

RACE TO THE TOP

Maryland Report

Year 1: School Year 2010–2011



U.S. Department of Education
Washington, DC 20202

January 10, 2012

Executive Summary

Race to the Top overview

The American Recovery and Reinvestment Act of 2009 (ARRA) provided \$4.35 billion for the Race to the Top Fund, of which approximately \$4 billion was used to fund comprehensive statewide reform grants under the Race to the Top program.¹ In 2010, the U.S. Department of Education (Department) awarded Race to the Top grants to 11 States and the District of Columbia. The Race to the Top program is a competitive four-year grant program designed to encourage and reward States that are creating the conditions for education innovation and reform; achieving significant improvement in student outcomes, including making substantial gains in student achievement; closing achievement gaps; improving high school graduation rates; and ensuring students are prepared for success in college and careers.

Since education is a complex system, sustained and lasting instructional improvement in classrooms, schools, local educational agencies (LEAs), and States will not be achieved through piecemeal change. Instead, the Race to the Top program requires that States and LEAs take into account their local context to design and implement a comprehensive approach to innovation and reform that meets the needs of their educators, students, and families.

The Race to the Top program is built on the framework of comprehensive reform in four core education reform areas:

- Adopting rigorous standards and assessments that prepare students for success in college and the workplace;
- Recruiting, developing, retaining, and rewarding effective teachers and principals;
- Building data systems that measure student success and inform teachers and principals how they can improve their practices; and
- Turning around the lowest-performing schools.

Race to the Top program review

As part of the Department's commitment to supporting States as they implement ambitious reform agendas, the Department established the Implementation and Support Unit (ISU) in the Office of the Deputy Secretary to administer, among others, the Race to the Top program. The goal of the ISU is to provide assistance to States as they implement unprecedented and comprehensive reforms to improve student outcomes. Consistent with this goal, the Department has developed a Race to the Top program review process that not only addresses the Department's responsibilities for fiscal and programmatic oversight, but is designed to identify areas in which Race to the Top grantees need assistance and support to meet their goals. Specifically, the ISU will work with Race to the Top grantees to differentiate support based on individual State needs, and help States work with each other and with experts to achieve and sustain educational reforms that improve student outcomes.

Grantees are accountable for the implementation of their approved Race to the Top plans, and the information and data gathered throughout the program review help to inform the Department's management and support of the Race to the Top States, as well as provide appropriate and timely updates to the public on their progress. In the event that adjustments are required to an approved plan, the grantee must submit a formal amendment request to the Department for consideration. States may submit for Department approval amendment requests to a plan and budget provided that such changes do not significantly affect the scope or objectives of the approved plans. In the event that the Department determines that a grantee is not meeting its goals, activities, timelines, budget, or annual targets or is not fulfilling other applicable requirements, the Department will take appropriate enforcement action(s), consistent with 34 CFR section 80.43 in the Education Department General Administrative Regulations (EDGAR).²

State-specific summary report

The Department uses the information gathered during the review process (e.g., through monthly calls, on-site reviews, and Annual Performance Reports (APRs)) to draft State-specific Race to the Top reports.³ The State-specific summary report serves as an assessment of a State's Year 1 Race to the Top implementation, highlighting successes and accomplishments, identifying challenges, and providing lessons learned from implementation to date.

¹ The remaining funds were awarded under the Race to the Top Assessment program. More information about the Race to the Top Assessment program is available at www.ed.gov/programs/racetothetop-assessment.

² More information about the ISU's program review process, State APR data, and State Scopes of Work can be found at <http://www2.ed.gov/programs/racetothetop/index.html>.

³ Additional State-specific data on progress against annual performance measures and goals reported in the Year 1 APRs can be found on the Race to the Top Data Display at www.rtt-apr.us.

Executive Summary

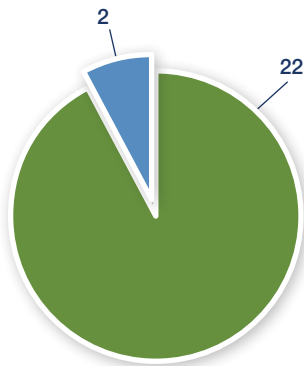
Maryland's education reform agenda

Maryland stated in its Race to the Top application that it aspires to become world class in public education through its Race to the Top initiatives. The State's ambitious reform goals include the adoption of clearer and more rigorous Common Core State Standards (CCSS) and new assessments, a new P-20 data system, a redesigned human capital framework with a new teacher and principal evaluation system, and a more cohesive approach to turning around low-achieving schools. In September 2010, the U.S. Department of Education awarded Maryland a \$249,999,182 million Race to the Top grant for education reform efforts in the State. Under the terms of the Race to the Top grant, the State must distribute at least half of the award amount to participating LEAs.

Local educational agency participation

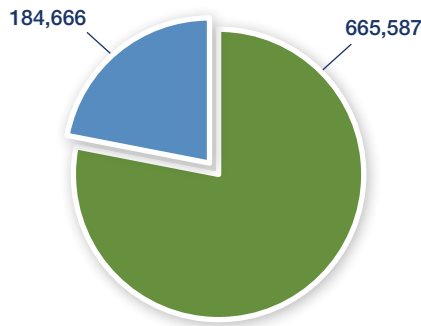
As depicted in the graphs below, Maryland reported 22 participating LEAs in its APR, as of June 30, 2011. These participating LEAs serve over 78 percent of the State's K-12 students and over 84 percent of its students in poverty.

LEAs Participating in Maryland's Race to the Top Plan



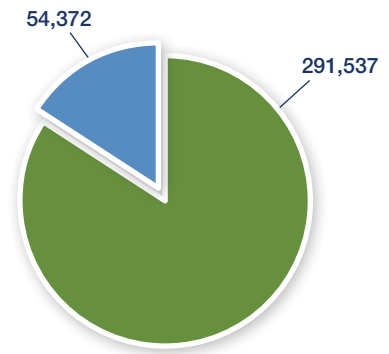
■ Participating LEAs (#) as of June 30, 2011
■ Involved LEAs (#) as of June 30, 2011

K-12 Students in LEAs Participating in Maryland's Race to the Top Plan



■ K-12 students (#) in participating LEAs
■ K-12 students (#) in involved LEAs

Students in Poverty in LEAs Participating in Maryland's Race to the Top Plan



■ Students in poverty (#) in participating LEAs
■ Students in poverty (#) in involved LEAs

Executive Summary

Maryland Year 1 summary

Accomplishments

Maryland's Year 1 accomplishments include critical capacity-building at the Maryland State Department of Education (MSDE), the development of a comprehensive Race to the Top Communications Plan, agreement by the Maryland Council for Educator Effectiveness (MCEE) on recommendations for a statewide educator evaluation system, the development of Maryland Common Core State Curriculum (MCCSC) Frameworks for mathematics and English language arts (ELA), and completion of the first Educator Effectiveness Academies for all schools across the State.

Capacity-Building at the Maryland State Department of Education.

Maryland established a Race to the Top Office within the Division of Academic Reform and Innovation under the direction of an assistant State superintendent. The staff in this newly created office is responsible for day-to-day operations of Race to the Top initiatives within the State.

Race to the Top Communications Plan. Maryland stated it has developed a comprehensive Race to the Top Communications Plan to guide its efforts to share information about the program with a variety of stakeholders. The State has developed materials that include videos on common teacher questions and the four core education reform areas, handouts on topics such as the CCSS and Race to the Top, and monthly Race to the Top updates that are available to all stakeholders and the public.

Maryland Council for Educator Effectiveness Recommendations for Statewide Educator Evaluation System. In June 2011, the MCEE presented recommendations for the statewide teacher and principal evaluation system to the Governor, the Legislature, the State Board of Education, and the State Superintendent. The State must use these recommendations to design the teacher evaluation pilot, which will take place in seven LEAs in Year 2.

Maryland Common Core State Curriculum Frameworks in Mathematics and English Language Arts. In June 2011, the Maryland State Board of Education accepted the MCCSC Frameworks in mathematics and ELA, a document based on the Common Core State Standards (CCSS) and created with the input of hundreds of Maryland educators. These Frameworks define the essential skills and knowledge that students need to know and be able to do in order to achieve the goals of the CCSS and will guide the development of curriculum resources.

Educator Effectiveness Academies. Maryland hosted the first series of Educator Effectiveness Academies during the summer of 2011. The Academies were held at 11 sites across the State and were attended by approximately 6,000 educators from all 1,500 public schools in Maryland. The Academies focused on the rollout of the new MCCSC Frameworks that the State developed for ELA and mathematics, as well as strategies for implementing science, technology, engineering, and mathematics (STEM) content. These Academies are an important part of the State's Race to the Top effort to provide increased support and high-quality professional development for teachers and principals.

