The Southern Regional Education Board is a nonprofit and nonpartisan organization based in Atlanta, Georgia, that works with state leaders and educators to improve education. SREB was created in 1948 by Southern governors and legislatures to help leaders in education and government work cooperatively to advance education and improve the social and economic life of the region. SREB has 16 member states: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia and West Virginia. Each is represented by its governor and four gubernatorial appointees. For more information, visit www.sreb.org.

This report was developed by Gene Bottoms, SREB senior vice president, and Sondra Cooney, former director of *Making Middle Grades Work*, in consultation with Commission members and other SREB staff.
It is a sobering reality that 25 out of 100 rising ninth-graders in the SREB region do not graduate from high school on time — and the chance that a ninth-grader is on the way to college by age 19 is less than 50-50. It is time to change those numbers.

That’s why this report from the Southern Regional Education Board (SREB) Middle Grades Commission begins with a plain truth, plainly stated.

*Middle grades schools must have a new mission: to prepare more students for success in rigorous high school courses — and, ultimately, for most students to graduate and proceed to college or technical training. Otherwise, the students — and state economies — cannot meet the expectations of a changing, more competitive world.*

Governor Beverly Perdue of North Carolina, who served ably as Chair of the SREB Middle Grades Commission, and the other distinguished political and education leaders who served with her leave no doubt about the urgency to define new policies and actions for system leaders and middle grades educators across the region. They point out that if states are serious about raising graduation rates and preparing more students for postsecondary study, **work has to begin now on the middle grades.**

Their report offers a comprehensive roadmap for change, based on all we now know about effective teaching and leadership practices “in the middle.” In it, the Commission proposes a framework with six goals:

- Communicate and clarify the mission in every middle grades school.
- Focus the middle grades curriculum on literacy and STEM disciplines.
- Identify middle grades students likely to drop out of school and intervene with increased learning time and accelerated instruction.
- Require middle grades students to complete individual academic and career plans.
- Refocus professional development for middle grades teachers, counselors and school leaders.
- Hold districts and schools accountable for meeting the middle grades mission.

To reach these goals, we must turn new attention to the middle grades and acknowledge that they are not just a way station for adolescents until they enter high school. Instead, middle grades are the **vital center — the make-or-break point** — of our K-12 public school system. If we do not cultivate confident, willing learners in the sixth, seventh and eighth grades and give them a rock-solid foundation of skills and knowledge, hundreds of thousands of young people will go on to falter in high school, college and careers, and our decades-long effort to improve all schools and secure our future progress and prosperity will have failed.

**Creating a Passion for Learning**

What will it take? The answer may surprise you: a sharp focus on the students themselves. All educators and education leaders want students to succeed, but sometimes it is all too easy to lump them together by age groups as we focus on the policy apparatus that we want to perfect.
In the case of middle-graders, this is particularly counterproductive. These “tweens” are making the difficult journey from childhood to young adulthood. In our high-pressure culture, the dominant message they are likely to hear from adults is: “You must prepare yourself for what comes next.” And while as adults we know how true this statement is, all the evidence tells us that they will not and cannot completely share our perspective. They are busy with the work right in front them — fitting into peer groups, discovering their interests, and learning the latest technology and video games — and what 12- or 13-year-olds find engrossing and motivating is rarely what adults believe should be their highest priorities.

This report asserts that as we work to transform our middle grades schools, we cannot allow our long-term policy goals to get in the way of what research tells us is the best way to promote academic learning and analytical, creative thinking among young adolescents — and that is by implementing school and classroom practices that tap into what they care about and want to accomplish right now.

We can find many examples of middle grades teachers and principals across the SREB region and the nation who understand this and are capitalizing on the curiosity and passionate interests of “tweens.” These teachers are helping students master subjects by connecting the core content to current, real-world events and activities so that students expand their curiosity and want to ask more questions, find the answers, read more and write about what they’ve learned.

This is exactly the kind of engaging, high-quality teaching — focused on both new, rigorous core state standards and 21st-century skills — that the SREB Middle Grades Commission envisions in middle grades schools across our region. The Commission believes we must achieve a better balance among standards, instruction and accountability that taps into the particular interests and dispositions of young adolescents. We have an unprecedented opportunity to engage them in truly relevant educational experiences that can ignite their passion for learning for a lifetime.

Keep in mind the Commission’s call for a rigorous but not rigid middle grades curriculum, for focused but not lock step student academic and career plans, for mission-based but not one-size-fits-all professional development. Most of all, heed the Commission’s warning that we must give equal status and equal attention to middle grades schools in the agendas of our states and local school districts.

We have set ambitious goals in our region for raising high school graduation rates, strengthening students’ readiness for college and careers, expanding the pool of students interested in pursuing STEM courses, and increasing the numbers of residents with postsecondary credentials. The SREB Middle Grades Commission is telling us — very frankly — that we will not meet those goals if we do not accelerate the quality of teaching, the leadership and the level of learning in the middle grades.

David S. Spence
President
Southern Regional Education Board
Introduction:
Why States Should Improve the Middle Grades Now

Middle grades schools must have a new mission: to prepare more students for success in rigorous high school courses — and, ultimately, for most students to graduate and proceed to college or technical training. Otherwise, the students — and state economies — cannot meet the demands of a changing, more competitive world.

The 16 Southern Regional Education Board (SREB) states have made some progress in raising middle grades achievement in past years but have never put their full weight and focus behind such a singular goal for the middle grades.

Three compelling forces suggest that now is the time for state leaders to support fundamental changes to the middle grades:

The nation’s civic and economic life has changed. America’s economy and its employers demand more of residents today than ever before. The fastest-growing job segments from 2008 to 2018 will be those requiring a bachelor’s degree, associate’s degree or postsecondary technical certificate, the SREB Fact Book on Higher Education 2011 reported. As lower-skill jobs grow less rapidly, schools must help students gain the know-how to succeed in a complex global economy.

