### **BOARD OF REGENTS**



SUMMARY OF ITEM FOR ACTION, INFORMATION OR DISCUSSION

**TOPIC**: P-20 Update

**COMMITTEE**: Education Policy

**DATE OF COMMITTEE MEETING**: March 16, 2011

**SUMMARY**: P-20 is the umbrella organizer for a number of topics related to the priorities of the education pipeline (from pre-school and kindergarten to college) and workforce competitiveness.

The attachments provide summaries of the ongoing USM P-20 Projects. Since so much of the work of the P-20 portfolio is aligned with the themes of the USM's 2020 Strategic Plan, *Powering Maryland Forward*, this summary also explicitly links P-20 work with strategic plan themes.

**ALTERNATIVE(S)**: This is an information item only.

**FISCAL IMPACT**: This is an information item only.

**CHANCELLOR'S RECOMMENDATION**: This is an information item only.

COMMITTEE RECOMMENDATION: Received as information. DATE: March 16, 2011

BOARD ACTION: DATE:

SUBMITTED BY: Irwin L. Goldstein 301-445-1992 irv@usmd.edu

## P-20 Summary Report for BOR March 16, 2011

### **Governor's P-20 Leadership Council**

The first meeting of the newly configured and statutorily authorized Governor's P-20 Leadership Council of Maryland was held on Friday, November 19, 2010 in Annapolis, Maryland. The meeting was chaired by the Governor's designee, Chancellor Kirwan. The new Council members addressed their role in an extended discussion:

- The work of the Council is driven by the Governor's agenda on education, workforce, and economic development.
- The Council is expected to be a deliberative body that discusses "best practices" in the process of moving the State's agenda forward.
- A motivating and unifying theme of the Council's work is the realization of the goal that 55% of Maryland citizens complete a postsecondary degree.
- The use of data to increase accountability is enhanced with the creation of the Maryland Longitudinal Data system, which also supports the work of the Council.

The second meeting of the Governor's P-20 Council is scheduled for March 14, 2011.

#### Governor's Forum on Skills and Education

On January 3, 2011, Governor O'Malley convened the Maryland Forward Forum on Skills and Education, at Bowie State University. The purpose of this Forum, which was one of a series of post-election policy forums, was to gauge progress toward education goals established during the first term and to develop a strategy for continued progress in these priority areas during his second term. Participants included over 300 leaders from K-12 and higher education, business stakeholders, cabinet secretaries, and state employees. The recommendations centered on how the State can continue to improve our education system in order to promote innovation and accelerate the transition to the new economy.

The working sessions focused on K-12 education reform, college completion, and skills training in the State. Participants discussed prioritization of resources and the importance of creating seamless transitions from K-12 to college to workforce. The full report is on the Governor's website: <a href="http://www.governor.maryland.gov">http://www.governor.maryland.gov</a>

## **Longitudinal Data System (LDS)**

### Don Spicer, Ben Passmore, Judy Wood

The USM has been involved in the development of the P-20 LDS center since July 2009, when Dr. Kirwan was asked (along with Mr. Jim DeGraffenreidt, President of the State Board of Education) to develop an actionable plan for a P-20 LDS system. To accomplish this task a statewide interagency committee was formed that included representation from the Maryland State Department of Education (MSDE), Maryland Higher Education Commission (MHEC), Maryland Association of Community Colleges (MACC), Maryland Independent Colleges and

University Association (MICUA), University System of Maryland (USM), St. Mary's College, Morgan State University and Maryland Department of Labor, Licensing and Regulation (DLLR). This group successfully developed a plan which was submitted to the Governor's office. That plan formed the basis of the portion of the Maryland application for Race to the Top concerned with P-20 systems and which informed the legislation which was introduced and passed during the 2010 Session of the Maryland General Assembly (Chapter 190). Throughout these and other development activities, USM has coordinated activities of all sorts and provided staff support to the Governor's Office, MSDE and MHEC in this area.

An LDS Governing Board was created to manage the P-20 LDS Center and related activities. The USM Chancellor is the current chair of the Governing Board. The MOU which was completed between the Board, USM and MSDE was created to formalize the work which was already being carried out by the USM and allow the USM to expend grant resources designated for the P-20 LDS in Maryland's RTTT award. These bridging services will be provided until the Center has a permanent location and staff is hired for the Center.

### **Course Redesign**

## **Lumina and Carnegie Course Redesign Projects Nancy Shapiro and Don Spicer**

The University System of Maryland has placed a great deal of emphasis on course redesign as a strategy to improve student academic experience and performance in high enrollment core and gateway courses. The <a href="Carnegie Course Redesign">Carnegie Course Redesign</a> (2) Initiative is now available to USM institutions to enable academic departments to review and redesign courses that have been traditionally taught in lecture format to large groups of students. A second program, funded through the <a href="Lumina Grant Initiative">Lumina Grant Initiative</a>, is available to all higher education in Maryland including all public and private four year institutions and the Maryland Community Colleges. This program focuses primarily on the redesign of developmental courses but will fund other courses as appropriate. Both projects provide up to \$20,000 per course, with an equal institutional match, creating a \$40,000 grant to cover costs associated with redesign planning and implementation.