Challenges

While Maryland's accomplishments demonstrate progress in implementing its Race to the Top initiatives, the State also worked to overcome challenges in Year 1. A key challenge the State faced was hiring staff to implement the Race to the Top reform efforts. Maryland reported that hiring qualified staff was a difficulty, particularly for projects related to data systems to support instruction and the statewide educator evaluation system. Late hiring resulted in implementation delays in several projects during Year 1.

The Maryland Council for Educator Effectiveness' recommendations for a statewide educator evaluation system were delayed by six months, from December 2010 to June 2011. As documented in the April 8, 2011, amendment approval letter, the duration of the statewide educator evaluation system pilot was shortened from one and one-half years (January 2011 through June 2012) to one year (September 2011 through June 2012) due to this delay.

Strategies for moving forward

Maryland reports it is well-positioned for Year 2 and beyond, based on its planning and successes in school year (SY) 2010–2011. The State has established aggressive timelines for projects that were delayed in Year 1 to ensure completion within the grant period. Maryland will also continue to support its Race to the Top initiatives by maintaining communication with and providing personalized technical assistance and support to LEAs. Additionally, during the Year 2 pilot of the educator evaluation system, the State will utilize support provided by the Department's technical assistance contractor to work closely with teacher evaluation experts who will provide guidance and support to the pilot LEAs and MSDE.

State Success Factors

Building capacity to support LEAs

Maryland's Year 1 efforts included critical capacity-building work to support and sustain its Race to the Top program going forward.

Performance management

Maryland revamped its Office of Instruction and Academic Acceleration, creating the Division of Academic Reform and Innovation, and established a Race to the Top Office within that Division. Under the direction of an assistant State superintendent, this new office manages the day-to-day operations of the 54 projects included in Maryland's Race to the Top program. This office includes a Core Team, which meets weekly to discuss cross-cutting issues and problems; an Executive Steering Committee, which facilitates communication with external stakeholders; and a Cross-Divisional Team, which meets monthly and manages issues that have impacts across projects.

The State developed and implemented a project management system to monitor the progress of Race to the Top implementation at the State level. A detailed schedule delineating specific activities has been created for each project. Project managers regularly review progress with their program directors to ensure that any risks and concerns are identified and submit monthly reports on their status. Maryland created a specialized team for each of the four core education reform areas; these teams are composed of staff members from various divisions within MSDE, and each has a corresponding implementation team.

Each participating LEA has staff dedicated to coordinating and implementing Race to the Top projects, including a Race to the Top Liaison and a Master Plan Liaison. MSDE works closely with participating LEAs Race to the Top staff to review progress and provide personalized assistance to LEAs. During Year 1, MSDE issued monitoring questionnaires to identify challenges and monitor financial management in each LEA. Project managers at MSDE assess the progress of individual LEAs through regular calls, which allow them to gauge LEA progress in reform implementation and provide individualized support as needed. Additionally, LEA representatives attend State-sponsored technical assistance sessions designed to assist them with implementing various components of the State's Race to the Top plan. For example, MSDE held technical assistance sessions during Year 1 to support LEAs as they developed their local Scopes of Work.

In accordance with its Race to the Top plan, MSDE entered into a partnership with the University System of Maryland (USM) to conduct an evaluation of the State's Race to the Top initiatives that

will inform future practices and programs in the State. As of October 2011, the State and USM agreed on what to evaluate, how the evaluation will be conducted, and the timeframe for the evaluation and associated deliverables.

Maryland experienced change in its State-level leadership during Year 1, with the retirement of its State Superintendent. The State appointed an Interim Superintendent for a six- to 12-month term while it conducts a national search for a new Superintendent.

LEA implementation and accountability

Twenty-two of Maryland's 24 LEAs agreed to participate in the State's Race to the Top plan. Although the two remaining LEAs, Frederick County and Montgomery County, are not fully participating in Race to the Top, they are involved in some aspects of the work. For example, these two LEAs participated in the Educator Effectiveness Academies and the Teacher Induction Academy held during summer 2011 and will implement the teacher evaluation system, as required by State law.

Maryland approved participating LEAs' Scopes of Work and budgets for Year 1 by November 2010, electing to provide one year of funding to LEAs at that time. For Years 2 through 4, Maryland intends to integrate the Scope of Work approval process into the State's existing master planning process. The master planning process, implemented as part of Maryland's Bridge to Excellence program in 2002, requires LEAs to annually update a plan for boosting student achievement and closing student achievement gaps. Through this process, 17 teams of approximately 15 individuals per team review each LEA's Scope of Work and Master Plan. In Year 1, the State held technical assistance sessions to introduce and provide guidance on this process, which it believes will improve the efficiency and effectiveness of communication between MSDE and LEAs. Maryland will continue to work closely with LEAs as they develop their Scopes of Work for Year 2 and beyond.

Stakeholder engagement

Key activities and stakeholders

In addition to LEA outreach, Maryland instituted a comprehensive communications plan designed to ensure that stakeholders understand the reforms that are being carried out in the State. The State created videos on the four core education reform areas and common teacher questions about Race to the Top and developed handouts on the CCSS and Race to the Top. These materials, as well as monthly updates, are available online at the MSDE website.⁴

⁴http://www.marylandpublicschools.org/MSDE/programs/race_to_the_top.

State Success Factors

Maryland considers teachers' unions to be important stakeholders and has included them in the implementation processes. For example, union representatives from Anne Arundel, Montgomery, Prince George's, Queen Anne's, and Washington Counties participated in the Performance Compensation Workgroup, which met for the first time in July 2011. The purpose of this Workgroup is to investigate best practices and share ideas for creating a performance compensation model for teachers and principals in Maryland.

The State has also involved the business community as part of its overall outreach efforts. For example, a representative from the Maryland Business Roundtable for Education is a member of the MCEE. The Maryland Business Roundtable is also developing STEMnet, an online resource for both teachers and students (see *Science, Technology, Engineering, and Mathematics* section for more information).

Lessons learned

During Year 1, the State determined that it needed more staff to assist in the implementation of Race to the Top initiatives than

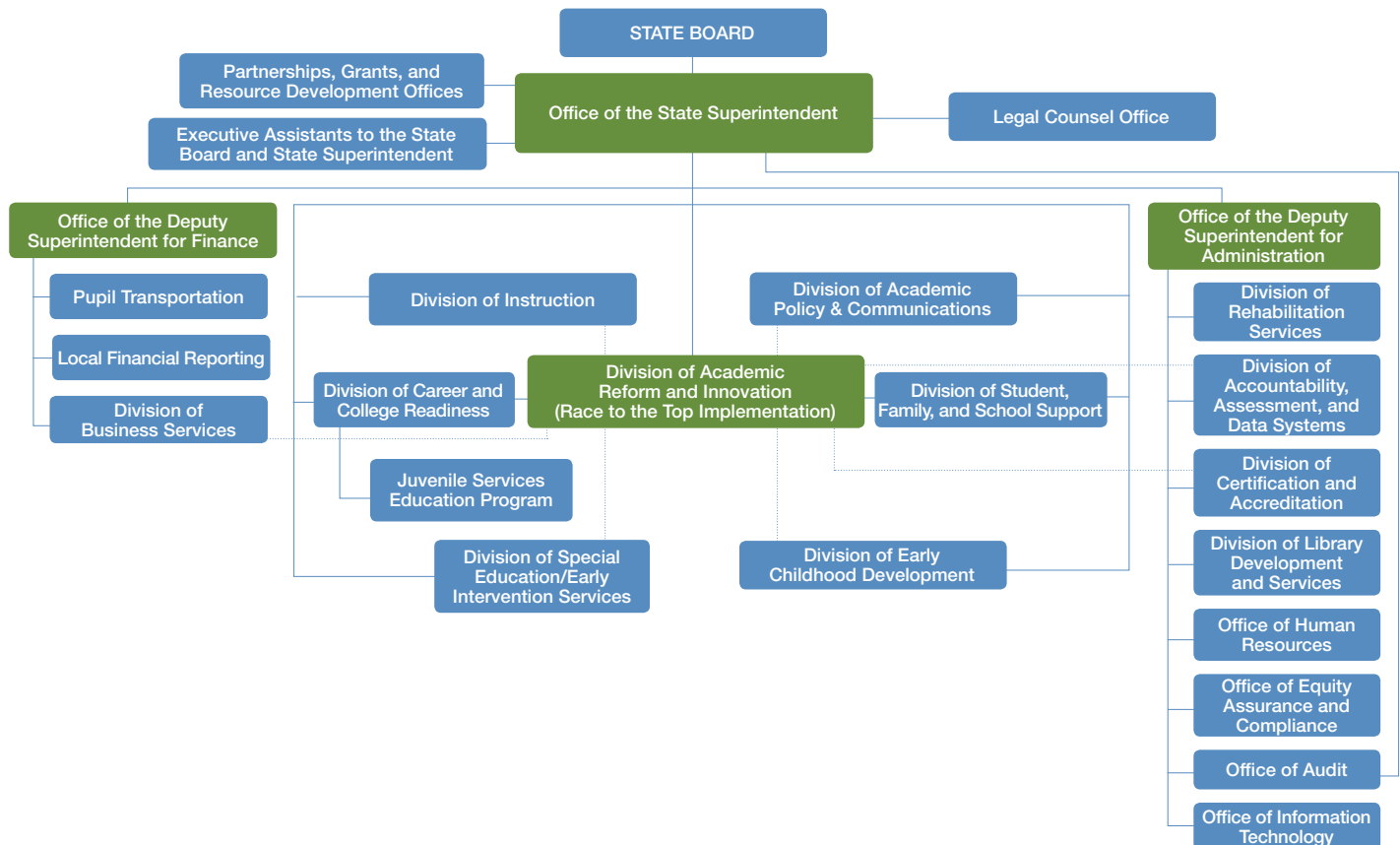
initially anticipated. Maryland added personnel, including a Communications Specialist and a Technical Program Director, in an effort to increase the effectiveness of its communications and technology programs.

