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The Georgia Partnership for Excellence in Education passed its 20th birthday in 2012 on the run and hasn't looked back since. One thing is for sure, we aren't slowing down because there is so much work to do. The Partnership team is excited by and embraces the many public education challenges that are ahead. Many of you reading this Race to the Top report no doubt know our work well, but to those who may not be as knowledgeable, we invite you to get to know us better.

WHAT EXACTLY DO WE DO? HERE ARE A FEW EXAMPLES OF OUR WORK:

Our annual Media Symposium held in conjunction with the new legislative session each January brings education reporters and editors from around the state together to hear from experts in several fields including funding, teacher preparedness, early learning, and many more education policy areas. A panel of legislators also provides insight on the key education issues they will be grappling with during the session. Our Top Ten report is always officially released at the Symposium.

Our fourth edition of *Economics of Education* publication is now available. Since we first partnered with the Georgia Chamber of Commerce in 2004 to create this report and related briefing, we have literally visited every corner of the state informing audiences of the inextricable link between education and economics. As we start the new year, we are presenting **Education and Workforce Development Summits** in each region of the state, taking a close look at how their education systems are impacting their local economies. We are facilitating meaningful dialogue that often leads to change and improvement.

Our Education Policy Fellowship Program (EPFP) since 2008 has been creating leaders who better understand the intricacies of the decision process and the impact of those decisions. The Policy Toolbox found on our web site is a unique resource that immediately places a wealth of information literally at the fingertips of anyone across our state.

Since its inception in 1992, the Georgia Partnership has been informing audiences using a variety of methods. Among those are the Critical Issues Forums. These presentations, held periodically during the year, address key education topics and are often presented by national and state education leaders alike and are attended by business, government, education, and civic leaders.

These are just a few of the areas the Georgia Partnership is regularly involved in but there's more, much more...research and policy analysis, business community support, community engagement programs, collaborations and partnerships, just to name a few.

The Georgia Partnership for Excellence in Education's greatest strength is that it creates the conditions that stimulate critical change. Visit our web site at www.gpee.org or click on the QR code. For up-to-date news and information follow us on Twitter and Facebook and join our mailing list. We welcome your support and participation in our work. Our door is always open.



This report was researched and written by Dana Rickman, PhD, Policy and Research Director and Elisa Olivarez, MPA, Program Manager.

Mission: Inform and influence Georgia leaders through research and non-partisan advocacy to impact education policies and practices for the improvement of student achievement.

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A MESSAGE TO THE READER:

The Race to the Top original grant period has ended. On September 23, 2014 all of the reforms which the authors of the grant so eloquently described in the application had to be in place. Although Georgia has been granted a one-year extension to complete seven of the remaining activities, for the most part it is time for us to be accountable for the work commissioned through this grant.

The reach of the grant was massive, impacting every public and charter school in the state and all seven education agencies. There were 31 major projects and each project consisted of many activities. The goal of the grant was to reform standards, assessments, data systems, teacher effectiveness systems, certification, educator preparation programs, professional learning, lowest achieving schools, and more. There were so many initiatives and they were not always easy to explain or describe unless you looked at them in their totality.

The purpose of this report is to answer the question that has been asked consistently, "When it's all over, what will we have to show for it?" Those who have worked diligently to fulfill the vision of the authors of the grant and the obligations of the scope of work described in the grant desperately wanted to answer this question for you. We did not want to seem disingenuous by describing the results of our own work, so we engaged the support of the Georgia Partnership for Excellence in Education, an organization that has broad credibility with many stakeholders. We knew that those of you who would read this report would have confidence in their objective reporting and would know that they would painstakingly look at the evidence before describing the results to you.

We are so proud of the journey we have taken. As a state, we are miles down the road from where we would have been without the support of the grant; however, the authors of this report bring to our attention the next question that must be answered. "Where do we go from here?" There is still much more work to do to ensure that every child in Georgia is successful, but, as you read this report, we hope that you will agree with us that we are well on our way!

Sincerely,

Susan C. Andrews, Georgia Department of Education

Deputy Superintendent for Race to the Top and

The Race to the Top Implementation Team

Susan C. andrews

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EXECUTIVE SUMMARY IVE SUMMARY

In its 2010 application for the Race to the Top (RT3) grant, Georgia had a clear vision for where it was going as a state and what it wanted to accomplish. The state was committed to transforming Georgia's public education system so that every student graduated from high school was successful in college and/or their chosen career, and was competitive with their peers throughout the country and the world. To accomplish this vision, Georgia was working across several priority areas, all of which were dependent upon a robust state data and information system that transcended all state education agencies. These priorities include:

- 1. Set high standards and rigorous assessments for all students leading to college and career readiness;
- 2. Provide great teachers and leaders;
- 3. Provide effective support for all schools, including the lowest-achieving schools; and
- 4. Lead the way in science, technology, engineering, and mathematics (STEM) fields.

Georgia competed for and received \$400 million over four years to support the implementation of reform efforts in each of these areas.

WHAT WAS DONE

During the four years allotted by the RT3 grant, the Georgia Department of Education (GaDOE) worked with other state agencies and numerous partners to implement systemic reforms across a wide variety of areas ranging from early learning through higher education. Below is a summary list of the primary goals and accomplishments of the RT3 grant.

GOAL #1 - SET HIGH STANDARDS FOR ALL STUDENTS AND PROVIDE RIGOROUS ASSESSMENTS.

- ➤ Implemented the Common Core Georgia Performance Standards (CCGPS) in English/Language Arts and Mathematics.
- > Provided support and training for new standards.
- > Created aligned formative and benchmark assessments.
- Funded PSAT exams for all highs school sophomores.

GOAL #2 - ENSURE ALL STUDENTS HAVE GREAT TEACHERS AND LEADERS.

- > Established a student growth model.
- > Developed and implemented new teacher and leader evaluation systems partially based on student growth.
- ➤ Increased the rigor of teacher and leader preparation programs, both at traditional colleges and universities and non-traditional certification programs.
- > Developed an effectiveness rating of teacher and leader preparation programs.
- > Strengthened the professional development for teachers and provided a new certification ladder that allows for teachers to advance in their career while staying in the classroom.
- ➤ Embedded a high quality professional development program for Georgia Pre-kindergarten teachers.
- ➤ Supported Teach for America, The New Teacher Project, and the UTeach Program to increase the quality of teachers in hard to staff areas and subjects.

GOAL #3 - PROVIDE EFFECTIVE SUPPORTS FOR ALL SCHOOLS, INCLUDING THE LOWEST ACHIEVING SCHOOLS.

- ➤ Developed a statewide longitudinal data system (Path To Personalized Learning) accessible to teachers, principals, education leaders, and parents to improve instructional practices.
- ➤ Combined data across agencies to inform policy decisions and create innovative ways to connect and align the state's education reform strategies from preschool through college and career in the GA•AWARDS (Georgia's Academic and Workforce Analysis and Research Data System).
- ➤ Instituted structural and programmatic changes to support and "turn around" Georgia's lowest performing schools.

GOAL #4 - LEAD THE WAY IN SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS (STEM) FIELDS.

- > Created on-line professional development for STEM teachers using STEM best practices.
- Offered a rigorous course of study for students in the STEM fields, including courses in college level math and science for high school students, and robotics and engineering for middle school students.

Finally, as part of the RT3 grant, Georgia instituted a \$19.4 million Innovation Fund. This competitive grant process provided 23 different grants that relied on new and innovative partnerships among K-12 schools, institutions of higher education, nonprofit organizations, and businesses on projects to improve student outcomes. Innovation fund projects focused on providing applied learning opportunities – especially in the STEM fields, creating teacher and leader induction programs, or developing or expanding charter schools.

ECUTIVE SUMMAR

CHALLENGES AND LESSONS LEARNED

The Challenges of Scale, Scope, and Timing

Some of the biggest challenges in implementing the RT3 grant were the sheer scale and scope of the project. Regarding scale, in some cases, Georgia was challenged to saturate the entire state (not just RT3 districts) with largescale policy changes. Bringing even one major policy change to life can be a formidable task for an administration. Matters of scope compounded scale hurdles, as a confluence of reform pieces required statewide coordination at once. While most of the elements of reforms were already under development or being planned in some way when Georgia applied for the grant, developing and implementing all aspects of the grant at the same time proved to be a challenge.

Timing also emerged as a challenge. Leadership (both at the state and local level) has a significant impact in being able to develop and implement systematic change. When awarded in 2010, the RT3 grant supported the strong – and complex – vision that was already in progress under the leadership of then Governor Sonny Perdue and State School Superintendent Kathy Cox. However, in 2010, Georgia elected a new Governor – Nathan Deal – and a new State School Superintendent – John Barge, neither was involved in creating this vision for Georgia. Due to these leadership changes at the state level, the bulk of the required implementation staff was not hired until late spring of 2011, despite year-one grant commitments beginning in 2010.

Lessons Learned – Communication and Relationships

One of the key lessons learned during this process was the importance of communication. Many teachers and school and district leaders initially did not understand the relevance of the individual reforms or how they all fit together. Initial frustration was high especially in the classroom, where all individual projects came together. In response to districts' frustrations, made clear by ongoing grant evaluation, the state changed its communication and training strategy and began to communicate the full vision whenever addressing a particular section.

In addition to the importance of communication, another key lesson learned for a project of this scale and scope was the vital collaboration of all education agencies and relevant partners in Georgia. In short, establishing true working relationships with partners was a must. The state was embarking on deep systematic change to the entire education pipeline, from early learning through higher education. This was not an endeavor that could be accomplished by the GaDOE alone. All relevant partners and agencies needed to be involved. Moreover, they needed to understand not only their role, but also how the role of other agencies impacted their own work and the overall vision of where Georgia was headed.

One high-ranking official within the GaDOE stated "Relationships matter. There is now a feeling of having a colleague in another agency that is focused on the same goal that I am. That was not true at the beginning of the grant. It is now." Previously, there were connections and discussions among the individual education agency heads, but those discussions did not always filter down into the heart of the agencies themselves. Many decisions about policy and resources were oftentimes decided in isolation. Now, these decisions are addressed in a cooperative manner not only across agency heads, but via staff members within agencies as well.

MOVING FORWARD

Due to the work on the RT3 grant, Georgia is well positioned to undertake new and innovative ways to improve teaching and learning. However, this creates a two-fold challenge for the state moving forward. First, some of the systematic changes put in place under RT3 are not yet finished; primarily those related the new teacher and leader evaluation systems and evaluating the effectiveness of teacher preparation programs. Second, Georgia needs a new strategic plan to continue its vision. The RT3 grant provided a roadmap for reform for the state to follow. That roadmap is close to becoming out of date.

Capacity and leadership are the keys to answering both issues. Both in terms of ensuring sustainable systemic change and providing a roadmap for the future – leadership is paramount. As the current set of reforms are being implemented, positive and effective leadership at both the state and local levels is needed. These leaders must ensure that teachers and educators are being supported and provided adequate professional development and resources, student assessment and teacher effectiveness systems are being implemented with fidelity, data systems are being used to their fullest potential, and more.

Georgia has done a good job in identifying areas of education reform that will lead to increased student outcomes and high school graduates who are ready for college or embark on a career. Increased rigor and teacher quality are the right foci to produce these changes. Georgia must now work hard to recommit to the vision implemented over the past four years and articulate a strategic plan on how the recent systemic changes will be fully implemented and sustained.

INTRODUCTION E DE LA CONTRODUCTION

Georgia's vision is to equip all Georgia students, through effective teachers and leaders and through creating the right conditions in Georgia's schools and classrooms, with the knowledge and skills to empower them to 1) Graduate from high school; 2) Be successful in college and/or professional careers, and 3) Be competitive with their peers throughout the United States and the world.

INTRODUCTION

The Vision

When the state of Georgia applied for the Race to the Top grant in 2010, it had a very clear vision for what it wanted to accomplish as a state. There were five priority areas of reform ² that Georgia was already either developing or implementing that would transform the educational system for students:

- 1. Set high standards and rigorous assessments for all students leading to college and career readiness;
- 2. Prepare students for college readiness, transition, and success;
- 3. Provide great teachers and leaders;
- 4. Provide effective support for all schools, including the lowest achieving schools; and
- 5. Lead the way in science, technology, engineering, and mathematics (STEM) fields.

Moreover, to be successful across all five goals required a robust state data and information system that would transcend all state education agencies. It would lay the foundation for a more effective educator workforce and measure and improve students' readiness for college. That was the vision Georgia was working toward: an internationally competitive, educated citizenry.

Race to the Top: Georgia's Plan

During the same time that Georgia was working to implement reforms in its K–12 system, the state – along with the rest of the country – was grappling with the crippling economic recession that began in 2007-2008. In response to this economic turmoil, President Obama signed into law the American Recovery and Reinvestment Act of 2009 (ARRA). This legislation provided an unprecedented infusion of funds into the economy to stimulate recovery from the recession, support job creation, and invest in critical sectors such as education. Among other things, the ARRA established the \$4.35 billion Race to the Top (RT3) fund.³ This fund was and continues to be the largest amount of discretionary funding for K-2 education reform in the history of the United States.⁴

With so many states reeling from the economic downturn, the RT3 fund offered a tremendous opportunity to receive additional federal support for educational programs. As detailed in the U.S Department of Education's (US ED) summary and guidelines, the RT3 fund was a competitive grant program designed to encourage and reward states that were creating the conditions for education innovation and reform and implementing ambitious plans in four core areas:

- ➤ Adopting internationally benchmarked 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 our lowest performing schools.⁵

As stated in its application, Georgia's vision for Race to the Top was the same vision it was already implementing to improve educational outcomes for students:

¹ Georgia Department of Education. (2010). Race to the Top: State of Georgia Scope of Work. Atlanta.

² U.S. Department of Education. (2012). Georgia State-Specific Report — Year 1: School Year 2010—2011. Washington, DC.

³ In addition to establishing the RT3 fund, ARRA provided federal aid to shore up state education budgets through increased resources for existing federal programs such as the Individuals with Disabilities Education Act and Title I services for low-income students,

⁴ Duncan, A. (2009, July 24). "Education Reform's Moon Shot." The Washington Post.

⁵ U.S. Department of Education. (2009). *Race to the Top: Executive Summary.* Washington, DC.

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Georgia's existing reform agenda is strongly aligned with Race to the Top Goals...Georgia is in a position to pivot quickly to accomplish its Race to the Top agenda as it has all the critical foundational elements in place, thanks to the proactive approach the State took to reforming education in the last decade.6

State leaders from the Governor's Office, the Governor's Office of Student Achievement (GOSA), the Georgia Department of Education (GaDOE), and other education stakeholders submitted a winning application during the second phase of the competition in June of 2010. That year, Georgia was awarded \$400 million over four years to implement its detailed plan for public school improvement.

Georgia's RT3 application is based on the state's aforementioned five priority areas for improving education. To support this vision, Georgia grouped its RT3 plan into four areas: 1) adopting college and career standards and assessments 2) recruiting, rewarding, and retaining effective teachers and leaders, 3) implementing a longitudinal data system, and 4) turning around the lowest performing schools. For details see Table 1.1.

TARLE 1.1. KEY ELEMENTS OF GEORGIA'S 2010 RACE TO THE TOP PROPOSAL?

REFORM AREA	SCOPE OF WORK
Standards and Assessments	Led by the GaDOE Office of Standards, Instruction and Assessment. The state will provide face-to-face training to teachers on the Common Core State Standards (CCSS) through regional meetings, develop new formative and benchmark assessments to provide teachers with critical feedback so they may improve their instruction throughout the course of the school year, and create proficiency-based pathways for Georgia students to waive seat-time requirements and advance upon mastery of subject material. Georgia applied for additional RT3 funds as part of an assessment consortium to develop a common assessment aligned to the CCSS. The state will implement high-quality and rigorous assessments, aligned with CCSS, to measure student achievement as a way of ensuring that CCSS are taught effectively.
Great Teachers and Leaders	Led by GaDOE's Office of Educator Support and Innovation and the Governor's Office of Student Achievement. Georgia will put in place a common evaluation system that will allow the state to ensure consistency and comparability across districts, based on a common definition of teacher/leader effectiveness. To align Georgia's evaluation system with the state's primary goal of student learning, Georgia will create a single Teacher Effectiveness Measure (TEM), Leader Effectiveness Measure (LEM) (for principals and assistant principals), and District Effectiveness Measure (DEM) TEM/LEM will be used to inform all talent management decisions: professional development, compensation, promotion retention, recertification, interventions, and dismissals. In addition, effective teachers may eventually have higher earning potential under this system. To increase the pipeline of effective teachers in high-need schools and hard-to-staff subject areas, Georgia will enter into partnerships with external organizations with proven records of recruiting and training effective teachers in shortage areas: Teach for America and The New Teacher Project.
Data Systems to Support Instruction	Led by GaDOE's Office of Technology Services and the Governor's Office of Student Achievement. Georgia will use RT3 funds to complete the longitudinal data system. Through improvements to the system, teachers will be able to use real-time student-level performance data to inform and improve their instruction.
Turning Around Low- Achieving Schools	Led by a new office, the State Office of School Turnaround, at GaDOE. Georgia will employ one of four intervention models, as prescribed through RT3, in turning around the state's lowest achieving schools: turnaround (replace principal and remove 50 percent of staff); conversion to charter management organization or education management organization; school closure; or transformation (combination of aforementioned strategies). The appropriate model for each school will be selected by the state in collaboration with the local district. Additionally participating districts must agree to a series of actions including state-level diagnostics of school, institution of common planning time for teachers, and use of graduation and math coaches.

⁶ Georgia Department of Education. Race to the Top Application, Submitted January 19, 2010. Atlanta.

Georgia Department of Education. (2010). Race to the Top: State of Georgia Scope of Work. Atlanta.

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Moreover, Georgia's overall RT3 had three additional components. First, to strengthen the science, technology, engineering, and mathematics (STEM) instruction in schools, Georgia made the reporting of and accountability for science a priority for local school districts. The RT3 proposal required science as the second Adequate Yearly Progress (AYP) indicator for all elementary and middle schools.8 Previously, the AYP process allowed elementary and middle schools to choose their second indicator from a menu of choices that included attendance rate, performance on writing, science, social studies assessments, and other measures.

Second, to incentivize innovations in teaching and learning, under RT3 Georgia established a \$19.4 million Innovation Fund. This fund was made available to participating school systems to launch innovative partnerships with higher education, education and nonprofit organizations, or businesses for the purpose of increasing student achievement.

Lastly, to increase school readiness, a portion of the state's RT3 monies was focused on early learners. The grant provided targeted technical assistance to specific Georgia Pre-K classrooms, helped with student transitions to school, and participated in the national Annie E. Casey Foundation's Grade Level Reading Initiative.

To implement these changes, 26 local school districts, representing approximately 40 percent of Georgia's K-12 students, worked with state officials to develop, pilot, and implement the reforms throughout the four years of the grant. See Figure 1.1.

