic preparation is a major factor in determining whether or not a student will remain in college and earn a degree. Research has shown that the number of Michigan students who have failed to complete a degree is below the national average. We are hopeful that by establishing these requirements, those numbers will turn around.

Finally, research has shown that high school students who take more math and science classes fare better in the workplace as well, regardless of whether or not they attend college. These rigorous high school graduation requirements aim to assure students' chances of getting better jobs, pay and promotions, and will better prepare students for future college or career training. By raising the bar and ensur-



*Senator Martha G. Scott
Michigan State Legislature*

Cont'd on pg. 2

Women In Government's Access to Higher Education Policy Research Center is dedicated to identifying policy issues, gathering research data and information, and providing a centralized clearinghouse for state legislators on ways to increase access to higher education for women and minorities.

KEEPING WOMEN AND MINORITIES IN SCIENCE, TECHNOLOGY, ENGINEERING & MATH

Anda M. Adams, Graduate Policy Fellow, Women In Government

While the US has long been the leader in scientific and technological innovation, there are significant leaks in the science, technology, engineering and mathematics (STEM) pipeline. In particular, women and ethnic minorities drop out of STEM-related fields of study at a faster rate at the transition to postsecondary school and within higher education. While postsecondary enrollment has increased across the board over the past decade, the proportion of students obtaining degrees in STEM fields has fallen about five percentage points between 1995 and 2004. Roughly half of the students who begin pursuing an engineering degree do not complete it, which factors into the shortage of US-born engineers.

Although women make up the greater share of postsecondary students, they represent just 24 percent of the nation's science and engineering workforce. In its annual Bayer Facts of Science Education surveys, Bayer found that STEM company CEOs had an understanding of the role their companies play in supporting STEM education for females and minorities,

but overall did not communicate the message of job opportunities to them. While only one-third of the companies currently engage in science education programs, another third reported interest in actively participating. Thus, there exists a ripe opportunity for collaboration between state governments, boards of education, individual school districts, businesses, and industries to collectively increase both the number and the achievements of students interested in science, math, technology, and engineering.

Through direct education legislation, the facilitation of business-education partnerships, and creating a business climate that supports traditionally under-represented minorities in these fields, states can significantly impact innovation and maintain the country's competitiveness internationally.

In recognition of the rising importance and attention to STEM education, the Higher Education Policy Research Center will be launching a new multimedia clip on the website in mid-December. Watch the website for its launch as well as for additional STEM-related resources.

INNOVATIVE PATHWAYS TO MEET NON-TRADITIONAL NEEDS

As the number of non-traditional post-secondary students increases throughout the country, foundations, corporations, non-profit organizations, and others have displayed new methods of engaging and educating a diverse set of students. The Corporation for a Skilled Workforce (CSW) has embarked on a national Manufacturing Leadership for Immigrant Advancement initiative to study successes and pilot programs that expand college access for Hispanic immigrant employees.¹ Hispanic immigrants are the fastest growing segment of the US workforce population, leading a number of businesses to partner with colleges and universities

to strengthen the educational attainment of this population. For example, Lumina Foundation for Education's online newsletter featured a program at Cargill Meat Solutions that offers a GED program in partnership with a local community college among other educational opportunities for its mostly Hispanic workforce.

Targeting another set of non-traditional students, TransMarket Technologies recently partnered with Chattanooga State to establish InCab University, which is the first online, college accredited program designed to specifically target long-haul truck drivers. The curriculum was created so that drivers are able to complete

Michigan, con't from pg. 1

ing that all high school students in Michigan are provided the same learning opportunities, we can be assured that Michigan will have an educated workforce that will allow our state and our students to compete successfully in the new global economy.

But it's not enough to prepare our students academically. We must improve access to higher education. To that end, the Governor has introduced the Michigan Merit Award Scholarship.

This plan will allow students to earn a \$4,000 scholarship toward Michigan post-secondary educational opportunities. Half would be awarded based on high school assessment tests, with the remaining \$2,000 awarded upon completion of two years of post-secondary education or technical certification. If students don't qualify on the assessment test, they can still earn their \$4,000 scholarship by successfully completing two years of post-secondary education.