Looking ahead to Year 2

In Year 2, Maryland will continue to work closely with LEAs and stakeholders to support Race to the Top implementation. The State will also continue its outreach efforts to teachers and principals to ensure they understand the benefits and impacts of Race to the Top initiatives. Finally, the State will rely on its project management system to proactively identify and solve problems related to program implementation.

During Year 2, USM will collect data and develop progress reports on ongoing evaluations of Race to the Top projects. The formative and summative evaluation tools to be developed by USM for each project will enable the State to assess the degree to which it met the goals and objectives established for each project.

Maryland State Department of Education Organizational Chart

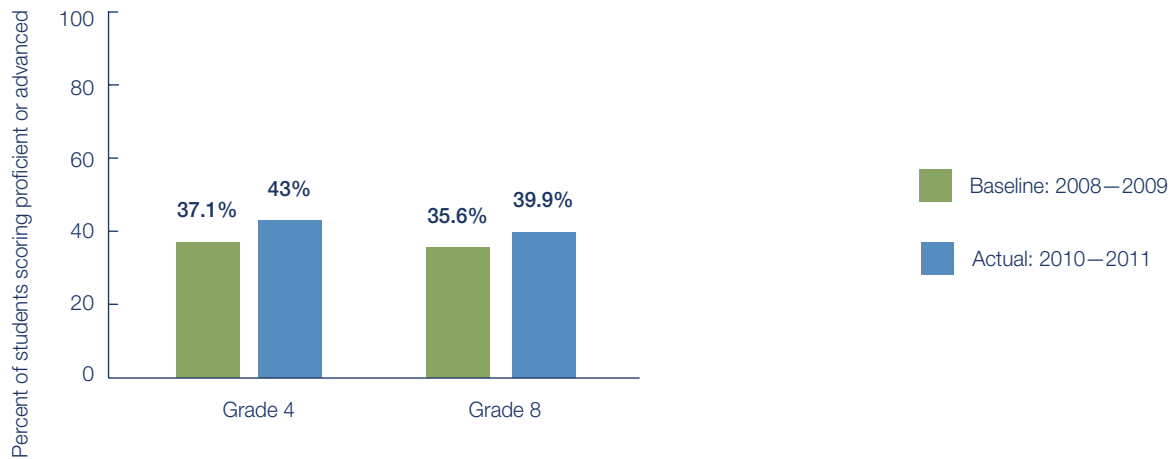


Effective Date: October 26, 2010

State Success Factors

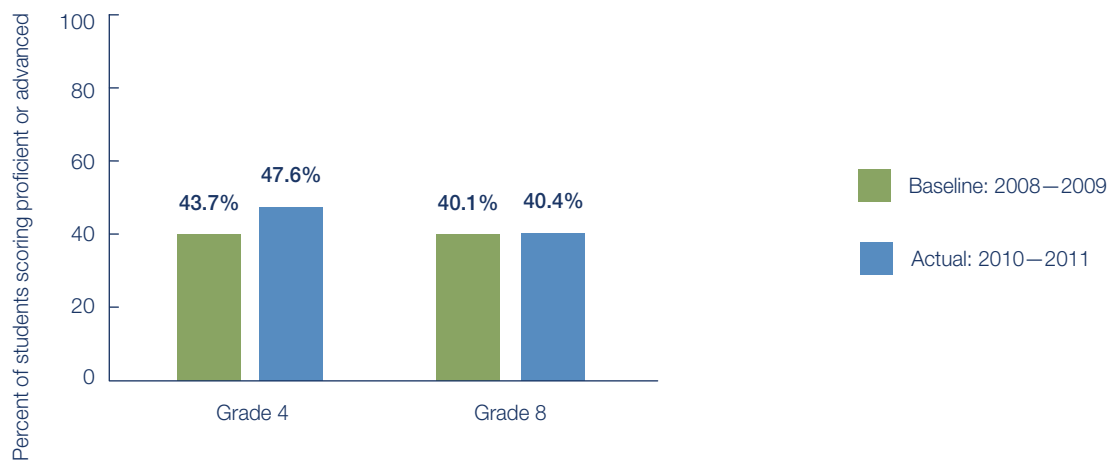
Student outcomes data

Student Proficiency, NAEP Reading 2011



*The percentage of Maryland's grade 4 students who were at or above Proficient in reading in 2011 was significantly higher ($p < .05$) than in 2009.
The percentage of Maryland's grade 8 students who were at or above Proficient in reading in 2011 was significantly higher ($p < .05$) than in 2009.*

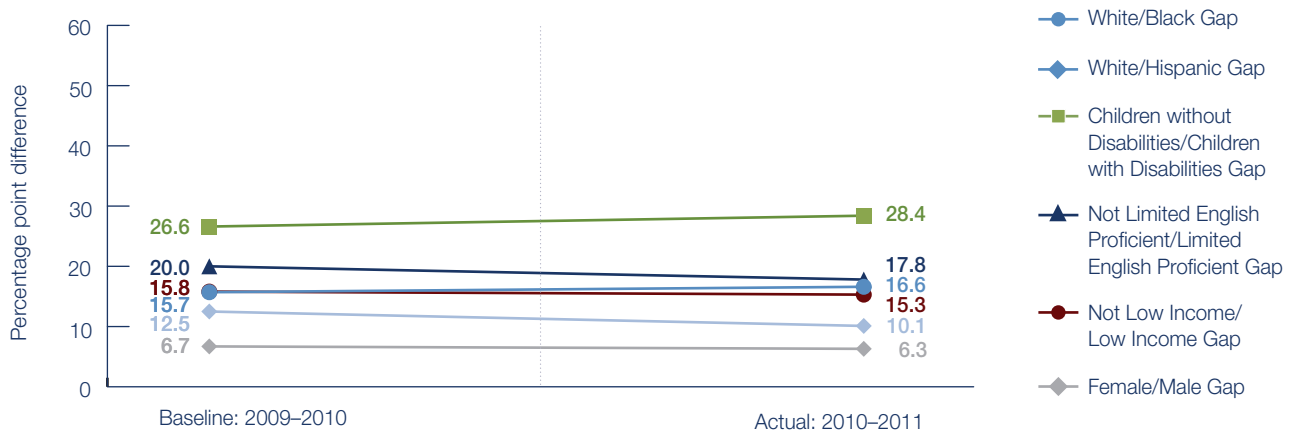
Student Proficiency, NAEP Mathematics 2011



*The percentage of Maryland's grade 4 students who were at or above Proficient in mathematics in 2011 was not significantly different than in 2009.
The percentage of Maryland's grade 8 students who were at or above Proficient in mathematics in 2011 was not significantly different than in 2009.*