Far too few eighth-graders score at or above the Proficient level on the National Assessment of Educational Progress (NAEP) in SREB states — 28 percent in reading and 29 percent in math in 2011. More than one-fourth (27 percent in reading and 30 percent in math) score below Basic. Those who perform at the Basic level have only partial mastery of the grade-level knowledge and skills needed for high school success. The economy of bygone years might have been able to absorb these individuals — many of whom become high school dropouts — but the economy ahead cannot.

Middle-graders can accelerate their learning into high school, college and careers only if they build a strong foundation at this critical point in the education pipeline. In a world of instant communication, with easy access to an international talent pool, it is no exaggeration to say that the long-term success of America’s state and national economies can be assured only if we give them that foundation — and remake today’s middle grades schools into higher-performing middle grades schools.

New research has revealed the key to middle grades achievement. Recent evidence makes clear that each middle-grader’s personal, individual engagement in school is essential to his or her success. Studies repeatedly show that students who lose interest in school in the middle grades are likely to flounder in ninth grade — and later drop out. Yet developmental and brain research confirms that by the middle grades, students are capable of making connections between their academic work, their personal interests and career aptitudes. Middle grades professionals can use these connections to help students prepare for success in high school and postsecondary studies. It is time for middle grades schools to capitalize on this.
Middle grades schools can help raise student achievement by creating an intensely engaging school experience that helps middle grades students focus on the future (including potential careers) and chart possible paths to reach their goals. Such learning is active, hands-on and more flexible. It encourages creative thinking and problem solving by appealing to adolescent passions and interests. Done right, by teachers and school leaders who have mastered the instructional strategies that work best with “tween” learners, it can help to build a culture of college-going, even at this early stage. But few states have organized the middle grades in ways that routinely make this kind of learning happen. Research now provides good direction for how to do it.

The nation’s push for higher standards increases the urgency. 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 Organisation for Economic Co-operation and Development. America is feeling the intense pressure to improve — and the national push for raising academic standards requires an accelerated curriculum for middle grades students. New accountability rules call for high schools to improve graduation rates at a faster pace. New national and regional goals also call for more residents of every state to earn postsecondary credentials so they can earn a higher living wage. We cannot achieve these goals if students disconnect in the middle grades and never even make it to a high school diploma.

Equally important, the new Common Core State Standards developed by the Council of Chief State School Officers and the National Governors Association (and other new, rigorous state standards) are overall more rigorous than the state standards they are replacing. They require teachers to provide better classroom instruction, to have deeper knowledge of their subjects, and to use instructional practices that motivate students more than ever before. The new standards require new state assessments with clear performance levels leading students to readiness for high school. They also require sharply focused, data-driven professional development for teachers and school principals that results in improved instruction and student learning. At the same time, the push for more high school and postsecondary credentials means states are seeking to educate a greater proportion of all residents to higher levels than ever before. These actions, taken together, cannot be effective without greater gains in the middle grades in bringing students to established standards.

SREB states should act now to align the mission of the middle grades with these needs. Governor Beverly Perdue of North Carolina, 2010-2011 SREB Chair and the Chair of the SREB Middle Grades Commission, recently urged SREB state leaders to make middle grades education a priority for their states: “What we do to engage today’s sixth-grade students will have serious consequences for the strength of the economy in SREB states and the nation for years to come.”

The research agrees with Governor Perdue. One indicator is higher salaries at every level of education, beginning with high school. The SREB Fact Book on Higher Education 2011 recently reported that in 2009, adults with high school diplomas earned $8,500 more per year than adults with some high school experience but no diploma. Adults with bachelor’s degrees earned $26,000 more than high school graduates. In addition, college graduates are healthier, less often incarcerated, less dependent on government services, and more often active in civic life than their less-educated counterparts.
Students and society will benefit in profound ways if states are successful in crafting a new, more purposeful mission that transforms the middle grades from a rest stop along the road to learning that it traditionally has been — into the fast lane for greater education attainment.

Preparing sixth- through eighth-grade students for a rigorous high school curriculum that leads most students to complete some level of postsecondary education will require sharp aim, hard targets and concrete numbers.

The SREB Middle Grades Commission urges SREB states to work toward these specific targets for improving the middle grades:

1. At least 90 percent of eighth-graders graduate from high school.
2. At least 80 percent of high school graduates pursue postsecondary education and training.
3. At least two-thirds of them finish a college degree or career-related credential.

How close are states to these targets right now? On a 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.

- National data reported in the SREB Fact Book on Higher Education 2011 show the median high school graduation rate in SREB states was 75 percent in 2009, 15 percentage points from the target.
- The college-going rate of recent high school graduates in SREB states in 2008 was 62 percent. Based on these percentages, about 47 percent of rising high school students have a chance of college enrollment by age 19.
- Of the full-time students who entered college in SREB states in 2003, about 53 percent graduated from public four-year colleges within six years, and less than 20 percent who entered public two-year colleges in 2006 graduated within three years.

Taking into account that fewer than half of eighth-graders go to college and that graduation rates among those who do enroll are also poor, the likelihood that the average middle grades student will graduate from college is low. Even for those who go to four-year colleges, their chances of graduating are one in four, and the chances are far slimmer for those who attend two-year colleges.

The likelihood that the average middle grades student will graduate from college is low.
These striking gaps between the targets and where we currently stand are a result, in part, of barriers such as lack of information and low expectations. SREB’s 2010 survey of more than 10,000 middle grades teachers underscores the challenge faced by policy and education leaders: Only 53 percent reported that preparing almost all students with the academic knowledge and skills needed for college-preparatory core subjects in high school is “a very important goal.” Even fewer teachers — 34 percent — reported that preparing all students to be ready for college-preparatory high school courses without remediation is “a primary mission of the middle grades.”