### College Readiness and P-20 Alignment

## PARCC: Partnership for the Assessment of Readiness for College and Career Danielle Susskind, Project Manager

USM, together with the community colleges, and a number of independent colleges in Maryland signed a letter of support for Achieve's PARCC Consortium, agreeing to work with Achieve to develop assessments of the Common Core Standards that could be used as indicators of college readiness. USM is leading the higher education participation in the development of the assessments, working with English and mathematics faculty from all the public and private two-year and four-year colleges to establish criteria to define college readiness. The higher education engagement in this process is essential to the success of the larger project of the Race to the Top school reform initiative.

State-wide Mathematics Group

### **College Completion**

### **Lumina Project**

### Erin Knepler, Project Manager

Higher education officials from around the state: Maryland Higher Education Commission (MHEC), University System of Maryland (USM), Maryland Independent Colleges and Universities Association (MICUA), and Maryland Association of Community Colleges (MACC) partnered to enhance higher education access, retention, and achievement through a grant from the Lumina Foundation. Maryland's Lumina Foundation grant, *Growing by Degrees* uses bottom-up campus engagement with multi-segment, state-level investment and coordination. Strategies include not only the course redesign, referenced above, but also dissemination of USM's model of "E&E" to the independent colleges and universities and the community colleges. With the support of the Lumina Foundation and through inter-segmental collaboration, USM is able to support and guide Maryland higher education's work toward the goal of 55% college completion by 2025. This fiscal year, we provided approximately \$180,000 to nine institutions in support of course redesign.

### **Complete College America (CCA)**

USM is a partner in Maryland's CCA work. Nationally, Complete College America is building an Alliance of States "ready to take bold actions to significantly increase the number of students successfully completing college and achieving degrees and credentials with value in the labor market and close attainment gaps for traditionally underrepresented populations." The goals of Maryland's Complete College America initiative are parallel to the Lumina *Growing by Degrees* project. In addition to the course redesign work, CCA supports introducing incentives for completion of the associate's degree before transferring to a four-year institution, and reclaiming students who have accumulated a significant number of credits and leave their institution in good academic standing. Each of the segments has set individual degree production goals, and their progress toward meeting these goals will be tracked via the State's CCA team. This project is also aligned with the Governor's goal of 55% college completion by 2025.

### **Teacher Education/STEM**

USM continues to support teacher education by providing funding for professional development schools and STEM teacher initiatives. This fiscal year, we provided approximately \$360,000 to nine institutions in support of program innovation and STEM teacher preparation. In addition, USM has applied for funding through Race To the Top (RTTT) for money to develop pilot programs modeled on the UTeach program in Texas that has demonstrated evidence of success in increasing the pipeline for STEM teachers.

USM also provides leadership and staffing to support two separate state-wide standing committees:

**USM/MICUA Education Deans and Directors** 

### USM/MICUA/MACC Associate of Arts in Teaching Oversight Council

### **USM P-20 Grant Funded Projects**

E=MC<sup>2</sup> Highlights

Education Equals Mentoring, Coaching and Cohorts (E=MC<sup>2</sup>)

Teacher Quality Enhancement project funded by the U.S. Department of Education

**U.S. Department of Education Grant.** 

\$6.1M (2003-2009) Grant Close Out

Nancy Shapiro (USM) and Donna Wiseman (UMCP)

Project Managers: Lynn Harbinson and DeWayne Morgan

Project partners: University System of Maryland, Baltimore City Public School System, Baltimore City Community College, Coppin State University, Maryland Business Roundtable for Education, Towson University, University of Baltimore, University of Maryland College Park

This award-winning program created a new Teacher Academy for high school students in Baltimore City Schools, and, by the end of the grant, across the state of Maryland. The Teacher Academy allowed high school students interested in becoming teachers to earn three college credits by taking a uniquely structured, three course sequence in high school. MSDE estimates by this year we will have over 1000 students enrolled in this program across the state.

A second innovative project instituted a new after school program, based on the Future Educator Club model developed by Phi Delta Kappan (Education Honor Society). Again, beginning from scratch, the FEA program offered college trips to hundreds of students (and their parents) within Baltimore City schools. The Future Educator Club mission evolved into the *Way2Go Maryland* initiative at USM.

(MSP)<sup>2</sup> Highlights

National Science Foundation Grant: *Minority Student Pipeline Math Science Partnership* (MSP)<sup>2</sup>

\$12,396,945 (2008-2013)

Dr. Anisha Campbell (BSU), and Dr. Nancy Shapiro

**David May, Project Manager** 

(MSP)<sup>2</sup> is a strong, multifaceted partnership between the University System of Maryland and Prince George's County, Maryland. This innovative venture expands the STEM pipeline by investing in improving STEM teaching and increasing access to STEM fields for students who have been traditionally underrepresented. (MSP)<sup>2</sup> engages higher education faculty in a variety of strategies targeted at P-20 teachers and students.