MICHIGAN MERIT STANDARD CURRICULUM:

- English – 4 credits; no opt-outs
- Math – 4 credits; opt-outs include going into Career Tech after 2 credits in the Merit curriculum and getting the equivalent content of one semester of Algebra II; spreading Algebra II over two years and getting 2 credits; or "successfully completing" at least one semester of Algebra II before graduating
- Social Studies – 3 credits
- Science – 3 credits; no opt-outs
- Foreign Language – 2 credits taken in high school or the equivalent of 2 credits taken in grades K-12.
- Physical education/health – 1 credit
- The Arts (visual, performing, and applied) – 1 credit
- On-line experience: one on-line course with Department of Ed to determine the basic level of technology needed

cont'd on pg. 4

REAUTHORIZED PERKINS ACT BETTER LINKS EDUCATION WITH WORKFORCE NEEDS

The reauthorization of the Carl D. Perkins Career and Technical Education Improvement Act (Perkins Acts) demonstrates the changing needs of the national workforce by emphasizing new and advanced skills for high school, postsecondary, and on-the-job education. The Perkins Act focuses on preparing students for “high skill, high wage, or high demand occupations in current or emerging professions.” This terminology signals the key role that vocational and career education play in linking the educational system to the workforce.

Under the Perkins Act, states and local communities are responsible for creating new programs and improving existing programs that prepare youth and adults by building academic and technical skills simultaneously. In the reauthorization of the Act, states are able to better utilize federal funds for secondary and postsecondary vocational education by increasing the flexibility afforded to states while maintaining local control of programs. Additionally, the Act emphasizes better coordination between secondary and postsecondary career and technical programs and allows states and local communities to reward local performance. The new Perkins law requires that programs consist of components specifically targeted towards special populations, which include individuals with disabilities, low-income people, single parents, displaced homemakers, and individuals with limited English proficiency, who are enrolled in career and technical education programs. Supporters of Perkins IV believe this

reauthorization makes amends for the funding that was cut in 1998 when the bill no longer required states to set aside funding by gender. Furthermore, the formula for determining individual state allocations has been adjusted to respond to population growth in individual states and allows for an increase in funding to small states.

With regards to accountability, the new Perkins Act has established performance indicators for both the secondary and postsecondary levels. Annually, programs will have to attain established levels of performance as they relate to academic and technical skills, including graduation rates, technical credentials, apprenticeship and employment rates, and student participation in non-traditional fields. Performance by sub-categories of the population (gender, race and ethnicity, migrant status, and special populations) will be evaluated to further ensure accountability for individual programs, communities, and states. Programs that fail to meet the set indicators will need to develop an improvement plan that actively works towards improvement over a three-year timeframe. The Access to Higher Education Online Legislative Toolkit includes a description of a Perkins program, the [Miami Valley Tech-Prep Consortium Program](#).

From WomenWork! The National Network for Women's Employment teleconference and webinar (9/27/06); WomenWork! website (www.womenwork.org); and US Department of Education website (<http://www.ed.gov/policy/sectech/leg/perkins/index.html>)



COLLEGE PREPARATION: SUPPORTING SCIENCE AND MATH STUDENTS IN KANSAS HIGH SCHOOLS

Representative Jo Ann Pottorff, Kansas State Legislature

The Kansas Academy of Mathematics and Science (KAMS)

was established by the 2006 Kansas Legislature for Kansas high school juniors and seniors who are academically talented in science and/or math. The Board of Regents will determine if the Academy will be residential (located on a Regents campus), on-line, or a combination of the two. The two-year curriculum would include coursework designed to meet both high school graduation requirements and requirements for associate of arts or associate of science degrees. To be eligible for the program, a high school student must be a Kansas resident who is qualified to enroll in 11th grade, has

completed at least two years of high school with distinction in math or science by the end of 10th grade, and have achieved a minimum composite score of 23 on the ACT or 1100 on the SAT. A total of 40 pupils will be admitted to KAMS, of which twenty would be chosen based on their residence with no more than five residing in a single Congressional district.