Just 8 percent of local-level school board members rank students’ college readiness as their schools’ top priority. The same low percentage considers preparing students for careers the top goal, according to a recent National School Boards Association survey.

It’s no wonder many educators are confused about the mission of the middle grades. In general, SREB states have not clearly defined what it means for students to be ready at the end of the eighth grade to begin challenging high school courses.

Policy-makers and education leaders must make the new middle grades mission clear. Superintendents must emphatically support principals and teachers to fulfill it. School leaders need to help teachers translate this mission into curriculum and instructional practice. The task will not be easy. It requires a vision for how the middle grades can succeed.

**Put the Vision into Practice**

A vision for remaking the middle grades means imagining them as a place of high-quality teaching — where students are challenged and motivated to learn and where all principals and teachers have a clear idea of the knowledge and skills their students need for high school.

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**Achieving the New Mission in the Middle Grades**

The new mission will be accomplished when middle grades schools help every student:

- **Achieve excellence through richer learning experiences** that allow them to explore their interests, aptitudes and talents and to relate their learning to future education and career choices and to those current interests.

- Get ready for challenging high school courses and **on track to graduate from high school**.

- Leave with a plan for **at least one year of education beyond high school**, earning some type of credential that has value in the workplace, including military service, apprenticeship programs, technical training, community college, college or other experiences as defined and approved by a state.

- **Begin the journey to become independent, productive adults** who can support themselves and a family in today’s more competitive economy.
Middle grades schools should activate students’ interests and desire to learn. Teachers should use multiple teaching and learning strategies — direct instruction, independent learning, technology-based learning, project- and problem-based learning — to engage and excite students.

Students should learn core academic subjects, but they also should deepen their understanding of academic knowledge and advance their creativity through fact-finding projects and hands-on activities in up-to-the-minute areas of interest such as space exploration, green-energy technology, architecture, nutrition and health, data analysis, and robotics. The middle grades new, rigorous core state standards in reading and math should be integrated into the visual, performing, physical and technical arts, where students can be inspired and engaged in using reading and math in new ways. Students should perform independent study, work in teams, complete projects, have challenging courses, explore their own interests, learn about postsecondary options and careers, and find help from caring teachers.

They should be schools where teachers want to teach and have the necessary support to become more effective. Middle grades teachers should have time to plan and work together so they can become more effective. They should be able to meet with other teachers to ensure the smooth transition of students, to share what works and to analyze data. This focus on student success can ensure greater attention to individual needs. School leaders should protect instructional time and work with teachers to solve teaching and learning problems. Teachers need their own educational growth plans, developed with school leaders.

They should be places where parents and families are deeply involved. Entering students and their parents should have ample opportunities to meet and discuss the expectations of the school and learn about the services available in the middle grades. Schools need to make a concerted effort to involve parents through consistent communication about their children’s progress. Parents need to be fully engaged as students prepare their academic and career plans. Educators can help students and parents realize that the decisions students make in the middle grades can have lifetime consequences.

They should be places where school principals are strongly supported by their districts to become more effective. Middle grades principals need to be instructional leaders who are knowledgeable of what is to be taught and of excellent instructional practices. They should observe classrooms and provide feedback to teachers. They should be able to identify their schools’ challenges and work with teacher teams to improve on weaknesses and build on strengths.
Appoint a State Agency Leader

The SREB Middle Grades Commission urges states to take leadership in helping districts give the middle grades new direction. It begins with a statewide mission and vision. But achieving the mission requires SREB states to establish a middle grades presence in their state education agency — identifying an individual who coordinates policy issues related to middle grades for the state, directs state evaluation and data analysis to identify and share best practices that result in greater gains in student achievement, and maintains relationships with school districts implementing improvements.

The Commission recognizes this individual’s work will not be easy, but it is critically important. States’ goals for raising high school graduation and college completion rates are in jeopardy unless the middle grades mission is understood at every level throughout the system.

Focus on Continuous Improvement

Because this work is both urgently needed and hard to do, the Commission encourages states to recognize that changing course in the middle grades will take time. But states also should set realistic timelines for improvement. No single strategy is sufficient; continuous improvement requires a comprehensive effort and multiple strategies. Making continuous improvement in the middle grades requires:

- An intensive, schoolwide focus on academic performance that advances students’ creativity and problem-solving skills.
- School principals prepared to help teachers focus on continuous improvement.
- Teacher learning teams that identify and solve problems.
- Effective professional development that meets teachers’ and students’ needs.
- Data to support quality learning aimed at helping students meet high school readiness standards.
- Increased school district capacity to support effective middle grades schools.

States should recognize it takes time to show real change in curriculum and instruction and even longer to show real gains in student achievement as measured by new state high school readiness exams. Traditionally low-performing schools in the state can take even longer to turn themselves around completely. The way forward is unrelenting adherence to continuous improvement in every school, every year.

“Many of us have talked about [changing the] middle grades schools for what seems like a 100 years. The biggest challenge we face is figuring out how not to have the same conversation again in five years. How are we going to get ourselves to stop doing what does not work?”

— Judith Rizzo
Executive Director and CEO
James B. Hunt, Jr. Institute
North Carolina
Stop Doing What Doesn’t Work

In a time of constrained resources, there must be a singular focus on what works to improve student achievement. Among the practices that states and schools should stop:

- Providing any middle grades students with a watered-down curriculum taught at a slower pace. Instead, accelerate learning for those who need it through extended time and richer instruction so that all students can meet standards.

- Giving students failing grades without determining what they do not understand. Failing grades do not motivate students to succeed the next time. Instead, help teachers assess what students do not understand and support students to meet higher standards. Teachers can give students an “incomplete” on below-standard work and then provide extra time and reteaching to ensure students can bring their work up to grade-level standards.