State Success Factors

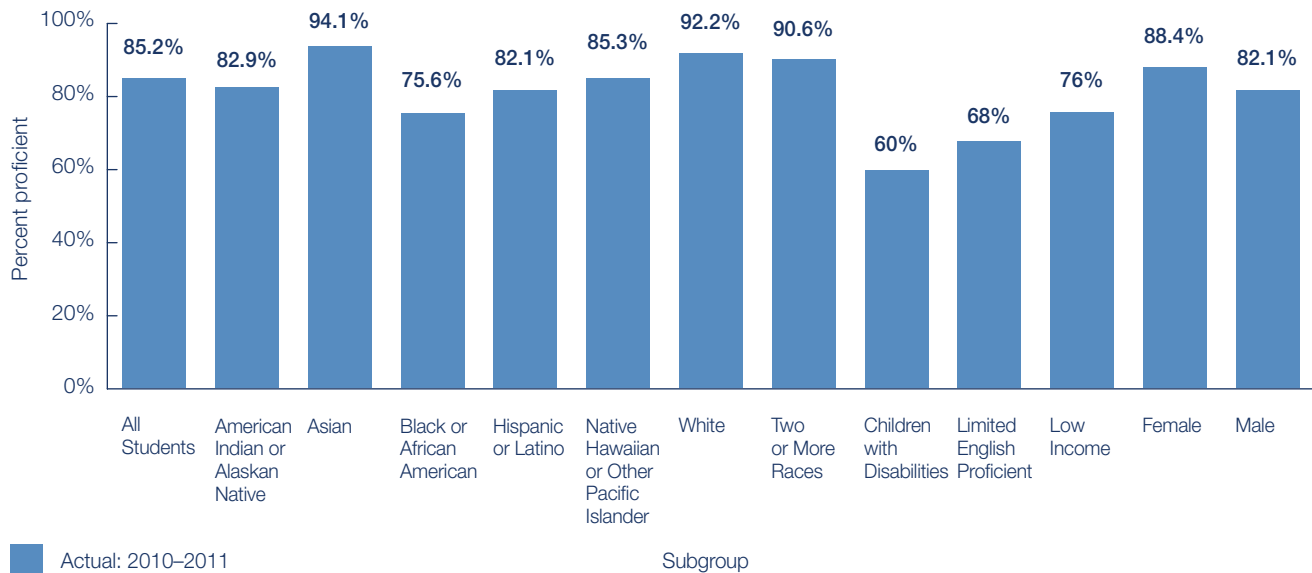
Achievement Gap on Maryland's ELA Assessment SY 2010–2011



Preliminary SY 2010–2011 data reported as of: October 11, 2011

NOTE: Over the last two years, a number of States adopted new assessments and/or cut scores. For State-reported context, please refer to the APR Data Display at www.rtt-apr.us.

Overall Proficiency on Maryland's ELA Assessment SY 2010–2011

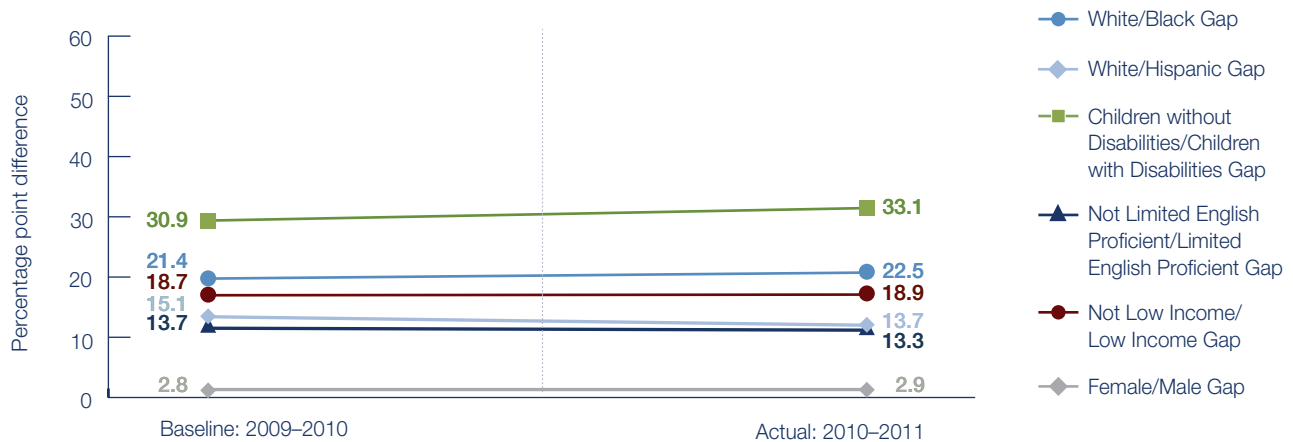


Preliminary SY 2010–2011 data reported as of: October 11, 2011

NOTE: Over the last two years, a number of States adopted new assessments and/or cut scores. For State-reported context, please refer to the APR Data Display at www.rtt-apr.us.

State Success Factors

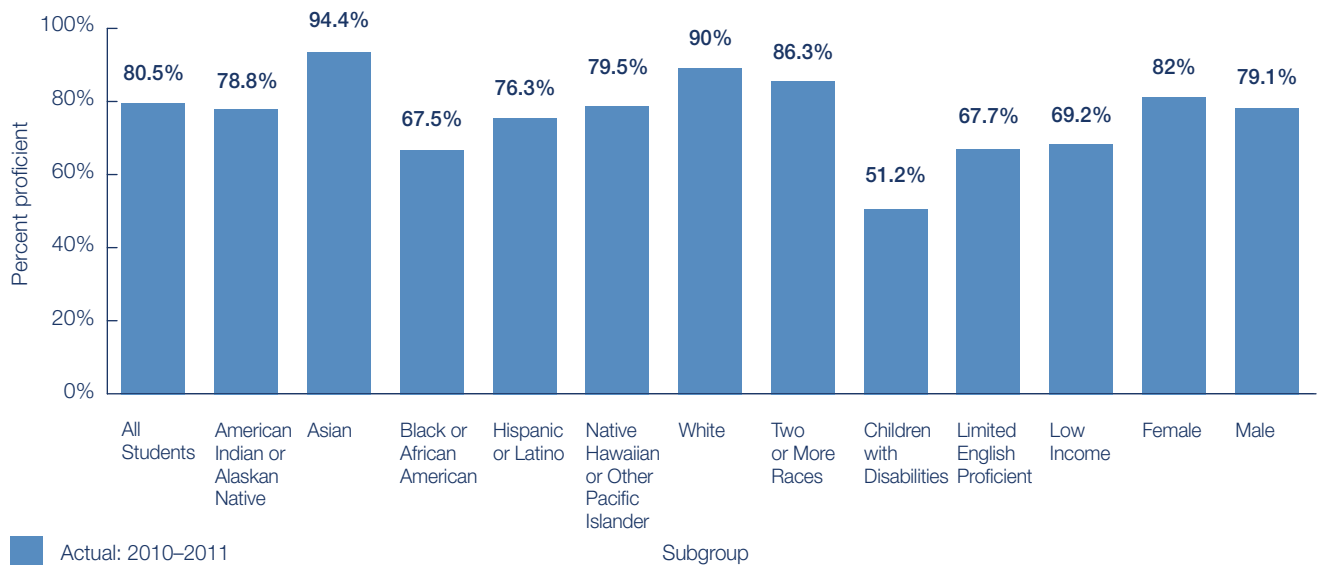
Achievement Gap on Maryland's Mathematics Assessment SY 2010–2011



Preliminary SY 2010–2011 data reported as of: October 11, 2011

NOTE: Over the last two years, a number of States adopted new assessments and/or cut scores. For State-reported context, please refer to the APR Data Display at www.rtt-apr.us.

Overall Proficiency on Maryland's Mathematics Assessment SY 2010–2011



Preliminary SY 2010–2011 data reported as of: October 11, 2011

NOTE: Over the last two years, a number of States adopted new assessments and/or cut scores. For State-reported context, please refer to the APR Data Display at www.rtt-apr.us.

Standards and Assessments

Implementing rigorous college- and career-ready standards and assessments that prepare students for success in college and career is an integral aspect of education reform in all Race to the Top States.

Adoption of college- and career-ready standards and high-quality assessments

In June 2010, the Maryland State Board of Education adopted the CCSS for ELA and mathematics for grades K–12.

Maryland is a governing member of the Partnership for Assessment of Readiness for College and Careers (PARCC).

Supporting the transition to college- and career-ready standards and high-quality assessments

A key accomplishment of Maryland's Year 1 efforts to transition to enhanced standards was the development of the MCCSC Frameworks that were accepted by the Maryland State Board of Education on June 21, 2011. Curriculum teams composed of educators and higher education faculty from across the State worked to align Maryland's standards with the CCSS for both ELA and mathematics. The teams identified CCSS that align with Maryland's current standards, conducted an analysis of the essential knowledge and skills associated with the standards at each grade level, and considered input from the State's LEAs and institutions of higher education (IHEs).