Implementing the Vision

For over a decade, the Georgia Partnership for Excellence in Education has published the annual Top Ten Issues to Watch. The Top Ten has become one of the Partnership's signature efforts, and its release each year is anticipated by education stakeholders across the state as an informa-

tional resource about what is happening in education policy in Georgia. As far back as 2008, the Top Ten reported on Georgia's emphasis on improving teacher quality and the need for a student information system. The 2010 issue

PARTICIPATING DISTRICTS AND CHARACTERISTICS9

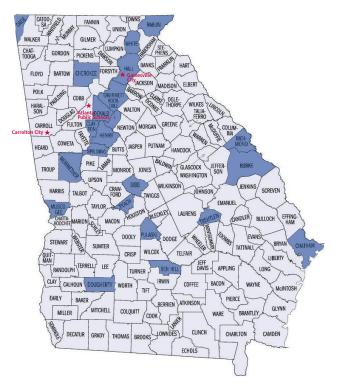
Participating school districts represent:

- 41 percent of public school students
- 46 percent of students in poverty
- 53 percent of African American students
- 48 percent of Hispanic students
- 68 percent of state's the lowest achieving schools

Atlanta City Ben Hill County **Bibb County Burke County** Carrolton City Chatham County Cherokee County Clayton County **Dade County DeKalb County Dougherty County** Gainesville City **Gwinnett County**

Hall County **Henry County** Meriwether County Muscogee County **Peach County** Pulaski County Rabun County **Richmond County Rockdale County Spalding County Treutlen County** Valdosta City White County

FIGURE 1.1: MAP OF PARTNERING SCHOOL DISTRICTS¹⁰



focused on Georgia's long-standing efforts to turn around low-achieving schools, increasing college access, and the importance of high standards and quality assessments. The vision proposed in the RT3 grant was well under way in Georgia before the application was released.

To create, implement, and fulfill a vision takes leadership. Research has found that leadership disparities explain almost a quarter of the difference in student performance across schools.11 The vision that was under way during the RT3 grant application process was championed by then Governor Sonny Perdue and State School Superintendent Kathy Cox. The fulfillment of that vision rested with the initiatives related to the implementation of Georgia's Race to the Top grant.

However, in 2010, Georgia elected a new governor, Republican Nathan Deal, and a new state school superintendent, Republican John Barge. Both offices play powerful and critical roles in the governance of Georgia schools. The governor in particular holds appointment powers over multiple education agencies, including:

⁸ Under the old No Child Left Behind, schools and districts were required to show Adequate Yearly Progress, which were measures of student achievement in English/language arts and mathematics, on an annual basis

⁹ Ihid

¹⁰ Ibid

¹¹ Waters, J. T., & Marzano, R. J. (2006). School District Leadership That Works: The Effect of Superintendent Leadership on Student Achievement. Denver: Mid-continent Research for Education and Learning.

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- ➤ Members of the State Board of Education;
- ➤ Commissioner of the Department of Early Care and Learning;
- Members of the State Board of Technical and Adult Education (who then appoint the Commissioner of the Technical College System of Georgia);
- ➤ Executive Director of the Office of Student Achievement;
- Members of and the Executive Secretary of the Professional Standards Commission; and
- Members of the Board of Regents (who then select the Chancellor of the University System of Georgia).

During his campaign, Governor Deal's education platform focused on funding, flexibility, local control, and new and innovative approaches.¹² None of these were at odds with the RT3 reform plans. John Barge, once elected, pledged to uphold the state's commitments as set forth in the Race to the Top grant application.¹³

In addition to changes in state-level leadership, during the first year of implementation (2010–2011), six of the largest participating school districts hired new superintendents. Partly due to these leadership changes, GaDOE had a slow start in implementing the grant, with the bulk of the implementation staff not being hired until late spring of 2011.¹⁴ These leadership changes at both the state and local levels had a tremendous impact on Georgia's ability to "hit the ground running" when the grant was first awarded.

Report Summary

The Georgia Race to the Top grant was an ambitious proposal that allowed Georgia to accelerate its plans to reform the state's educational system so to that every child would graduate from high school prepared for the rigors of college or to embark on a career. To implement all the proposed reforms in the four years was already an ambitious goal. However, due to leadership changes at the beginning of the grant, the slow start to the implementation process translated into condensing four years of proposed work into two to three years. So the question remains: Did Georgia fulfill its vision?

This report is not a formal evaluation of the RT3 grant. GOSA has conducted detailed evaluations of several of the components of the grant. This report provides an overview of what the state proposed it would do and what was accomplished during the implementation time period. It examines what has changed as a result of the RT3 work and lessons learned. The subsequent chapters are organized by the primary goals of reform:

- 1. Standards and assessments;
- 2. Creating great teachers and leaders;
- 3. Effective supports for all schools, including turnaround schools; and
- 4. Leading the way in STEM.

Most importantly, the report concludes by discussing next steps. Now that Georgia has gone through four years of intensive and extensive education reform, how does the state apply lessons learned in moving forward? In short, now that the race is ending, what does the future hold?

¹² Georgia Partnership for Excellence in Education. (2011). Top Ten Issues to Watch, 2011. Atlanta.

¹³ Ibid

¹⁴ U.S. Department of Education. (2012). Race to the Top Georgia State-Specific Report Year 1: School Year 2010–2011. Washington, DC.

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Successfully implementing rigorous standards and assessments is a crucial piece of Race to the Top (RT3) work in all participating states. Even before being awarded the RT3 grant, Georgia had plans to move toward both higher quality standards and assessments. In conjunction with other pieces of education reform, having high-quality standards and assessments in place should ensure that students are able to graduate from high school ready to succeed in college and the workplace. Sustained, strong implementation of standards should prepare students to excel on aligned, rigorous assessments. Combined, these two components hold potential to make Georgia as competitive academically, and ultimately, economically as possible.

Under this reform strategy, standards set a high, relevant bar for what students need to learn in the classroom. Georgia has been through multiple sets of standards and curricula in the past decade. When classroom standards change even once, the teaching and learning process is reconfigured throughout the state. Georgia transitioned to its current standards, the Common Core Georgia Performance Standards (CCGPS), described in this chapter, to bring as much intellectually stimulating rigor and college and career relevance to students as possible. Learning from challenges in past standards rollouts, the state blended both online and in-person training opportunities for educators to master instructional expectations of the CCGPS.

Now that the state has transitioned to the standards, high-stakes standards-aligned assessments will be used to measure how much learning is accomplished beginning in December 2014. The state's new assessment system (rolled out separately from but in coordination with Georgia's RT3 plan) is known as Georgia Milestones. RT3 allowed Georgia to prepare for its transition to Georgia Milestones by supporting the creation and rollout of a system of low-stakes classroom practices and tools for measuring learning progress. These assessment reforms are known as the formative instructional toolkit, which is a ramp of learning and instruction that will support the state's preparation for the Georgia Milestones.

The success of quality standards and rigorous assessments is truly the foundation upon which the rest of Georgia's reform agenda is built. Results from Georgia Milestones assessments, which Georgia RT3 formative assessments support, are a public litmus test for student academic progress and are used to inform school accountability through measures like the College and Career Readiness and Performance Index (CCRPI).¹⁵ The state's new teacher and leader effectiveness measures also take student growth on end-of-course and end-of-grade assessments into consideration. These indicators, in turn, inform professional standards licensing and certificates. With so much weighing on standards and assessments, it is important that the state gets them right.

DEVELOPING AND ADOPTING INCREASED STANDARDS

Implementing rigorous college- and career-ready standards that prepare students for success has been an integral aspect of education reform in Georgia for years.

Well before RT3, former Georgia Governor Sonny Perdue helped lead the coordinated effort of the National Governors Association (NGA) and Council for Chief State School Officers (CCSSO) to support states in developing internationally benchmarked English/language arts and mathematics standards. These standards became known as the Common Core State Standards (CCSS).

Georgia infused the CCSS into its existing standards, the Georgia Performance Standards, to add a level of rigor, resulting in the Common Core Georgia Performance Standards (CCGPS). The Georgia State Board of Education adopted the CCGPS in 2010, and districts implemented them at the start of the 2012 school year for all grades in English/language arts (ELA) and K–9 mathematics. As ninth graders have advanced, standards-aligned mathematics course options have concurrently expanded. CCGPS mathematics programs now include considerable course options to accommodate a full range of learners. For instance, to accommodate the students who need more time to master content material, a two-year Advanced Algebra course was created. On the other hand, high-achieving students may take accelerated algebra and geometry course sequences. ¹⁶ Further, eighth-grade students with appropriate prerequisites may enroll in Coordinate Algebra. Expanded CCGPS mathematics courses will be fully available for K–12 classrooms in school year 2015–2016.

¹⁵ The CCRPI is a school improvement, accountability, and communication measure. It rates schools using an index score comprising multiple measures, including student achievement, progress measures of student growth, achievement gap closures, efforts to prepare students for college and/or career, school climate, and financial effectiveness.

¹⁶ Georgia Department of Education. (2014). Standards Report July 1, 2013 – June 30, 2014 Georgia. Atlanta.

The CCGPS that Georgia has today are a set of standards, not to be confused with a curriculum. Standards are designed to outline what students should know at a certain point in their education so that when they graduate from high school, they are ready for college and/or a career. A curriculum involves how standards are taught, including teaching methods, lesson plans, textbooks, reading materials, and so forth. The CCGPS outlines the standards – the goals – but local school districts and teachers are left to develop their own curricula. Since the standards' launch, the two most common, aligned practices reported by teachers across Georgia are that (1) teachers now ask students more questions and encourage students to develop answers independently, and (2) teachers are incorporating new curricular materials and instructional strategies into the classroom.¹⁷

Promoting Increased Standards

The Georgia Department of Education (GaDOE) knew the promotion of professional learning and related resources for school personnel would play a critical role in successful implementation of the CCGPS. In 2004, Georgia transitioned to the Georgia Performance Standards. This rollout was marked by a lack of supportive professional development and teacher training, ultimately leading to what many remember as an ineffective implementation. These standards were in place until the state adopted the CCGPS. Learning from earlier mistakes, the state emphasized the creation, revision, and promotion of CCGPS resources and professional development as part of its RT3 plan.

Preparing for Standards Launch: Blended Approach to Professional Learning

In 2011, to transition to the CCGPS before the standards officially launched in classrooms, Georgia began introducing staff to the CCGPS. Trainings focused on explaining the CCGPS' relationship to the previous Georgia Performance Standards. A blend of online interactions and in-person trainings were held to maximize accessibility. This combination model continued throughout grant implementation.

TABLE 2.1: CCGPS IMPLEMENTATION TIMELINE

CCGPS TIMELINE ¹⁸				
2008	NGA and CCSSO begin the Common Core effort; NGA chooses Gov. Sonny Perdue as co-chair.			
July 2010	Georgia State Board of Education adopts the Common Core Georgia Performance Standards after a public review/comment period.			
August 2010	Georgia announced as Race to the Top second-round winner.			
School year 2011–2012	Department of Education begins staff training for transition to CCGPS.			
School year 2012–2013	Districts implement standards in K–12 ELA and K–9 mathematics.			
School year 2013–2014 and 2014–2015	Districts continue to implement standards in K–12 ELA and expand mathematics course options to accommodate needs of various learners.			

Training began with an online orientation webinar, monthly curriculum webinars, and newsletters to system curriculum administrators. Georgia Public Broadcasting and GaDOE followed these items with live-streamed online professional learning webinars. More than 40 webinars were offered spanning grades K–12, with topics ranging from mathematics to ELA to explaining how literacy plays a part in other subjects and how to provide student learning interventions. More than 900 educators participated in the live broadcasts, and many accessed the webinars later, after their live stream. ¹⁹ Webinars have since been edited to include only the most relevant information. ²⁰ The webinars are still available for educators through various access points online, including:

- ➤ Georgia Public Broadcasting website (http://legacy.gpb.org/education/common-core)
- ➤ Georgia Standards website (www.GeorgiaStandards.org), which provides free public education information and resources related to the CCGPS for educators and parents
- ➤ Teacher Resource Link, a new search engine for educators that is part of the state's longitudinal data sharing system (described in Chapter 4). The link allows teachers to quickly find and access CCGPS resources
- ➤ Wikis, online forums for educators to find, share, and discuss resources from around the state with support from specialists at the state level
- Georgia Virtual School, an online school that provides classes for students in addition to professional learning courses for educators

¹⁷ Governor's Office of Student Achievement. (2014). GaPSC/GOSA Teacher Survey on CCGPs Implementation: Preliminary Results from All Administrations, Version 1.3: September 4, 2014. Atlanta.

¹⁸ Some table information is drawn from Georgia Public Policy Foundation. (2013). Background Analysis of the Common Core State Standards as They Relate to Georgia. Atlanta.

¹⁹ U.S. Department of Education. (2013). Race to the Top: State Specific Georgia Report Year 2. Washington, DC.

²⁰ Georgia Department of Education. (2014). Race to the Top Progress Update, August 2014 Monthly Progress Call, Part B. Atlanta.

Prior to the launch of the CCGPS, the GaDOE focused on in-person support as well. Nearly 20 mathematics and ELA workshops on the CCGPS were held for more than 2,000 teachers and instructional leaders.²¹ The state's 16 Regional Educational Service Agencies (RESAs)²² also provided training to educators by RT3-funded ELA specialists and statefunded mathematics specialists through more than 4,000 face-to-face professional learning sessions on the new standards before their classroom launch.23

Educators showed an especially positive response to the state's face-to-face regional Summer Academy Programs. These two-day regional professional development sessions were designed to address the CCGPS needs of educators from every Georgia school. These trainings were met with such positive reception that GaDOE offered them every year of RT3. Total educator participation in the Summer Academy Program for 2012, 2013, and 2014 was close to 11,700 educators, including almost 6,000 mathematics participants and 5,700 ELA participants at 41 sessions total.²⁴

Face-to-face professional learning had been provided by GaDOE staff in collaboration with RESAs for more than 64,000 teachers and administrators by the end of the 2011–2012 school year.²⁵

Launching the Standards and Continuous Improvement

The Governor's Office of Student Achievement (GOSA) was charged with evaluating RT3. During the first semester of district implementation of the standards, GOSA administered surveys to educators regarding the standards transition. Results demonstrate that Georgia had a degree of success in CCGPS transition and outreach. Months into implementing the CCGPS, most teachers had a clear understanding of the state's transition to the new standards. Even better, most educators exhibited full engagement and commitment to implementing the CCGPS. However, teachers also expressed mixed feelings in regard to their confidence with implementing the standards. Respondents were split on their confidence (or lack thereof) to implement the standards, with many educators portraying CCGPS implementation as overwhelming. At the same time, a large share of educators found GaDOE to be very supportive.²⁶ As a whole, GaDOE's initial rollout held a great deal of promise but needed work.

For Georgia, the ability to adapt and improve the standards rollout was just as important as a strong start in implementation. After learning that Georgia's professional development opportunities were not increasing teachers' ability to implement the standards in the classroom, GaDOE realized changes were necessary.²⁷ In response, the state shifted its focus away from explaining the CCGPS's relationship to Georgia's prior standards and began emphasizing how to teach the new standards themselves. Trainings emphasized the improvement of educator content knowledge and instructional techniques for responding to the needs of specific populations (such as students learning English, gifted students, etc.).28

Further, GOSA and the Georgia Professional Standards Commission conducted annual educator surveys to monitor progress. Informed by these feedback measures and listening to educators, GaDOE took standards implementation to the next level. Given feedback on the quality and length of state CCGPS resources, Georgia took on intense revision efforts of both language arts and math resources. Sixty master educators led this process in each discipline.²⁹ After learning that some teachers were not aware of where CCGPS resources were located, Georgia made strides to increase its communications and presence at educator conferences.³⁰ In the same vein, GaDOE learned that many teachers were not aware of the regional Summer Academies. The majority of attendees found Summer Academies extremely valuable, so these trainings continued, and by 2014 participation was more than double that of the previous year. RESAs continually responded to requests for CCGPS-related professional development for educators within their local regions.

²¹ U.S. Department of Education. (2013). Race to the Top: State-Specific Georgia Report Year 2. Washington, DC.

²² RESAs are state-supported agencies with the goal of helping their local school systems meet their educational needs through the sharing of services across school system lines. Numerous educational services can be offered more effectively and efficiently by pooling resources. All RESAs are required to provide services in research and planning, staff development, curriculum and instruction, assessment and evaluation, technology, health, and school improvement.

²³ U.S. Department of Education. (2013). Race to the Top: State-Specific Georgia Report Year 2. Washington, DC.

²⁴ Georgia Department of Education. (2014). Race to the Top Progress Update, August 2014 Monthly Progress Call, Part B. Atlanta.

Georgia Department of Education. (2014, October 17). Final Performance Report, Part B: Standards. Atlanta.

Governor's Office of Student Achievement. (2013). Roll-Out and Early Implementation of CCGPS: Analysis of the CCGPS Supports Inventory Survey. Atlanta.

²⁷ U.S. Department of Education. (2014). Race to the Top: Georgia Progress Report Year 4. Washington, DC.

²⁸ Ibid.

Georgia Department of Education. (2014). Race to the Top Progress Update, December 2013 Monthly Call, Part B. Atlanta. 29

³⁰ Ibid.

Challenges in Standards Implementation

GaDOE has cited communicating with teachers to promote the meaningful use of resources as a consistent challenge, despite its outreach strategies.31 To initiate communication with teachers, GaDOE, in part, relied on personnel such as district administrators. GaDOE encouraged school representatives to invite classroom teachers and leaders to online and in-person events and worked to distribute resource awareness-related RT3 materials at events. However, GaDOE has no mechanism for communicating directly with all teachers.³²

Given GaDOE's challenge with communicating with classroom teachers, it is no surprise that a number of districts have also reported that one of their greatest challenges in implementation of the CCGPS has been parent communication. Although administrators and teachers are committed to the success of the standards, spotty, inconsistent information was given to parents about the change in standards across the state. Districts have requested more information from GaDOE for parents to provide statewide consistency in the reasoning behind the transition to CCGPS.33

During the 2014 legislative session, a bill that would have changed the state's course of standards and assessment implementation was introduced. Senate Bill 167 would have withdrawn Georgia from the common core and any assessments made outside the state. This bill and another, which would have established a curriculum review and advisory board to guide curriculum decisions of the State Board of Education (SBOE), were ultimately not successful. However, since then, the General Assembly and SBOE have committed efforts to further explore these issues.

DEVELOPING AND ADOPTING RIGOROUS ASSESSMENTS: GEORGIA MILESTONES Why Assessments?

When Georgia decided to improve its standards, it took on responsibility to create a corresponding assessment system for measuring student learning. The shift to the CCGPS represents a significant increase in the state's commitment to teach the development of higher order critical thinking and reasoning skills. Georgia's prior assessment systems, in contrast, have focused on testing whether students know certain facts, typically through bubble-in, multiple-choice tests.

Georgia's assessment reform has entailed the creation and launch of formative and summative assessments. Formative assessments are used to periodically gauge students' knowledge while they are still in class learning the standards.

Formative Assessments

Informal and formal formative assessments are used to provide the information necessary to adjust classroom strategies while teaching and learning are under way in the classroom. Georgia's formative assessments were developed to reflect the rigor of the new standards so that both teachers and students have experience in understanding the higher expectations set for students before the end of a course or grade. Georgia has tied three strategies together to create a formative assessment toolkit to train and equip educators with the resources necessary to formatively assess their students. The formative assessment toolkit includes:

FIGURE 2.1: FORMATIVE ASSESSMENT INITIATIVES (ALSO CALLED FORMATIVE ASSESSMENT TOOLKIT)34 ➤ 1,600 questions available ➤ 1.140 science and social Formative Instructional studies items added in fall 2014 **Practices** Formative **Blended** Item Bank Professional ➤ 20,000+ educator impacted Development ➤ 7 modules launched in summer 2013 ➤ Additional 12 modules coming **Benchmark** soon to expand foundation ➤ 24 developed

- 1. Professional development on how to conduct formative assessments in the classroom (through blended online and in-person training on Formative Instructional Practices),
- 2. A resource database for teachers to search for and access formative tests for their classrooms (called the Formative Item Bank), and
- 3. Formative assessments to be administered at the school or district level periodically (called Benchmark Assessments).