This project focuses on professional development of teachers in grades 4-8, and engages students in early college science experiences.

## Gains in science content knowledge for teachers in (MSP)<sup>2</sup> Summer Science Institutes:

For two weeks in Summer 2010, more than 60 teachers of grades 4-8 participated in one of four content-specific Summer Science Institutes (SSI). The SSIs were taught by (MSP)<sup>2</sup> science faculty using inquiry-oriented instruction and were supported by science coaches from Prince George's County Public Schools. On content knowledge measures given before and after each institute, participating teachers improved their scores by an average of more than 25 percent.

### College science courses for high-school students:

In 2010, (MSP)<sup>2</sup> science faculty provided college-level science courses for 83 dually-enrolled 11<sup>th</sup> and 12<sup>th</sup> graders. Here are the details:

- 83 high-school juniors and seniors enrolled
- 511 college credits awarded
- 95% of students successfully completed requirements for credits in Introduction to Biology
- 83% of the students successfully completed requirements for credits in Forensic Biology
- 92% of the students successfully completed requirements for credits in Environmental Biology Lab.
- 94% of the students successfully completed requirements for college course credits in Environmental Biology Lecture.

In addition, when asked to rate the likelihood of their pursuing a career in a science-related field (1 to 10 scale) sixty-two percent of the students scored their likelihood as 8 or higher with the average score being 8.14; and, sixty-eight percent of the students rated the likelihood of their majoring in science once they got to college at an 8 or higher.

## MADE-CLEAR: Maryland Delaware Climate Education, Assessment and Research NSF, 2 year planning grant (\$999,949, 2010-2012)

Don Boesch (UMCES), Nancy Shapiro (USM), Nancy Targett (University of Delaware); Nancy Brickhouse (University of Delaware)

### Lynn Harbinson, Project Manager

This is a new project that was funded this year through the National Science Foundation to develop a strategic plan to engage P-20 educators in climate change education. Over 300 proposals were submitted to NSF, and only 15 were funded.

Partners include the University System of Maryland; University of Delaware; University of Maryland Center for Environmental Science; University of Maryland, College Park and Towson University.

The overall goal of this planning grant is to broadly promote climate change awareness and education and create a robust pipeline for a new generation of climate scientists by:

- Laying the essential groundwork for innovations in interdisciplinary P-20 climate change curriculum.
- Exploring new pathways for teacher education and professional development leading to expertise in climate change content and pedagogy.

 Developing new resources to promote better scientific communication for public understanding using innovative community outreach strategies that employ new technologies and informal education mechanisms.

The funding is for a two-year planning grant to engage stakeholders, with special attention and outreach to informal education providers (including museums, aquariums, zoos, etc), and policy makers (NOAA, NASA, etc). The activities will include a needs assessment, a policy audit, and a two-state summit on climate change which will lead to the development of a full proposal to NSF to fund a five-year climate change education proposal. The second competition will occur in 2012.

# Powering Maryland Forward: USM's 2020 Plan for More Degrees, A Stronger Innovation Economy, A Higher Quality of Life

### **USM Office of P-20 Initiatives Alignment**

Theme 1: Access, Affordability and Attainment- Helping the State of Maryland
Achieve Its Goal of 55% College Completion (Associate's Degrees through the
Baccalaureate) While Maintaining Quality.

Strategies:	USM Office of P-20 Initiatives
Reduce and eventually eliminate the gap in	(MSP) <sup>2</sup>
education success rates that exist between various	E=mc <sup>2</sup>
student populations at our campuses	PARCC
Improve affordability through holding down tuition	Lumina Course Redesign
costs and expanding need-based aid	
Increase access to high-demand degree programs	(MSP) <sup>2</sup>
through expansion or enhancement of our regional	AAT Program
centers, partnerships with community colleges, and	Made-Clear
targeted, high-need programs at our traditional	
USM institutions, like pharmacy and nursing	
Improve educational outcomes by identifying and	Lumina Course Redesign
redesigning "gatekeeper" courses that serve as a	PARCC
barrier to student progress	

# Theme 2: Maryland's Economic Development and the Health and Quality of Life of Its Citizens- Ensuring Maryland's Competitiveness in the New Economy.

Strategies:	USM Office of P-20 Initiatives
Increasing the number of graduates produced in	USM STEM Teach Grant
workforce areas as that are key to the state's ability	(MSP) <sup>2</sup>
to thrive an compete (including STEM, education,	Lumina Course Redesign
nursing, health care, cyber security, and other	E=mc <sup>2</sup>
disciplines)	Made-Clear
Continue to work to increase the number of highly	(MSP) <sup>2</sup>
qualified teacher candidates who graduate from	E=mc <sup>2</sup>
USM programs of teacher education	

# Theme 3: Transforming the Academic Model to Meet the Higher Education and Leadership Needs of Maryland's 21<sup>st</sup> Century Students, Citizens, and Businesses.