The State plans to fully implement the CCSS in classrooms in SY 2013–2014 and will begin using PARCC assessments in their scheduled completion year of SY 2014–2015. In the interim, Maryland has initiated a two-year plan to transition to the new standards, beginning with the Educator Effectiveness Academies, in summer 2011. Through the Academies and other events, the State introduced the standards to educators and solicited their feedback.

Dissemination of resources and professional development

To begin its transition to the CCSS and to support educators in this process, Maryland made the new MCCSC the focus of its first annual Educator Effectiveness Academies. Specifically, the focus for the 2011 Academies was the rollout of the MCCSC Frameworks for mathematics and ELA, as well as the Governor's STEM task force's vision for STEM education in the State. The Academies were the first in a series of professional development and communication efforts to facilitate the adoption of the CCSS. The State is also in the process of developing curriculum models, model units, and sample lessons aligned to the MCCSC as well as a formative assessment item bank and an online formative assessment system.

Many LEAs are working on activities related to transitioning to the CCSS to complement the work of the State. For example, Baltimore City developed a road map for the implementation of the new standards and aligned this map with professional development offered at the LEA level. For additional information on CCSS implementation in Baltimore City Schools, visit:

<http://www.baltimorecityschools.org/domain/257>.

Lessons learned

Maryland recognized the need to ensure that literacy standards are addressed in all content areas and to provide curriculum guidance and resources aligned to the new science and social studies standards that are under development. Therefore, Maryland expanded the scope of its curriculum development projects and received approval from the Department to hire two Science Education Specialists, two Social Studies Education Specialists, and one Literacy Specialist for Years 2 through 4 of the grant.

Looking ahead to Year 2

In the 2011–2012 and 2012–2013 school years, Maryland will transition to the CCSS. Educators will continue to engage in professional development throughout SY 2011–2012, including an online follow-up session to the summer 2011 Educator Effectiveness Academies. By 2013, the State's goal is for three teacher leaders from every school to have participated in a total of 21 days of CCSS training.

Additionally, the State will field test some Common Core-aligned test items during Year 2 and will continue to develop a formative assessment item bank and sample lessons and units that will align to the CCSS.

Data Systems to Support Instruction

Statewide longitudinal data systems (SLDS) and instructional improvement systems (IIS) enhance the ability of States to effectively manage, use, and analyze education data to support instruction. Race to the Top States are working to ensure that their data systems are accessible to key stakeholders and that the data support educators and decision-makers in their efforts to improve instruction and increase student achievement.

Fully implementing a statewide longitudinal data system

Maryland views the development and implementation of a high-quality IIS as the centerpiece of its reform agenda. Maryland has dedicated more of its Race to the Top award funds to data systems to support instruction than to any of the other Race to the Top core education reform areas. During Year 1, Maryland worked to implement element 8 (the ability to match teachers to students) and element 9 (student-level detailed transcript information) of the America COMPETES Act and made progress in its SLDS implementation despite delays associated with challenges recruiting and hiring qualified staff. In its APR, Maryland stated that as of June 30, 2011, its SLDS met all 12 elements identified in the America COMPETES Act.

Accessing and using State data

During Year 1, Maryland planned the expansion and upgrade of its data systems and began building the infrastructure to support Race to the Top initiatives. The State reported that it implemented necessary improvements related to developing the overall technology infrastructure, including a public interface for accessing the data. Two LEAs received sub-grants to support upgrades to the data systems that will be used by all 24 LEAs.

The State's SLDS will include a statistical approach to calculating student growth. During Year 1, the State conducted site visits to 23 LEAs to catalog existing resources, assess the current resource environment, and build cohesion around the development and implementation of student growth measures. Maryland also

developed two complementary statistical approaches to measuring student growth that were informed by the work of the National Psychometric Council and endorsed and embraced by other States. Maryland plans to test these approaches during the teacher evaluation system pilot in Year 2.

As part of the State's efforts to include IHEs in the SLDS, Memoranda of Understanding with all involved P-20 agencies were put in place or in the process of being established during Year 1. Other accomplishments in this area were initiating modeling for the data warehouse and hiring a staff member with appropriate expertise.

To meet one of the invitational priorities in the Race to the Top application, Maryland chose to continue to expand its P-12 database through postsecondary education and into the workforce and to utilize a standardized transcript system. During Year 1, the State chose to use an electronic transcript system that the USM developed. During summer 2011, a committee of representatives from USM and the State met regularly to define a strategy for deploying the use of electronic transcripts in each of the LEAs. Once the strategy is complete, the committee plans to present it to LEA personnel through a webinar.

Kent County Public Schools has a new data management system that will allow for online assessment and provide students, teachers, administrators, MSDE, and researchers with timely access to data.

The LEA views this as necessary to initiating and maintaining subsequent Race to the Top initiatives.

Data Systems to Support Instruction

Using data to improve instruction

As reported in its Year 1 APR, Maryland's SLDS progress in Year 1 included collecting student, course, teacher, and grade-linked data for SY 2010–2011. Teachers received reports on their students' growth early in SY 2011–2012. As part of this effort, Maryland developed manuals and webinars for LEA training on using data to improve instruction.

Challenges

Hiring delays and a longer-than-expected LEA needs discovery process set many projects back from their original timelines in Year 1. Without several project managers and a Technology Project Manager in place, the State was unable to pilot the Curriculum Management System and conduct the accompanying training and stakeholder feedback activities.⁵

The Department approved amendments submitted by the State to adjust timelines for most technology projects. Because Maryland initially planned to complete much of the work in its data-related projects early in the grant period to allow time for further refinement

in later years, the impact of delays in Year 1 was minimized. The State reports that it will still accomplish most technology projects in the timeline originally proposed and that the additional planning it conducted in Year 1 will allow it to move forward with these projects more effectively.

Looking ahead to Year 2

Maryland's Year 1 progress set the groundwork for the State to move forward quickly with implementation in Year 2. For example, the State's work pertaining to the development and implementation of student growth measures allows Maryland to yield growth percentiles for each student; LEAs piloting the new teacher evaluation system during Year 2 may elect to use these student growth percentiles during the pilot.

Additionally, Maryland will pilot and implement its Curriculum Management System in Year 2. Early adopter LEAs will begin the pilot at the beginning of the year, and the State plans to have the system fully functional by the end of Year 2.

⁵ According to the State, the curriculum management system will: (1) maintain CCSS; (2) provide instructional alignment; (3) provide assessment alignment; and (4) provide teachers with design tools, lesson plans, and course syllabi to help them develop courses that are Common Core-aligned. This project is part of the instructional improvement process to provide teachers in the classroom with education delivery options and tools that enables them to provide class and individual instructional interventions to improve student learning.

Great Teachers and Leaders

Race to the Top States are developing comprehensive systems of educator effectiveness by adopting clear approaches to measuring student growth; designing and implementing rigorous, transparent, and fair evaluation systems for teachers and principals; conducting annual evaluations that include timely and constructive feedback; and using evaluation information to inform professional development, compensation, promotion, retention, and tenure decisions.

Providing high-quality pathways for aspiring teachers and principals

Maryland made progress during Year 1 in its efforts to create high-quality pathways for people interested in becoming teachers and principals. The Teach for Maryland project, which will develop teacher preparation programs specifically designed to prepare teachers to serve in high-poverty and high-minority schools, brought partner IHEs and LEAs together through the Teach for Maryland Consortium in Year 1. Through Consortium meetings, members began to identify the knowledge, skills, dispositions, and processes that promote teacher effectiveness in high-poverty and high-minority schools. Additionally, MSDE awarded contracts to five IHEs to become a part of the Consortium and to develop initial teacher preparation programs aligned to program components agreed upon by the Consortium.

Maryland also expanded an existing contract with New Leaders for New Schools (NLNS) to improve school leadership by providing aspiring principals with training to develop the skills and knowledge necessary to work in rural and urban LEAs. Due to a lack of capacity and resources at both NLNS and the partnering LEAs, Maryland was not able to expand the program as initially planned. Under an alternate contract, NLNS will continue to support the 60 current interns in Prince George's County and Baltimore City Public Schools. NLNS will also work with Salisbury University and the University of Maryland, Eastern Shore to implement NLNS elements in their education leadership programs, which prepare school leaders who typically work in rural schools.

Improving teacher and principal effectiveness based on performance

Maryland is developing a teacher and principal evaluation system based on recommendations received from the MCEE in Year 1. The Governor created the MCEE in June 2010, pursuant to Maryland's Education Reform Act of 2010, which requires that the State Board of Education establish an educator evaluation system that includes data on student growth. In June 2011, MCEE presented its recommendations for the statewide evaluation system to the Governor, the Legislature, the State Board of Education, and State Superintendent.