³¹ U.S. Department of Education. (2014). Race to the Top: Georgia Progress Report Year 4. Washington, DC.

³² Georgia Department of Education. (2014). Race to the Top Progress Update, December 2013 Monthly Call, Part B. Atlanta.

³³ Ibid.

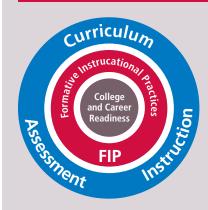
³⁴ Fincher, M. (2014). Georgia Milestones Assessment System. Georgia's 2014 Race to the Top Summit (p. 16). Jekyll Island: Georgia Department of Education.

As a piece of the formative assessment toolkit, Georgia created and promoted the use of Formative Instructional Practices (FIP). These practices include formal and informal ways teachers can gather evidence of and respond to student learning. Research has shown that when the practices are used appropriately during teaching and learning, student achievement increases.³⁵ FIPs tightly align to and directly support the teacher and leader evaluation systems described in Chapter 3. Teaching of the practices combines official online and face-to-face professional learning experiences, ultimately resulting in the awarding of professional learning units to participants.³⁶ In 2012–2013 (the year the standards were launched in districts), Georgia piloted its first FIP course called Assessment Literacy, with 400 teachers in several districts across the state.³⁷ A geographically diverse educator advisory committee guided and provided feedback on this launch. Since school year 2013–2014, RESAs have recruited and trained teachers on the practices through a team-based professional development model that includes seven modules.

The first FIP course was such a success that course offerings will be expanded with a goal of increasing the integration of FIPs into daily use by Georgia teachers. As of September 2014, more than 20,000 educators had created online FIP accounts. Positive anecdotal evidence and the surge in educator enrollment led the SBOE to approve additional funding for RESAs to continue to support FIP training through June 2015 and add 12 new modules. These additional modules move from general principles of formative instructional practice to more specifics for ELA and mathematics across grade levels, while taking into consideration special populations such as English learners, students with disabilities, and gifted students.³⁸

In conjunction with professional development training, GaDOE launched a collection of formative test resources known as the Formative Item Bank for teachers. Bank items (questions, tests) were created by Georgia educators and are aligned to the CCGPS and Formative Instructional Practices. The items included were thoroughly vetted and reviewed over a two-year period before

FIGURE 2.2: HOW DO GEORGIA'S FORMATIVE INSTRUCTIONAL PRACTICES CONNECT?



Educators across Georgia are working hard to implement initiatives aimed at ensuring all students achieve the target of college and career readiness.

Formative intructional practices are critical to connecting the dots between improvement efforts related to curriculum, instruction, and assessment.

launch.³⁹ The item bank provides in-class assessment questions to identify student strengths and weaknesses while they are learning. Student performance on items from the bank help teachers determine next steps for instruction (for instance, whether review is necessary, or if students are ready to continue), allowing students and teachers to keep their focus on student achievement in a low-stakes, diagnostic environment.⁴⁰ The bank now holds more than 1,600 items aligned to ELA and mathematics standards. An additional 1,140 science and social studies items will be loaded during the fall of 2014.⁴¹

Last, with input from an academic and technical advisory group that includes state educators, Georgia created formative benchmark assessments for 24 courses and grade levels. Benchmark assessments are administered at the school or district level at the end of a semester, course, or nine-week period. These low-stakes assessments are designed to provide information on students' preparedness for higher stakes (end-of-grade or end-of-course) Georgia Milestones assessments. Although their administration is more structured than the Formative Item Bank, benchmark assessments will not be used in official models that determine teachers' impact on student growth.⁴² Benchmark assessments are available for ELA for grades 1–11; mathematics for grades 1–8; advanced mathematics courses including Coordinate Algebra, Analytic Geometry, and Advanced Algebra; U.S. History; and Biology.⁴³

GaDOE does not mandate use of any of the formative item toolkit. These resources, in conjunction with one another, are meant to support educators on their path to improved instruction and student achievement. As of December 2014, the complete toolkit became available to teachers through an online portal called Georgia Online Formative Assessment Resource (GOFAR). When signed into the state's longitudinal data system (described in Chapter 4), all

³⁵ Georgia Department of Education. (2014, September 22). Georgia FIP: The Keys to Student Success. Retrieved from www.gadoe.org: http://www.gadoe.org/Curriculum-Instruction-and-Assessment/Pages/GeorgiaFIP.aspx

³⁶ Professional learning units are units awarded to Georgia educators to recognize organizational development and staff development, ultimately targeted at improving student learning.

³⁷ U.S. Department of Education. (2014). Race to the Top: State-Specific Georgia Report Year 3. Washington, DC.

³⁸ Georgia Department of Education. (2014). Race to the Top Progress Update, August 2014 Monthly Progress Call, Part B. Atlanta.

³⁹ Georgia Department of Education. (2014). About the Formative Assessment Items and Tasks in the OAS: Level 2 Revised March, 2014. Atlanta.

⁴⁰ Ibid

⁴¹ Fincher, M. (2014). Georgia Milestones Assessment System. Georgia's 2014 Race to the Top Summit (p. 16). Jekyll Island: Georgia Department of Education.

⁴² Georgia Department of Education. (2010). Georgia's Race to the Top Application Submitted January 19, 2010. Atlanta.

⁴³ Georgia Department of Education. (2014). Assessment Update: Changing Assessment Landscape, Georgia Milestones Assessment System: Georgia Milestones (p. 23). Atlanta.

teachers will have direct access to GOFAR to seek, assign, and monitor formative assessment progress of students. GaDOE will continue efforts to make educators aware of how to use FIPs, the Formative Item Bank, and benchmark assessments.⁴⁴

Georgia Milestones

When awarded RT3 in 2010, the state planned to participate in a multistate consortium to develop a high-quality assessment system. Accordingly, Georgia became a governing member of the Partnership for Assessment of Readiness for College and Careers (PARCC) consortium. However, after internal deliberations for over a year, GaDOE withdrew from the consortium in July 2013, ultimately deciding to create its own assessment system. Withdrawal was met with some trepidation from district leaders and principals. Some expressed concern that withdrawing from PARCC made them unsure of what they were working toward as CCGPS instruction transitioned.⁴⁵ Additionally, withdrawing from the consortium eliminated Georgia's potential for state-to-state comparisons of assessment performance with other PARCC states.

The primary reason Georgia withdrew from PARCC was to maintain control over the adjustment of its standards and student testing. PARCC would prevent GaDOE from changing its assessment if it adjusted standards when educators indicated revisions needed to be made to better serve students.⁴⁶ The high cost and technology requirements were also a concern for Georgia. PARCC ELA and mathematics tests alone were estimated to cost significantly more than Georgia's entire testing program.⁴⁷

Beginning in December 2014, Georgia will start administering its own Georgia Milestones assessments, independent of any consortium. These high-stakes assessments will be implemented in grades 3 through high school beginning during the 2014–2015 school year as end-of-grade (EOG) and end-of-course (EOC) assessments. EOC and EOG Georgia Milestones assessments establish high expectations for students to move to the next grade, course, or college and career. A transition to online testing with Georgia's new assessment system will gradually take place over a five-year implementation period.

As stated previously, RT3 did not fund Georgia's instatement of the Georgia Milestones, but supported the development and launch of the formative instructional toolkit. The formative instructional toolkit initiatives are a strategic teaching and learning complement to the Georgia Milestones.

Assessment Challenges

Georgia is transitioning away from a set of long-standing procedures and assessments that districts, schools, students, parents, and communities are familiar with toward a new, more rigorous assessment landscape. While the new assessment system holds much potential, as with any change, the future remains unknown. To prepare educators for the demands of the Georgia Milestones assessments, GaDOE has created and publicized numerous resources regarding the CCGPS and the formative assessment toolkit, described earlier in this chapter. Although GaDOE performed several face-to-face meetings and webinars with hundreds of educators, the department still has issues with teacher awareness on how to use its CCGPS and formative assessment resources.⁴⁸

In summer 2013, GaDOE launched the first of several online professional learning courses for educators targeted at the standards and meaningful use of assessment data. These courses are free and open to all teachers on the Georgia Virtual School. Teachers who complete the courses are awarded professional learning units. Unfortunately, the launch of these courses was delayed and, since their debut, participation has remained low.⁴⁹ It is possible the FIP trainings, Formative Item Bank, and benchmark assessments have seen more success than these courses due to the inclusion of Georgia educators in the formative assessment toolkit's launch and rollout. GaDOE continues to advertise and offer the courses nonetheless.

GaDOE also experienced delays in launching the Formative Item Bank and benchmark assessments. Since the item bank's launch, a survey of Georgia educators on the formative assessment toolkit in spring 2014 has indicated there is room for improvement. While the return rate for the survey was low, of those who responded, many valued the

⁴⁴ Georgia Department of Education. (2014). Race to the Top Progress Update, December 2013 Monthly Call, Part B. Atlanta.

⁴⁵ U.S. Department of Education. (2014). Race to the Top: Georgia Progress Report Year 4. Washington, DC.

⁴⁶ Georgia Department of Education. (2014, September 26). Georgia Withdrawing from the Partnership for Assessment of Readiness of College and Careers (PARCC) Consortium, July 22, 2013. Retrieved from Georgia Department of Education: http://www.gadoe.org/External-Affairs-and-Policy/communications/Pages/PressReleaseDetails.aspx?PressView=default&pid=123

⁴⁷ Ibid

⁴⁸ Georgia Department of Education. (2014). Race to the Top Progress Update, December 2013 Monthly Call, Part B. Atlanta.

⁴⁹ Ibid.

Formative Item Bank but were unsure of how to use the tools to advance student learning.⁵⁰ The majority of respondents reported using formative assessments from the item bank on a quarterly or semester basis. However, GaDOE aims to make the meaningful use of formative assessments part of daily life in the classroom. GaDOE believes a strong, seamless system of ongoing formative instruction will ultimately bolster student achievement. Currently, many educators are frustrated by the item bank's online platform.⁵¹ Given the state's recent transition to the online GOFAR system, it will be necessary for educators to adjust to new formative assessment items and learn to integrate them into instruction for GaDOE's goal for formative assessments to be seamlessly delivered.

CONCLUSIONS AND LESSONS LEARNED

Since 2010, Georgia has come a long way – now having more rigorous standards (CCGPS) and assessments (formative and Georgia Milestones) in place. As stated earlier, the success of quality standards and rigorous assessments is truly the foundation upon which the rest of the reforms are built.

Georgia had success in making a significant amount of instructional materials and professional development resources on the CCGPS available to Georgia educators online and in-person. The state's regional two-day Summer Academy Programs appear to have been especially useful for Georgia educators. After launching the CCGPS, responding to teachers' voices and educator surveys became vital to ensuring a continual improvement process. Communication shifted from describing what the standards are to how to teach them for elevated student achievement. Teacher awareness, parental awareness, and politics have posed challenges to ensuring continued standards rollout. The Georgia Milestones has changed the state's assessment landscape. The formative assessment toolkit, comprising instructional practice techniques, assessment bank items, and benchmark assessments, lays a foundation for educators from which to prepare for high-stakes EOG and EOC Georgia Milestones assessments. Although some formative assessment tools had a late start, FIP modules hold promise for ongoing training through RESAs throughout the state. Technology gains like the GOFAR system will provide an unprecedented one-stop system for all Georgia educators to be able to access resources to further improve their formative instruction techniques, which will build learning foundations for Georgia Milestones.

Results from Georgia Milestones will serve as a public litmus test for student academic progress as a factor in school accountability measures like the CCRPI. Student growth on Georgia Milestones weighs heavily on the state's new teacher and leader effectiveness measures (contributing 50 percent and 70 percent to the calculations, respectively). In turn, teacher and leader effectiveness measures will impact professional standards licensing and certificate decisions. With so much riding on standards and assessments, it is important that the state gets them right.

RT3 has allowed Georgia to lay a firm foundation of resources for moving forward to Georgia Milestones. In addition to the formative assessment and CCGPS resources made possible by RT3, GaDOE conducts specific outreach to make educators aware of the student-generated response and technology expectations of Georgia Milestones. Given RT3's formative assessment, CCGPS resources, and GaDOE's Milestones outreach, today the state is better prepared for the rigorous demands of Georgia Milestones than four years ago.

Although RT3 is coming to a close, Georgia's launch of the new assessment system, Georgia Milestones, is just on the horizon. As Georgia moves beyond RT3, work remains in determining whether the CCGPS and Georgia Milestones are preparing students for college and career - the state's ultimate goal. Initial Milestones assessment results will be an important indicator of how the formative work and preparation has gone. As seen in other states, assessment scores may drop due to the increased rigor and student response requirements of Georgia Milestones. Corrective action and professional development will likely play key roles in remediating weak areas. Looking forward, the way Georgia does or does not respond to initial Georgia Milestones results will weigh just as heavily on the trajectory of Georgia as the RT3 work that has already been accomplished.

INTRODUCTION

The quality of the educator workforce has long been understood to be the most critical component affecting student achievement. A wealth of research has focused on the issues of teacher quality and teacher supply, drawing attention to the critical need to address these areas of education policy.⁵²

Understanding this, Georgia has focused on great teachers and leaders as a cornerstone of the state's education reform efforts. To support this goal, the Race to the Top (RT3) application focused on recruiting, rewarding, and retaining highquality teachers and leaders. In its application, Georgia committed to:

- 1. Improving teacher and principal effectiveness based on performance,
- 2. Improving the effectiveness of teacher preparation programs,
- 3. Providing high-quality pathways for new teachers and principals, and
- 4. Ensuring an equitable distribution of effective teachers and principals.

Throughout the RT3 grant period, Georgia also pledged to provide ongoing support to teachers and school leaders by providing high-quality instructional materials, resources, and training to support staff members in their development and implementation of other reforms, such as new standards, assessments, and evaluation systems. Taken together, these reforms are all targeted at teachers and school leaders to improve their practice, which in turn will result in improved student outcomes.

IMPROVING TEACHER AND PRINCIPAL EFFECTIVENESS BASED ON PERFORMANCE

A recent study of all 50 states by the National Council on Teacher Quality found that, historically, states have had very little input into how teachers are evaluated.⁵³ However, since 2009, there has been a dramatic shift in teacher evaluation systems, primarily due to the federal Race to the Top competition and the conditions required by the U.S. Department of Education for states pursuing waivers to the No Child Left Behind law. This widespread adoption has led to more rigorous, complex, and data-driven teacher evaluation systems.

Georgia has been a leader in developing and implementing new teacher and leader evaluation systems. To support the state's goals of retaining and rewarding great teachers and leaders, the RT3 grant included four main tasks:54

- 1. Establish a clear approach for measuring student growth;
- 2. Develop a rigorous, transparent, and fair evaluation system for districts, principals, and teachers;
- 3. Conduct annual evaluations of teachers and principals that provide constructive feedback and provide teachers and principals with data on student growth; and
- 4. Use annual evaluations to inform talent development and management decisions.

The goal of this work was to develop a rigorous and transparent teacher and leader evaluation instrument that would help ensure an effective teacher in every classroom and an effective leader in every school. GaDOE developed both teacher and leader effectiveness systems that incorporated student growth to meet this purpose.

Teacher and Leader Evaluation System Development

All RT3 states are implementing comprehensive systems of educator effectiveness by developing and adopting rigorous evaluation systems that take into account student growth. These systems are intended to be conducted at least annually and provide timely and constructive feedback to inform professional development, promotion, retention, tenure decisions, and, potentially, compensation.

In Georgia, these new systems are known as the Teacher Keys Effectiveness System (TKES) for teachers and the corresponding Leader Keys Effectiveness System (LKES) for school leaders, primarily principals. These new systems are one of Georgia's primary accomplishments under the RT3 grant. In addition to being able to distinguish between good teachers, great teachers, and ineffective ones, the primary focus of the teacher effectiveness system is to help improve instruction and to better design professional development activities to meet teacher needs.

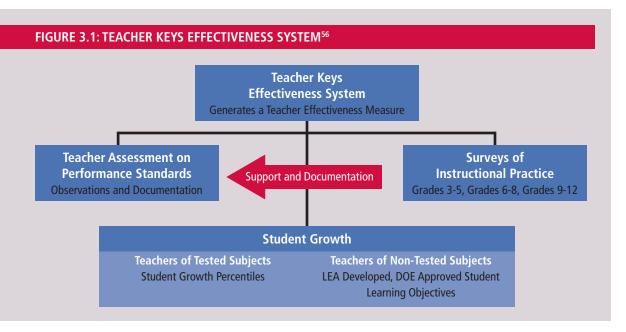
For all teachers, the TKES generates a final score called the Teacher Effectiveness Measure (TEM) consisting of two primary components:

⁵² Georgia Partnership for Excellence in Education. (2006). Georgia's Unfinished Business in Teacher Quality. Atlanta, www.gpee.org; McKinsey & Company. (2007). How the World's Best-Performing School Systems Come Out on Top: National Council on Teacher Quality, (2007), State Teacher Policy Yearbook: Progress on Teacher Quality, Washington, DC

⁵³ Doherty, K., & Jacobs, S. (2013). State of the States 2013, Connect the Dots: Using Evaluations of Teacher Effectiveness to Inform Policy and Practice. Washington, DC: National Council on Teacher Quality.

⁵⁴ U.S. Department of Education. (2014). Race to the Top: Georgia Progress Report Year 4. Washington, DC.

- 1. Assessments based on performance standards, which are informed by surveys of instructional practice in grades 3-12;55 and
- 2. Student growth and academic achievement.



The final TEM score is made up of the observations of teachers on performance standards (50 percent) and the student growth and academic achievement measures (50 percent). The surveys of instructional practice are used to add context around the teacher assessment standards. The surveys are not weighed separately in calculating the final score, but are used as an additional source of data to inform teacher assessment performance standards.

In regard to student growth, the evaluation of teachers in tested subjects will be based on student growth as determined by the student growth measure to be discussed in the next section. For teachers of non-tested subjects, their growth measures will be based on the student learning objectives, or SLOs. Teachers will be categorized across four levels based on the growth scores. See Table 3.1.

TABLE 3.1: STUDENT GROWTH CALCULATIONS AND TEACHER RATINGS

Teacher Rating Level	Level IV In addition to meeting the requirements for Level III	Level III The expected level of performance	Level II	Level I
Teacher Results	The work of the teacher results in exceptional student growth.	The work of the teacher results in appropriate student growth.	The work of the teacher does not result in appropriate student growth.	The work of the teacher results in minimal student growth.
Student Outcomes	≥90% of students demonstrated expected/ high growth and ≥30% high growth on the SLO.	65-89% of students demonstrated expected/ high growth on the SLO. OR ≥90% of students demonstrated expected/ high growth and <30% high growth on the SLO. OR 65-89% of students demonstrated expected/ high growth and ≥30% high growth on the SLO.	50-64% of students demonstrated expected/ high growth on the SLO.	< 50% of students demonstrated expected/ high growth on the SLO.