The original legislation stated that the student had to excel in both math and science, but it was amended to make it applicable to students who excel in either math or science. The bill was also amended to make KAMS subject to appropriation. Funds for KAMS can come from private as well as public sources.

Some of the discussion by committee members during the bill hearing

Often citing the need for a highly trained and educated workforce in the areas of mathematics and science, many states have established primarily state-supported public, residential high schools with a curriculum built around science and mathematics.

Opened in 1980, the North Carolina School of Science and Mathematics (NCSSM) was the first two-year public residential high school that specialized in math, science, and technology.

One of the newest proposals is the Texas Science, Technology, Engineering, and Math Initiative (TSTEM), a \$71 million public-private partnership to create 35 specialized math and science secondary schools. TSTEM Academies will specifically serve low-income and minority students and aims to align high school coursework with post-secondary education.

cont'd on pg. 4

SEPTEMBER ISSUE UPDATE

In September, AccessEd featured an article on extending foster care coverage to students attempting to access postsecondary educational opportunities. The National Conference of State Legislatures recently released a brief on extending foster care, noting that an increasing number of states are allowing youth to remain foster care-eligible beyond age 18. The most significant issue that states face in extending foster care is funding since federal funding typically does not extend beyond 18. Cost estimates from California, Iowa, and Washington average \$9,000 annually per youth. Supporters of extending eligibility argue that these costs are offset by the savings in reduced indigent medical care costs, criminal justice expenses, and welfare guarantees. One significant obstacle that states face in designing foster care extensions is determining how to target the program; while some states have focused on limiting eligibility to those who are completing high school or who are disabled, other states have pursued a more flexible policy that may be more equitable but more costly as well.

College Prep cont' from pg. 3

addressed the concern that the brightest students from public high schools would become part of KAMS and, if it were a residential program, these high-achieving students would no longer be members of their local high school community. Part of this concern was removed when the enrollment stipulation limited representation from each Congressional district to five students. Furthermore, the possibility that KAMS may be offered as an on-line program rather than a residential program addressed this concern as well.

Representative Jo Ann Pottorff is chair of the General Government and Commerce Budget committee and serves on the Appropriations, Higher Education, Legislative Education Planning, and Arts & Cultural Resources committees. For more information on the Kansas State Senate Bill 139 that established KAMS, please contact Representative Pottorff.

CONTACT INFORMATION

highered@womeningovernment.org • www.womeningovernment.org/highered
2600 Virginia Avenue, NW/Suite 709 • Washington, DC 20037
Info Line 1-888-333-0164 • Fax 202.333.0875

Innovative cont'd from pg. 2

all of their coursework and earn their degree from the cab of their truck and at rest-stops across the country. Design elements that reflect the driving lifestyle include allowing drivers to begin classes anytime throughout the year, recruiting professors nationally and training them to better understand the constraints on drivers, and offering relevant classes for advancement, both within the driver's industry and beyond. In an industry currently suffering from driver shortages and high turn-over, trucking companies may be looking to improve recruitment methods and increase retention. According to The Chattanooga, one participant in the pilot program reported that he "enjoyed the course offerings" and that he knew that regardless of where he was in the country, he had "the educational opportunity of a lifetime at [his] fingertips without sacrificing [his] income."

State policies can aid in the success of these alternative pathways in a number of ways, including articulation legislation that outlines student and credit-transfer guidelines and financial aid legislation that addresses non-traditional students.

¹This initiative is funded by the Lumina Foundation for Education

Women In Government is a national 501(c)(3), non-profit, bi-partisan organization of women state legislators providing leadership opportunities, networking, expert forums, and educational resources to address and resolve complex public policy issues.

PRSRRT FIRST CLASS
U.S. POSTAGE
PAID
SPRINGFIELD, VA
PERMIT # 6127

Women In Government
2600 Virginia Avenue, NW
Suite 709
Washington, DC 20037

