Section I: Curriculum and Instruction

This section of the report focuses on three of the ten recommendations from the SREB Report: *A New Mission for the Middle Grades*: Common standards tied to college and career readiness, Literacy as a strategy for learning in **all** courses, and Integrating science, technology, engineering and math (STEM) to help students discover their interests and aptitudes in emerging careers. First, we will share an overview of the recommendation made in the SREB report, and then we will share how that recommendation is linked to Maryland's 2008 Report, *The Critical Middle,* and also survey data from Maryland local school systems on how they believe they are progressing on the recommendation. Finally, we will provide examples of best practices around these recommendations, including links to websites and resources where additional information is available.

- **Common standards tied to college and career readiness**

The SREB Report shares staggering data around the need for higher standards. For example, "fourteen nations now exceed the United States" percentage of 25- to 34-year-olds who have completed at least two years of education beyond high school…" According to the 2010 SREB survey of more than 20,000 eighth graders, nearly 90 percent said they expect to finish at least two years of college or technical training. However, in 2008 the college-going rate of recent high school graduates in SREB states was 62%. According to the SREB report, fewer than half of eighth-graders go to college. In Maryland, data shared with the Maryland State Board of Education indicated that almost 50% of Maryland high school graduates who enter Maryland two- and four-year colleges are required to take remedial courses in English and/or mathematics.

In the 2008 *Critical Middle Report,* higher standards were not addressed. However, in 2010 the Maryland State Board of Education adopted the Common Core State Standards for English Language Arts/Literacy and Mathematics. Maryland included Pre-K standards and they are now known as the Maryland College and Career Ready Standards for English Language Arts/Literacy and Mathematics. These standards were fully implemented in Maryland schools in 2013-2014. In spring 2013, the Maryland State Board of Education adopted the Next Generation Science Standards, now known as the Maryland College and Career Ready Next Generation Science Standards. Teachers around the state have identified the increased rigor required by these standards. MSDE provided Educator Effectiveness Academies in 2011, 2012, and 2013 to teams from every school in the state. The purpose of these academies was to provide professional learning around the standards, share resources aligned to the standards, and assist schools in developing their transition plans for moving to the new standards. Professional learning opportunities were also provided throughout the year through webinars and briefings. In the summer of 2014, MSDE held College and Career Ready Conferences to provide additional training for any teacher in the state of Maryland. College and Career Ready Conferences are also scheduled for the summer of 2015. MSDE has also partnered with the Maryland Assessment Group (MAG), The Council of Educational Administrative and Supervisory Organizations of Maryland (CEASOM), Maryland Association of Boards of Education (MABE), and other state education associations to provide professional learning on the Maryland College and Career Ready Standards for English Language

Arts/Literacy, and Mathematics, as well as the Maryland College and Career Ready Next Generation Science Standards and the College, Career, and Civic Life Framework.

MSDE has collaborated with local school systems to develop standards-aligned model units and lessons in English Language Arts/Literacy and Mathematics at every grade from Pre-K through high school. They have also worked with state partners, such as Maryland Public TV, Maryland Business Roundtable, and the Reginald F. Lewis Museum to develop standards-aligned resources. Additionally, MSDE procured resources from vendors through Race to the Top (RTTT) funds for intervention and enrichment modules for English Language Arts/Literacy and mathematics. MSDE is continuing to vet and upload curriculum resources and professional learning resources aligned to the new standards. All resources are uploaded to the Blackboard Learn website, https://msde.blackboard.com.

In Maryland, each local school system creates its own curriculum, and so systems can decide to use MSDE curriculum resources as they choose or not at all. Local school systems have been developing their own resources and also providing professional learning opportunities to their teachers. Examples of these resources include videos of classroom teachers demonstrating instructional strategies for teaching standards, parent information videos, curriculum resources, and integrated lessons. Educators from the local school systems also developed sessions for the 2014 summer conferences and participated in the webinars held during the school year. During the 2013-2014 school-year, teams of content coordinators, specialists, and professional development specialists from MSDE visited each of the 24 local school systems. The MSDE teams visited classrooms, spoke with classroom teachers, administrators, and central office staff. All systems reported significant progress in developing resources; however, all systems reported the need for additional resources, as well.

Maryland educators also actively participate in Partnership for the Readiness of College and Careers (PARCC) activities. Educators at the state and local level have been on the workgroups creating the new assessments aligned to the standards, and they have been active in the Educator Leader Cadre (ELC) that provides professional learning on the standards and new assessments. Maryland has been recognized for its collaborative approach to implementing the new standards. Although it may be too soon to identify best practices for implementing the new standards, Maryland educators continue to attend workshops and other professional learning opportunities to gather information and strategies on how to ensure that our students, parents, educators, and administrators benefit from the latest research and resources.