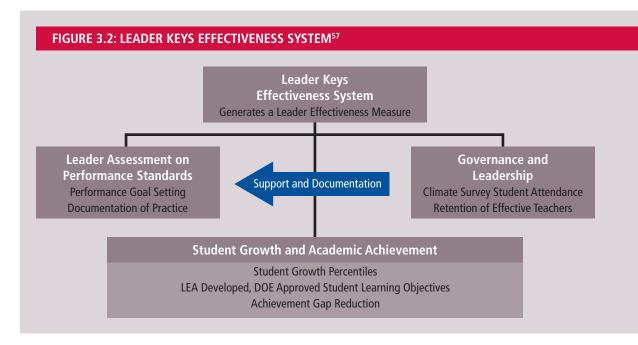
⁵⁵ Surveys of instructional practice, the second component, provide information about student perceptions of a teacher's performance. The surveys ask students to report on items they have directly experienced. Student surveys provide information to evaluators that may not be obtained during an observation or through other types of documentation.

⁵⁶ Georgia Department of Education. (2014). Teacher Keys Effectiveness System Handbook. Office of School Improvement, Teacher and Leader Effectivness Division, Atlanta.

The final TEM score – combining both growth and observations – will categorize teachers as exemplary, proficient, needs development, or ineffective.

Georgia has also developed and implemented a leader effectiveness system, the LKES. The LKES is made up of two components: the Leader Assessments on Performance Standards and student growth and academic achievement, including achievement gap reduction. The system also includes school climate surveys and data on student attendance and the retention of effective teachers. Figure 3.2 shows the components of the LKES.

Much like the TEM, the total leader effectiveness measure (LEM) will be a combination of the leader assessment on performance (30 percent) and the student growth and academic achievement (70 percent) measures.



Student Growth Models

As previously stated, increasing teacher and leader effectiveness were two of the five primary goals of Georgia's strategic plan to improve educational outcomes before the state applied for the RT3 grant. As part of that process, Georgia has made student growth the heart of the teacher and leader effectiveness systems.⁵⁸

Throughout the RT3 grant, GaDOE developed and implemented the Georgia Student Growth Model (GSGM). This new growth model describes the change in student achievement over time. The GSGM is based on a Student Growth Percentile (SGP), which describes a student's growth (how much they learned over a given time period) relative to other students with similar prior achievement statewide. In other words, how much an individual student learned will be compared to how much other students with similar academic backgrounds learned over the same time period.⁵⁹

The shift to the growth model lessens the exclusive focus on student achievement. Progress is no longer defined by whether or not students are simply meeting or exceeding academic expectations. The student growth model adds a new element centered on how well students are progressing – how much they are actually learning. Students will receive a SGP score for each of their tested subjects. That includes the new Georgia Milestones assessments for grades three through eight – previously the Criterion-Referenced Competency Tests (CRCT) – and End-of-Course (EOC) tests in grades 9–12. To help students, educators, and parents understand the relationship between student growth levels and academic achievement, the following categories were established based on the SGP:⁵⁰

➤ Low:1–34 ➤ Typical: 35–65 ➤ High: 66–99

⁵⁷ Georgia Department of Education. (2014). Leader Keys Effectiveness System Handbook. Office of School Improvement, Teacher and Leader Effectivness Division, Atlanta.

⁵⁸ Georgia Department of Education. (2010). Georgia's Race to the Top Application – Submitted January 19, 2010.

⁵⁹ Georgia Department of Education. (2014). Overview of the Georgia Student Growth Model. Atlanta.

⁶⁰ Ibid.

A student who demonstrates low growth, scoring in the 26th percentile, for example, will struggle to maintain his or her current level of academic achievement. So, even if a student is currently exceeding expectations on their EOC test or Georgia Milestones assessment, the level of growth indicates he or she will have trouble maintaining that level of achievement over time. Conversely, a student scoring in the 75th percentile, for example, will make greater improvements academically.

The GSGM has three primary purposes:

- 1. Provide students, parents, educators, and the public with information on student academic progress;
- 2. Inform district and school accountability, as the student growth measures are incorporated into the College and Career Ready Performance Index (CCRPI); and
- 3. Contribute to the new teacher and leader evaluation systems.

The student growth percentiles have been calculated based on student achievement data through 2013 based on CRCTs and EOC tests. During 2013, GaDOE provided paper copies of individual student growth data to parents. Teachers have had access to student growth data through the longitudinal data system (LDS) since August 2013. In spring 2014, GaDOE made student growth percentiles broken down by subject, grade, school, and district publicly available. No identifiable data or information is included in the publically available data, which can be viewed at gastudentgrowth.gadoe.org. GaDOE is currently focusing on training stakeholders, particularly parents, on how to interpret and use the growth measures and the reports.

As stated earlier, the student growth measure is calculated using tested subjects, which are subjects taught by teachers that use an existing state standardized test. However, only a small number of Georgia educators teach a tested subject. Approximately 70-75 percent of teachers teach a non-tested subject for at least some portion of the day, such as health, music, physical education, foreign languages, etc.61

To develop metrics of student growth for subjects that have no statewide test, the GaDOE approved the development of student learning objectives (SLOs). Local districts are responsible for developing these learning objectives for each class that falls into the "non-tested subject" category. These learning objectives – or SLOs – describe what students are expected to learn in a given academic year, as measured by pre- and post-assessments. These district-determined SLOs are course-specific, grade-level learning objectives that are to be measureable, focused on growth and student learning, and aligned to curriculum content standards.62

While all SLO assessments are to be developed locally or regionally, GaDOE has created specific tools and resources, as well as an approval process, to help ensure compatibility of rigor, alignment, and validity for items on a given assessment. Working through the local Regional Education Support Agencies (RESAs),63 GaDOE has adjusted teacher and leader evaluation system training to focus on SLOs separately from other components of the full evaluation system. GaDOE is conducting three-day intensive trainings focused exclusively on developing and implementing SLOs.⁶⁴

Moreover, GaDOE set up an item bank for SLO assessments from which districts can draw, with more than 3,800 items developed by Georgia teachers covering 118 courses.⁶⁵ Additionally, GaDOE provides a secure site for districts to share developed SLOs and supporting assessments. These resources provide support to districts as they develop their SLO statements and create appropriate pre- and post-assessments to measure student growth.66 The SLO resource library contains more than 800 assessments developed by districts and RESAs. Finally, the state has developed and shared with districts over 200 exemplars of full assessments that can be utilized.

The development and implementation of the SLOs have proven to be one of the more challenging tasks undertaken within the RT3 scope of work. In general, educators at all levels are supportive of the SLOs and the goal of having growth measures for non-tested subjects. However, concern over their validity and reliability is widespread. There is also shared concern about how to achieve comparability of rigor and standards across districts. 67

⁶¹ Georgia Department of Education. (2014). Student Learning Objectives. Retrieved September 14, 2014, from Georgia Department of Education: www.gadoe.org

⁶³ For a complete discussion of the RESAs, see Chapter 2.

U.S. Department of Education. (2014). Race to the Top: Georgia Progress Report Year 4. Washington, DC.

⁶⁵ Georgia Department of Education. (2013). Georgia Board of Education Annual Report: Teacher Keys and Leader Keys Effectiveness Systems. Atlanta.

⁶⁷ Georgia Department of Education. (2013). Teacher Keys Effectiveness System Handbook. Office of School Improvement, Teacher and Leader Effectiveness Division, Atlanta.

District leaders have reported not fully understanding the approval process of the growth targets and confusion over the level of necessary rigor. Teachers' concerns have centered on the SLO development process, feeling they do not have the right skills to be developing high-stakes assessments. Assessment professionals and psychometricians, people who are skilled in measurement, developed the statewide assessments for tested subjects with high levels of rigor by piloting test items and aligning with standards. With many teachers and instructional specialists developing their own SLOs, by contrast, consistency in how teachers of tested and non-tested subjects are to be evaluated is being questioned.⁶⁸

In response to many of these concerns, the GaDOE staff continues to hold "Content Week Sessions" at local districts across the state to develop SLO pre- and post-assessments and test items in high-need subjects. GaDOE also relies on a SLO Advisory Group⁶⁹ to provide feedback on SLO trainings and possible solutions to challenges as they arise.

Implementation

In the spring of 2012, the GaDOE piloted the new teacher and leader effectiveness systems. More than 3,500 teachers from over 550 schools participated in the pilot program, including schools from the 26 RT3 districts as well as schools and districts outside the RT3 grant. During the 2013 legislative session, House Bill 244 (HB 244) was passed, requiring all Georgia public schools use the evaluation system developed by GaDOE. As stated in the legislation, the goal of the effectiveness systems is to provide "high-quality, job-embedded, and ongoing mentoring, support, and professional development for teachers, principals, and assistant principals." ⁷⁰

During the 2012–2013 school year, GaDOE conducted a full-year implementation of both the TKES and LKES in 54 districts (the 26 RT3 districts plus 28 additional districts) and 16 additional schools. During that year, 96.9 percent of participating teachers and 98 percent of leaders scored proficient or exemplary. Interviews with teachers revealed that while they were generally happy with the assessment instrument, they felt school leaders (who were conducting the observations) were not consistent in their assessments of teachers. In other words, multiple evaluators assessed the same teacher differently.

Based on this feedback, changes to the implementation of the assessments were made, primarily focused on training and inter-rater reliability, the reliability among raters. During the summer of 2014, all districts that were implementing the assessment system participated in training led by GaDOE, resulting in more than 4,500 credentialed TKES evaluators and 1,800 LKES evaluators.⁷¹ For the 2013–2014 assessment data, the percentage of proficient or exemplary teachers was similar to the previous year – 92 percent.

Full implementation of the teacher and leader effectiveness systems in the 26 RT3 districts was scheduled for 2013-2014. Based on the SLO data collected from the districts, it was determined that additional training on the development of SLOs was needed prior to using the data for evaluation purposes. Although teachers of tested subjects received a final score in 2014, Georgia requested a one year delay of full implementation for teachers of non-tested subjects and was granted the delay. Consequently, the first year of full implementation in the 26 RT3 districts will be in the 2014-2015 school year.

At the same time, all Georgia districts and charter schools began implementation of TKES/LKES in 2014-2015 as required by Georgia law. Due to the fact that the data used to determine the final scores is lagging, non-RT3 teachers and leaders will receive their first scores in 2015-2016 school year. Georgia has again requested a one-year delay in this timeline for state-wide implementation due to the fact that it will be the first year of Georgia Milestones. At the time of publication, no decision has been received on whether or not this request this will be granted.

⁶⁸ U.S. Department of Education. (2014). Race to the Top: Georgia Progress Report Year 4. Washington, DC.

⁶⁹ The SLO Advisory Group consists of teachers and district leaders from the 26 RT3 districts.

⁷⁰ HB 244, as passed by the House and Senate. (2013)

⁷¹ U.S. Department of Education. (2014). *Race to the Top: Georgia Progress Report Year 4.* Washington, DC.

Informing Talent Development and Management Decisions

The final goal around improving teacher and leader effectiveness for Georgia was the use of the teacher and leader effectiveness systems to inform decisions related to professional development and management decisions.

Georgia is moving steadily in that direction. Along with requiring all districts to establish and use teacher and leader effectiveness systems, HB 244 also addressed the extent to which the TKES and LKES are used in personnel decisions. Local school systems are to use the evaluation systems as the basis for decisions regarding retention, promotion, compensation, dismissals, and other staffing issues, including transfers, placements, and preferences in reduction in force. To Moreover, an individual who receives any combination of two unsatisfactory, ineffective, or needs development performance measures within a five-year period will be unable to renew his/her professional certificate.

One activity that Georgia has not fulfilled under this portion of the RT3 grant is the tying of teacher and leader compensation to effectiveness measures. In its application, Georgia stated that the state was developing a "more rigorous and quantitatively based evaluation system as a basis for teacher and leader compensation." Essentially, Georgia proposed instituting a merit pay salary structure for educators based on their TKES or LKES rating. The compensation redesign would do the following:

- ➤ Tie step increases for teachers to performance on the TKES;
- ➤ Develop career ladder opportunities for all teachers to allow them to take on additional responsibilities for additional pay, while remaining in the classroom; and
- ➤ Award individual performance bonuses to all teachers and leaders on the basis of their effectiveness scores.

However, due to overall state budgetary restrictions, Georgia decided to institute individual bonuses to teachers and principals based, in part, on their students' growth for the 2013–2014 school year. The annual bonuses were designed to reward teachers who provided effective instruction and improved student growth as indicated by the TKES and school leaders whose leadership impacted student growth as indicated by the LKES.

An advisory committee consisting of superintendents, principals, teachers, and human resource administrators requested district-level flexibility in determining who would receive the bonuses. It was decided that the top 10 percent of teachers and principals in participating districts would receive the bonus – \$2,500 minimum for teachers and \$2,300 minimum for principals.⁷⁶

While not directly targeting compensation reform, the GaDOE and several local school districts partnered with Education Resource Strategies Inc. (ERS) to examine and improve the use of resources within the districts. One aspect of the overall project was to examine Georgia policies that influence the way schools and districts use their people, time, and money in order to identify opportunities to strategically reallocate such resources to positively impact student achievement.⁷⁷

Conducted throughout 2012 and 2013, the study examined, among other things, how compensation was designed within the district. ERS recommended local districts reconfigure their own compensation systems by:

- ➤ Increasing the base salary to attract the best teachers;
- Discontinuing the practice of paying for years of experience and degrees for those teachers who opt-in to the new system;
- > Rewarding teachers for effectiveness, contribution, and differentiated roles; and
- ➤ Paying exemplary teachers the most money.⁷⁸

Marietta City is a charter system that participated in the ERS study but is not a RT3 district. Based on the recommendations of the study, the system undertook a district-wide compensation redesign project that incorporated teacher career ladders and tuition reimbursement for advanced professional development in a subject-related field. Since Marietta City is a charter system, it received waivers from most of the state's mandates and the teacher salary schedule.⁷⁹

⁷² HB 244, as passed by the House and Senate. (2013).

⁷³ Ibid.

⁷⁴ Georgia Department of Education. (2010). *Georgia's Race to the Top Application – Submitted January 19, 2010.*

⁷⁵ Keith, C. J., & Hibbs, D. (2014). Navigating Compensation Redesign. Georgia's Race to the Top 2014 Summit. Jekyll Island: Georgia Department of Education.

⁷⁶ Georgia Department of Education. (2014). Race to the Top Progress Update, May 2014 Monthly Call [Sections (D) (3), (D) (4), and (D) (5)]. Atlanta.

⁷⁷ Woo, A., Haastrup, F., & Frank, S. (2014). ERS Policy Report: An Examination of Georgia Policies that Affect the Use of People, Time and Money in Georgia Schools and Districts. Watertown, MA: Education Resource Strategies.

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⁷⁹ Lembeck, E. (2014). Marietta City Schools: Resource Reallocation Project. GSBA Education Finance Workshop. Atlanta.

IMPROVING THE EFFECTIVENESS OF TEACHER PREPARATION PROGRAMS

Just as important as the quality of the current educator workforce is the preparation of the future educator workforce. Nationally, first-year teachers constitute nearly 10 percent of the teacher workforce.80 Studies also indicate that nearly half of new teachers leave the classroom within five years,81 thereby creating a constant need for new teachers to enter the profession. However, almost two-thirds of new teachers report that their teacher preparation programs did not prepare them for the classroom.⁸² Moreover, university institutions and alternative certification programs that prepared them have not received any feedback to help identify strengths and weaknesses of their programs to allow for targeted improvements. Nor have these institutions received any information on where their program graduates went to teach, how long they stayed, or how they performed in the classroom.83

To address these issues, Georgia's goals for the teacher and leader preparation programs (both university-based schools of education programs and alternative certification programs like Teach for America) centered on using teacher effectiveness data of program graduates to indicate preparation program effectiveness. This data would then be used for targeted improvements to lower performing programs and expansion of the highest performing programs. To accomplish this, the RT3 grant outlined two primary strategies for reform: 1) link teachers' and principals' student achievement/student growth data to preparation programs, and 2) expand preparation programs that are successful at producing effective teachers and leaders.84

Linking Teacher and Principal Performance Data to Preparation Programs

To accomplish this first task, Georgia's Professional Standards Commission (GaPSC), the University System of Georgia (USG), and the GaDOE established a task force to develop and implement indicators of program effectiveness.85 It should be made clear that "programs" are defined as any program that trains teachers for the classroom. Most of these programs are based and reside in Schools of Education within colleges and universities. There are also alternative certification programs such as Teach for America (TFA) or The New Teacher Project (TNTP) that train college graduates for the classroom.

The GaPSC must approve all educator preparation programs in Georgia, both traditional university-based and alternative ones. To strengthen accountability for these programs, the task force developed and implemented new standards for assessing program effectiveness and incorporated them into the GaPSC approval process. These new standards will now use a Preparation Program Effectiveness Measure (PPEM). This single metric will be used to classify educator preparation programs in one of four performance levels: exemplary, effective, at risk of low performing, or low performing. There will be one indicator for teacher preparation and another for leader preparation. The teacher measure will consist of:

- ➤ The performance of program graduates once they are in the field based on the TKES assessments, ⁸⁶ 50 percent;
- The results of the content knowledge and subject-specific performance assessments of current students,
- ➤ The success of induction based on the percentage of program graduates that move from the induction certificate to the professional certificate, 10 percent; and,
- ➤ Multiple indicators of annual performance such as retention within the profession, timely completion rates, the yield rate, which is the percentage of students that gain employment in the specific field they were trained in, and surveys of employers and program completers, 10 percent.

⁸⁰ U.S. Department of Education, National Center for Education Statistics. (2008–2009). Teacher Follow-Up Survey: Current and Former Teacher Data Files. Washington, DC.

⁸¹ DiCarlo, M. (2011, December 15). Shanker Blog. Retrieved September 13, 2014, from Do Half of New Teachers Leave the Profession within Five Years?: http://shankerblog.org/?p=4534

Office of the Press Secretary. (2014, April 25). The White House. Retrieved September 13, 2014, from Briefing Room: http://www.whitehouse.gov/the-press-office/2014/04/25/fact-sheet-taking-actionimprove-teacher-preparation

⁸⁴ Georgia Department of Education. (2010). Georgia's Race to the Top Application – Submitted January 19, 2010.

⁸⁵ Georgia, along with seven other states, is participating in a pilot program created by the Council of Chief State School Officers (CCSSO). In its report, Our Responsibility, Our Promise, the CCSSO made 10 policy recommendations related to teacher and principal preparation and entry into the profession. The recommendations fell into three primary policy areas: licensure, program approval, and data collection, analysis, and reporting. While Georgia is working on implementing all 10 recommendations, there are three areas where there are drastic changes: 1) a new multitiered licensure system, 2) changes in professional learning for current teachers, and 3) program accountability. It is within this third area of program accountability that the ability to link teacher/leader performance data to preparation programs was developed and implemented.

⁸⁶ As discussed earlier in the chapter, the TKES is Georgia's statewide teacher evaluation system, which is based 50 percent on student growth.

The leader measure is similar:

- ➤ The performance of program graduates once they are in the field based on the LKES assessments, ⁸⁷ 50 percent;
- ➤ The results of the content knowledge, 20 percent;
- ➤ The success of induction based on the percentage of program graduates that move from the induction certificate to the professional certificate, 10 percent; and
- Multiple indicators of annual performance such as retention within the profession, timely completion rates, the yield rate, and surveys of employers and program completers, 10 percent.