The recommendations included definitions for effective and highly effective teachers and principals, as well as general standards for the teacher and principal evaluation system. The MCEE recommended that the overall teacher and principal evaluation rating consist of a rating for professional practice (50 percent) and student growth (50 percent). Of the 50 percent pertaining to professional practice, LEAs have flexibility in determining the frequency (at least once annually), format, and means to assess teacher skills, knowledge, and practice in at least four specific domains identified in the State's plan. If an LEA opts not to develop its own measures or does not propose measures that meet the State's guidelines, it will be required to adopt the State's default model for professional practice. LEAs have flexibility in determining up to 20 percent of the 50 percent pertaining to student growth. The other 30 percent of the evaluation is mandated by the State. Based on these recommendations, Maryland is developing a default model and will present a report to MCEE for approval of the model.

The State will test this newly proposed evaluation system during a full-year no-fault pilot with a sample of schools from seven volunteer LEAs in Year 2. The seven pilot LEAs consist of urban, suburban, rural, and small school systems in Maryland. The pilot's start date was delayed as a result of a six-month delay in the MCEE presenting its recommendations, and the pilot's duration was shortened from one and one-half years (January 2011 through June 2012) to one year (September 2011 through June 2012).

Great Teachers and Leaders

Providing effective support to teachers and principals

During Year 1, Maryland provided support to teachers and principals through summer Educator Effectiveness Academies and created Teacher Induction Academies for all schools in the State.

Maryland hosted Educator Effectiveness Academies for all schools in the State during summer 2011. The Academies were held at 11 sites across the State and served approximately 6,000 educators from all 1,500 public schools. The focus for the 2011 Academies was the roll-out of the MCCSC Frameworks for mathematics and ELA and the Governor's STEM task force's vision for STEM education in the State. The summer 2011 Academies were the beginning of a sustained program of professional development for educators. Each school sent a team that included the principal and one teacher from each of the ELA, mathematics, and STEM subject areas. Teachers received in-depth instruction on the MCCSC Frameworks from master teachers. Principals met in role-alike sessions to discuss planning for SY 2011–2012. Together, school teams developed transition plans for their schools that outline support to ensure that educators throughout the State understand the MCCSC Frameworks. The State reported that evaluation feedback from participants in the Educator Effectiveness Academies was very positive.

Another success from Year 1 is related to work carried out as part of the Teacher Induction program, which was created by State law in 2010. The purpose of the Teacher Induction program is to create a comprehensive system that addresses the critical needs of new teachers. The program aims to improve instructional quality and help inductees succeed in their initial teaching assignments. In addition, the Teacher Induction program is intended to increase retention rates of effective teachers. In partnership with the New Teacher Center, the State designed the Teacher Induction Academy based on the Maryland Professional Development Standards. In summer 2011, 225 district program coordinators and new teacher mentors attended Teacher Induction Academies to ensure that new teachers at every Maryland public school participate in a high-quality, supportive program of induction into the teaching profession.

Other professional development trainings offered in summer 2011 included a world language and STEM curriculum writing workshop in July and training for the International Technology Engineering Educators Association project in August.⁶

Lessons learned

Maryland recognized that its original budget estimates for Teach for Maryland did not include sufficient funds to support programs that met the State's expectations for quality. To solve this problem, it received approval from the Department to increase the amount of money awarded to each IHE and to decrease the total number of awardees from 13 to 9. In this way, the State was able to take advantage of economies of scale by allocating sufficient funds for each program to produce more teachers. As a result of these changes, the expected number of Teach for Maryland teachers was reduced by five, from 165 to 160.

In addition to receiving approval from the Department to shorten the duration of the pilot of the statewide educator evaluation system, the State also received approval to allow all LEAs to pilot their new teacher and principal evaluation systems in SY 2012–2013, rather than requiring full implementation in that year as originally planned. The State anticipates that the revised pilot period will provide additional information on the effectiveness of the evaluation system and inform any necessary system improvements.

Maryland modified its Educator Effectiveness Academies by reducing their length and narrowing their focus to the MCCSC Frameworks and formative, interim, and summative assessments because the State believed that these topics were of the highest priority and that school teams could still receive effective training in a condensed timeframe.

Looking ahead to Year 2

Maryland will pilot its teacher and principal evaluation system in a subset of schools in seven LEAs during Year 2 as part of a full-year no-fault implementation effort. To help support success of the pilot, the State will be using support provided by the Department's technical assistance contractor to work closely with teacher evaluation experts who will provide guidance and support for the pilot LEAs and MSDE. Full implementation of the statewide evaluation system will occur in SY 2013–2014. The State will continue professional development and educator support efforts with more Educator Effectiveness Academies and Teacher Induction Academies in summer 2012. These academies will include professional development and training related to the IIS, Online Instructional Toolkit, and each of the four Race to the Top core education reform areas.

⁶The intent of the International Technology Engineering Educators Association (ITEEA) project is to provide funds for the consortium, assessment, and professional development fees to adopt internationally benchmarked standards aligned to the Common Core, model course guides, and end-of-course assessments available from the ITEEA STEM Center for Teacher and Learning (STEM-CTL) to increase students' technological literacy.

Turning Around the Lowest-Achieving Schools

Race to the Top States are supporting LEAs' implementation of far-reaching reforms to turn around lowest-achieving schools by implementing one of four school intervention models.⁷

During Year 1, Maryland provided support services to 11 low-achieving schools in Baltimore City Public Schools and Prince George's County Public Schools. These schools represent the bottom 5 percent of schools in the State in terms of student achievement. The Race to the Top effort is coordinated at the State level with similar efforts funded under the School Improvement Grant (SIG) program. Maryland's support to turn around these lowest-achieving schools is led by the Breakthrough Center (the Center). The Center was created in 2008 to provide a coherent strategy for leveraging and coordinating the State's services to build the capacity of schools and LEAs to lead and sustain student achievement gains. The Center serves as the interface among MSDE, the LEAs, and the schools. The low-achieving schools were required to select and begin implementing one of the four school intervention models during SY 2010–2011; all schools chose either the school turnaround or restart model.

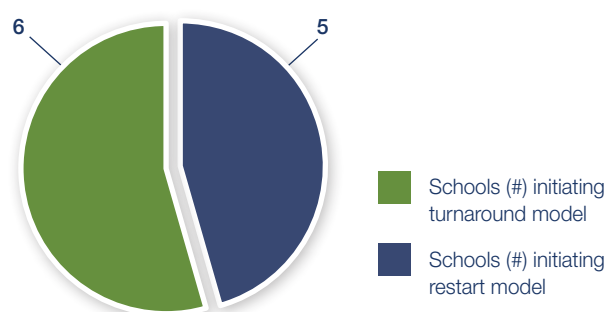
Maryland reported that during Year 1, the Center worked with these low-achieving schools to improve student performance by:

- Convening the superintendents and senior leadership staff from the two LEAs to review the requirements for turning around the lowest-achieving schools and to identify the available resources provided by the Race to the Top grant;
- Administering a robust needs assessment in the lowest-achieving schools and feeder schools to determine priorities for LEA and school action;
- Providing feedback on the implementation of schools' intervention models, as required by the Federal SIG program, through site visits to each SIG school throughout the year;
- Developing a directory of services available to the schools;
- Providing job-embedded teacher professional development in reading and mathematics; and
- Providing leadership training for principals and their instructional leadership teams.

At the State level, Maryland established a Cross-Functional Team, which is facilitated by the Project Manager for the Breakthrough Center and composed of representatives that include Race to the Top project managers, staff from across MSDE divisions, and the Mid-Atlantic Comprehensive Center (MACC). The Cross-Functional Team meets

monthly to coordinate the delivery of all services to the lowest-achieving schools. During monthly meetings, the Cross-Functional Team identifies what services have been or need to be provided to the targeted schools, discusses obstacles the schools are facing, and generates solutions to overcome those obstacles.

School Intervention Models Initiated in Maryland in SY 2010–2011



Lessons learned

Maryland adjusted its approach to providing incentives for highly effective teachers and leaders working in the lowest-achieving schools. Initially, it had planned to provide incentives in the middle of SY 2010–2011 to teachers in Tier I, Tier II, and Tier III schools.⁸ However, the State determined that the incentives would be more effective if they were more generous in future years and provided only to Tier I and Tier II schools. Incentives will be awarded beginning in SY 2011–2012.

Looking ahead to Year 2

Maryland will continue its efforts in this reform area through the work of the Center, which will provide continued training, professional development, and support services to an additional five low-achieving schools in Year 2.