MSDE and Maryland local school systems recognize the importance of setting high expectations for all middle school students by aligning instruction to college and career ready standards. The following websites are just a few that provide resources, in addition to resources posted on local school system websites, and Maryland Blackboard Learn, that may support middle schools as they continue their work.

www.parcconline.org
www.achievethecore.org
www.illustrativemath.org

http://commoncore.americaachieves.org/
https://www.teachingchannel.org/

- **Literacy as a strategy for learning in <u>all</u> courses**

In the SREB report, several strategies for integrating literacy in all classes are identified. The report states that literacy instruction today is focused primarily in the early grades, but the complexity of reading and writing increases through high school and should extend beyond the elementary grades. One overarching strategy is to create a literacy plan. Part of that strategy is to have "teachers use rigorous reading and writing assignments as part of teaching their subjects...they should help students learn the *language of the discipline*, in context, so they can think critically, analyze issues and master the material." The literacy plan should include outcomes, benchmarks, and strategies for embedding reading and writing assignments into each course. The SREB report also states that tracking student progress is critical to insure that students continue to grow in their ability to comprehend a range of complex texts. Finally, the SREB report recommends that states provide districts with literacy resources, such as examples of assignments, classroom assessments and templates for preparing such assignments.

In Maryland's *The Critical Middle* report, literacy instruction is also an area of focus. There are actually four recommendations in the report that integrate literacy. The first is a focus on disciplinary literacy, where the recommendation is to stress the reading, writing, and thinking skills in each discipline as an integral component of the subject. To accomplish this, three strategies are identified: in all courses engage students in learning activities in reading and writing; emphasize the disciplinary literacy skills in each content that are in the state's voluntary curriculum; and provide content-specific exemplars through the state's toolkit. The second recommendation is to provide all students fine-arts instruction that develops their literacy in music, dance, theater, and visual arts. To accomplish this, three strategies are identified: provide adequate resources, including highly qualified teachers, to support discipline-based arts instruction; provide teachers professional development integrating the arts into their content areas; and engage community arts and cultural organization to provide arts enrichment for all students. The third recommendation related to literacy focuses on technology and information literacy, stating that it is critical to teach information literacy and use technology in all subjects. Two strategies are identified: use technology and, where appropriate, online courses for all students, including those not demonstrating mastery and those exceeding grade-level expectations; and provide all students technology experiences, such as Web design, podcasting, a computer graphic arts, and multimedia production. The fourth recommendation touches on literacy because of the emphasis on skills for lifelong success, especially communication skills. It states that middle schools must teach those skills that, in addition to content mastery, are essential for school success. There are two strategies identified: integrate critical thinking, problem solving, organization, communication, and other skills into the core content areas; and provide opportunities for students to learn and apply these skills through in-school, after-school, and/or summer school programs.

In the survey to our local systems, they were asked "do any of your middle schools have a school-wide literacy initiative that integrates the literacy standards?" Fifteen districts of the reporting districts indicated that all of their middle schools did have a school-wide literacy initiative. Five reported that some of their middle schools have a literacy initiative, and four reported that none of their middle schools had a literacy initiative. They were also asked if their middle schools provide fine arts instruction that develops literacy in all of the areas within the fine arts: music, dance, theater, and visual arts. Eleven systems reported that all middle schools had a program. Four systems reported that some of their middle schools had a program, while nine systems (over one-third) reported that none of their middle schools had a program. Regarding technology and information literacy, 21 systems reported that all schools integrate technology and information literacy into their instructional programs. All other systems reported that some of their middle schools integrated technology and information literacy. The results for providing instruction in skills needed for school success mirrored the results on technology and information literacy. It is important to note that the survey was a "self-reporting" tool, and so no data was provided to document the effectiveness of the programs being implemented. The information reported does show that for the most part, middle schools recognize the importance of literacy initiatives.

Since the publication of the 2008 *Critical Middle*, a tremendous amount of work has been done around developing literacy skills at the middle school level. This work has been supported by the adoption of the Maryland College and Career Ready Standards for English Language Arts/Literacy. In grades six through high school, the literacy standards are a separated from the reading, writing, speaking and listening standards for English Language Arts. There are literacy standards for history/social studies, and literacy standards for science and technical subjects. Through RTTT funds, MSDE has been able to sponsor regional workshops on these standards, bringing in national experts to provide training for Maryland educators, literacy specialists have been hired to support the development of resources for teaching reading and writing in the content areas, resources have been procured to support educators as they integrate the literacy standards throughout their content, and during the 2012 and 2013 Educator Effectiveness Academies, and the 2014 College and Career Ready Conferences, sessions designed specifically around the literacy standards. Some of the resources created include twelve adolescent literacy modules for social studies, science, and English Language Arts, one module on "Web Smarts". There are guidance documents for developing text dependent questions for social studies and science. For the fine arts, MSDE was able to contract with Maryland Fine Arts educators to create lesson seeds for middle school; some of these lessons seeds are already uploaded on Blackboard Learn, but others will be added during the 2014-2015 school year. MSDE is partnering with Maryland Public TV to create intervention and enrichment modules for social studies and science. These modules are for student use and will provide students an opportunity to engage on-line with resources that will accelerate and or expand their skills in the area of disciplinary literacy; specific modules will be identified for middle school students. All of the resources can be found on the Maryland Blackboard Learn website; specific links to the adolescent literacy modules and the disciplinary literacy resources are provided: https://msde.blackboard.com/webapps/portal/frameset.jsp?tab_tab_group_id=_512_1 and https://msde.blackboard.com/webapps/portal/frameset.jsp?tab_tab_group_id=_219_1 . Although the recommendation in the *Critical Middle* calls for online courses for middle school students, Maryland has

focused on providing blended learning opportunities that include online learning as well as the support of a classroom environment so that when students are in high school they will be better prepared to take advantage of the many online courses available to them.