Based on their final score, programs that are rated low-performing will get two years of support from the GaPSC and/or peers from exemplary performing programs to improve their ratings. If they receive a low-performing rating for a third year, that program will likely be closed. Effective and exemplary programs will receive a streamlined renewal process.

To implement the PPEM, GaPSC conducted a pilot study of some of the metrics using 2013-2014 data from a sample of providers of teacher training on content knowledge indicators. GaPSC also piloted the inductee and employer surveys in 2014 and conducted a series of validation studies during the summer of 2014.⁸⁸ A comprehensive pilot of all components of the PPEM is scheduled for the 2014-2015 school year. The first year of full implementation with reporting to program providers, state agencies, and the public is 2015–2016.⁸⁹

Expanding Successful Programs

The second strategy required by the RT3 grant under improving the effectiveness of educator programs is to expand programs that are successful. The first step in that process is to identify the successful programs. The newly created effectiveness measure – the PPEM was designed to serve as a proxy for program effectiveness.

This item will not be implemented until after the official RT3 grant period ends. To ensure the quality distinctions are reliable, at least two years of program data (PPEM scores) will be required. The earliest the first year of data will be available is at the end of the 2016 school year. Through the cooperation all three agencies (GaPSC, USG, and GaDOE), Georgia made significant reforms to its teacher preparation programs. The remaining question is what impacts the TKES and LKES indicators will have on the final PPEMs. Those data are also being developed and implemented with support from the RT3 grant and will not be fully implemented statewide until 2014–2015. Those indicators themselves are in the pilot phase. As they are a significant component of the final PPEM score for programs (50 percent), full implementation of these changes must wait until the TKES and LKES indicators are piloted, validated, and fully implemented.

PROVIDING HIGH-QUALITY PATHWAYS FOR EDUCATORS

K-12 Induction and Pathways

As Georgia is focusing on increased accountability and increased rigor of teacher and leader training programs, it is also aiming to increase the rigor of the professional development process for new and existing teachers once they are in the classrooms.

To help ensure new teachers are successful in the classroom, the state has made significant changes to teacher credentialing by establishing a new tiered certification system that requires student teachers to demonstrate proficiency before they can obtain a teaching certificate. The system will also establish a pathway for teachers to advance within the profession while still remaining in the classroom and allow for the recognition of excellent teachers.

To strengthen induction and provide a professional development pathway, the new system consists of four levels of licensure that provide five different certification levels. The first two levels of licensure pertain to student teachers and those new to the profession.

⁸⁷ The LKES is Georgia's statewide leader evaluation system for school leaders like principals and vice-principals. The LKES is based 70 percent on student growth within the school.

⁸⁸ U.S. Department of Education. (2014). Race to the Top: Georgia Progress Report Year 4. Washington, DC.

⁸⁹ Georgia Department of Education. (2014). Race to the Top Progress Update, May 2014 Monthly Call [Sections (D)(3), (D)(4), and (D)(5)]. Atlanta.

- 1. Pre-Service This first level is for teaching candidates from a university or alternative certification program. The content knowledge exam, Georgia Assessment for the Certification of Educators (GACE),90 and a subject-specific performance assessment, the edTPA, 91 will be more rigorous, and students must also complete an ethics assessment and background check prior to their field experiences in P-12 schools.
- 2. Induction For new teachers, the induction certificate lasts for three years during which time they must be rated proficient or exemplary on two out of three of their TKES assessments. Professional learning and skills in need of additional support will be identified by the TKES assessments.

There are two primary goals of the new induction license that are results-focused. First, the purpose of the improved content knowledge exams and added subject-specific performance assessment is to better determine a candidate's readiness to teach. This should allow Georgia to be more selective about who enters the profession. Second, it provides a structure highlighting the support novice teachers need. The responsibility for strengthening induction support for new teachers rests with school systems. Education program providers are expected to offer additional support via partnerships and professional learning. See Induction Sidebar for a discussion of Georgia's induction programs.

Once teachers come to the end of their three-year induction license, they should be ready to move on to the next level: the professional level.

> Professional – The professional license is a five-year renewable license. To renew, a teacher must show a proficient or exemplary TKES rating for four out of five years. Like the induction certificate, professional learning will be identified by the TKES assessment.

For those with a professional license who wish to further their career while staying in the classroom, there is an additional certificate level with two different options for teachers.

INDUCTION GUIDANCE FOR NEW TEACHERS AND LEADERS92

The Great Teachers and Leaders Project focuses on increasing the overall effectiveness of Georgia's teachers and leaders, a critical factor in increasing student learning and growth. One aspect of this project is the development and implementation of induction guidance that focuses on recruiting, retaining, and supporting induction phase teachers, principals and their mentors. Collectively, the domains of the GaDOE Induction Guidance provide an effective district induction program model to support induction phase teacher and principal learning, retention and student growth and learning.

RT3 Districts are in year three implementation of effective (comprehensive, coherent, sustained) teacher and principal induction programs aligned to the GaDOE Induction Guidance. As a result, 100% of Georgia's 26 RT3 districts have developed effective teacher and principal induction programs that are implemented, monitored and evaluated. These districts reported as of September 30, 2014, 100% of Georgia's 5, 625 induction phased teachers and 181 induction phased principals are receiving quality induction support as outlined in the GaDOE induction guidance.

The remaining Georgia districts are being encouraged to use the GaDOE induction guidance. The GaDOE induction specialist provides technical assistance for all Georgia districts to support district development, implementation, monitoring and evaluation of effective induction programs.

- ➤ Advanced Professional This certificate is designed to recognize classroom excellence in student achievement and requires five years of experience. During those five years, a teacher must have at least one TKES rating of exemplary and no ratings below proficient. They must also have an advanced degree in their certification field or in Curriculum Instruction or Instructional Technology, or be National Board Certified.
- ➤ Lead Professional This certificate is for teachers who positively impact other teachers and adults. Like the advanced professional, this certificate requires at least five years of experience, at least one TKES rating of exemplary, and no ratings below proficient. Teachers also must either be certified in Teacher Leadership or have an advanced degree in their certification field, Curriculum and Instruction, or Instructional Technology, AND a Teacher Leadership Endorsement, a Coaching Endorsement, or Teacher Support Specialist Endorsement. A teacher must also demonstrate through a rigorous performance assessment the ability to work with his/her colleagues in ways that improve student learning.

The new tiered certification rules were approved in April 2014 and became effective in July 2014. Included in these changes is the role of professional learning. Traditionally in Georgia,

⁹⁰ The state of Georgia requires candidates for educator certification to take the GACE. The purpose of the GACE assessments is to ensure that the knowledge and skills acquired by prospective Georgia educators are aligned with state and national standards for educator preparation and with state standards for the P-12 student curriculum

The edTPA is a multiple-measure assessment of teaching that addresses planning, instruction, assessment, and analysis. It is the first nationally available, research- and standards-based support and assessment program that serves as an external measure of a teaching candidate's performance and teaching quality.

⁹² Georgia Department of Education. (2014). Race to the Top (RT3) Induction Close-Out. Atlanta.

teachers needed 10 hours of professional learning units to keep their license current. There were no specific requirements on the focus of those units. Work groups are formulating recommendations that will move away from a specified seattime (number of required hours) toward more of a focus on where a teacher demonstrates strengths and weaknesses on their TKES. The recommendations of the committee are due to be considered by the GaPSC in March 2015 and will be fully implemented by 2018. Every five years, when up for certification renewal, a teacher must demonstrate improvement in his or her areas of weakness as identified by the TKES. Guided by targeted professional learning, this recommendation shifts the licensure renewal process to a performance-based definition of tenure. Teachers must demonstrate continual professional development.

ENSURING AN EQUITABLE DISTRIBUTION OF EFFECTIVE TEACHERS AND PRINCIPALS

A final area of focus for Georgia is to ensure that all students – regardless of income level, race, or where they live – have access to the great teachers and leaders that are working in the school system. An equitable distribution of teachers and leaders is a must for the state in order to raise the achievement level for all students.

To accomplish this, Georgia committed to:

- 1. Ensuring equitable access to highly effective teachers and principals, and
- 2. Increasing the pipeline of effective teachers to highneed schools and hard-to-staff subject areas.

Ensuring Equitable Access

One approach to ensuring equitable access to great teachers and leaders is to encourage highly rated educators, especially those that teach in high-need subject areas, to move to highpoverty and high-minority schools. Under the RT3 grant, GaDOE developed guidelines to provide a two-year signing bonus to teachers to move to high-need schools, placing a priority on rural schools. To receive the bonus, teachers must meet and maintain a high threshold on their TKES evaluations in each of the two years they receive the bonus.94

However, in Year 3 of the RT3 grant, Georgia discontinued this program due to low interest among local districts. The majority of the funds earmarked for signing bonuses were reallocated

to other projects. However, Thomas County recruited and hired 11 teachers using signing bonuses, including its first Latin teacher. The county has been able to offer one course of Latin 2 in 2014 and will offer Latin 3 in 2015.95

Increasing the Pipeline of Effective Teachers

To increase the pipeline of effective teachers in high-need schools and hard-to-staff subjects, Georgia proposed to 1) enter into agreements with alternative certification programs - Teach for America, The New Teacher Project, and UTeach; and 2) establish a Grow Your Own Teacher (GYOT) competitive grant for rural districts.

EARLY LEARNING PROFESSIONAL DEVELOPMENT93

In 2011, Georgia demonstrated that its commitment to great teachers and leaders extended beyond K-12 and into early education leadership by including early education as a priority in its K-12 Race to the Top grant application. Georgia's early learning outcome project included in the RT3 application targeted Pre-K teachers with professional development related to teacher-child interactions. Georgia's Pre-K teachers were randomly selected from all teachers in RT3 target counties and randomly assigned to a control group or to one of the professional development opportunities related to the Classroom Assessment Scoring System (CLASS), a reliable and valid instrument used to assess teacher-child interactions. The project lasted three years, with a new cohort of teachers selected each year.

This early learning project created many opportunities for the state. First, the project was designed for sustainability and allowed the state to build capacity among Georgia's Pre-K staff. All coaches and facilitators were Georgia's Pre-K consultants, and RT3 activities were built into their workload. Thus, the knowledge gained influenced other activities, and because they were existing staff, they continued to work in the program. Second, the professional development models offered teachers extended opportunities to improve their practice. One of the professional development models, My Teaching Partner, provided teachers with cycles of one-to-one coaching by a trained Georgia's Pre-K coach. Each cycle focused on a specific CLASS dimension and involved review and feedback of videotaped lessons submitted by the teacher. The other professional development model, Making the Most of Classroom Interactions, entailed a professional learning community approach in which a group of teachers met with a team of two trained Georgia's Pre-K facilitators for five days over five months. Finally, the program was designed with a strong evaluation component that allows for causal interpretation. Lead researchers at the Frank Porter Graham Child Development Institute at the University of North Carolina-Chapel Hill conducted the evaluation, which included random selection and assignment of teachers, one pre- and two post-observations, teacher surveys, and coach/facilitator interviews.

Over the course of the project, 151 teachers participated in My Teaching Partner, and 175 teachers participated in Making the Most of Classroom Interactions. Additionally, 486 teachers received pre-and post-observations that are part of the evaluation. In the summer of 2014, two professional development models similar to the models in the project were piloted, and this piloting will continue in the 2014-2015 school year.

Georgia Department of Early Care and Learning. (2014). Georgia's K-12 Race to the Top – Early Learning Initiative. Atlanta.

Georgia Department of Education. (2014). Race to the Top Progress Update, May 2014 Monthly Call [Sections (D)(3), (D)(4), and (D)(5)]. Atlanta.

Teach For America (TFA)

TFA is an alternative certification program that recruits recent college graduates to teach for two years in an urban or rural school system. TFA provides intensive training and support for its teachers as they move into the classroom. Under the RT3 grant, TFA was to expand within school districts where it had already established a presence, primarily Atlanta Public Schools, and Clayton, DeKalb, and Gwinnett County schools, all within the greater Atlanta metropolitan area.

During the grant period, TFA trained and placed three cohorts of teachers. The first cohort began the two-year teaching commitment during the 2011–2012 school year and started with 271 members. Of the original teaching cohort, 239 remained in the classroom through their second year.

For year two, TFA reduced its selection target from 300 to 180 to reflect the budget cuts in districts and their hiring needs. During the 2012–2013 school year, 164 new teachers were hired and 142 completed the first year. GOSA's evaluation found that, on average, these first-year teachers met performance expectations. 96 By the end of their first year of teaching:

- > 94 percent were deemed "Proficient" in planning,
- ➤ 65 percent were deemed "Proficient" or above in instructional strategies, and
- ➤ 63 percent were deemed "Proficient" or above in positive learning environments.

Finally, for 2013–2014, 127 TFA teachers were placed across metro Atlanta. The original goal of placing 180 teachers was decreased due to reductions in state and local education budgets and waivers provided to districts to increase class sizes. GOSA is currently evaluating the effectiveness of the third.

The New Teacher Project (TNTP)

Much like TFA, TNTP is an alternative certification program that offers intensive education training to college graduates and provides ongoing support to its teachers during their first years in the classroom. In Georgia, TNTP faced a slow start-up during the first two years of the grant, related to both low district demand for teachers and a low supply of teaching candidates qualified to teach math, science, or special education. The program worked to forge new partnerships with new districts across the state, and began its first cohort for the 2012–2013 school year.97

In 2012, TNTP enrolled 126 potential teachers in its training program, and 93 remained in the program throughout the 2012–2013 school year. According to the GOSA evaluation, TNTP uses an assessment of classroom effectiveness to evaluate its teachers. This measure produces five levels of teacher effectiveness: ineffective, minimally effective, developing, proficient, and skillful. The teachers met performance expectations of the program for first-year teachers, which would be in the medium to high developing range.98

- 67 percent earned an evaluation score of developing or higher,
- > 57 percent were rated by principals as "better than" or "much better than" other first-year teachers.

For the 2013–2014 school year, TNTP placed 134 teachers in Georgia in the Augusta area and in Southwest Georgia across multiple disciplines: special education, elementary, math, science, social studies, and middle grades. For the 2014–2015 school year, TNTP will focus on placements of mathematics teachers in those same geographic regions.

UTeach

The UTeach Institute was established in 2006 at University of Texas-Austin to support teacher preparation programs in the STEM (science, technology, engineering, and math) fields. Currently, 39 universities across the country are implementing the UTeach program. In the spring of 2012, three Georgia universities - Columbus State University, Southern Polytechnic State University, and the University of West Georgia – began implementing the UTeach program. Among them, the programs have enrolled more than 370 students and have produced three graduates. Ultimately, it is anticipated that graduates of the UTeach programs will teach approximately 160,000 secondary STEM students by 2020.

Each of the participating institutions committed to a funding model that ensures they are gradually building in-house capacity to sustain the program beyond the grant period. Under the approved no-cost extension, the three programs could leverage Year 5 RT3 dollars to raise a total of \$860,000 in matching funds from their universities.⁹⁹

Governor's Office of Student Achievement. (2014). Teach for America – School Year 2012–2013 Overview. Atlanta.

The Governor's Office of Student Achievement. (2014). The New Teacher Project – Georgia Teaching Fellows: School Year 2012–2013 Overview. Atlanta.

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⁹⁹ Georgia Department of Education. (2014). Race to the Top Progress Update, May 2014 Monthly Call [Sections (D)(3), (D)(4), and (D)(5)]. Atlanta.

Grow Your Own Teacher (GYOT)

Finally, as part of the RT3 grant, Georgia instituted a \$19.4 million Innovation Fund. The fund employs a competitive grant process that encourages new and innovative partnerships among K–12 schools, institutions of higher education, nonprofit organizations, and businesses on projects to improve student outcomes. ¹⁰⁰ Innovation Fund projects focus on providing applied learning opportunities, creating teacher and leader induction programs, or developing or expanding charter schools. However, one specific goal of the fund is for local districts to grow the teacher and leader pipeline – especially in hard-to-serve districts and hard-to-staff subjects.

Many projects did focus on creating more teaching opportunities in hard-to-serve areas.

- ➤ The KIPP Teacher Fellows Program: A teacher induction program that will train Georgia State University and Mercer University College of Education graduates and deploy them to metro Atlanta schools where they are most needed.
- ➤ Teach for Georgia: A teacher pipeline program modeled after Teach for America that will recruit Georgia Institute of Technology STEM majors to teach in rural areas of Georgia.
- ➤ Building the Pipeline of Highly Effective Charter Teachers and Leaders: The Georgia Charter Schools Association and Lake Oconee Academy will develop and expand three recruitment, training, and alternative certification programs to attract, support, and retain highly effective teachers and leaders in the charter school sector.
- ➤ Greene County STEAM TLA Collaborative: Greene County Schools, the Georgia Institute of Technology, University of Georgia faculty, and Ed Innovation Partners seek to open a charter school in Greene County with the mission of increasing the number of students who choose careers in STEM fields.

To continue the Innovation Fund's work beyond Race to the Top, the fiscal year (FY) 2015 Georgia budget appropriated \$5 million in state funding for fiscal year 2015. GOSA will administer grants for the following four priorities:

- > Applied learning with a focus on STEM education,
- > Development and replication of blended learning school models,
- > Development and replication of innovative resource management models, and
- > Teacher and leader induction and development.

CONCLUSION AND LESSONS LEARNED

The creation of transparent, fair, and rigorous teacher and leader evaluation systems based on student growth models is a key accomplishment of Georgia's RT3 grant. Based on these assessments, the state has done a considerable amount of work to strengthen the teacher and leader pipeline and focus on the equitable distribution of teachers across the state.

The implementation of the new effectiveness systems is on track but has faced some obstacles. While GaDOE has provided resources for local districts, the development and implementation of the student learning objectives – the SLOs – presents a substantial challenge. GaDOE has provided test banks, resource libraries, and administrative guidance to districts. But, considering the number of teachers and courses covered by SLOs, developing and implementing valid and reliable indicators with realistic – yet rigorous growth projections across all of those domains is daunting. This is especially important considering that personnel decisions will be based on the implementation of these indicators.

The overall capacity of the state and districts to implement the new systems is also a challenge. GaDOE has requested a no-cost extension for the RT3 grant, which will allow for additional personnel to train and support school districts. In order to ensure fidelity of training and implementation, GaDOE has increased the number of statewide trainers and has established collaborative partnerships with the RESAs.

Georgia is leading the way in this relatively new policy area of teacher and leader evaluation/effectiveness systems. The ability to differentiate between levels of effectiveness holds much potential, and Georgia should continue to move in that direction. At the same time, the state must remain flexible enough to take advantage of what we continue to learn about how best to assess teacher performance.

Currently, using multiple indicators to assess performance is the gold standard, much in the way that Georgia's systems are designed. However, questions still remain over the proper balance of observation, and student growth models. Finally, while these systems can be used to weed out ineffective teachers, it should be remembered that the primary purpose of these policies is to improve the practice of every teacher in every classroom so that all students have the opportunity to reach their highest potential.