- Micromanaging traditionally low-performing middle grades schools by the state or district. Instead, give highly qualified, well-prepared principals the authority and support to employ, support, remove and replace staff; and to work with their school’s staff to develop and implement an improvement plan to achieve the state and district’s mission.

- Accepting small, inconsequential gains in student achievement in low-performing middle grades schools. Instead, create systems to help a highly qualified principal and a carefully chosen staff create a middle grades school based on proven practices that can make significant, steady gains for a broad cross-section of students in the school.

Provide Technology Resources

School districts, with state support, need to ensure that schools have the technological capacity to prepare students for the information and digital age and to have data systems necessary to track students’ progress. Middle grades schools need greater technological capacity, including bandwidth and equipment, to handle increasing technological demands on teachers for tools to advance student learning.

Pacesetter District: Montgomery County, Maryland

Montgomery County is one of the few districts in the country to develop a vision for effective middle grades school practices. The district has coupled that approach with setting goals for students’ readiness for high school graduation and their college and career readiness. The results show that students who passed Algebra I in the eighth grade were more than twice as likely to earn a bachelor’s degree than those who did not take it in the middle grades. The district’s overall goal is for 80 percent of students to be on track for college by 2014. Currently, 57 percent of eighth-graders make a C or higher in Algebra I.

“A structure of learning that takes greater advantage of technology to engage students would allow us to move middle schools to a much better place than we are now.”

— June Atkinson
State Superintendent of Schools
North Carolina Department of Public Instruction
More technology will enable more schools to offer “blended learning,” combining digital and online resources with classroom instruction. Blended learning offers a broad span of techniques and tools so students can supplement classroom instruction. Research from the U.S. Department of Education shows that such blending of technology with classroom instruction can improve student performance and motivation better than either classroom or Web-based courses alone.

**Identify Pacesetter Schools**

States and school districts need to identify pacesetter middle grades schools that can show the way for others. These schools should embody a strong middle grades mission, have a track record of student success, and serve students from various socioeconomic levels, community sizes and locations to ensure that struggling schools have models they can follow. States also should identify some schools as pacesetters in implementing specific aspects of a middle grades makeover. Some schools may have strong literacy improvement plans, for example, and others may have good counseling programs.

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**Step III:**

**Create a Statewide Framework for the Middle Grades Makeover**

As states work to put the elements in Steps I and II in place, each state needs a solid framework for driving the mission deep into its schools, from the capitol to the classroom. To erect this framework, the SREB Middle Grades Commission recommends that states consider six goals for remaking the middle grades:

**I. Communicate and clarify the mission in every middle grades school.**

Each state should communicate and clarify the mission for districts and schools to ensure a consistent statewide approach on key issues. States should take specific steps to ensure that the mission is understood and embraced by district leaders.

Once the statewide mission is adopted and disseminated, state education leaders should assist local school boards and districts to help all middle grades schools:

- **Develop a local plan for implementing the new statewide mission for the middle grades.**

Developing local district and school plans can start with examining policies, regulations and procedures on personnel and financial resource allocation, including support by district staff. A razor-sharp focus on student learning should call for use of resources to increase the rigor of the curriculum and to engage students actively and fully in the more demanding curriculum. State and local leaders need to ensure that classroom assessments are measuring students’ progress on new state standards (including the Common Core State Standards).
Implement higher, more rigorous standards (such as the Common Core State Standards).

This work will require better instruction, new types of assignments and tightly crafted classroom assessments. The new standards will require teachers to raise expectations for most students. Many teachers will need help with analyzing the standards and creating assignments that engage students in deeper learning. Teachers may need assistance with using formative assessment lessons and exams to determine students’ gaps in understanding major concepts and skills and to provide guided feedback for students to redo the work and achieve mastery of the content.

In order to assess student gaps in knowledge and understanding effectively, many middle grades teachers will need help in gaining a deeper understanding of the subjects they teach. Principals need to be expertly prepared in the middle grades curriculum and in proven instructional methods to ensure the standards are implemented in their schools with fidelity.

Schools will need support from experts in higher education, district staff, teacher-leaders and others. They will need academic specialists to help them develop new classroom materials and problem-based projects that are intellectually demanding and incorporate hands-on learning and technology in the classroom.

II. Focus the middle grades curriculum on literacy and the STEM disciplines.

The abilities to read and write are skills for a lifetime that should grow in level and complexity as students move through K-12 and beyond. Yet literacy instruction today occurs only in the early grades. By the middle grades, poor reading and writing skills undermine student achievement across the board.

To turn this around, states should help districts develop a middle grades literacy plan that emphasizes reading and writing in the context of every subject.

Create a literacy plan.

Middle grades students can accelerate their learning when all teachers use rigorous reading and writing assignments as part of teaching their subjects. These assignments shouldn’t teach reading in a vacuum — they should help students learn the language of the discipline they are studying, in context, so they can think critically, analyze issues and master the material. In fact, achievement in reading, writing and reasoning usually accelerates students’ rate of progress in all subjects.

In 2009, SREB’s Commission to Improve Reading and Writing in Middle and High Schools called on SREB states to make reading and writing in the middle grades and high school an immediate priority by developing state, district and school literacy plans. This work should not be ignored.

The literacy plans should enable every middle grades teacher to help students improve their reading and writing skills and accelerate learning. A well-developed school literacy plan sets clear outcomes, benchmarks and strategies for embedding reading and writing assignments into each course taught by academic and elective teachers. It also describes

“States need to make sure that reading instruction changes as students progress, from learning how to read in the early grades to learning how to tackle more complex texts in the middle grades, and then learning strategies for reading in specific subjects.”

— Cynthia Shanahan
Professor and Executive Director
Council on Teacher Education
University of Illinois at Chicago
how to track students’ progress by assessing their ability to read and comprehend a range of texts and other materials as measured by state and classroom assessments.