For many years, Maryland has required secondary teachers to have six credit hours in content reading. With the move to the Maryland College and Career Ready Standards where literacy includes reading and writing, those courses are being updated to align to the new standards.

In 2013-2014, Maryland Governor Martin O'Malley convened a Fine Arts Task Force. Specifically, the Task Force was charged with the following tasks:

- Examine Maryland policies and regulations on arts curriculum and instruction in the context of the new standards in arts education so as to identify gaps and alignment needs;
- Determine the current status of arts education in Maryland schools;
- Review pertinent research on the impact of fine arts instruction on student success in school; and
- Make recommendations to the Governor's P-20 Council regarding fine arts education in Maryland public schools to include (a) policy and regulations, (b) professional development, (c) curriculum and instruction, and (d) resource allocation.

Based on the work of the task force, ten recommendations were made around fine arts. Listed below are those directly addressing the recommendations included in the *Critical Middle* as it impacts literacy:

Recommendation A: Revise the Code of Maryland Regulations (COMAR) to provide specific direction to local school systems in the consistent implementation of comprehensive fine arts programs in dance, music, theatre, and visual arts for all children at all grade levels.

Recommendation C: Establish a minimum per pupil funding allocation required for and dedicated to comprehensive fine arts programs in dance, music, theatre, and the visual arts for all schools and for start-up funding for new programs in those disciplines.

Recommendation D: Revise the Maryland State Standards for Fine Arts Education.

Recommendation E: Develop and/or align school system curriculum documents with the revised State Standards in Fine Arts.

Recommendation I: Provide learning opportunities and resources for fine arts teachers to continue the development of skills needed to deliver a comprehensive fine arts program, for non-arts teachers to integrate the arts into their disciplines, and for leaders in school systems and in higher education to enhance their knowledge of effective arts education.

Currently, the MSDE Fine Arts office is working with Local Education Agencies (LEAs) and other stakeholders to determine the best course of action to accomplish these recommendations which were unanimously endorsed by the Governor's P-20 Council.

One recommendation that is in *The Critical Middle* that doesn't appear in the SREB report is that every middle school student should have the opportunity to enroll in a sequential world-language course in 6th grade. The Task Force felt that while this was not included in the SREB recommendations, it remains an important factor for promoting literacy in the middle grades. In the *Critical Middle* it states that according to the National Governors Association and the Council on Competitiveness "a strong foundation in the STEM disciplines is essential, the organizations go on to say that 'collaboration and cooperation that are hallmarks of innovation demand additional skill sets in areas like writing, communications, and languages.'" Also stated in the Maryland report is that a study by the Committee for Economic Development reported that a chief concern of many U.S. employers is hiring workers who are comfortable conducting business in a cross-cultural environment and working on international teams.

MSDE and Maryland local school systems recognize the importance of integrating literacy instruction in the middle grades. Survey data recognized that there is still much work to be done. The following resources, in addition to resources posted on local school system websites, and Maryland Blackboard Learn, may support middle schools as they continue their work.

www.parcconline.org
www.achievethecore.org
http://commoncore.americaachieves.org/
https://www.teachingchannel.org/
http://ldc.org/

- **Integrating science, technology, engineering and math (STEM) to help students discover their interests and aptitudes in emerging careers**

According to the SREB report, as well as data collected in Maryland, STEM jobs go unfilled because employers cannot find qualified candidates for these positions. According to SREB, this gap begins in the middle grades. The report goes on to state many middle school students lack the skills in mathematics, especially in algebra.

To address this deficiency, the recommendation is that middle grades curriculum should emphasize STEM in every subject. The methodology should focus on "hands-on, project- and problem-based contexts, STEM activities that can engage students' curiosity advance their creativity, and enable them to see the need for doing well in mathematics and science." According to the report, this recommendation has implications in teacher preparation and professional learning because many middle school teachers do not have adequate training and knowledge to teach the mathematics skills needed. Schools are encouraged to consider a blended learning model to bridge this gap until pre-service programs correct this deficit. The new standards, Maryland's College and Career Ready Standards for mathematics, increase the rigor of middle school mathematics.

The SREB report also states that science instruction in the middle grades often lacks the time and emphasis given to English and mathematics, and when taught, does not emphasize the need for conceptual understanding. Again, the importance of hands-on engagement is critical to the study of science. SREB recommends creating a STEM clearinghouse of resources schools could use to get students excited about STEM fields. In the report, Maryland is cited as having a Pacesetter State Initiative because it has developed a STEM resource clearinghouse. This initiative was done in partnership with the Maryland Business Roundtable for Education, and the website for STEMnet is http://www.thestemnet.com/.

The Critical Middle report recommendations also emphasized STEM instruction, stating that middle schools should provide students integrated math, science, and technology instruction with a focus on problem-solving and real-world application. To accomplish this, two strategies are provided: provide cross-disciplinary experiences in the STEM subjects; and encourage and support partnerships with businesses to allow students to apply their learning and interact with scientists, engineers, and information technology experts, among others. The report also describes STEM literacy as defined by each of the following components:

- Scientific Literacy: The ability to use scientific knowledge and processes (in physics, chemistry, biological sciences, and earth/space sciences) to understand the natural world and to participate in decisions that affect it.
- Technological Literacy: The ability to use, manage, and assess technology; understand how new technologies are developed; and analyze their effect on us, our nation, and the world.
- Engineering Literacy: The understanding of how technologies are developed via the engineering-design process.
- Mathematical Literacy: The ability to formulate solutions to a variety of mathematical problems, analyze those solutions, and communicate them effectively.