⁷Race to the Top States' plans include supporting their LEAs in turning around the lowest-achieving schools by implementing one of the four school intervention models:

- **Turnaround model:** Replace the principal and rehire no more than 50 percent of the staff and grant the principal sufficient operational flexibility (including in staffing, calendars/time and budgeting) to fully implement a comprehensive approach to substantially improve student outcomes.
- **Restart model:** Convert a school or close and reopen it under a charter school operator, a charter management organization, or an education management organization that has been selected through a rigorous review process.
- **School closure:** Close a school and enroll the students who attended that school in other schools in the district that are higher achieving.
- **Transformation model:** Implement each of the following strategies: (1) replace the principal and take steps to increase teacher and school leader effectiveness, (2) institute comprehensive instructional reforms, (3) increase learning time and create community-oriented schools, and (4) provide operational flexibility and sustained support.

⁸Maryland defines persistently lowest-performing Tier I schools as those Title I schools that are the five lowest-achieving (or 5 percent) of all Title I schools in improvement, corrective action, or restructuring in the State. Maryland defines persistently low-performing Tier II schools as those Title I eligible secondary schools that are the lowest 5 percent of all secondary Title I eligible schools in the State. Maryland defines Tier III schools as any Title I schools in improvement, corrective action, or restructuring that are not identified as persistently low-achieving schools in Tier I.

Charter Schools

Maryland is using Race to the Top program funds to help ensure that its charter schools are of high quality. In August 2011, the State opened the first restart charter as part of the Furman Templeton Preparatory Academy project in Baltimore. In addition, Maryland has been working with its LEAs to identify and implement restart charter programs in other schools as part of its school intervention agenda, outlined in the previous section. The State held a technical assistance session for the Prince George's County and Baltimore City LEAs, the highest-poverty LEAs in the State, to help them identify schools that may be candidates for restart charter schools. According to Maryland's Year 1 APR, five of the 11 lowest-achieving schools selected the restart intervention model.

Maryland also held symposia and focus groups to facilitate the development of the Maryland Charter School Quality Standards. These standards will assist the State's charter schools in meeting high expectations for student outcomes. A first draft of the standards was presented at the State's annual Charter Schools Conference in April 2011. Focus groups at the conference provided an opportunity for the State to receive feedback and new ideas from charter school operators. Another focus group was held in August 2011. In addition, the State has continued to hold technical assistance sessions for authorizers of new charters to be opened in the 2011–2012 or 2012–2013 school years, as well as to help identify schools that are candidates to become restart charters. The State is also researching and designing self-assessment tools for charter schools.

Emphasis on Science, Technology, Engineering, and Mathematics

The State intends to increase the availability of STEM resources for students, teachers, and principals through the creation of STEMnet, a partnership with the Maryland Business Roundtable that was launched in September 2011. In preparation for the launch, the State conducted a survey of student career goals, reviewed lessons developed for STEMnet with teachers, and created a plan to sustain STEMnet beyond the grant period. Through STEMnet, Maryland plans to connect students with STEM experts and introduce them to in-depth information about STEM careers. Further, the STEMnet efforts are intended to support teachers and principals by offering instructional resources and linking teachers and principals to industry experts.

To lay the foundation for the next generation of STEM innovators, Maryland embarked on an ambitious elementary STEM agenda. The Elementary STEM Network meets eight times per year to develop STEM teacher standards of practice, connect stakeholders, and review STEM programs. The State has made awards to seven teacher preparation providers that will each develop an elementary teacher STEM preparation program. These programs will culminate in an approved program in a STEM concentration for elementary

certification. The seven teacher preparation providers will revise the pedagogical approach to teaching elementary science and will deepen content acquisition. In summer 2011, the work of the Elementary STEM Network culminated in a Summer Institute focused on developing integrated STEM course offerings and examining relevant resources to support the implementation of the teacher STEM standards of practice.

The State also paid special attention to STEM in its curricular reforms. For example, both a mathematics and STEM teacher from each school attended the summer 2011 Educator Effectiveness Academies (see *Great Teachers and Leaders* section for more information on the Academies).

Looking ahead to Year 2

The STEM Coordinator will assist in the State's curriculum and assessment development effort. Additionally, the State will continue to develop online STEM courses to improve access for all student groups.

Progress Updates on Invitational Priorities

Innovations for improving early learning outcomes

Through its efforts to improve early learning outcomes, Maryland increased the percentage of kindergarteners who are fully prepared for kindergarten by 3 percent, from 78 percent in SY 2009–2010 to 81 percent in SY 2010–2011. Maryland also experienced pronounced gains in school readiness across all domains of learning and all prior-care settings. Examples of Maryland's efforts, as reported by the State in its Year 1 APR include the following:

- Expanding access to pre-kindergarten for all economically disadvantaged four-year-olds. LEAs are required to provide all four-year-olds from economically disadvantaged backgrounds with access to pre-kindergarten. LEAs may also enroll children who are not eligible under the mandate. The total pre-kindergarten enrollment for SY 2010–2011 was 26,389 (36 percent of four-year-olds), up 1 percent from SY 2009–2010.

- Supporting Judy Centers, which are partnerships between a Title I school and its early childhood partners in the attendance area of the school. The sole purpose of a Judy Center is to improve the school readiness skills of children from birth to six years old. In SY 2010–2011, the partnerships increased from 38 to 40 Title I attendance areas. In addition, another Judy Center was created, increasing the total number to 25.
- Increasing the number of State or nationally accredited early childhood programs from 944 (8 percent) in 2009–2010 to 970 (9 percent) in SY 2010–2011.

Budget

For the State's expenditures through June 30, 2011, please see the APR data display at www.rtt-apr.us. For State budget information see <http://www2.ed.gov/programs/racetothetop/awards.html>.

Glossary

Alternative routes to certification means pathways to certification that are authorized under the State's laws or regulations that allow the establishment and operation of teacher and administrator preparation programs in the State, and that have the following characteristics (in addition to standard features such as demonstration of subject-matter mastery, and high-quality instruction in pedagogy and in addressing the needs of all students in the classroom including English learners and students with disabilities): (a) can be provided by various types of qualified providers, including both institutions of higher education and other providers operating independently from institutions of higher education; (b) are selective in accepting candidates; (c) provide supervised, school-based experiences and ongoing support such as effective mentoring and coaching; (d) significantly limit the amount of coursework required or have options to test out of courses; and (e) upon completion, award the same level of certification that traditional preparation programs award upon completion.

Amendment requests: In the event that adjustments are needed to a State's approved Race to the Top plan, the grantee must submit an amendment request to the Department for consideration. Such requests may be prompted by an updated assessment of needs in that area, revised cost estimates, lessons learned from prior implementation efforts, or other circumstances. Grantees may propose revisions to goals, activities, timelines, budget, or annual targets, provided that the following conditions are met: such revisions do not result in the grantee's failure to comply with the terms and conditions of this award and the program's statutory and regulatory provisions; the revisions do not change the overall scope and objectives of the approved proposal; and the Department and the grantee mutually agree in writing to such revisions. The Department has sole discretion to determine whether to approve such revisions or modifications. If approved by the Department, a letter with a description of the amendment and any relevant conditions will be sent notifying the grantee of approval. (For additional information please see <http://www2.ed.gov/programs/racetothetop/amendments/index.html>.)

America COMPETES Act elements are (as specified in section 6401(e)(2)(D) of that Act): (1) a unique statewide student identifier that does not permit a student to be individually identified by users of the system; (2) student-level enrollment, demographic, and program participation information; (3) student-level information about the points at which students exit, transfer in, transfer out, drop out, or complete P-16 education programs; (4) the capacity to communicate with higher education data systems; (5) a State data audit system assessing data quality, validity, and reliability; (6) yearly test records of individual students with respect to assessments under section 1111(b) of the ESEA (20 U.S.C. 6311(b)); (7) information on students not tested by grade and subject; (8) a teacher identifier system with the ability to match teachers to

students; (9) student-level transcript information, including information on courses completed and grades earned; (10) student-level college-readiness test scores; (11) information regarding the extent to which students transition successfully from secondary school to postsecondary education, including whether students enroll in remedial coursework; and (12) other information determined necessary to address alignment and adequate preparation for success in postsecondary education.

American Recovery and Reinvestment Act of 2009 (ARRA): On February 17, 2009, President Obama signed into law the ARRA, historic legislation designed to stimulate the economy, support job creation, and invest in critical sectors, including education. The Department of Education received a \$97.4 billion appropriation.