States should provide districts and schools with examples of assignments, classroom assessments and templates for preparing such assignments. These tools should focus on the writing and thinking tasks appropriate in each subject. Such tools can help students learn to define, describe, sequence, synthesize, analyze, compare, problem-solve and determine cause and effect.

- **Bolster student achievement and interest in STEM.**

Increasing numbers of jobs at all levels go unfilled each year because too few students pursue higher-level studies or careers in mathematics, science and technology. Employers in many industries lament that job applicants lack the needed math, computer and problem-solving skills to succeed. This STEM (science, technology, engineering and math) gap begins in the middle grades.

Current paths to algebra in the middle grades are not helping all students reach their potential. About 43 percent of today’s middle-graders take Algebra I in the eighth grade. According to 2011 NAEP results, about 52 percent of these students scored at or above the Proficient level in math. The others likely were underprepared for their eighth-grade algebra courses or were poorly taught.

### Achieving the New Mission in Literacy

Having students leave grade eight prepared to read, analyze and comprehend a range of texts and materials will require that school and district literacy plans, at a minimum:

- Identify literacy strategies that can translate the new, rigorous core state standards into literacy tasks and lessons that engage students in reading, writing, listening and speaking to learn academic content more deeply.

- Provide students who lack basic reading and writing skills with special instructional support and the time necessary to catch up before high school, and help all students read for learning.

- Spell out the specialized training that teachers need in each core academic area so they can help students read complex informational texts **at grade level**, rather than leaving teachers to find easier texts for students or remove reading assignments altogether because students have difficulty with them.

- Provide students with an accelerated English/language arts curriculum that builds their abilities to read and analyze through written products, conversations and oral presentations.

- Help school leaders and teachers understand cross-curriculum literacy standards and how these connect to different subject areas.
On the other hand, more than 20 percent of students who took basic math or pre-algebra in eighth grade scored at or above Proficient in math on NAEP. These students likely could have been successful in a higher-level math courses such as pre-algebra or Algebra I if they had been given an opportunity to study it. Placing more students on an accelerated math pathway will ensure more of them acquire the math skills needed for STEM careers.

As states align middle grades curricula with the new standards, they need to focus especially on literacy and STEM subjects. This does not mean that other subjects such as history, economics, geography and civics, the arts, physical education and health should be ignored or slighted. In fact, the Commission finds that the arts and other subjects are critical in helping students learn to synthesize diverse content into new understandings and should be bolstered by states and public schools.

Focusing the middle grades curriculum to emphasize STEM in every subject means that more students will master these skills than in the past. When taught through hands-on, project- and problem-based contexts, STEM activities can engage students’ curiosity, advance their creativity, and enable them to see the need for doing well in mathematics and science. They provide a foundation for continuing study in high school and for nearly all careers.

How can states increase STEM learning? Admittedly, many middle grades schools have insufficient numbers of mathematics teachers with an adequate depth of knowledge to teach the full range of middle grades math. To support such schools, states should consider implementing a blended learning strategy to ensure learning to high levels. Nationally recognized and validated Web-based Algebra I courses are available. One such approach for Algebra I instruction schedules students to take a Web-based course with the math teacher, supported by a classroom math teacher or facilitator who can foster the understanding of concepts and help students solve problems. Students can work at their own pace and even repeat sessions as needed at a time available to them.

The new core state standards provide a strong framework for improving math instruction. They stress not only proficiency in procedural skills, but also conceptual understanding and application of math into real-world contexts and problems. As districts, schools and teachers implement the new standards, they can refocus the math curriculum to give greater emphasis to conceptual understanding and reasoning.

What about science? In too many middle grades schools, science instruction simply is not afforded the same level of time and importance as math and reading — especially for low-achieving students. Yet it provides an important new set of content and experiences that can advance their literacy and math achievement. For many low-achieving students, science is taught simply through memorization of facts and vocabulary. Teachers who assume that students cannot read the text and related materials have failed to use the literacy strategies and assignments that would engage students in reading expository science text and summarizing their learning orally and in writing papers.

On the 2009 NAEP, only 30 percent of eighth-graders in SREB states performed at or above the Proficient level in science. Even worse, 37 percent did not reach the Basic level, and only 2 percent were at the Advanced level.

“Far too many eighth-graders lack the prerequisites for their first entree into algebra. If we do not ensure the math background and teacher support for success, we unintentionally provide a message that math success is just too hard and even unattainable. We cannot afford to let this happen.”

— Francis (Skip) Fennell
past President
National Council of Teachers of Mathematics
Professor, McDaniel College
Maryland
These data show that most students are not receiving classroom instruction that joins math, science and technology. Middle-graders need to be challenged by experimentation, problem solving and questioning aimed at awaking their creative abilities. It is no accident that middle-graders perform better in science in states that emphasize lab-based instruction. These students are at the prime age for learning through hands-on projects.

States can attract more students to STEM classes and careers by providing **more opportunities for middle-graders to discover their interests and aptitudes** in using math, science and technologies as tools for solving real problems. Creating these STEM programs can excite and stimulate young adolescents to consider future education and careers in fields that make greater use of math and science. States should consider creating a STEM clearinghouse of resources schools could use to get students excited about fields such as health, energy and environmental science. Such a clearinghouse could provide curriculum material, lesson plans, webinars, tutorials and projects to translate STEM into authentic problems for students to tackle.

In the meantime, middle grades principals can create learning teams of math, science and technology teachers to plan integrated projects that enable students to see the value of math.

States also should encourage **partnerships between universities and school districts** to help teachers make the connection between science instruction and the real world. The University of Colorado-Boulder has a team of scientists, educators and engineers developing online simulations to demonstrate how scientific concepts apply in daily life, focused on middle grades students and freely available to all science classes and students. These online simulations eliminate material and equipment costs and provide learning tools such as virtual labs. SREB states should encourage similar relationships with their universities.