Strategies:	USM Office of P-20 Initiatives
Using technology as evidences in the course redesign initiative to expand current transformational efforts to enhance student learning and success	Lumina Course Redesign
Exploring ways to broaden our understanding of	PARCC

transformation options, including a comprehensive	
planning process to designed to elicit new ideas,	
and the development of a formal structure within	
the USM to support and sustain transformational	
ideas as they emerge	
Establish a framework for the System-wide	PARCC
development, articulation, and promotion of a core	Lumina Course Redesign
set of learning goals, leadership development, and	Education Deans & Directors
civic engagement outcomes	Meetings
Theme 4: Identifying New and More Effective	•
Resources Available to the USM for Benefit	of Maryland and Its Citizens
Strategies:	USM Office of P-20 Initiatives
Identifying and implementing "the next generation"	Lumina Course Redesign
of initiatives under the System's Efficiency and	
Effectiveness (E&E) Initiative	
Advancing the USM's role and responsibilities as a	Made-Clear
public corporation	PARCC
Assuring the system's commitment to	Made-Clear
environmental sustainability	
Building a vibrant culture of philanthropy across	Matching of USM funds for USM
the USM institutions and in partnership with its	STEM Teach program
affiliated foundations	
Theme 5: More Importantly, Achieving and Susta	ining National Eminence Through
the Quality of Our People, Our Progra	
Strategies:	USM Office of P-20 Initiatives
Achieve and sustain national eminence by	(MSP) <sup>2</sup>
attracting, supporting, and retaining high quality	$E=mc^2$
students, faculty and staff	
Build, support, and maintain world class teaching,	(MSP) <sup>2</sup>
research, and living/learning facilities	Made-Clear
	E=mc <sup>2</sup>
Collaborate and share best practices across USM to	(MSP) <sup>2</sup>
support the recruitment and retention of minority	E=mc <sup>2</sup>
students, faculty and staff	PARCC

### **Growing by Degrees**

Funder	Lumina Foundation		
Award Amount	\$1,032,000		
Grant Period	12/1/2009 - 12/31/2013		
Grant's Principal	Nancy Shapiro (USM) & Sue Blanshan (MHEC)		
Investigators			
Project Manager	Erin Knepler		
Grant's alignment to	Theme 1: Access, Affordability and Attainment- Helping the State of Maryland		
USM's 2020 strategic	achieve its goal of 55% college completion (associate's degrees through the		
plan	baccalaureate) While Maintaining Quality.		
	• Theme 2: Maryland's Economic Development and the Health and Quality of Life of Its		
	Citizens- Ensuring Maryland's Competitiveness in the New Economy.		
	Theme 3: Transforming the Academic Model to Meet the Higher Education and		
	Leadership Needs of Maryland's 21 <sup>st</sup> Century Students, Citizens, and Businesses.		
	Theme 4: Identifying New and More Effective Ways to Build and Leverage the		
	Resources Available to the USM for Benefit of Maryland and Its Citizens		

Higher education officials from around the state: Maryland Higher Education Commission (MHEC), University System of Maryland (USM), Maryland Independent Colleges and Universities Association (MICUA), and Maryland Association of Community Colleges (MACC) partnered to enhance higher education access, retention, and achievement through a grant from the Lumina Foundation. Maryland's Lumina Foundation grant, *Growing by Degrees* uses bottom-up campus engagement with multi-segment, state-level investment and coordination.

#### **Grant Goals and Activities**

Building on statewide momentum gained during the "Learning Year" of this project, the three major goals of Maryland's Lumina funded higher education productivity agenda are the following:

- 1. <u>Increase and reward completion</u>: Engage the Governor's P-20 Leadership Council in the state's higher education productivity agenda through advocating for policies that help the state meet its college completion goals within available resources.
  - In July 2010, the Governor's P-20 Leadership Council was established by statute (Chapter 191, Acts of 2010), having previously been initiated via executive order in October 2007 (and existing as a voluntary membership group for the 10 years prior to that). The November 2010 P-20 Council meeting addressed five key P-20 policy areas that affect the state's college completion goals:
    - o **Elementary and secondary education reform:** Race to the Top
    - o **Alignment:** Common Core Standards, Partnership for the Assessment of Readiness for College & Careers Consortium, and College Success Task Force Recommendations
    - o **Data systems:** Maryland Longitudinal Data System Governing Board and Maryland Longitudinal Data System Center
    - o College and career success: Lumina Productivity Grant, Complete College America, and Early College High Schools
    - o Competitiveness: Skills2Compete, Biotechnology, and Cyber-security
- 2. <u>Generate and reinvest savings</u>: Support cross-institutional collaboration across all public and independent colleges and universities in targeted effectiveness and efficiency (E&E) areas, both academic and administrative.
  - The Maryland Independent College and University Association (MICUA) contracted for the development of an analytic study and report on the feasibility of self-insurance healthcare options for MICUA's 15 member colleges and universities (summer 2010). This study identified various options to reduce the cost of employer-provided healthcare benefits for workers while maintaining competitive coverage, such as purchasing group healthcare coverage for multiple institutions, contracting with a benefit administrator for the administration of self-insurance plans for multiple institutions, purchasing stop loss coverage for multiple institutions through a consortium arrangement, establishing a MICUA self-insurance plan for