In the survey, local systems were asked if they had middle schools that are providing an integrated STEM program. Only three systems indicated that they do not have an integrated STEM program.

Maryland has made significant advances in promoting STEM education beginning in the elementary grades. With RTTT funding, MSDE was able to hire STEM specialists to develop curriculum resources for Pre-Kindergarten – high school. These resources include guidance documents, STEM-centric units and lessons, and an additional 750+ STEM resources are being vetted. All of these resources may be found on https://msde.blackboard.com.

RTTT funds were also used to partner with the Maryland Business Roundtable for Education to create more resources for STEMnet. MSDE provided professional learning opportunities for STEM in all grade bands during the summers of 2011, 2012, 2013, and 2014. The College and Career Ready Conferences planned for the summer of 2015 actually focus on STEM. Numerous local school systems have implemented magnet programs for STEM at the middle level, and this initiative continues to expand.

In 2013, the Maryland State Board of Education adopted the Next Generation Science Standards (NGSS). These standards increase the rigor in science instruction across all grade bands, and include science and

engineering practices, as well as literacy standards aligned to Maryland's College and Career Ready Standards. MSDE has convened a leadership team that includes educators from across Maryland, higher education and other stakeholders. This team is working to develop an implementation plan for the new science standards so that every local system will be prepared to fully implement the Maryland College and Career Ready NGSS by 2016-2017. Plans also include the development of curriculum resources that can be used or can serve as models for local school systems.

The following resources, in addition to resources posted on local school system websites, and Maryland Blackboard Learn, may support middle schools as they continue their work.

http://www.thestemnet.com/
https://www.teachingchannel.org/
http://www.ed.gov/stem
http://stem.utah.gov/for-educators/website-resources/
Ask a Mentor-askamentor.org
TIES-Teaching Institute for Excellence in STEM www.tiesteach.org
NASA- www.nasa.gov/audience/foreducators/5-8/#.VJLYJNLF

Section II: Professional Development

- **Section Description**

This section of the report focuses on three of the ten recommendations from the SREB Report: A New Mission for the Middle Grades: Improving teachers' expertise in their subjects, especially in math and science, Professional development as a continuing process for principals and teachers to improve their instructional practices incrementally, according to student's needs, and Finding and preparing school leaders specifically for the middle grades who can motivate teachers and students. We will begin with sharing an overview of the recommendations made in the SREB report, and then share how these recommendations is linked to Maryland's 2008 Report, *The Critical Middle*, and 2014 survey data revealing how Maryland local school systems think our state is progressing on the recommendations. As a final point, this report will provide examples of best practices around these recommendations, including links to websites and resources to additional information and resources.

- **Improving Teachers' Expertise in their subjects, especially in math and science**

The SREB report recommends that states, districts and schools can prepare middle school principals and teachers to improve student readiness for college and careers by requiring as a basis of initial or renewed certification that principals and teachers are prepared to implement the Common Core State Standards. The report contends that seventh- and eighth-grade teachers should have high school certification in the subject they teach, especially in math and science. The SREB report contends that teachers need greater depth of knowledge in their subjects because middle school teachers are required to provide a strong foundation for subject studies, especially in science and math courses, the gateways to many career opportunities and to success in further study. For basic certification renewal, SREB recommends requiring current teachers to demonstrate that they can implement and apply the new,

higher standards into classroom activities and student assignments at the levels of rigor necessary for students to be ready for high school.

The 2008 *Critical Middle Report* addressed ensuring teachers are prepared to work specifically with the middle-level learner with two recommended strategies. The first strategy was to establish an *ad hoc* middle-level work group within the Division of Certification and Accreditation to refine elementary and secondary preparation programs based on the National Middle School Association standards and the *Critical Middle Report* instructional recommendations and to identify the courses necessary for the recertification of middle-level teachers. The second strategy was to establish partnerships between local school systems and colleges/universities to create programs to prepare teachers specifically for middle-level education.

MSDE has formed a taskforce in collaboration with the University System of Maryland to examine methods in which college professors can provide professional learning in the form of mathematics content knowledge to elementary and middle school mathematics teachers. In addition, for the summer 2015 MSDE College and Career Readiness Conferences, mathematics and science professors will be paired with LEA master teachers to plan and deliver content knowledge professional learning to elementary and middle school teachers. MSDE is also examining a lesson study collaborative model from Virginia State Department of Education and George Mason University, where college professors and elementary/middle school teachers work collaboratively on a content based lesson study.