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**Pacesetting State Initiatives**

- **North Carolina** has pledged to create 10 anchor schools with a STEM focus. These schools will provide exemplary curricula, serve as sites for school leadership academies and teachers’ professional development, and lead innovative teaching and learning.

- **Maryland** is developing a STEM resource clearinghouse. Teachers will share knowledge and resources with their colleagues and exchange ideas with STEM professionals.
To increase student interest and achievement in STEM fields, states and districts can:

- Elevate science instruction in the middle grades to the same level of importance as reading and mathematics. Make the science classroom a place where students use reading and math to understand complex science texts and materials, prepare written and oral reports, and analyze data from lab experiments.
- Give middle grades students greater access to lab-based opportunities.
- Require seventh- and eighth-grade math and science teachers to work toward high school certification so they can help prepare students for the advanced courses in high school.
- Place a balanced emphasis — through extensive professional development in math instruction — on teaching procedural, conceptual and reasoning skills.
- Give districts and schools tools to determine if students have the foundational arithmetic skills to succeed in an accelerated math curriculum that leads to Algebra I completion by the end of grade eight.
- Support STEM teacher teams who can design fact-finding projects that deepen students’ understanding of academic knowledge while advancing their creativity.
- Establish a STEM clearinghouse so teachers can share resources and exchange ideas with STEM professionals.
- Establish pacesetting STEM middle grades schools where teachers stress the connection between science, math and the real world and work in partnership with a university or major industries.
- Prepare principals with a depth of understanding in STEM so they can support improved STEM instruction in the middle grades.

### III. Identify middle grades students likely to drop out of school and intervene.

The task of identifying potential dropouts is straightforward. Johns Hopkins University researcher Robert Balfanz has identified three conditions of sixth-grade students that predict their dropping out of high school: chronic absenteeism, poor behavior and poor grades. He found that when schools pay attention to students with these characteristics, the dropout risk can be reduced.

A good “early warning” diagnostic assessment and intervention system can help schools counteract chronically poor student performance. States can develop a system to rescue such students that stresses identification and intervention. Such a system requires the immediate determination of students who need help so schools can provide timely assistance for them in the middle grades.
Establish an intervention program with extended learning time for students at risk of dropping out.

SREB experts know, from working with middle grades schools, the interventions that do not work effectively — substituting regular classes with remedial instruction, technology-based programs disconnected from classroom instruction and poorly taught extended-time programs that dumb down the material.

States need to work with districts and schools to ensure stronger interventions that provide students with personalized, rich and engaging learning experiences in courses taught to grade level, with extended time and support to meet higher standards. These courses should be taught by teachers with a record of success in teaching struggling students, using proven literacy and instructional strategies and well-planned support aimed at aiding students to approach or meet grade-level standards.

Such efforts require school district staff to work closely with principals and school leadership teams to diagnose problems and to help them create effective interventions to get students to grade-level standards. This is best achieved when districts focus resources on meeting students’ needs by supporting the use of formative assessment lessons to determine students’ deficits and to provide learning experiences that help students meet grade-level standards.

To meet grade-level standards, many students will need more time and support to address their deficits and master a more demanding curriculum. Districts and schools should evaluate the effectiveness of their current interventions and make major changes if they are seeing only small, incremental changes for at-risk students.

Teaching at-risk students a below-grade-level curriculum will not bring them up to grade-level standards. Low-level remedial instruction does not work and often removes students from the very courses that give them a foundation in reading and math. Instead, these students need the same rich learning experiences that the best students often enjoy — inquiry-based science courses, rich social studies classes, and project-based technology labs that provide a foundation for math and literacy — coupled with more time and support to meet higher standards.

School districts should consider giving principals the autonomy to use resources to provide students with extra learning time, using proven strategies that include:

- Lengthening the school day, school week or school year to enable at-risk students to succeed in an accelerated curriculum. Such *extended time* must be well planned and taught, preferably by the students’ regular teachers, using instructional strategies that differ from those offered in regular classes. Academic strategies that ensure at-risk students receive extra help but remain integrated with peers — and are not removed from core academic or elective courses — are important. Saturday classes often work well.

- Creating an *advocacy class* for a teacher to help at-risk students. The class is staffed by a teacher who is trained to advocate for and support students and has a broad academic background. This class can help to ensure that at-risk students are engaged with at least one adult who will work to help them meet grade-level standards and become ready for high school. Such a teacher can monitor early signs of
trouble, work with school counselors and students’ families, and provide other additional supports that students may need. This teacher can help accelerate students’ learning in all classes by working toward several goals:

◆ Support students to complete assignments by asking reflective questions and providing feedback to help students become more independent learners.

◆ Teach students the habits of success, such as study skills, organization, time management and goal-setting.

◆ Inform parents of their children’s progress and how they can be supportive.

◆ Communicate with other teachers on how they can collaborate to improve students’ performance.

◆ Assist students in exploring their interests and possible career goals and help students understand the educational paths that can help them meet their goals.

Middle grades schools also need effective counseling and advising systems led by professional counselors who are trained to work with students at this age. Counselors play an important role in: a) helping teachers become more effective mentors and advisers for struggling students; b) working with teams of teachers to teach all students the habits of success; and c) working with principals and teachers to foster in the school and community a stronger culture of high school completion and postsecondary attendance.

IV. Require middle grades students to complete individual academic and career plans.

One of the best ways to ensure that each student is focused on the future is to require each student to develop an academic and career plan. Some SREB states already do.

◆ Establish guidelines for students’ academic and career plans.