multiple institutions, and other options to achieve efficiencies of scale for employer-provided healthcare coverage at MICUA member institutions. The review of each option includes an analysis of pros and cons, potential cost savings, minimum participation by institutions or participants in order to be cost effective, barriers to entry, impact on employees, legal matters, and requirements for implementation.

- On December 3, 2010, the Maryland Association of Community Colleges (MACC) held a segment-wide "Summit on Community College Completion" at Anne Arundel Community College, with support from the Lumina grant. The following speakers spoke at the summit: Stanley G. Jones, President of Complete College America, Dr. Martha Kantor, Under Secretary, U.S. Department of Education, Dr. Carol Eaton, President of Frederick Community College, Dr. Charlene Dukes, President of Prince George's Community College, and Samantha Solovieff, President of the AACC Student Association. Each Maryland community college was represented for a total of 225 people. Each college brought a team of 10-12 representatives, comprised of the presidents of each community college, trustees, students, chief academic officers, researchers, student services personnel, business officers, facilities planners, faculty, and public relations officers. The keynote speakers focused on completion and the role community colleges have in increasing the degree attainment level so the United States can once again have the highest proportion of college graduates in the world. Discussion was centered on completion. Maryland community colleges are embracing this challenge and expressed their willingness to work individually and collectively to increase the number of students who complete a degree or certificate, including those whose primary objective is to transfer and earn a bachelor's degree.
- 3. Educate and train in affordable ways: Redesign "bottleneck" undergraduate courses (e.g., general education and developmental courses in which a large majority of students fail to earn a C or better) at two-year and four-year institutions across the state to improve student learning and to reduce the average cost per course. Reinvest cost savings to support additional redesign projects and other student completion-related priorities.
  - The goals of course of redesign are to:
    - o Adopt new methods to improve student learning outcomes; and
    - o Reduce both student and institutional costs.
  - Since so called "gatekeeper" courses (general education courses, developmental courses, and entry level courses i.e., mathematics and sciences courses for a specific major) pose significant problems for many college students and halt their degree progression, Growing by Degrees, focuses its agenda on bringing course redesign efforts in these areas to scale statewide. This course redesign work addresses two key elements: (1) increasing student learning and success, while (2) decreasing student and instructional costs.
  - Redesign efforts enhance and transform these gatekeeper courses by systematically incorporating individualized, active-learning approaches through technology-based exercises, and providing students with ongoing feedback to assess their progress. USM's previous experience with course redesign has shown that such efforts help to address persistent academic problems such as inconsistent preparation among incoming college students; poor student retention of material; low student engagement in lecture-based courses; and lack of coordination among faculty members across multiple course sections, leading to "course drift" and inconsistent student learning outcomes.
  - Nine proposals were received for 2010-211 funding cycle and all nine proposals have been funded.

Institution	Course	Award Amount
Allegany Community College	Beginning Algebra	\$20,000
Chesapeake Community College	Pre-Algebra Arithmetic	\$20,000
Community College of Baltimore County	Basic Math	\$20,000
Montgomery Community College	Chemistry I	\$20,000
Prince George's Community College	Fundamental Arithmetic	\$20,253.15
Stevenson University	Microsoft Office Applications	\$20,000
St. Mary's College of Maryland	Principles of Biology I	\$20,000
University of Maryland Eastern Shore	Intermediate Algebra	\$20,000
Wor-Wic Community College	English	\$ 16,162.35

### Minority Student Pipeline MSP: (MSP)<sup>2</sup>

Funder	National Science Foundation	
Award Amount	\$12,396,945	
Grant Period	2008-2013	
Grant's Principal	Anisha Campbell (BSU) & Nancy Shapiro (USM)	
Investigators		
Project Manager	David May	
Grant's alignment to USM's 2020 strategic plan	<ul> <li>Theme 1: Access, Affordability and Attainment- Helping the State of Maryland Achieve Its Goal of 55% College Completion (Associate's Degrees through the Baccalaureate) While Maintaining Quality.</li> <li>Theme 3: Transforming the Academic Model to Meet the Higher Education and Leadership Needs of Maryland's 21<sup>st</sup> Century Students, Citizens, and Businesses.</li> <li>Theme 5: More Importantly, Achieving and Sustaining National Eminence Through the Quality of Our People, Our Programs, and Our Facilities</li> </ul>	

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## Gains in science content knowledge for teachers in (MSP)<sup>2</sup> Summer Science Institutes:

For two weeks in Summer 2010, more than 60 teachers of grades 4-8 participated in one of four content-specific Summer Science Institutes (SSI). The SSIs were taught by (MSP)<sup>2</sup> science faculty using inquiry-oriented instruction and were supported by science coaches from Prince George's County Public Schools. On content knowledge measures given before and after each institute, participating teachers improved their scores by an average of more than 25 per cent.