In terms of creating a supply of great teachers and leaders for the classroom, under RT3, Georgia has also made great progress. The implemented changes shift teacher training, induction, and certification programs toward results in the classroom. For example, there are two primary goals of the new induction certificate that are results-focused. First, the purpose of the improved content knowledge exams and added subject-specific performance assessment is to better determine a candidate's readiness to teach. This should allow Georgia to be more selective about who enters the profession. Second, the purpose of the Induction Certificate is to provide a structure highlighting the support novice teachers need. The responsibility for strengthening induction support for new teachers rests with school systems. Education program providers are expected to deliver additional support via partnerships and professional learning. Currently, only RT3 districts are required to implement induction programs, according to guidance developed by the GaDOE and the GaPSC. If quality induction programs are to be implemented across the state, other districts will need to adhere to this guidance and be provided with additional resources.

The required partnership between teacher preparation programs and local school districts is essential to the success of these reforms. Teacher candidates must have a lot of time with quality experts in the field. Moreover, the student teaching experience needs to span the entire year so they can be exposed to everything from pre-planning through end of school to understand all aspects of the profession. There has been some push back from local school districts about partnering with teacher training programs. Due to their own pressures from increased accountability based on student growth, some districts are reluctant to take on student teachers or only utilize them in non-core subjects.

Georgia's ability to ensure an equitable distribution of teachers is the least understood of the major projects within this category. The state has made progress in placing teachers in hard-to-serve schools through TFA and TNTP, though primarily in metro counties. The effectiveness of these teachers is not fully understood. Preliminary data indicate these new teachers do as well as other new teachers in the field, but evaluations based on student growth are still forthcoming.

Finally, the use of the Innovation Fund to spur creative solutions for teacher induction, training, and equitable distribution also show promise. However, the extent to which each of the programs achieved their stated purpose and the ability for them to be scaled and produce systemic change within Georgia remain to be seen. As previously stated, to continue the Innovation Fund's work beyond Race to the Top, the Georgia budget appropriated \$5 million in state funding for fiscal year 2015. Efforts should focus on the success of each individual program and the ability to replicate successful programs across the state.

FFFFCTIVE SUPPORTS FOR ALL SCHOOLS. INCLUDING TURNAROUND SCHOOLS

INTRODUCTION

Georgia's goals for its education reform strategies, supported by the Race to the Top (RT3) grant, focus on graduating college-ready students. This will be accomplished by having great teachers and leaders in the classrooms, implementing strong standards and assessments, and leading the nation in the STEM (science, technology, engineering, and math) fields

While the state is committed to supporting all teachers, leaders, and districts in implementing these reforms, it has a particular concern with persistently low-performing schools – traditionally defined as those schools performing in the bottom 5 percent on student achievement measures.

Historically, across the nation, efforts focused on turning around the lowest performing schools have not been successful. An evaluation of the school improvement plans implemented in the late 1990s and wrapped into No Child Left Behind (NCLB) found states and districts receiving federal dollars to turn around their lowest performing schools were successful in directing those dollars to the appropriate schools. However, according to the U.S. Department of Education, schools receiving the funding made "little progress in implementing the mandated components." ¹⁰¹ In fact, the targeted turnaround schools were less likely to implement the various required elements than were comparison schools not receiving federal assistance.

The outcomes of the turnaround work conducted throughout the majority of the 2000s followed nearly a decade of policymaker frustration with the disappointing track record of NCLB's remedies for low-performing schools: public choice, supplemental services, corrective action plans, and reconstitution. 102 The problem with many of these "remedies" was not that they could not work. Given the proper levels of support and school buy-in, research has shown that they can and do work in particular situations. The shortfalls appear to have come in the quality of implementation across the schools, related in part to school leadership and the levels of support for sustainability and scalability. 103

In its reform efforts and its RT3 application, Georgia laid out a systematic plan of implementation and support for the lowest performing schools. First, Georgia proposed to implement a statewide longitudinal data system that would support educator use of data to improve instruction, among other things. Second, the state proposed a series of targeted programmatic activities that had a proven track record of improving low-achieving schools. Taken together, these efforts would not only turn around Georgia's persistently low-performing schools but support all schools and their districts in ensuring great teachers and leaders were contributing to positive outcomes for students.

TABLE 4.1: SIG/RT3 COMPREHENSIVE INTERVENTION MODELS¹⁰⁶

- ➤ Turnaround model: Replace the principal, rehire no more than 50 percent of the staff, and allow sufficient flexibility to fully implement a comprehensive approach to student improvement.
- > Restart model: The school is converted or closed, then reopened under a charter school operator, charter management organization, or education management company.
- > School closure: Close the school and enroll the students who attended that school in other higher achieving schools.
- ➤ Transformation model: Implement the following: a) replace the principal, b) institute comprehensive instructional reforms, c) increase learning time, and d) provide operational flexibility.

TURNING AROUND THE LOWEST PERFORMING SCHOOLS

As previously stated, nationally, early work to turn around low-performing schools was generally unsuccessful, primarily due to the quality of implementation of turnaround plans and low levels of support and educator buy-in. 104

To address some of these shortcomings, the American Recovery and Reinvestment Act transformed in size and scope the federal School Improvement Grant (SIG) in 2009. As part of this expanded SIG effort, each participating school received up to \$2 million per year for three years to participate in rigorous, comprehensive interventions. One requirement of the SIG

program is the mandate that SIG-funded schools choose one of four prescribed comprehensive intervention models: turnaround, transformation, restart, or closure. 105 See Table 4.1 for a complete description of each model.

¹⁰¹ Orland, M., Hoffman, A., & Vaughn, E. S. (2010). Evaluation of the Comprehensive School Reform Program Implementation and Outcomes: Five Year Report. WestEd. Washington, DC: U.S. Department of Education

Hess, R. (2012, September). Making Sense of School Turnarounds. Retrieved November 17, 2012, from Pie Network: www.pie-network.org

¹⁰³ Ibid.

Hess, R. (2012, September). Making Sense of School Turnarounds. Retrieved November 17, 2012, from Pie Network: www.pie-network.org.

¹⁰⁵ Trujillo, T., & Renee, M. (2012). Democratic School Turnarounds: Pursuing Equity and Learning from Evidence. Boulder: National Education Policy Center.

The requirements under SIG 1003(g)/RT3 specify that the former principal must be replaced if the local education agency/school has selected either the turnaround or transformation model. There is flexibility if the principal has been in the role for two years or less AND was brought in as part of a previous reform.

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Georgia took advantage of the expanded program and received SIG dollars for turnaround efforts. Most participating schools opted for the transformation model of school improvement, while one school opted for closure, and three selected the turnaround model.

Through its earlier SIG work, Georgia proved to have a good record for intervening in low-performing schools, primarily utilizing the transformational model of intervention. Of the 91 schools that received an in-depth needs assessment from a state team since 2006–2007, 74 percent have since met federal performance targets and 51 percent have come off the state's needs improvement list.¹⁰⁷

The concept of turnaround models was incorporated into the RT3 application process, further expanding its use. States applying for RT3 had to commit to implementing one of the four prescribed turnaround models in their lowest performing schools. As with other elements of the grant, Georgia took this opportunity to apply for federal support for reform efforts already under way within the state. Due to its earlier success with the SIG grant, the state had already identified key factors in turnaround success, which were outlined in its RT3 grant: ¹⁰⁸

TABLE 4.2: LOWEST-ACHIEVING SCHOOL NON-NEGOTIABLE LIST¹¹²

EACH RACE TO THE TOP LOWEST-ACHIEVING SCHOOL MUST:

- Allow a GaDOE school improvement specialist to provide direct supervision over grant implementation and be directly involved in decisions regarding the replacement of staff.
- ➤ Allow the GaDOE to conduct an intensive diagnostic of school needs (GAPSS) at the beginning and at the end of the grant.
- Participate in all relevant GaDOE and/or US ED professional learning or meetings (Summer Leadership Academy and other training for lowestachieving schools).
- > Hire at least one full-time math coach.
- ➤ Hire at least one full-time graduation coach.
- Maintain or place a high performing principal who has autonomy over staffing and budgets.
- > Add a minimum of 60 additional hours to the school year for all students.
- Establish a minimum of 60 minutes per week of common planning time for teachers without reducing time devoted to student instruction.
- Implement the new Teacher and Leader Effectiveness Systems (TKES and LKES).
- ➤ Implement the Common Core Georgia Performance Standards (CCGPS) and use Georgia's Frameworks in core academic subjects.
- ➤ Implement an assessment plan aligned to CCGPS and use assessment results to inform curriculum, instruction and individual interventions.

Adapted from: Georgia Department of Education, "Non-Negotiable Contract Elements and Customized Contract Expectations for School Improvement and Race to the Top (Lowest-Achieving Schools)," July 1, 2012.

- Systematic use of data across multiple measures of school inputs and student achievement to target specific areas of improvement;
- Clear performance expectations of schools built into performance contracts;
- Process of short-term action plans to help schools identify manageable parts of the school improvement plan to implement with intensity and monitor on a 45- to 60-day basis;
- Performance coaches who are subject-based (including math and reading specialists) and graduation coaches;
- 5. Data-driven professional learning and leadership academies targeted at areas for improvement; and
- 6. Strong communication and effective relationships between the state and the local districts.

In its application, Georgia proposed to expand in two primary areas already known to be effective in turning around persistently low-performing schools: 1) structural initiatives and 2) programmatic initiatives.

Structural Initiatives

Under Georgia's RT3 plan, GaDOE identified the 40 lowest achieving schools (LAS) within the RT3 partner districts based on the following criteria:

- School is already receiving a SIG (26 schools), or
- ➤ School is in NI-5109 or higher status under the school improvement framework (14 schools). 110

As part of the structural changes at the school level,¹¹¹ identified schools had to select one of the four transformation models – turnaround, restart, school closure, or transformation – and agree to develop and implement school action plans that included the list of non-negotiables from GaDOE. See Table 4.2.

¹⁰⁷ Boser, U. (2012). Race to the Top: What Have We Learned from the States so Far? Washington, DC: Center for American Progress.

¹⁰⁸ Georgia Department of Education. (2010). Georgia's Race to the Top Application, Submitted January 2010. Atlanta.

¹⁰⁹ Under previous No Child Left Behind regulations, any school that did not meet Adequate Yearly Progress for a fifth consecutive year was placed in the needs improvement or "restructuring" category and was required to fundamentally restructure the school.

¹¹⁰ Shearer, N., & Rauschenberg, S. (2012). Turning Around Lowest-Achieving Schools: A Qualitative Report on Early Stage Implementation in Georgia. Atlanta: The Governor's Office of Student Achievement.

¹¹¹ There were also structural changes at the state level. GaDOE established the Office of School Turnaround to implement the initial reforms. In May 2013, the Office of School Turnaround merged with the Office of School Improvement, which includes all Priority schools, SIGs, and the lowest achieving schools.

¹¹² Ibid

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Of the 40 LAS, 36 selected the transformation model, three selected turnaround, and one chose closure. In an evaluation of the turnaround work conducted by GaDOE, the Governor's Office of Student Achievement (GOSA) found that these decisions were made with little input from school leadership and focused more on the transformational model because it was viewed as the least disruptive and time-consuming as well as requiring the fewest of the districts' scarce resources. According to the evaluation,

District officials felt that the tight timeline did not allow enough time to create a charter school or find an external turnaround partner under the Restart option . . . Limited resources were the main reason districts did not choose the turnaround, which requires a school to replace 50 percent of its staff...This concern was particularly strong in rural areas.¹¹³

Programmatic Changes

In addition to the structural changes at the state and school levels, the LAS also participated in programmatic activities. They were required to increase their focus on the systematic use of data – much of which is supported by the Pathway to Personalized Learning system to be discussed in the next section. All districts now have access to that data system, and in LAS schools, school improvement specialists support its usage. Professional development provided by the specialists focused on data analysis to target and implement intervention planning for teachers and students.

To support the increased focus on the use of data, Georgia is also using a school improvement tool called Indistar. This tool provides the school with 34 quality indicators, each with its own support plan, to help guide turnaround efforts. Many of these indicators come directly from the new teacher effectiveness system and incorporate measures utilized in the new College and Career Ready Performance Index (CCRPI). The quality indicators also help assess the schools' progress in implementing the new Common Core Georgia Performance Standards. This tool allows for an aligned reform approach incorporating all of the state's efforts around increasing accountability and rigor as well as focused professional development around instruction and teacher effectiveness.

Another activity supported by the RT3 grant was the expansion of the Summer Leadership Academies, also called the Summer Summits, which were weeklong intensive trainings for school leadership teams focused on school improvement practices. The academies also allowed for structured time for school teams to develop plans for the upcoming school year based on insights learned in the training.

Under the RT3 grant, the state conducted three Summer Leadership Academies and extended participation beyond just the 40 LAS. Two were held in the summer of 2013 and focused on how best to collaborate and sustain reform efforts with teacher selection, turnaround principal selection, job-embedded professional development, and district planning. More than 800 school and district leaders, representing 91 districts, attended these summits.¹¹⁴ The 2014 Summer Leadership Academy focused on connecting formative assessments, collecting and analyzing data, and selecting best-practice interventions. Forty-one districts attended this summit, with 407 participants representing 151 schools.

In its evaluation of the state's turnaround efforts, GOSA found that most teachers and school leaders had positive impressions of the professional development offered. Schoollevel staff felt they received more professional development, and of better quality, than in previous years. School leaders attributed improved teacher and leader quality – at least in part – to improved professional development. 115 Teachers also reported that the instructional coaches and the school improvement specialists that observed classroom practice provided instructive feedback more frequently than before the grant process began. 116

However, the GOSA evaluation found that many school staff reported feeling overwhelmed and tired due to the increased professional development, collaborative planning, and instruction and/or enrichment opportunities offered to students. This may explain why many school and district officials reported unusually high turnover after the first year of the grant. This seemed to be the result of staff choice rather than the removal of ineffective teachers. 117

GaDOE LIST OF PROGRAMMED **SUPPORTS AND CHANGES FOR LOWEST-ACHIEVING SCHOOLS (LAS)**

- Build upon the existing Summer Leadership Academy, also called Summer Summits, to support principals.
- Provide support for teachers in LAS through professional development related to
 - use of formative and benchmark assessments
 - use of data to modify instruction
 - use of web reporting tools
 - use of LDS and the Path to Personalized Learning
- Provide technical expertise for the LAS in the area of teacher and leader effectiveness reform.

¹¹⁴ U.S. Department of Education. (2014). Georgia Progress Report: Spring Year 4. Washington, DC.

Shearer, N., & Rauschenberg, S. (2012). Turning Around Lowest-Achieving Schools: A Qualitative Report on Early Stage Implementation in Georgia. Atlanta: The Governor's Office of Student Achievement.

¹¹⁶ Ibid.

¹¹⁷ Ibid

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PERFORMANCE LEARNING CENTERS

Established in 2002 by Communities In Schools (CIS) of Georgia, Performance Learning Centers (PLC) are nontraditional learning environments for high school students who are not succeeding in traditional schools. Small academic settings, business-like environments, and selfdirected learning enable students to stay in school, excel academically, and graduate with a marketable skill.

The PLC model is built around the five basics of CIS: 1) a personal relationship with a caring adult, 2) a safe place, 3) a healthy start, 4) a marketable skill, and 5) a chance to give back. For example, each student has a mentor or a one-on-one relationship with an adult. A business-like atmosphere and career focus provide students with a future orientation and marketable skills to use after graduation, and service learning components give students an opportunity to give back to their communities. Each of these elements is embedded within the surrounding community.

The RT3 grant funded two PLCs in Floyd and Richmond counties in 2011 and a third in Carrollton City in 2012. All are operated by CIS. In support of the mission of the PLCs, each center coordinates support services for student at risk of dropping out of school. Already, these PLCs are showing success. In 2012, PLCs graduated 63 students, and another 39 students had graduated by January 2014.

Overall, the work in the LAS is moving in a positive direction. Based on gains in student performance, GaDOE has removed nine schools from the LAS designation since the turnaround effort began. After analyzing the outcomes and documenting the work done in these nine schools, GaDOE attributes these improvements to the specific interventions put in place by the local districts and supported by the state.118

DATA SYSTEM TO SUPPORT INSTRUCTION

The first step in supporting all schools, including low-performing schools, is to implement a robust state data and information system that transcends all state education agencies. Statewide longitudinal data systems improve the ability of states to effectively manage, use, and analyze education data to support instruction. RT3 states are working to ensure their data systems are accessible and that data support educators and decision-makers in their efforts to improve instruction.

The overall vision of the data system in Georgia is to provide seamless data access to all users throughout the Pre-K, K-12, and postsecondary systems for students, parents, teachers, administrators, researchers, and policymakers. Georgia accomplished this by developing and implementing two systems. The first, a statewide longitudinal data system (SLDS), is designed to improve instruction by delivering student data, curriculum standards, and instructional resources directly to teachers electronically through a district's student information system. The second combines data from across agencies to inform policy decisions. This system – the GA•AWARDS Data System – has three primary objectives:

- ➤ Make educational data available that support cross-agency analysis.
- Establish an environment that will support data storage and access
- Establish an environment that will both be valued by the community it supports and require minimal resources to maintain.

In Georgia's RT3 grant application, the state proposed to:

- 1. Fully develop a statewide longitudinal data system, and
- 2. Ensure the data is assessable and used to inform and engage stakeholders, and support decision-makers and overall instructional effectiveness. 119

Developing the Statewide Longitudinal Data System

Georgia committed to creating a statewide longitudinal data system (SLDS) that would help improve instruction and student outcomes. This data would be accessible to teachers, principals, and educational leaders to improve instructional practices.

Georgia began developing an SLDS in the mid-2000s. By providing a unique identifier for each student enrolled in Pre-K-12, the system is designed to improve instruction by delivering longitudinal student data and analysis to assist teachers in the differentiation of students (i.e., individualized instruction based on student skill level). The SLDS was well under development when Georgia applied for the RT3 grant in 2010, and it serves as the basis for the subsequent data systems developed in Georgia.

One requirement of the RT3 grant was the development and implementation of an instructional improvement system (IIS), which is designed to enhance the state's ability to effectively manage, use, and analyze education data to support instruction. In Georgia, the IIS is called the Path to Personalized Learning. Through the addition of the IIS, the RT3 money allowed Georgia to build out the SLDS into a complete delivery system of personalized learning for students, teachers, and parents.

¹¹⁸ U.S. Department of Education. (2014). Georgia Progress Report: Spring Year 4. Washington, DC.

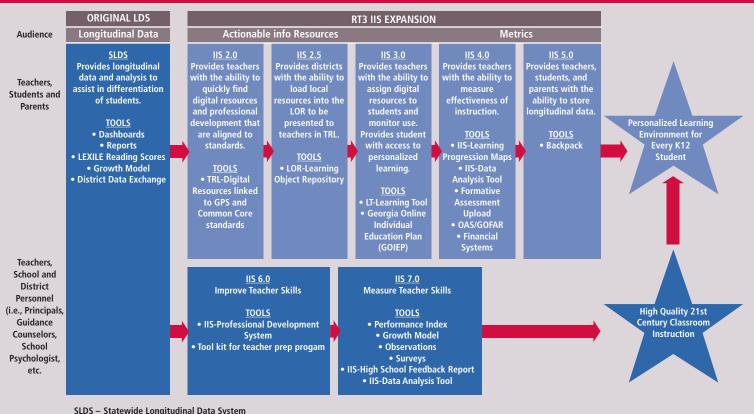
¹¹⁹ Georgia Department of Education. (2010). Georgia's Race to the Top Application, Submitted January 2010. Atlanta.