The Maryland Higher Education Commission (MHEC) has collaborated with MSDE with teacher and principal professional development specifically by utilizing Title IIA federal funds for Improving Teacher Quality (ITQ) to enhance teaching effectiveness of the Common Core Standards. Through this federal grant, MHEC has fostered collaboration between higher education institutions and high need LEAs regarding implementation of the Common Core Standards. In the Request for Applications, the ITQ Grant Program works to enhance teacher professional development in the participating LEAs by supporting partnership activities that provide professional development in core academic subjects to ensure that school leaders and teachers have subject matter content knowledge in the academic subjects that they teach. It also works to ensure that principals have the instructional leadership skills to help them work more effectively with teachers to help students master core academic subjects. ITQ Projects assist LEAs, their teachers, school leaders and principals by delivering sustained, high-quality professional development activities to assist with use the new Common Core State Curriculum for Math and Language Arts (http://www.msde.maryland.gov/MSDE/programs/ccss/) and/or challenging State academic content standards for all other content areas (http://mdk12.org/instruction/curriculum/index.html). MHEC has met and continues to meet with the MSDE's Division of Instruction and division of Division of Career and College Readiness, Maryland's school districts professional development plan.

The University of Maryland in response to the 2008 *Critical Middle Report* developed a Middle School Program partially funded by (USDoE) partnership between University of Maryland and Prince George's County Public Schools. This program, Maryland Science and Mathematics Resident Teacher (MSMaRT) began in 2009. To date, forty-nine teachers have completed the program. The University also offers

two other middle school programs, a Bachelor of Science Middle School Education degree with mathematics and science concentration and a Master of Middle School Education degree.

MSDE, MHEC and Maryland local school systems all acknowledge the significant value of professional development for teachers and leaders in middle schools. The following websites are in addition to the resources posted on local school system websites, and Maryland Blackboard Learn that support middle school professional development.

http://www.smu.edu/Simmons/Research/RME
http://www.bushcenter.org/education-reform/middle-school-matters
http://annenberglearner.org
http://www.thinkport.org/career/course/msde.tp
http://www.mpt.org/education/

❖ **Professional Development as a Continuing Process**

In the SREB Report, a redesign of professional development for middle grades educators is recommended. The Report recommends that the makeover could be achieved by:
1. Changing overall practice of professional development from an event to a continuous learning process.
2. Requiring professional development for implementing the Common Core State Standards, particularly in literacy.
3. Ensuring teacher and school leader preparation programs prepare educators for the new middle grades mission.

The SREB Report urges states and districts to track their professional development dollars to ensure the best results. States and districts should spend less on large-scale, consultant-led, one-day-at-a-time professional development. It recommends that each state have a long-term professional development plan (the SREB Commission recommends three years). The SREB Report states that plan should include:

- Developing in each school a teacher-leader from each discipline to work with teachers to embed the Common Core Standards into each content course.
- Supporting professional learning teams in schools with weekly common planning time to implement standards, assignments and assessments.

The 2008 *Critical Middle Report* proposes to provide all school teachers high quality professional development through two strategies. The first strategy would establish an ad hoc middle-level workgroup within the Professional Development Coordinators' Network and the Leadership Development Coordinators' Network to:

- Identify the in-depth knowledge all middle level educators need in terms of content, pedagogy, and the characteristics (cognitive, emotional, and social) of middle school students;

- Build educator capacity by engaging administrators, teachers, and central office staff in ongoing, job-embed, data-driven, systemic professional development;
- Include in recertification, in-service and college courses, and school-based learning activities the topics addressed in this report; and
- Provide consistent, embedded support to teachers at the school and school-system levels.

Strategy Two will provide educators the strategies to address the needs of advanced students, students with special needs, English language learners, and students of diverse international backgrounds.

In order to provide teachers and principals professional learning on the Maryland College- and Career-Ready Standards, MSDE has:

- Conducted 32 three or four-day regional summer academies. Every school in the state sent the principal and three to five lead teachers, including English/language arts, mathematics, STEM, disciplinary literacy, and special education. In addition, central office and members of Higher Education were in attendance. In all, 21,000 educators across the state attended.
- Trained 700 Master Teachers as facilitators for the academies. These Master Teachers became experts on the Maryland College- and Career- Ready (CCR) Standards and STEM Education. They became a huge resource to their LEAs. Many LEAs utilized the expertise of the academy Master Teachers to facilitate county-wide professional learning on the CCR Standards. A state-wide Master Teacher Network has been established.
- Created academy session content that:
    - Developed and increased teacher knowledge and understanding of best practices aligned to the CCR Standards through the use of the Maryland CCR Frameworks and the model units and lessons at the academies.
    - Focused on providing teachers and principals a deep dive into the CCR Standards as well as developing ownership, internal capacity, and sustainability.
    - Emphasized the principal as the professional learning leader in the school; observing for the instructional shifts aligned to the CCR Standards and STEM Education; and awareness of how the observation/evaluation system and SLOs work together to individualize professional growth for the teacher
    - Used Maryland CCR Frameworks and the model units and lessons as a guide and transform lessons of their own to align with the instructional shifts of the CCR Standards. Some LEAs used this project to revise LEA curriculum writing.
    - Focused on documents and assessment items from the consortium, Partnership for Assessment of Readiness for College and Careers (PARCC), as well as resources on Maryland's Blackboard Learn.
    - Developed transition plans, one each for every Maryland school during school years, 2011-12, 2012-13, 2013-14 in order to plan school-wide professional development on the CCR Standards and the content of the academies for all LEA school staff and those numbers cannot be tracked.