Institute	Pre-Average	Post-Average	Difference	Biggest Gain
Chemistry	34.7	62.4	29.6	One teacher's score
(n=11)				increased by 48%.
Environmental	50.2	75.4	25.2	The scores of 4 teachers
Science (n=20)				increased by 44% and 6
				teachers increased their
				scores by 40% or more.
Life Science	60.8	75.3	14.2	One teacher's score
(n=17)				increased 22% — from
				48% to 70%.
Physical	31.6	69.1	37.5	One teacher's score
Science (n=12)				increased 57.5% and
				another increased 55%.

### **College science courses for high-school students:**

In 2010,  $(MSP)^2$  science faculty provided college-level science courses for 83 dually-enrolled  $11^{th}$  and  $12^{th}$  graders. Here are the details:

- 83 high-school juniors and seniors enrolled
- 511 college credits awarded
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In addition, when asked to rate the likelihood of their pursuing a career in a science-related field (1 to 10 scale) sixty-two percent of the students scored their likelihood as 8 or higher with the average score being 8.14; and, sixty-eight percent of the students rated the likelihood of their majoring in science once they got to college at an 8 or higher.

### Education Equals Mentoring, Coaching, and Cohorts (E=mc2) Partnership

Funder	Teacher Quality Enhancement project funded by the U.S. Department		
	of Education		
Award Amount	\$6.1 MM		
Grant Period	2003-2009		
Grant's Principal	Nancy Shapiro (USM) and Donna Wiseman (UMCP)		
Investigators			
Project Manager	Lynn Harbinson & Dewayne Morgan		
Grant's alignment to USM's 2020 strategic plan	<ul> <li>Theme 1: Access, Affordability and Attainment- Helping the State of Maryland achieve its goal of 55% college completion (associate's through the baccalaureates) while maintaining quality.</li> <li>Theme 2: Maryland's Economic Development and the Health and Quality of Life of Its Citizens- Ensuring Maryland's Competitiveness in the New Economy.</li> <li>Theme 5: More Importantly, Achieving and Sustaining National Eminence Through the Quality of Our People, our Programs, and Our Facilities.</li> </ul>		

The participating school district was one of Maryland's most challenging education settings - Baltimore City Public School System. This broad objective of this partnership was to cultivate a culture of teaching and learning by creating a viable education careers pipeline by developing communities of educators and learners through supportive, institutionalized relationships among P-20 professionals and students.

Project partners: University System of Maryland, Baltimore City Public School System, Baltimore City Community College, Coppin State University, Maryland Business Roundtable for Education, Towson University, University of Baltimore, University of Maryland College Park

### Highlights: Teacher Academy of Maryland (TAM) Program across the state

- 4-course sequence of college-level education courses for high school students
- Started with one school in Baltimore then extended across Maryland, with implementation in 60% of Maryland school districts (all school districts except one currently have students enrolled)
- Increasing number of students who are program completers each year:
  - o 2008 55 students
  - o 2009 86 students
  - o 2010 257 students (projected)
  - $\circ$  2011 1, 176 students (projected)
- Towson University–TAM Memorandum of Understanding (MOU) that grants students three college-level transcripted credits, and awards an annual \$1,000 scholarship to successful program completers who matriculate at Towson
- Summer Leadership Institutes (SLI) for all TAM teachers with a "train-the-trainer" model of involving veteran TAM teachers in teaching Leadership Institute courses

### Highlights: Future Educator Association (FEA) clubs in middle schools

- Initially developed using the club model developed by Phi Delta Kappan
- Evolved into campus visits as the central focus in 2009, 140 students primarily from disadvantaged Baltimore households, visited almost 50 campuses in the region

- Clubs grew from no clubs in Baltimore City when the grant started in 2003, to 14 clubs (10 middle school/grade, 4 high school at TAM schools) with 525 students by 2009, making the Baltimore City Public School System program one of the largest FEA programs in the US and Canada
- Held a city-wide FEA conference and college fair in the spring of 2009 for over 500 middle and high school students and their parents, and 22 colleges and universities
- A successor program to the FEA clubs has been successfully institutionalized by the University System of Maryland the "Way2Go Maryland" Program has an institutional mission of outreach to middle school students to give them information for, and tools for access to, higher education
- Way2Go Maryland outreach is conducted through the program's web site
   (<a href="http://www.way2gomaryland.org/">http://www.way2gomaryland.org/</a>) and outreach activities to students and parents across Maryland. Initially Way2Go Maryland involved Baltimore City's FEA club students and was funded by some E=mc² funding, but now is a self-sustaining program through the University System of Maryland Foundation