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The SLDS is only a small portion – and the foundation – of the Path to Personalized Learning now being implemented in Georgia. When fully operational, the Path to Personalized Learning will combine online student assessment tools, professional development, teaching evaluations, metrics from the College and Career Ready Performance Index (CCRPI), and digital resources linked to the Common Core Georgia Performance Standards, making them available on the desktop of every teacher in Georgia.

As shown in Figure 4.1, the Path to Personalized Learning allows individually appropriate instructional improvement for both student learning and professional development. Teachers can identify teaching tools that are targeted at individual students' learning needs, including digital resources from both the state and local level. Parents also have access to the same online resources as teachers to help their children with specific content standards.

FIGURE 4.1: GEORGIA'S PATH TO PERSONALIZED LEARNING



Instructional Improvement System

LOR -Learning Object Repository

TRI - Teacher Resource Link

OAS - Online Assessment System

For teachers, the Path to Personalized Learning can be used to help them measure their own effectiveness. Teachers and school leaders can also use it to target their own professional development needs based on teacher evaluations and students' growth in the classroom over time.

Throughout the 2013–2014 school year, the SLDS and the expanded Path to Personalized Learning were made available to all districts and educators. In that school year, approximately 70 percent of teachers statewide were using the system.¹²⁰ Georgia has reached roughly 95,000 of the state's 110,000 teachers with training on the SLDS.¹²¹ The Path to Personalized Learning student dashboard has also been implemented statewide. More than 500 district administrative staff have been trained on how to use the expanded dashboard. 122

¹²⁰ U.S. Department of Education. (2014). Georgia Progress Report: Spring Year 4. Washington, DC.

¹²² Georgia Department of Education. (2014). Race to the Top Progress Update - June 2014 Monthly Call [Section (E)]. Atlanta.

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HIGH SCHOOL FEEDBACK REPORT¹²³

One example of how districts are using the new data systems is the High School Feedback (HSFB) report, which provides district-level users with valuable information about their high school graduates from 2007–2010. The report provides detailed student-level data about the number of high school graduates enrolled in a Technical College System of Georgia or a University System of Georgia college or university. Typically, about 90 percent of Georgia high school graduates choose to go to college in the state of Georgia. The HSFB report allows administrators to answer the following questions:

- What percentage of my high school graduates went to college in Georgia?
- What did the students major in?
- Did the students require remediation in college?

Using Data to Inform Stakeholders

Georgia developed a data system for individual- and classroom-level management. In addition, the state combined data across agencies to inform policy decisions and create innovative ways to connect and align the state's education reform strategies from preschool through college and career. 124

Georgia's P-20 interagency governing council is the Alliance of Education Agency Heads (AEAH). It includes the leaders of all the state education agencies: Georgia Department of Education (GaDOE), University System of Georgia (USG), Georgia Professional Standards Commission (GaPSC), Technical College System of Georgia (TCSG), Department of Early Care and Learning (DECAL), Georgia Student Finance Commission (GSFC), and the Governor's Office of Student Achievement (GOSA) as well as the Governor's Education Advisor

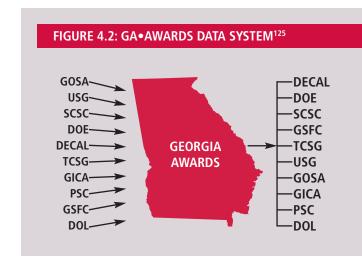
With support from the RT3 grant, the AEAH is governing the creation and use of GA•AWARDS (Georgia's Academic and Workforce Analysis and Research Data System). This system is the anchor for Georgia's data collection, allowing the state to track overall student achievement and use these data to inform policy. It is designed to efficiently link data across all agencies, beginning with early learning data from DECAL and spanning to the Georgia Department of Labor (DOL).

The primary purpose of GA•AWARDS is to provide matched data to each agency, allowing it to examine trends over time. See Figure 4.2.

The system currently holds data from 2007 through the present year. The data are available only to agency researchers and database managers with high-level analytical skills. Currently, it is being used in GOSA's publication of the Report Card¹²⁶ and to inform research topics such as 1) the effectiveness of educator preparation programs, 2) the educational background of students who experience the least difficulty in transitioning to college, 3) the impact of Georgia's Pre-K Program on future student achievement, and 4) whether graduates of Georgia's public colleges are working in Georgia.127

Knowing the answers to these and other critical outcome questions allows key stakeholders (e.g., parents, students, teachers, principals, district leaders, community members, researchers, and policymakers) to focus on continuous improvement in areas of policy, instruction, operations, management, resource allocation, and overall effectiveness of the system.

Taken together, the GA•AWARDS and the Path to Personalized Learning systems are powerful tools for educators and serve as resources to impact student learning. GA•AWARDS supports education agencies in evaluating their policies and effectiveness, and the Path to Personalized Learning enables teachers and educators to provide individualized instruction and receive targeted professional development. Table 4.3 outlines the key differences between these two data systems.



¹²³ Georgia Department of Education. (2014). SLDS District/School Dashboard Train-the-Trainer Guide. Atlanta.

Georgia Alliace of Education Agency Heads. (2014). A Strong Coalition. Retrieved September 18, 2014, from AEAH: The Alliance of Education Agency Heads: gaeducationalliance.org

The Governor's Office of Student Achievement. (2014). GA AWARDS: Georgia's P-20 Longitudinal Data System. House Study Committee on the Role of the Federal Government in Education. Atlanta.

The Report Card contains test results as well as other information related to schools and their performance toward the goals of student achievement and graduation. The Report Card includes school-, district-, and state-level reports concerning accountability, Georgia tests of achievement, national tests of achievement, indicators of success, student and school demographics, personnel and fiscal indicators, and comparison data. These data are updated annually and made available on GOSA's website. For more information see: https://gosa.georgia.gov/contents-report-card.

¹²⁷ The Governor's Office of Student Achievement. (2014). GA AWARDS: Georgia's P-20 Longitudinal Data System. House Study Committee on the Role of the Federal Government in Education. Atlanta.

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CONCLUSIONS AND LESSONS LEARNED

Georgia has taken small but dramatic steps toward turning around its lowest performing schools. Successful turnarounds require changing the culture, expectations, and routines within a school. That begins with establishing high goals for individual teachers and staff, while providing them with the appropriate support, tools, and professional development necessary to achieve those goals. In changing the culture of a school, the focus should be on policies and procedures that improve the quality of teaching and learning. This would include plans to systematically recruit and retain highly qualified teachers in turnaround schools, which historically are difficult to staff.

Turnarounds also require fidelity of implementation and an ongoing commitment from school personnel. In its earlier work with turnaround schools, Georgia identified educator buy-in and support as key elements for success. In its evaluation of the turnaround process, GOSA reported that after the first year of the grant, most teachers had negative impressions of the grant due to a significant increase in workload from professional learning, increased learning time, and paperwork as well as a reduction in unstructured planning time.

Teachers also felt they did not have a full vision of the transformation plan and how their increased workload fit into that vision. As a result, they felt many of the reforms were forced upon them. However, educators generally believed that morale was better the second year of the grant. They attributed this improvement to having a better understanding of expectations as well as improved practice. 130

A second issue with the implementation of the turnaround models is related to changes in state leadership. Georgia was awarded the RT3 grant in August 2010, two months prior to the elections for a new governor and state school superintendent. Both subsequently took office in January 2011. These leadership changes delayed the hiring of key senior-level staff at GaDOE, including the Deputy Superintendent of School Turnaround. Due to this delay, the first cohort of LAS began implementation before many of the state supports were in place.

Finally, as in all education reform initiatives, maintaining funding levels for LAS schools is paramount. The turnaround schools in Georgia all received an infusion of federal funds through the original SIG grant or through RT3 funding. Those funds are limited and due to expire. Many of the schools succeeding under the SIG or RT3 grants will require sustained funding for

OF LABOR DATA¹²⁸ Five-Year Retention of all 2007-08 **Georgia Public School Teachers** 13% 10% 74% Five-Year Retention of all 2007-08 First-Year Georgia Public School Teachers **18**% 67% Not in the Georgia workforce Worked in Georgia outside of education¹

Employed in education in fields other than teaching

1 In jobs covered by Georgia's unemployment system

Still in the classroom

RESEARCH EXAMPLE: GaPSC AND DEPARTMENT

TABLE 4.3: COMPARING GEORGIA'S PATH TO PERSONALIZED LEARNING AND GA•AWARDS¹²⁹

PATH TO PERSONALIZED LEARNING	GA•AWARDS
Operational Database	Data Warehouse
 K-12 data Updated on a continual basis Supports thousands of concurrent users Handles daily transitions and needs Includes data to support all teaching and learning activities Nearly 1,000 data elements Accessible to all districts and public schools in Georgia 	 P–20 data Updated periodically Supports few concurrent agency users Facilitates high-level (state) reporting and analysis Has only the data necessary for reporting and analysis A few hundred data elements Accessible only to agency researchers

The Governor's Office of Student Achievement. (2014). GA AWARDS: Georgia's P-20 Longitudinal Data System. House Study Committee on the Role of the Federal Government in Education. Atlanta.

Shearer, N., & Rauschenberg, S. (2012). Turning Around Lowest-Achieving Schools: A Qualitative Report on Early Stage Implementation in Georgia. Atlanta: The Governor's Office of Student

ECTIVE SUPPORTS FOR ALL SCHOOLS. INCLUDING TURNAROUND SCHOOLS

their programs. For example, many schools have increased learning time for their students, adding up to 300 hours of instructional time for their low-performing students. Other schools have provided incentive pay around teaching excellence to attract and retain high-performing teachers. For these efforts to continue, state support must be found to replace federal dollars.

Georgia can provide those working in and with turnarounds data, research, and evaluation information to improve their schools. This includes providing schools with multiple indicators of effectiveness - not just test scores. With the state's new data systems, educators can now potentially track long-term academic success, such as access to highly qualified teachers, college-preparatory and/or advanced coursework, graduation, and college-enrollment rates.¹³¹

The creation of GA•AWARDS and the Path to Personalized Learning is a significant accomplishment for Georgia. These systems transform how educators inform instruction and increase public awareness of educational effectiveness. The data systems allow the integration of what is being taught with what is being learned in the classroom. For teachers, it provides professional development resources to strengthen instruction. For students, it can be used for remediation and enrichment resources. To sustain the work going forward, Georgia must focus on the convergence of tools, training, and infrastructure to ensure personalized learning (see Figure 4.3).

The creation of the necessary tools and support for the initial rollout of trainings has been accomplished using RT3 support. The SLDS, teacher resources, online assessments, and other resources have all been developed and incorporated into a single system. The state worked hard to build an integrated product inhouse so it would not have to rely on expensive and long-term contracts with vendors to provide these services to the districts. However, while the ongoing support footprint is relatively small, there will always be a need to ensure the materials available to educators are up-todate and relevant. Georgia has also

FIGURE 4.3: THE CONVERGENCE OF PERSONALIZED LEARNING TOOLS – statewide data systems **PERSONALIZED** LEARNING Tools, training, and TRAINING – professional infrastructure to development for teachers and provide every teacher school staff in Georgia the ability to give every public school **INFRASTRUCTURE –** student a learning network and connectivity to districts and schools.

trained approximately 90 percent of its teaching force on the Path to Personalized Learning. However, the new teachers entering the field every year will need training, and current teachers will need continual instructional support to fully utilize the full array of resources available to them.

The final area of infrastructure is an ongoing challenge for Georgia. The State Educational Technology Directors Association conducted a study assessing the bandwidth needed to fully support an IIS similar to Georgia's. The study concluded that schools should have a minimum of 100 Mbps per 1,000 students by 2014–2015.132 By 2017–2018, schools will need 1 Gbps per 1,000 students. The Georgia legislature approved funding for the PeachNet Project, which will ensure 100 Mbps per school statewide by July 2015, helping to assuage the immediate need but not solving Georgia's long-term infrastructure problem. Local districts will still have challenges getting enough resources to support network connectivity and wireless solutions to individual schools, classrooms, and students. Georgia must not only consider the expansion of broadband access - especially to rural districts - but the sustainability and maintenance of both the network and instructional materials provided by the system.

¹³¹ Trujillo, T., & Renee, M. (2012). Democratic School Turnarounds: Pursuing Equity and Learning from Evidence. Boulder: National Education Policy Center.

Fox, C., Waters, J., Fletcher, G., & Levin, D. (2012). The Broadband Imperative: Recommendations to Address K-12 Education Infastructure Needs. Wahington, DC: State Educational Technology Directors Association.

INTRODUCTION

In its vision for transforming education, Georgia's fifth priority is to lead the way in the science, technology, engineering, and mathematics (STEM) fields.¹³³ In order for Georgia students to ultimately be competitive in the global economy, more must have a strong STEM background. STEM jobs are growing faster than jobs as a whole, 17 percent compared to 10 percent. 134 Employers are looking for workers with STEM skills, and these workers will be able to earn a higher salary because of this demand. 135

The demand for STEM jobs in Georgia mirrors the national trend. By 2018, the number of STEM jobs in Georgia will increase 17 percent, equating to 200,000 new jobs. 136 In fact, despite an unemployment rate that hovers between 7 and 8 percent,137 there are currently two available STEM jobs for every unemployed person, compared to one non-STEM job for every 4.5 unemployed people. 138

To help meet this demand, Georgia is committed to providing a rigorous course of study in the STEM fields. This focus furthers the state's goals of preparing more students to be ready for college and a career upon graduation from high school. Within its Race to the Top (RT3) grant application, Georgia focused on STEM as a competitive preference priority. 140 For a majority of the STEM initiatives, the Georgia Department of Education (GaDOE) partnered with the Georgia Institute of Technology's (Georgia Tech) outreach center, the Center for Education Integrating Science, Mathematics, and Computing (CEISMC). The focus of CEISMC's STEM-related projects was twofold:

FIGURE 5.1: DEMAND FOR STEM SKILLS IN GEORGIA¹³⁹ STFM: Non-STEM: 2.0 Jobs for every 4.5 Unemployed People 1 Unemployed Person for every 1 Job

- Provide online professional development to STEM teachers in STEM best practices, and
- ➤ Offer a rigorous course of study for students in the STEM fields.

Additionally, using RT3 funding, Georgia created a \$19.4 million Innovation Fund to award competitive grants to schools, districts, and partners. These grants are designed to determine best practices in innovative programming related to STEM education, applied learning, and teacher and leader recruitment and development to influence future education policy efforts.

COMPETITIVE PERFORMANCE PRIORITY

As part of the RT3 grant, CEISMC at Georgia Tech received \$7.5 million to partner with GaDOE to increase access to STEM education for both K-12 teachers and students throughout the state. To accomplish this goal, CEISMC's work fell into two complementary areas: 1) expand and enhance STEM-related professional development for teachers, and 2) support a rigorous course of study for students in the STEM fields.

Online Professional Development

To begin expanded and enhanced professional development for teachers, CEISMC developed 12 online professional development courses, six in math and six in science, for teachers.¹⁴¹ To design the courses, CEISMC researchers conducted a needs assessment with teachers in the 26 RT3 districts and designed classes that combined best practices of teaching and content-specific knowledge.

- 135 Ibid.
- 137 Georgia Department of Labor. (2014, October 24). Georgia Department of Labor. Retrieved from Georgia Unemployment Rate: http://www.dol.state.ga.us/
- 138 Change the Equation. (2012). Vital Signs: Georgia. Retrieved September 2012, from Change the Equation STEM Vital Signs: http://changetheequation.org/vitalsigns/#Georgia
- 139 Ibid.

¹³³ As previously mentioned, the other four reform priorities for Georgia are 1) set high standards and rigorous assessments for all students; 2) prepare students for college readiness, transition, and success; 3) provide great teachers and leaders; and 4) provide effective supports for all schools, including the lowest achieving schools.

Carnevale, A., Smith, N., & Melton, M. (2011). STEM: Science, Technology, Engineering and Mathematics. Washington, DC: Georgetown University: Center on Education and the Workforce.

States that emphasized STEM received a competitive preference on the scoring of their application. If STEM was developed within the application, an additional 15 points (3 percent of the total) was given to the overall score.

The professional development courses for teachers were Cells, Genetics, Middle School Algebra, Middle School Statistics, Pre-Calculus, Introduction to Geology, Physical Science: Force and Motion, Coordinate Algebra, Analytic Geometry, Math 4 OR (Mathematics of Industry and Government), Physical Science: Chemistry, and Physical Science: Electricity and Magnetism.

These courses are now available within the Georgia Path to Personalized Learning longitudinal data system (LDS). (See Chapter 4 for a complete discussion of the Path to Personalized Learning System.) Through the LDS, these courses are offered online and are self-paced for the teacher. There were 292 teachers enrolled in fall 2013 and 306 teachers enrolled in spring 2014.142 Post-test results indicate that, on average, teacher content knowledge increased by more than 17 percentage points after completing the online courses. Moreover, teachers expressed a high level of satisfaction with the process. 143 See Table 5.1 for course listing and participation outcomes.

TABLE 5.1: STEM ONLINE PROFESSIONAL DEVELOPMENT COMPLETION AND PRE-/POST-AVERAGES¹⁴⁴

COURSE	FALL 2013			SPRING 2014						
	Enrolled	Completed	Percent Completion	Pre	Post	Enrolled	Completed	Percent Completion	Pre	Post
Applied Genetics	32	3	9%	86%	92%	32	15	47%	81.11%	90.74%
Introduction to Geology	34	7	21%	73%	89%	27	14	52%	75.94%	87.58%
Human Cell Biology	31	7	23%	60%	88%	19	5	26%	63.05%	83.82%
Physical Science: Force and Motion	42	5	12%	81%	88%	27	6	22%	82.19%	85.63%
Electricity & Magnetis	*	*	*	*	*	49	27	55%	64.56%	87.26%
Food Chemistry	*	*	*	*	*	34	26	76%	76.63%	86.41%
Overall/Average SCIENCE	129	22	16%	87%	89%	188	93	49%	74%	87%
Analytic Geometry	*	*	*	*	*	29	9	31%	83.15%	88.15%
Coordinate Algebra	31	11	35%	78%	88%	33	14	42%	82.06%	86.43%
Math 4 OR /MIG 1	2	0	0	17%	63%	3	0	NA	NA	NA
Math 4 OR /MIG 2	*	*	*			0	0	NA	NA	NA
Middle School Algebra	38	2	5%	74%	79%	29	7	24%	69.39%	83.67%
Middle School Statistics	2	0	0	62%	76%	9	5	56%	69.39%	83.67%
Pre-Calculus	25	3	0	90%	89%	15	4	27%	95.31%	89.06%
Overall/Average MATH	98	16	16%	72%	81%	147	48	33%	80%	86%

In addition to creating the 12 professional development courses, CEISMC also developed an instructional toolkit for administrators and teachers. This toolkit contains six instructional courses for teachers that delve into the use of technology in the classroom and two for administrators about school-wide usage of technology.¹⁴⁵

Offer a Rigorous Course of Study

In addition to providing more professional development for teachers, CEISMC was also charged with developing more rigorous STEM-related course work for students. This is being accomplished primarily through online classes being offered through the Georgia Virtual School (GaVS).