- Provided academy follow-up:
    - Created content specific pre-recorded webinars in ELA, STEM, mathematics, UDL, disciplinary literacy, and transition planning. Approximately 600 individual educators viewed the pre-recorded webinars in the first year of their release; however, many schools/LEAs have reported using them for faculty meetings and other staff development.
    - Created videos for ELA, STEM, math, and disciplinary literacy of elementary and secondary Master Teachers across the state of Maryland, teaching classroom lessons that were aligned to the instructional shifts of the CCR Standards. Eight full lesson videos were developed and placed on Blackboard Learn. In the first year of their release, approximately 1000 individual educators viewed the videos; however, many schools/LEAs have reported using them for faculty meetings and other staff development.
    - Developed approximately 50 live webinars, which were then recorded and placed on Blackboard Learn as individual professional learning modules. Webinar topics included ELA, math, STEM, science, disciplinary literacy, formative assessment, and others. Specific webinars were targeted for principals, central office, teachers, and parents. In the first year 3000 participants have participated in the live webinars and the recorded versions have had approximately 6000 individual views; however, many schools/LEAs have reported using them for faculty meetings and other staff development.
    - Placed all materials for the academies on Blackboard Learn for use as individual professional learning. LEAs and schools have reported using these for school-wide and district-wide professional learning. Many LEAs and schools have reported using them and requested that the materials stay on Blackboard Learn indefinitely.
    - Created 75 videos of academy sessions as stand-alone professional learning modules. These have been placed on Blackboard Learn.
    - Conducted support visits to all state LEAs. At each LEA, 2-3 schools were visited, including classroom observation on the elementary and secondary level and candid conversations with teachers and central office staff regarding implementation needs. The visits also included an Open Forum available to all teachers in the district. MSDE content specialists from English/language arts, mathematics, social studies, science, STEM, GT, ELL, and Special education attended the visits.
    - Feedback from the LEA support visits was used to inform the content of the live/recorded webinars and summer 2014 summer conferences. They also informed the focus of the gathering of additional resources to be placed on Blackboard Learn.

Strategy Two addresses the needs of advanced students, students with special needs, English language learners, and students of diverse international backgrounds. During the summer of 2014, MSDE held 8 two-day regional summer conferences; 160 distinct sessions were offered. The conference format provided educators the opportunity to differentiate their professional learning needs. Participation was

voluntary and unpaid, but open to all educators across the state. In addition, Institutions of Higher Education (IHE) participation was encouraged and IHEs attended in increased numbers. Approximately 5000 educators across the state registered and approximately 4000 attended. Conference session content was based upon feedback from the LEA Support Site visits. Sessions included English/language arts, mathematics, social studies, science, STEM, Gifted and Talented (GT), English Language Learners (ELL), and special education.

In order to encourage a change of overall practice of professional development from an event to a continuous learning process, MSDE has revised the Classroom Focused Improvement Process (CFIP), a school based professional learning program that trains teachers in the use of data dialogue and data analysis (formative and summative) to inform instructional decisions. MSDE has also provided an online course and online modules to be used to train teachers in the use of CFIP. MSDE is also encouraging the use of Professional Learning Communities and Communities of Practice, as well as other job-embedded professional learning activities. MSDE will also soon be launching a Maryland College and Career Readiness Professional Learning Program that will allow educators to get credit for these types of professional learning activities.

Institutions of Higher Education continue to collaborate with local school districts to help teachers make the connections between content knowledge, instruction and the real world.

- **Finding and Preparing School Leaders for Middle Grades**

The SREB Report recommends that middle grades principals be strongly supported by their districts to be instructional leaders who are knowledgeable of what is to be taught and of excellent instructional practices. This report also recommends that leadership preparation programs be redesigned to prepare principals to inspire and support middle grades teachers and staff in establishing higher expectations, implementing more rigorous and challenging standards and curriculum, and analyzing and interpreting data. Finally, the report proposes that the district or a cluster of small districts collaborate with universities in selecting the right leaders for the middle grades and in designing preparation programs with a balance of classroom and field-based learning.

The 2009 Critical Middle Report recommends that districts establish a leadership team in every middle school, led by a principal who is an instructional leader. This report offers two strategies to achieve this recommendation. Strategy One advocates that each middle school be staffed with a highly qualified principal who is the instructional leader. Strategy Two endorses building capacity of the leadership team to improve student achievement and adult learning. According to survey data, school systems reported that 81% of their middle schools have school leadership teams led by a principal who is an instructional leader. The remaining systems reported that some of their middle schools have school leadership teams led by a principal who is an instructional leader.

Additional Recommendations beyond SREB and Critical Middle:

A. Middle school teachers have a specific endorsements added to their teaching certificates. As part of that endorsement, there should be a endorsement, "new" and "existing" teachers have specific content knowledge (deep content knowledge along with pedagogical strategies) pertaining to the content subject they teach. Acknowledgment of this knowledge could be obtained in a course, workshop or portfolio and will be indicated on the individual school teacher's teaching certificate. This knowledge should not replicate a secondary educator's certification requirements but could be included on secondary certificates for high school teachers who are involved with remediation and special education teachers who would benefit from this knowledge.

B. Middle school teachers participate in on-going job embedded professional development with a possible second planning period, (topics could include: team planning, content lesson planning, and interpreting data from classroom, district and state assessments with a teacher leader, mentor or coach).

C. Middle school teachers receive continuing and embedded professional development on middle school adolescents to be used to understand and better reach their students at the school level.

D. New teachers as well as teachers "new" to their content subject or grade level need mentors/coaches at the school level throughout the year as well as time prior to the opening of school to learn the new content and needs of middle school students.