Teacher-advisers in the middle grades, led by school counselors, can help all middle grades students develop meaningful individual plans of study for high school and beyond. These plans require more than perfunctory, one-time conferences or computer-based exercises. They need to include career assessments, interest inventories, and opportunities for students to explore various careers in the classroom and the community. Such experiences allow students to identify real issues, find opportunities to serve others, and adopt roles that may help them find their niche.

By the end of eighth grade, every middle grades student must be given opportunities to explore career and education options related to his or her aptitudes and interests. The process of developing an academic and career plan should help students understand the level of commitment needed to achieve their goals. Students may change the plan several times in high school, but having a plan can keep them focused on the future and on a clear educational path.
Develop tools and materials to facilitate the development of students’ academic plans.

States can develop tools and materials for use statewide to facilitate the development of students’ academic and career plans with the involvement of the counselor or teacher-adviser, student and student’s parent. Having statewide expectations about middle grades planning means that state resources can be used more efficiently to build statewide tools and materials — including instructional guides for teacher-advisers, students and parents. In several SREB states, career-exploration tools are built into state Web portals, and the results of each student’s career inventory is stored in students’ own accounts on college and career planning websites. These tools make it easier for teachers, counselors and parents to communicate about students’ plans.

Indicate how the plans will be used.

States need to ensure that the plans are used and changed as necessary — and do not collect dust on shelves. They must become key points of discussion with students, parents and the school.

Eighth-graders surveyed by SREB were much more likely to talk with their families about selecting their high school courses than with teachers or counselors. Yet many parents have not pursued postsecondary education and may not be aware of today’s high school course requirements, college admission standards, range of postsecondary education opportunities, and changing employment opportunities and educational requirements for a good job. Counselors and teacher-advisers need to reach out to parents and guardians and let them know that academic and career planning can begin early — including college selection and financial planning.

Make these plans the focal point of transition meetings when eighth-graders are ready to begin high school. Middle grades counselors should meet with their counterpart high school counselors, along with students and their parents, to smooth students’ transition into high school. At such meetings, students’ current career and educational goals can be reviewed and revised, students’ academic strengths and weaknesses can be reviewed, and students and their parents can make final course selections for the following year.

Achieving the New Mission Through Extended Time and Student Planning

States, districts and schools can get middle grades students on the graduation track and prepared for postsecondary studies or a career by:

- Providing a more engaging and accelerated curriculum, coupled with extended learning time and teachers who teach them the habits of success and how to be persistent in their studies.

- Allowing students to explore career and educational interests and aptitudes, to connect these to future opportunities through development of an educational and career plan, and to understand the level of commitment needed to achieve their goals.
V. Redesign professional development for middle grades educators.

Quality professional development designed for middle grades principals, counselors and teachers is essential for the middle grades makeover.

Right now, many experienced teachers think they know what middle-graders can do — and often, these expectations of students are set too low, particularly in the most challenged schools. Many teachers have traditional ways of structuring their classrooms and the school day and year that do not match the needs or potential of today’s students. These teachers need to recalibrate their expectations, engage students in more demanding assignments, and provide them with feedback and reflective questions that can help the students achieve at a higher level. As the mission, vision, standards, instructional practices and assessments are changing, the middle grades teacher’s world will change, too.

A middle grades makeover means helping teachers to make major instructional changes and try new teaching practices. Without intensive professional development that helps teachers change how they teach, some teachers will never make the needed changes in their classrooms.

■ Change the overall practice of professional development from an event to a continuous learning process.

Middle grades teachers need and deserve training that is specific to the instructional problems in their own classrooms and schools. The old days of “sit and get” professional development lectures need to end. Professional development as a continuous learning process should become an integral part of the school culture, and each experience should be tied to the next. As professionals, teachers must be able to use what they learn in their classroom instruction. Principals and teams of teachers should observe each others’ classes and discuss the effect of professional development and planning activities on instructional practices and student learning.

The Commission urges states and districts to track their professional development dollars to ensure the best results. They should spend less on large-scale, consultant-led, one-day-at-a-time professional development. Rather, they should invest more in school-focused, team-based and staff-led efforts with the support of experts on issues teachers face continually. For this type of staff development to work, teachers first need help in looking at what present instructional practices are not working, and they need to take ownership of those problems. Secondly, they need help in understanding the specific changes that are needed in instructional practices.

■ Require professional development for implementing the Common Core State (or other rigorous) Standards, particularly in literacy.

Teachers need help integrating the new literacy standards into all academic and elective courses. Developing a literacy plan and tools that focus on key writing and thinking tasks and redesigning the English/language arts curriculum will not, alone, raise student achievement and help more students succeed in high school and beyond.
Each state needs a long-term professional development plan (the Commission recommends three years) to improve teachers’ capacity to help students meet the new standards. It should include:

- Developing in each school a teacher-leader from each discipline to work with teachers to embed the Common Core or other rigorous literacy standards into each course.
- Supporting professional learning teams in schools with weekly common planning time to implement literacy standards, assignments and assessments.
- Preparing principals to support teachers in implementing literacy assignments in all subjects.
- Helping teachers calibrate student assignments and classroom assessments on levels of rigor (or difficulty) by using well-developed descriptions and scales to ensure that students are engaged in intellectually challenging work.
- Creating a similar process to implement the new math standards and to create a STEM focus in each middle grades school to advance achievement.

Ensure teacher and school leader preparation programs prepare educators for the new middle grades mission.

States also need to create requirements for university-based preparation programs specifically for middle grades principals and teachers. Every teacher needs to be better prepared to work specifically with students in these grades, and every principal needs to understand what’s to be taught, how it can best be taught, how to support and grow teachers, and how to create organizational structures and schedules in which teachers can work together and make it happen.

Redesigned leadership preparation programs should 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. Most of all, principals need to be able to identify good teaching and know how to provide resources, planning time and professional learning to support it. And they need to have the skills to help teachers demonstrate good instructional practices in their classrooms.