## MADE-CLEAR Maryland and Delaware Climate Change Education, Assessment and Research

Funder	National Science Foundation	
Award Amount	\$999,949 planning grant	
Grant Period	2010-2012	
Grant's Principal Investigators	Don Boesch, Nancy Shapiro, Nancy Targett (University of Delaware); Nancy Brickhouse (University of Delaware)	
Project Manager	Lynn Harbinson	
Grant's alignment to USM's 2020 strategic plan	<ul> <li>Theme 1: Access, Affordability and Attainment- Helping the State of Maryland achieve its goal of 55% college completion (associate's through the baccalaureates) while maintaining quality.</li> <li>Theme 2: Maryland's Economic Development and the Health and Quality of Life of Its Citizens- Ensuring Maryland's Competitiveness in the New Economy.</li> <li>Theme 4: Identifying New and More Effective Ways to Build and Leverage the Resources Available to the USM for Benefit of Maryland and Its Citizens</li> <li>Theme 5: More Importantly, Achieving and Sustaining National Eminence Through the Quality of Our People, our Programs, and Our Facilities.</li> </ul>	

Maryland and Delaware Climate Change Education, Assessment and Research (MADE-CLEAR) is a partnership that will advance formal and informal education related to the science of climate change. This partnership will leverage the exceptional scientific and educational research, and instructional capacities and opportunities and exploit the environmental and social diversity within Maryland (MD) and Delaware (DE).

MADE-CLEAR is a 2-year, \$999,949 planning grant for Climate Change Education from the National Science Foundation to the University System of Maryland (USM) under the Division of Undergraduate Education's (DUE) Climate Change Education Partnership (CCEP) Program Grant.

Partners include the University System of Maryland; University of Delaware; University of Maryland Center for Environmental Science; University of Maryland, College Park and Towson University.

Goal - Broadly promote climate change awareness and education and create a robust pipeline for a new generation of climate scientists by:

1. Laying the essential groundwork for innovations in interdisciplinary P-20 climate change curriculum.

- 2. Exploration of new pathways for teacher education and professional development leading to expertise in climate change content and pedagogy.
- 3. Development of resources to promote better scientific communication for public understanding using innovative community outreach strategies that employ new technologies and informal education mechanisms.

### Activities to achieve these goals include:

- A comprehensive regional inventory of scientifically-based climate change education resources;
- A climate change "node" on the new Maryland Science, Technology, Engineering, and Mathematics (STEM) Innovation Network, a state-wide dissemination project under the Maryland Governor's STEM Initiative;
- A strategic plan for maximizing use of climate change resources by identifying opportunities for the engagement and dissemination of resources, with particular attention to current curricular and professional development opportunities;
- Essential groundwork for new middle school teacher STEM endorsement/certification in Delaware and Maryland that includes significant attention to climate change education;
- Essential groundwork for incorporating new Climate Change learning outcomes into recently endorsed Common Core Standards Initiative (CCSI) in Delaware and Maryland;
- Educational research on systemic climate change education.

## Partnership for the Assessment of Readiness for College and Careers (PARCC)

Funder	Race to the Top Grant through Achieve		
Award Amount	\$80, 000 to Higher Education		
Grant Period	2010-2015		
Grant's Principal Partners	<ul> <li>Leslie Wilson and Janet Bagsby at the Maryland State Department of Education (MSDE).</li> <li>The Higher Education Leadership Team is led by Nancy Shapiro, Associate Vice Chancellor of Academic Affairs and Special Assistant to the Chancellor on P-20 Issues at the University System of Maryland (USM).</li> </ul>		
Project Manager	Danielle Susskind		
Grant's alignment to USM's 2020 strategic plan	<ul> <li>Theme 1: Access, Affordability and Attainment- Helping the State of Maryland achieve its goal of 55% college completion (associate's through the baccalaureates) while maintaining quality.</li> <li>Theme 3: Transforming the Academic Model to Meet the Higher Education and Leadership Needs of Maryland's 21<sup>st</sup> Century Students, Citizens, and Businesses.</li> <li>Theme 4: Identifying New and More Effective Ways to Build and Leverage the Resources Available to the USM for Benefit of Maryland and Its Citizens</li> <li>Theme 5: More Importantly, Achieving and Sustaining National Eminence Through the Quality of Our People, our Programs, and Our Facilities.</li> </ul>		

### **ABOUT PARCC**

The Partnership for the Assessment of Readiness for College and Careers (PARCC) is a group of 25 states<sup>1</sup> committed to building a next-generation assessment system for elementary and secondary schools that is based upon the Common Core State Standards (CCSS). Of the twenty-five states, thirteen are part of the Governing Board which make the strongest commitment to PARCC and its activities and therefore have the most decision making authority. Maryland is one of the thirteen Governing States. The chief state school officers of the Governing States serve on the PARCC Governing Board and make decisions on behalf of the Partnership on major policies and operational procedures. Additionally, Dr. Nancy S. Grasmick serves on a six-member steering committee that advises Achieve on planning issues and implementation.