E. Middle school teachers' professional development should include a segment on how to interact with parents and guardians. It is important that teachers reach out and engage parents. According to survey data collected from Maryland school districts, 73% of the systems work with institutions of higher education to inform teacher preparation programs around middle level learners and 69% of the systems provide professional learning opportunities that focus specifically on the needs of middle level educators.

PART III: Stakeholders

This section of the report focuses on three of the ten recommendations from the SREB Report: A New Mission for the Middle Grades: Student Learning that is Research-Based, Teaching At-Risk Students, and Giving Parents and Students the Information and Experiences They Need. First, we will share an overview of the recommendation made in the SREB report, and then we will share how that recommendation is linked to Maryland's 2008 Report, *The Critical Middle,* and also survey data from Maryland local school systems on how they believe they are progressing on the recommendation. Finally, we will provide examples of best practices around these recommendations, including links to websites and resources where additional information is available.

❖ **Student Learning that is Research-Based**

The SREB recommends that school districts and states stop doing what doesn't work, meaning that schools and states are using watered-down curriculum at a slower pace, when instead an accelerated learning experience with extended time and richer instruction so *all* students can meet standards. Schools and districts should cease failing students and instead help educators understand and support students to meet higher standards. The SREB recommends that highly qualified and well prepared principals should be given the authority to employ, support, remove and replace staff. These principals should work with their staff to develop and implement an improvement plan to achieve state and districts' mission.

In the 2008 *Critical Middle Report,* there are strategies provided to schools in partnering with students and parents and using student data to guide educational decisions. By regularly assessing student learning and using assessment results to guide instructional, course-taking and organizational decisions, research indicates that when this is done frequently, systematic assessment can have a profound effect on student achievement. A meta-analysis of nearly 8,000 studies concluded that "the most powerful single modification that enhances achievement is feedback." It's important to understand that this form of feedback is done by the educator explaining the correct answer and/or asking students to refine their answers, not telling students they are right or wrong as this may have a negative effect on student learning. The *Critical Middle Report* explains that schools are to emphasize students' mastery of essential skills. The report recommends that schools create progress reports to communicate to educators, students and parents, students' progress indicating mastery of course concepts and skills. The skills are recommended to capture mastery at the highest levels of cognition: analysis, synthesis, and evaluation. Related to the SREB recommendation that states and schools stop doing what doesn't work, the *Critical Middle Report* explains that schools should partner with students and parents and use student data to guide educational decisions. A key factor to student success is through regular and meaningful communication with parents and students. When schools engage parents, it builds a partnership between stakeholders keeping parents involved in their child's education. The partnership also helps parents become comfortable partners with their child's school and staff. When students are engaged in taking a leadership role in, for example, parent/ teacher conferences, it can build student confidence in their own learning and most important, taking responsibility for their own learning.

According to survey results, 73% of the school systems report that they have a strong parent/school/student partnership on using student data to guide educational decisions.

MSDE and Maryland local school systems recognize the importance of student learning that is research-based for all middle school students. The following websites are just a few that provide resources, in addition to resources posted on local school system websites, and Maryland Blackboard Learn, may support middle schools as they continue their work.

High Standards & Expectations:
http://ctserc.org/s/index.php?option=com_content&view=category&id=34:high-standards&Itemid=138&layout=default
http://www.edutopia.org/blog/new-era-student-assessment-bob-lenz
http://www.edutopia.org/assessment-guide-importance
https://k12teacherstaffdevelopment.com/tlb/why-use-formative-assessment-in-learning/

Strong Leadership:
http://ctserc.org/s/index.php?option=com_content&view=category&id=35:strong-leadership&Itemid=139&layout=default
http://www.edutopia.org/big-ideas-better-schools

Project-Based Learning (student engagement):
http://www.edutopia.org/stw-project-based-learning-best-practices-new-tech-research
http://www.edutopia.org/project-based-learning

Parent Involvement:
http://www.edweek.org/ew/issues/parent-involvement/
http://www.edutopia.org/blog/community-parent-involvement-essential-anne-obrien

- **Teaching At-Risk Students**

The SREB recommends that schools and states identify middle grades students likely to drop out of school and to intervene. According to Robert Balfanz, a Johns Hopkins University researcher, there are three conditions of sixth grade students who are predicted to drop out of high school: *chronic absenteeism, poor behavior,* and *poor grades*. Research shows that when schools are attentive to these warning signs, the dropout risk can be reduced. Remembering that the SREB recommends that schools and states stop doing what doesn't work, it recommends that schools establish an intervention program with extended learning time for students at risk of dropping out, instead of substituting regular classes with remedial instruction and poorly taught extended-time programs that dumb down the material. It is recommended that states work with school districts to ensure that stronger interventions are in place to offer students with personalized, rich and engaging learning experiences with extended time to reach the high standards that are in place. It is imperative that these courses are taught by highly effective teachers with a record of success in teaching struggling students. At-risk students need the *SAME* rich learning experiences as the best students often enjoy. These learning experiences, for example consist of inquiry-based science courses, rich social studies classes, and project-based technology labs that provide a foundation for math and literacy. Again, these experiences come with extended time and additional support for at-risk students to meet higher standards.