Each state also must help each school district or cluster of districts to develop a process for identifying and recruiting teacher-leaders who could become great middle grades principals. State education agencies should expect districts to collaborate with universities’ leader preparation programs to give program candidates the right balance of scholarly study and field-based learning experiences with a well-prepared mentor. This kind of preparation is particularly important for aspiring principals preparing for jobs in high-needs schools. These principals also will need district-level support so that they stay in schools long enough to develop and carry out improvement plans.

States need to discourage districts from using the middle grades as a training ground for high school principals. Instead, they need to help districts to focus on the unique set of knowledge and skills effective middle grades principals need.
States, districts and schools can prepare middle grades principals and teachers to improve student readiness for high school in several ways:

- Require as a basis of initial or renewed certification that principals and teachers are prepared to implement the Common Core (or other rigorous) State Standards.
- Refocus professional development on a continuous, school-focused learning process.
- Have 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.

**Re-examine educator certification and renewal requirements.**

The Commission contends that seventh- and eighth-grade teachers should have high school certification in the subject they teach, especially in math and science. They need greater depth of knowledge in their subjects. These teachers are required to provide a strong foundation for studies in math and science courses in high school — courses that are gateways to many career opportunities and to success in further study.

New policies and processes for certifying or recertifying new and current teachers need to be implemented. States should review policies for approving university programs that prepare middle grades teachers to ensure that new teachers can:

- Implement the new, rigorous core state standards into instruction, student assignments and classroom assessments at a level necessary for students to be prepared for rigorous high school studies.
- Prepare instruction and classroom learning experiences that will motivate students to make the necessary effort to complete intellectually demanding work.
- Assist students to develop the behaviors of successful learners.

For basic certification renewal, require *current* teachers to demonstrate that they can implement and apply the new, higher standards into classroom activities and student assignments and assessments at levels of rigor necessary for students to be ready for high school. Currently, no state requires teachers to have training on how to help students master standards in specific subjects.
VI. Hold districts and schools accountable for meeting the middle grades mission.

It is time for states to adopt new indicators of progress and hold schools accountable for increasing the percentages of students annually who:

- **Enter ninth grade ready to succeed in challenging high school courses.**

States need to develop assessment indicators to show whether schools meet the standards. They can hold middle grades schools accountable for ensuring eighth-graders are ready for high school English, math, science and social studies.

- **Earn enough credit as first-time high school freshmen to be classified as sophomores the next year.**

States should monitor the pass rate for high school freshmen and hold middle grades schools partially responsible for improving it annually. SREB has studied the “ninth-grade enrollment bulge” — a chronic phenomenon throughout the region in which more students are enrolled in ninth grade than were enrolled in eighth grade in the previous year because they were held back. Helping more students become ready for high school courses by the eighth grade will reduce this bulge and result in fewer students in high school who are not on track to graduate with their peers — a critical factor in many students’ decisions to drop out of school.

- **Enter ninth grade having completed Algebra I to a validated performance level or having demonstrated readiness for Algebra I.**

Once the new standards and assessments are implemented, states will have a measure of college readiness for high school English and math courses. States should use this measure to hold middle grades schools accountable for students’ readiness for high school.

- **Enter ninth grade with the demonstrated ability to read, analyze and comprehend a range of text and materials.**

States need to address student literacy outcomes in the state accountability system for each discipline. State exams should assess whether students can read complex science texts and materials, understand social studies texts and resources, and read and respond to complex math texts. It is important to implement the new literacy standards in every subject and to make all teachers — not just English/language arts teachers — responsible for helping students develop literacy skills as tools for learning in their subjects. Incorporating these standards into state assessments across the curriculum will provide schools with greater motivation to emphasize reading in every class.

**But states can do more.** They can provide incentives to districts and middle grades schools that significantly improve annually the percentage of students who meet and exceed these four goals.

“We need school leaders who have a vision of what can happen in classrooms, who understand that their primary job is to have high-quality teachers in every class.”

— Vern Williams
Mathematics Teacher
Longfellow Middle School
Virginia
Commission members strongly believe that it is essential for states to recognize and reward schools for accelerating learning for more students. The members are passionate that it is not just about meeting minimum standards. It is about developing students’ creativity and problem-solving skills.

Summary Recommendations

New economic realities — such as the need for 21st-century skills to secure employment — and new research on student engagement clearly show that the middle grades are make-or-break years in students’ journey toward high school graduation, college and career readiness. States can no longer afford to let students “muddle through the middle.” They need to implement a roadmap for change now. The road to improving the middle grades calls for emphasizing:

- Common standards tied to college and career readiness.
- Student learning that is based on what works according to research and what doesn’t — and dropping programs and policies that do not improve student learning.
- Literacy as a strategy for learning in all courses.
- Improving teachers’ expertise in their subjects, especially in math and science.
- Teaching at-risk students a grade-level curriculum and providing them with the help and support needed to succeed.
- Professional development as a continuing process for principals and teachers to improve their instructional practices incrementally, according to students’ needs.
- Integrating science, technology, engineering and math (STEM) to help students discover their interests and aptitudes in emerging careers.
- Finding and preparing school leaders specifically for the middle grades who can motivate teachers and students.
- Giving parents and students the information and experiences they need to start career and college plans.
- Accountability and incentives for continuous improvement of students toward readiness for the ninth grade.

Now is the time for state leaders and educators to take these actions seriously and make a concerted, statewide effort to help all middle grades students learn the skills they need to enter ninth grade well-equipped for high school — and excited about the journey to a diploma and beyond.

“We need conversations and commitment across the SREB states about the importance of middle school and the difference a really good experience can make in a student’s life. These conversations have to occur at the school board level, with parents and across the business community.”

— Governor Beverly Perdue


The SREB Middle Grades Commission

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