Common Core State Standards (CCSS) are K-12 English language arts and mathematics standards developed in collaboration with a variety of stakeholders including States, governors, chief State school officers, content experts, States, teachers, school administrators, and parents. The standards establish clear and consistent goals for learning that will prepare America's children for success in college and careers. As of December 2011, the Common Core State Standards were adopted by 45 States and the District of Columbia.

Effective teacher means a teacher whose students achieve acceptable rates (e.g., at least one grade level in an academic year) of student growth (as defined in the Race to the Top requirements). States, LEAs, or schools must include multiple measures, provided that teacher effectiveness is evaluated, in significant part, by student growth (as defined in the Race to the Top requirements). Supplemental measures may include, for example, multiple observation-based assessments of teacher performance.

The Core education reform areas for Race to the Top are as follows:

1. Standards and Assessments: Adopting rigorous standards and assessments that prepare students for success in college and the workplace;
2. Great Teachers and Great Leaders: Recruiting, developing, retaining, and rewarding effective teachers and principals;
3. Data Systems to Support Instruction: Building data systems that measure student success and inform teachers and principals how they can improve their practices; and
4. Turning Around the Lowest-Achieving Schools.

Highly effective teacher means a teacher whose students achieve high rates (e.g., one and one-half grade levels in an academic year) of student growth (as defined in the Race to the Top requirements). States, LEAs, or schools must include multiple measures, provided that teacher effectiveness is evaluated, in significant part, by student growth (as defined in the Race to the Top requirements). Supplemental measures may include, for example, multiple

observation-based assessments of teacher performance or evidence of leadership roles (which may include mentoring or leading professional learning communities) that increase the effectiveness of other teachers in the school or LEA.

Instructional improvement systems (IIS) means technology-based tools and other strategies that provide teachers, principals, and administrators with meaningful support and actionable data to systemically manage continuous instructional improvement, including such activities as instructional planning; gathering information (e.g., through formative assessments (as defined in the Race to the Top requirements), interim assessments (as defined in the Race to the Top requirements), summative assessments, and looking at student work and other student data); analyzing information with the support of rapid-time (as defined in the Race to the Top requirements) reporting; using this information to inform decisions on appropriate next instructional steps; and evaluating the effectiveness of the actions taken. Such systems promote collaborative problem-solving and action planning; they may also integrate instructional data with student-level data such as attendance, discipline, grades, credit accumulation, and student survey results to provide early warning indicators of a student's risk of educational failure.

Invitational priorities are areas of focus that the Department invited States to address in their Race to the Top applications. Applicants did not earn extra points for addressing these focus areas, but many grantees chose to create and fund activities to advance reforms in these areas.

Involved LEAs are LEAs that choose to work with the State to implement those specific portions of the State's plan that necessitate full or nearly-full statewide implementation, such as transitioning to a common set of K-12 standards (as defined in the Race to the Top requirements). Involved LEAs do not receive a share of the 50 percent of a State's grant award that it must subgrant to LEAs in accordance with section 14006(c) of the ARRA, but States may provide other funding to involved LEAs under the State's Race to the Top grant in a manner that is consistent with the State's application.

P-20 data systems integrate student data from pre-kindergarten through higher education.

Participating LEAs are LEAs that choose to work with the State to implement all or significant portions of the State's Race to the Top plan, as specified in each LEA's agreement with the State. Each participating LEA that receives funding under Title I, Part A will receive a share of the 50 percent of a State's grant award that the State must subgrant to LEAs, based on the LEA's relative share of Title I, Part A allocations in the most recent year, in accordance with section 14006(c) of the ARRA. Any participating LEA that does not receive funding under Title I, Part A (as well as one that does) may receive funding from the State's other 50 percent of the grant award, in accordance with the State's plan.

The **Partnership for Assessment of Readiness for College and Careers (PARCC)** is one of two consortia of States awarded grants under the Race to the Top Assessment program to develop next-generation assessment systems that are aligned to common K-12 English language and mathematics standards and that will accurately measure student progress toward college and career readiness. (For additional information please see <http://www.parcconline.org/>.)

Persistently lowest-achieving schools means, as determined by the State: (i) any Title I school in improvement, corrective action, or restructuring that (a) is among the lowest-achieving five percent of Title I schools in improvement, corrective action, or restructuring or the lowest-achieving five Title I schools in improvement, corrective action, or restructuring in the State, whichever number of schools is greater; or (b) is a high school that has had a graduation rate as defined in 34 CFR 200.19(b) that is less than 60 percent over a number of years; and (ii) any secondary school that is eligible for, but does not receive, Title I funds that (a) is among the lowest-achieving five percent of secondary schools or the lowest-achieving five secondary schools in the State that are eligible for, but do not receive, Title I funds, whichever number of schools is greater; or (b) is a high school that has had a graduation rate as defined in 34 CFR 200.19(b) that is less than 60 percent over a number of years. To identify the lowest-achieving schools, a State must take into account both (i) the academic achievement of the "all students" group in a school in terms of proficiency on the State's assessments under section 1111(b)(3) of the ESEA in reading/language arts and mathematics combined; and (ii) the school's lack of progress on those assessments over a number of years in the "all students" group. (For additional information please see <http://www2.ed.gov/programs/sif/index.html>.)

Qualifying evaluation systems are those that meet the following criteria: rigorous, transparent, and fair evaluation systems for teachers and principals that: (a) differentiate effectiveness using multiple rating categories that take into account data on student growth as a significant factor, and (b) are designed and developed with teacher and principal involvement.

The **School Improvement Grants (SIG)** program is authorized under section 1003(g) of Title I of the ESEA. Funds are awarded to States to help them turn around Persistently Lowest-Achieving Schools. (For additional information please see <http://www2.ed.gov/programs/sif/index.html>.)

School intervention models: A State's Race to the Top plan describes how it will support its LEAs in turning around the lowest-achieving schools by implementing one of the four school intervention models:

- **Turnaround model:** Replace the principal and rehire no more than 50 percent of the staff and grant the principal sufficient operational flexibility (including in staffing, calendars/time and budgeting) to fully implement a comprehensive approach to substantially improve student outcomes.

- **Restart model:** Convert a school or close and reopen it under a charter school operator, a charter management organization, or an education management organization that has been selected through a rigorous review process.
- **School closure:** Close a school and enroll the students who attended that school in other schools in the district that are higher achieving.
- **Transformation model:** Implement each of the following strategies: (1) replace the principal and take steps to increase teacher and school leader effectiveness, (2) institute comprehensive instructional reforms, (3) increase learning time and create community-oriented schools, and (4) provide operational flexibility and sustained support.

Single sign-on is a user authentication process that permits a user to enter one name and password in order to access multiple applications.

The **SMARTER Balanced Assessment Consortium (SBAC)** is one of two consortia of States awarded grants under the Race to the Top Assessment program to develop next-generation assessment systems that are aligned to common K-12 English language and mathematics standards and that will accurately measure student progress toward college and career readiness. (For additional information please see <http://www.k12.wa.us/SMARTER/default.aspx>.)

The **State Scope of Work** is a detailed document for the State project that reflects the grantee's approved Race to the Top application.

The State Scope of Work includes items such as the State's specific goals, activities, timelines, budgets, key personnel, and annual targets for key performance measures. (For additional information please see <http://www2.ed.gov/programs/racetothetop/state-scope-of-work/index.html>.) Additionally, all participating LEAs are required to submit Scope of Work documents, consistent with State requirements, to the State for its review and approval.

Statewide longitudinal data systems (SLDS) enhance the ability of States to efficiently and accurately manage, analyze, and use education data, including individual student records. The SLDS help States, districts, schools, educators, and other stakeholders to make data-informed decisions to improve student learning and outcomes, as well as to facilitate research to increase student achievement and close achievement gaps. (For additional information please see http://nces.ed.gov/Programs/SLDS/about_SLDS.asp.)

Student achievement means—

- a) For tested grades and subjects: (1) a student's score on the State's assessments under the ESEA; and, as appropriate, (2) other measures of student learning, such as those described in paragraph (b) of this definition, provided they are rigorous and comparable across classrooms.
- b) For non-tested grades and subjects: alternative measures of student learning and performance such as student scores on pre-tests and end-of-course tests; student performance on English language proficiency assessments; and other measures of student achievement that are rigorous and comparable across classrooms.

Student growth means the change in student achievement (as defined in the Race to the Top requirements) for an individual student between two or more points in time. A State may also include other measures that are rigorous and comparable across classrooms.

Value-added models (VAMs) are a specific type of growth model in the sense that they are based on changes in test scores over time. VAMs are complex statistical models that generally attempt to take into account student or school background characteristics in order to isolate the amount of learning attributable to a specific teacher or school. Teachers or schools that produce more than typical or expected growth are said to "add value."