In the 2008 *Critical Middle Report,* preparing all students for 21st-Century success is providing them with individualized instruction. It recommends extending the middle school day and school year as dictated by the needs of the learner. Students need instruction that is driven by student performance. This gives

struggling students the chance to master the content and at the same time, gifted students time to take on additional challenges. However, neither of these successes can happen without an extended learning time and more flexible scheduling. In addition to extended learning, educators need to use assessment to guide instruction for student mastery. Tying mastery of content skills to consistent feedback and extended instructional time, the *Critical Middle Report* recommends that schools develop flexible schedules that provide adequate time for students to master concepts and skills and for teachers to collaborate. Middle schools should support structures and practices that guide student learning; how and why they learn. Social and emotional learning is imperative at the middle school age. The *Critical Middle Report* expresses that schools that have after-school programs that are beneficial have programs that are *not* focused strictly on remediation, but rather programs attending to students' developmental outcomes. These programs offer relationship-and skill-building experiences, provide both intellectual and physical challenges, at the same time providing a wide variety of enriching activities. According to survey results, 81% of school systems report that their middle schools provide instruction in skills needed for school success other than content skills, and 62% report that their middle schools have developed flexible schedules to provide time for students to master concepts and skills and for teachers to collaborate.

MSDE and Maryland local school systems recognize the importance of teaching middle school at-risk and high achieving students and providing them the time and help needed to succeed. Survey data recognized that there is still much work to be done. The following resources may support middle schools as they continue their work.

Extended Day Learning:
http://www.schoolfunding.info/policy/programs%20that%20work.php3
https://www.americanprogress.org/issues/education/report/2014/06/09/90980/new-york-expanding-time-increasing-opportunities-for-achievement/
http://www.readingrockets.org/article/more-schools-turn-extended-days

Assessing and Feedback:
http://ctserc.org/s/index.php?option=com_content&view=category&id=34:high-standards&Itemid=138&layout=default
http://www.edutopia.org/blog/new-era-student-assessment-bob-lenz
http://www.edutopia.org/assessment-guide-importance
https://k12teacherstaffdevelopment.com/tlb/why-use-formative-assessment-in-learning/

Flexible Scheduling for Schools:
http://www.ascd.org/publications/educational-leadership/nov95/vol53/num03/The-Power-of-Innovative-Scheduling.aspx
http://www.centerforpubliceducation.org/Main-Menu/Organizing-a-school/Copy-of-Making-time-At-a-glance/Making-time-What-research-says-about-re-organizing-school-schedules.html

- **Giving Parents and Students the Information and Experiences They Need**

According to the SREB, teachers who are effective working with at-risk students can help accelerate students' learning in all content areas by working with students toward different goals. These goals

include teaching habits for success such as study skills, organization, goal setting, and time management. These teachers and school staff also inform parents of students' progress so that parents can be supportive and teachers help students in exploring their interests and career goals. These educators also help students understand what kind of paths to take to meet their interests and career goals. The SREB recommends that students develop an academic and career plan to ensure that each student is focused on the future. It is important to include school counselors in this movement with at-risk, and *all* students for that matter. Counselors can help middle school students develop these academic and career plans, along with their teachers. Schools should include career assessments, interest inventories and opportunities for students to explore different career paths within the classroom and community. These experiences can help students identify real issues and find opportunities to serve others.

The Critical Middle suggests that by regularly assessing student learning and using assessment results to guide instructional, course-taking and organizational decisions, research indicates that when this is done frequently, systematic assessment can have a profound effect on student achievement. The report says that a "learning profiles" with the assessment, benchmark and goal data are a key resource and should be accessible to parents and students. One recommendation in the *Critical Middle* is that schools schedule a minimum of three transition conferences with students and parents. When schools engage parents, it builds a partnership between stakeholders keeping parents involved in their child's education. The partnership also helps parents become comfortable partners with their child's school and staff. When students are engaged in taking a leadership role in, for example, parent/ teacher conferences, encouraging goal setting, and making their own decisions, can build student confidence in their own learning and most important, taking responsibility for their own learning. *The Critical Middle* explains that schools need to have programs in place that provide support, accelerated and enriched instruction to advanced learners. Advanced learners are also at-risk at becoming disengaged from boredom when made to follow the curriculum that is also delivered to their same-age peers. Enriched learning deepens students' understanding through authentic inquiry, research, creative production, and the real-life application of knowledge. In addition to enriched learning, advanced learners should also have the ability to partake in accelerated curriculum. This acceleration and enriched learning is an efficient way to match curricular complexity to the advanced students' readiness and motivation. According to survey results, local school systems report that 96% of their middle schools provide accelerated and enriched instructional pathways for advanced learners.

Section IV. Summary

The task force was asked to study and analyze the SREB report. In addition, the task force studied and analyzed the 2008 Maryland Critical Middle Report. Based on the information provided by both reports, the task force invited speakers to share information on topics identified within the reports. A survey on programs already in place in Maryland middle schools was developed and given to all 24 local school systems in Maryland. Twenty-three of the twenty-four systems responded.

The task force determined that while the findings and recommendations were appropriate, local school systems were already working to implement the recommendations, although there are certainly differences in how local school systems are accomplishing this. This report reflects the work that is being done by the state and local school systems around middle level education and resources that systems could use to advance their work around these recommendations. The task force felt strongly that additional legislation and policy initiatives were not needed.