PARCC selected Achieve to play a key role in coordinating the work of the Partnership, leveraging the organization's deep experience in developing educational standards, including helping develop the CCSS, and its experience leading multi-state assessment development efforts anchored in college- and career-readiness.

#### **Maryland Role**

<sup>1</sup> The 25 Participating States and Governing States (those in bold are governing states) are: Alabama, **Arizona**, **Arkansas**, California, Colorado, Delaware, **District of Columbia**, **Florida**, **Georgia**, **Illinois**, **Indiana**, Kentucky, **Louisiana**, **Maryland**, **Massachusetts**, Mississippi, New Jersey, **New York**, North Dakota, Ohio, Oklahoma, Pennsylvania, **Rhode Island**, South Carolina and **Tennessee** Florida will serve as PARCC's fiscal agent state, and Massachusetts Commissioner of Elementary and Secondary Education Mitchell

Chester will serve as the first chair of PARCC's Governing Board. Altogether, PARCC states educate more than 31 million public K-12 students in the U.S.

As a Governing State, Maryland has representatives on the PARCC Leadership Team. Maryland's K-12 Leadership Team is led by Leslie Wilson, Assistant State Superintendent for the Division of Accountability, Assessment and Data Systems, and Janet Bagsby, Chief of Assessment and Planning at the Maryland State at the Department of Education (MSDE). The Higher Education Leadership Team is led by Nancy Shapiro, Associate Vice Chancellor of Academic Affairs and Special Assistant to the Chancellor on P-20 Issues at the University System of Maryland (USM). The project manager for the involvement in higher education in PARCC is Danielle Susskind, also at USM.

K-12 leaders and higher education system and institutional leaders in PARCC states have agreed to collaborate on the development of college-ready assessments given in high school that can be used to signal whether students have acquired the prerequisite knowledge and skills for entry-level credit-bearing postsecondary courses without remediation. The new assessments will be piloted in 2011-2012, field-tested in 2012-2013 and 2013-2014 and be fully implemented in the 2014-2015 school year.

#### **Recent Activities**

- On February 16<sup>th</sup>, 17<sup>th</sup>, and 18<sup>th</sup> the MD PARCC leadership team attended the initial PARCC Higher Education and K-12 Engagement Meeting for Aligning College Readiness Expectations in Orlando, Florida. The MSDE leaders brought a high school English content specialist and a high school mathematics content specialist. The higher education leader brought the chair of the Statewide English Standards Committee, a professor from a community college and the chair of the Statewide Math Standards Committee, a professor at a four year institution.
  - The high school content leads from all 25 states met with the faculty in the same discipline to discuss what each of their expectations were for college readiness set forth in the CCSS and identifying which of those standards are the most important to measure on PARCC's assessments.
- The teams also discussed the priority purposes that are to be addressed by the PARCC high school assessments and to determine the implications of those priority purposes on the design of the assessments (e.g. end-of-course, end-of-year) and what additional information faculty will need beyond the college readiness score to determine that students are prepared for entry-level, credit-bearing college courses when they arrive at postsecondary institutions.
- Achieve is currently summarizing the various conversations and responses around these questions.
- On February 22, 2011, the Coordinator of English/Language Arts in the Department of Instruction at MSDE and her team presented the draft writing curriculum framework that has been developed in alignment with the new Common Core Standards to approximately 50 higher education faculty members from all over the state of Maryland. The faculty represented two and four year, private and public institutions. This meeting was hosted and facilitated by USM. The MSDE team explained how the framework was based on the standards and solicited feedback from the faculty on whether the essential skills and knowledge that K-12 teachers had suggested students needed to know and have to meet a standard were the right ones. Faculty offered suggestions, edits and additions to the framework that MSDE will feed into the next draft of the curriculum framework
- On April 22<sup>nd</sup>, 2011, the Coordinator of Math in the Department of Instruction will hold the same meeting for Math faculty from all over the state in collaboration with USM. To date, approximately 80 faculty members have been invited to participate and offer feedback on the draft math curriculum framework.
- Maryland and all Governing States were invited to nominate three (3) higher education representatives to serve on PARCC's Advisory Committee on College Readiness (ACCR). The nominees were jointly recommended by Dr. William (Brit) Kirwan and Dr. Nancy Grasmick. The committee will work with the PARCC Governing Board to shape the consortium's strategy for working with higher education systems, institutions, and K-12 to ensure the successful development of college readiness assessments that will be accepted as an indicator of readiness for first-year, credit bearing courses by all colleges and universities across PARCC consortium states. The selection of the final committee representatives will be made by the PARCC Governing Board.