College-Level Mathematics and Science

CEISMC developed advanced courses in college-level Calculus II and III. These courses are intended for students who have already successfully completed AP Calculus (either Calculus AB or BC). As designed, students can participate through video conferencing or as an online GaVS offering. Qualified high school students can co-enroll with freshmen at Georgia Tech for this high-level math course if they attend schools with the video conferencing equipment. Because the equipment is expensive, a school typically would need 10-15 participating students to justify the cost. Therefore, CEISMC also developed this course to be offered through the GaVS. RT3 funding pays for a Georgia Tech postdoctoral student to proctor the course, which has allowed the expansion of higher level mathematics into smaller and resourcepoor districts. More than 230 students were admitted into the Calculus II distance-learning course in the fall of 2013. 146

¹⁴² The Georgia Tech Center for Education Integrating Science, Mathematics, and Computing. (2014). Race to the Top Activity Report. Atlanta .

The courses are Technology Tool Kit (TTk) 1: Introduction to Technology Integration, TTk2: 21st Century Technology Standards (Part I), TTk3: 21st Century Technology Standards (Part II), TTk3: 11st Century Technology Standards (Part II), TTk4: Integrating Technology in Science, TTk5: Integrating Technology in Math, TTk6: Introduction to Bring Your Technology/Device (BYOT or BYOD) Programs, and TTk7: Enhancing Communications through Technology for Administrators.

¹⁴⁶ Ihid

CEISMC also developed three more courses for students: Engineering Calculus, Materials Chemistry, and Environmental Physics. The courses were developed and approved by the Georgia Board of Education in April 2013. The GaDOE will offer these classes in the spring 2015 course catalogue.

Robotics and Engineering

Work at expanding the STEM curriculum did not just focus on high school students. CEISMC developed a curriculum for an eighth-grade course entitled Robotics and Engineering Design (RED) as part of the middle school Career, Technical, and Agricultural Education offerings. This curriculum combines not only robotics and engineering, but also elements of 3D modeling, manufacturing, physical science, and math. Schools in Atlanta Public Schools, Rockdale County, and Spalding County districts began offering RED in 2012. Schools in Ben Hill and Cherokee County districts began implementing RED in 2013. CEISMC established RED Teacher Institutes in 2012 and 2013 as well as follow-up professional development throughout the school year. See Table 5.2 for a course list.

INNOVATION FUND

As previously stated, the RT3 grant established a \$19.4 million Innovation Fund to support programs that provided applied learning opportunities and teacher and leader induction programs as well as growing the teacher and leader pipeline, or developing or expanding charter schools. One priority of the Innovation Fund was programs focused on applied learning in STEM education. Through the first three rounds of funding (September 2011 through September 2012), 13 of the 23 funded projects were related to STEM.

TABLE 5.2: FACILITATED COURSE DESCRIPTION BY DISTRICT¹⁴⁷

COURSE	DISTRICT
Robotics Course 1	Atlanta Public Schools Coweta County School System Griffin Spalding County School System Hall County Schools Houston County Schools Mitchell County School System Richmond County School System
Robotics Course 2	Cherokee County Schools DeKalb County Schools Hall County Schools Henry County Schools Richmond County School System
PBIL Course 1	Gwinnett County Schools

The grants represent a range of STEM topics, from improving computational thinking to increasing hands-on learning units and increasing teacher effectiveness in math and the sciences. For example, Georgia Tech and Atlanta's Mays High School – along with other district teachers – are developing and implementing a "systematic approach" to include computational thinking in their STEM curriculum. In another project led by Georgia Southern University, seven area research institutes and six school districts are developing STEM learning units related to environmental concerns within Georgia's coastal region.

See side bar Innovation Fund Targets STEM for a complete list of STEM-related Innovation Fund projects.

Georgia has plans to continue the Innovation Fund work after the RT3 grant ends. Most current grantees will continue receiving funds through June 2015. To continue the work beyond RT3, The FY 2015 state budget includes an additional \$5 million in state funding to support the Innovation Fund work. 148 One of the priorities for this funding is applied learning with a focus on STEM.149

CONCLUSIONS AND LESSONS LEARNED

For many years, Georgia has made raising student interest and participation in STEM a top priority. The GaDOE has taken multiple steps aimed at increasing the rigor and standards around STEM education, career readiness, and teacher preparation.

A fundamental step necessary to transform Georgia into a state where students thrive in the STEM fields was the adoption of the Common Core Georgia Performance Standards (CCGPS).

¹⁴⁷ The Georgia Tech Center for Education Integrating Science, Mathematics, and Computing. (2014). Race to the Top Activity Report. Atlanta.

The other three priority areas are 1) development and replication of blended learning school models, 2) development and replication of innovative resource management models, and 3) teacher and leader induction and development.

INNOVATION FUND TARGETS STEM¹⁵⁰

21ST CENTURY STEM COLLABORATIONS: APPLICATIONS OF THE DIRECT TO DISCOVERY MODEL: A collaboration between Barrow County Schools and the Georgia Institute of Technology to integrate the Direct to Discovery method into the requirements of the Georgia Performance Standards.

DREW CHARTER SCHOOL PARTNERS OF INNOVATION: A partnership between Georgia State University, the Georgia Institute of Technology, and Drew Charter School to create one of the state's first STEAM (science, technology, engineering, arts, and mathematics) schools.

THE REGIONAL CHARTER STEM ACADEMY: A partnership between the White, Hall, and Lumpkin county school systems and North Georgia College & State University to create a tri-county STEM charter school.

MURRAY COUNTY STEM ACADEMY: Murray County Schools, in partnership with Georgia Northwestern Technical College, the Chatsworth–Murray County Chamber of Commerce, and others, will open a program focused on remediating eighth-grade students and developing their interest in STEM careers.

SMYRNA ACADEMY OF EXCELLENCE: The Smyrna Educational Alliance, in partnership with Georgia State University, the Georgia Institute of Technology, Lockheed Martin Corp. and others, seeks to open a STEM charter school to serve students in south Cobb County.

STEM FOR LIFE PROGRAM: A partnership between Carroll County Schools and Southwire to expand and replicate the existing 12 for Life Program, which supplements classroom learning with real-world experience in advanced manufacturing.

THE STEM TARGETED EDUCATION PROGRAM (STEP) ACADEMY: An accelerated coursework, mentoring, and Biotechnology Research and Development career pathway program serving at-risk overage eighth-grade students in Gwinnett County Public Schools through a partnership with Gwinnett Technical College and the Gwinnett Chamber of Commerce.

TIFT COUNTY MECHATRONICS PARTNERSHIP: Tift County Schools, in partnership with Moultrie Technical College, ConAgra Foods, Heatcraft Manufacturing, and others, will develop a career pathway focused on Mechatronics, an interdisciplinary field of study involving control systems, electronic systems, computers, and mechanical systems that will equip students to work in a variety of industrial, manufacturing, and health sciences settings.

COMPUTATIONAL THINKING: 21ST CENTURY STEM PROBLEM-SOLVING SKILLS FOR GEORGIA STUDENTS: The Georgia Institute of Technology will work with B.E. Mays High School and Tapjoy, Inc. to incorporate computational thinking into high school STEM curricula, teaching students to construct models to simulate, visualize, and solve real-world problems.

DREW CHARTER SCHOOL PARTNERSHIP FOR EXPANSION: Drew Charter School, the Georgia Tech Center for Education Integrating Science, Mathematics and Computing (GT CEISMC), the Georgia State University School of Music, and others will expand Drew's highly successful Pre-K–8 STEAM curriculum to grades 9–12, creating a true cradle-to-college pipeline serving inner-city students.

GREENE COUNTY STEAM TLA COLLABORATIVE: Greene County Schools, the Georgia Institute of Technology, University of Georgia faculty, and Ed Innovation Partners seek to open a charter school in Greene County with the mission of increasing the number of students who choose a career in a STEM field.

REAL STEM: A partnership between Georgia Southern University, seven area research institutes, and six school districts to develop hands-on STEM learning modules related to the environmental concerns of Georgia's coastal region.

ROCKDALE 21ST CENTURY ACADEMY OF ENVIRONMENTAL STUDIES: Rockdale County Schools, in partnership with GT CEISMC and Advancement Via Individual Determination, will create a STEM-focused middle grades school that provides students with portfolio- and project-based learning modules.

The content is rigorous and aims to prepare students for college and the workforce.¹⁵¹ For instance, the mathematics standards encourage students to "reason mathematically...and to make connections among mathematical topics and to other disciplines."152 These new standards challenge students in all subjects including STEM. To help meet these challenges, Georgia is taking on other projects to further STEM knowledge.

Along with increasing standards, Georgia has expanded accountability as well. The state has incorporated STEM metrics into the new College and Career Ready Performance Index (CCRPI) as part of the state's waiver to No Child Left Behind. This new measure offers a more comprehensive assessment of whether schools are producing students who are ultimately college and career ready upon graduation. As part of the index, high schools receive extra points based on 1) the percentage of their students completing a physics class, or 2) earning a Georgia STEM Program Certification.

In addition to adding STEM to the CCRPI measures, GaDOE is encouraging schools to increase their focus on STEM education through multiple initiatives. Currently, many middle and high schools offer a specialization to students in a STEM subject. For instance, Chattooga High School has a Forensics and Robotics concentration. If these schools see positive results from the work conducted under the Innovation Fund, GaDOE is likely to attempt to expand these programs across the state. The state also certifies schools in STEM after they pass through a rigorous application process. Currently, 90 of Georgia's school districts (46 percent) have at least one school working on a STEM certification. Georgia's overall goal is to have 300 STEM-certified schools in the next three years.¹⁵³

Using RT3 funds, Georgia not only implemented more rigorous standards in mathematics (CCGPS for math), but CEISMC also developed and implemented a rigorous professional development program for teachers and expanded STEM-related classes for Georgia's students. While overall the CEISMC programs can be considered a success, lessons were learned through the process.

The first lesson learned concerns the offering of online professional development courses. Registration for the professional development was concentrated among teachers who, on their own, wanted to improve their teaching within the STEM fields. These courses were rigorous and time-consuming. The completion rate for most of the courses is less than 50 percent. 154 Unless this training is tied to districts' overall professional development plans for educators and considered a priority, many teachers do not have the time to complete such an intensive training.

Also, CEISMC operated externally to many other aspects of the RT3 grant, including the development and implementation of the LDS and Path to Personalized Learning system. A more complete integration of the course development and other aspects of the grant may have helped CEISMC be better connected to the districts and the teachers and administrators they were serving.

Finally, the delay in implementing portions of the grant also delayed some of the STEM-related deliverables. As mentioned, Georgia was awarded the RT3 grant in 2010, but CEISMC was not awarded its portion of the funds until April 2011. This caused a delay in some of its initial deliverables. However, by 2014, all deliverables were being met.

An evaluation of the Innovation Fund grants conducted by GOSA found that overall the STEM-focused grants were particularly effective at enhancing students' interest in learning the material.¹⁵⁵ By comparing results across Innovation Fund programs, the GOSA evaluation identified focus areas for future investment. The report recommended that investments in enhancing problem-solving skills may be warranted. Specific examples include the success of inquirybased learning environments that allow students to select their own topic and plan and conduct their own projects. Similarly, the evaluation found that programs providing activities that foster interaction with STEM professionals increase students' exposure to real-world problem-solving skills and improve career focus.

Moving forward, Georgia should concentrate on supporting and replicating the Innovation Fund program by embracing the elements shown to encourage more students to enter into the STEM fields. As a state, we are well on our way to meeting our needs in STEM education. However, we are not there yet. It is important for Georgia to continue to push for higher standards and rigor, access for all, and smooth transitions into postsecondary schooling for all of our students.

¹⁵¹ Common Core State Standards Initiative. (n.d.). Common Core State Standards Initiative. Retrieved October 31, 2012, from About the Standards: http://www.corestandards.org/about-the-standards

¹⁵² Georgia Department of Education. (n.d.). Georgiastandards.org. Retrieved October 31, 2012, from Common Core Georgia Performance Standards: https://www.georgiastandards.org/Common-Core/Pages/default.aspx

¹⁵³ Lyons, G. (2014). STEM Georgia. Retrieved September 30, 2014, from STEM Georgia: K-12 Science, Technology, Engineering, & Mathematics: http://stemgeorgia.org/

U.S. Department of Education. (2014). Georgia Progress Report Spring 2014. Washington, DC.

¹⁵⁵ Governor's Office of Student Achievement. (2014). Applied Learning Student Questionnaire: Overall Results, May 2014. Atlanta.

INTRODUCTION

The Vision

In its 2010 application for the Race to the Top (RT3) grant, Georgia had a clear vision for where it was going as a state and what it wanted to accomplish. The state was committed to transforming Georgia's public education system so that every student graduated from high school, was successful in college and/or his or her chosen career, and was competitive with peers throughout the country and the world.¹⁵⁶ To accomplish this vision, Georgia was working across the following five priority areas, all of which were dependent upon a robust state data and information system that transcended all state education agencies:157

- 1. Set high standards and rigorous assessments for all students leading to college and career readiness.
- 2. Prepare students for college readiness, transition, and success.
- 3. Provide great teachers and leaders.
- 4. Provide effective support for all schools, including the lowest achieving schools.
- 5. Lead the way in science, technology, engineering, and mathematics (STEM) fields.

THE PROGRESS

Georgia received \$400 million over four years to support the implementation of reform efforts in each of these five areas. Throughout that time, the state worked hard to implement higher learning standards in English/language arts (ELA) and mathematics. The new Common Core Georgia Performance Standards (CCGPS) for all grades in ELA and K-9 mathematics were implemented in 2012, and the CCGPS was implemented in mathematics in all grades in 2014. Georgia also developed and began implementing a more rigorous assessment system to match those increased standards – the Georgia Milestones. The first year of Georgia Milestones implementation is the 2014–2015 school year. Though RT3 has not supported the creation of Georgia Milestones directly, it has allowed Georgia to develop a set of supportive resources to ease the assessment's launch.

To ensure high-quality teachers and leaders in every school and classroom, Georgia developed new teacher and leader assessment systems based partly on student academic growth measures. The state also changed how it trains and licenses new teachers through increased rigor and accountability for teacher and leader preparation programs, primarily university-based teacher education programs. To offer more supports to classroom teachers, the state has made significant changes to teacher credentialing. Georgia's new teacher certification system requires student teachers to demonstrate proficiency before they can obtain a teaching certificate. The teacher certification system is tiered, meaning it will establish a pathway for teachers to advance within the profession while still remaining in the classroom and will provide a process for the recognition of excellent teachers. Most of these rule changes will be implemented by the 2015–2016 school year.

One of the most significant accomplishments during the past four years was the development and implementation of two related state data systems: GA•AWARDS and the Path to Personalized Learning longitudinal data system. GA+AWARDS supports education-related agencies in evaluating their policies and effectiveness, and the Path to Personalized Learning allows for teachers and educators to provide individualized instruction for students and receive targeted professional development.

To address the issue of low-performing schools, Georgia selected 40 schools to participate in the state's turnaround efforts, which focused on improving schools performing in the bottom 5 percent on student achievement measures. All selected one of four intervention models. All schools utilized school improvement specialists to support the use of data and to target and implement programmatic changes. To date, 10 of these schools have been moved off the "lowest performing schools" list.

Georgia focused on STEM as a competitive preference priority.¹⁵⁸ For a majority of the STEM initiatives, the Georgia Department of Education (GaDOE) partnered with the Georgia Institute of Technology's (Georgia Tech) outreach center, the Center for Education Integrating Science, Mathematics, and Computing (CEISMC). CEISMC developed 12 online professional development courses for STEM field educators and six educator instructional courses regarding classroom technology. CEISMC also developed advanced courses for high school students to access college-level calculus, chemistry, and engineering. These online classes are scheduled to be offered by spring 2015. Finally, CEISMC developed Robotics and Engineering Design courses, including a professional development component for educators and a middle school Career, Technical, and Agricultural Education course component.

¹⁵⁶ Georgia Department of Education. (2010). Race to the Top: State of Georgia Scope of Work. Atlanta.

¹⁵⁷ U.S. Department of Education. (2012). State-Specific Georgia Report – Year 1: School Year 2010–2011. Washington, DC.

States that emphasized STEM received a competitive preference on the scoring of their application. If STEM was developed within the application, an additional 15 points (3 percent of the total) were added to the overall score.

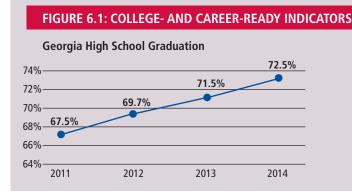
Additionally, using RT3 funding, Georgia created a \$19.4 million Innovation Fund to award competitive grants to schools, districts, and partners. These grants are designed to determine best practices to influence future education policy efforts in (1) STEM education, (2) applied learning, and (3) teacher and leader recruitment and development. To date, Georgia has conducted three rounds of funding covering 23 projects.

Student Progress

While many of the reforms are still being implemented and it will take multiple years for policy changes to result in sustained changes in student outcomes, there is reason to be optimistic that Georgia is on the right track to expect increased student outcomes. As the implementation of the CCGPS was the first of the reforms to be implemented in 2012, it is anticipated that Georgia may begin to see some results on student outcomes soon. As one of the early adopters of higher standards, Kentucky is beginning to see strong results just five years after implementation. Kentucky

recently released new data showing that 62.3 percent of its students are now achieving at a college- and careerready level, up from just 34 percent in 2010. However, before experiencing improved student achievement outcomes, Kentucky's percentage of students scoring "proficient" or better in reading and math dropped by about one-third for middle and elementary schools when its common core assessment rolled out. Similarly, as Georgia begins testing with the Georgia Milestones, scores will predictably drop, and a new baseline of scores from which to improve will be set.

Recent college- and career-ready indicators are revealing that Georgia is on the right track. Between 2011 and 2014, high school graduation rates have increased from 67.5 percent to 72.5 percent. 159 There is also some evidence that those graduating from high school are better prepared for college or a career. An examination of SAT results over the past three years reveals that while overall scores remain flat, more students are taking the SAT with hopes of going on to a postsecondary institution. In addition, the number of students taking the ACT has dramatically increased, while the scores have remained steady. This is unusual. Traditionally, when more students take the college entrance exams, the state average will fall. This has not happened in Georgia on either test. See Figure 6.1.



Average Georgia			
SAT Results ¹⁶⁰	Math	Reading	Number Tested
2014	485	488	73,626
2013	487	490	72,119
2012	489	488	73,187

Average Georgia				
ACT Results161	Math	Reading	English	Number Tested
2014	20.5	21.4	20.3	50,697
2013	20.3	21.2	20.2	48,505
2012	20.6	21.0	20.1	47,169

Taken together, it is clear that Georgia has developed and implemented a tremendous number of reforms over a relatively short period of time. And while most of those reform initiatives are still being put into place across the state, there is early evidence to suggest that these strategies are moving students across the state in the direction of being more ready for the rigors of college and a career when they graduate from high school.

CHALLENGES AND LESSONS LEARNED

Scale and Scope

Some of the biggest challenges in implementing the RT3 grant were the sheer size and scope of the project. Regarding scale, in some cases, Georgia was challenged to saturate the entire state (not just RT3 districts) with large-scale policy changes. Bringing even one major policy change to life can be a formidable task for an administration. Matters of scope compounded scale hurdles, as a confluence of reform pieces required statewide coordination at once. While most of the elements of the reforms were already under development or being planned for in some way when Georgia applied for the grant, developing and implementing all aspects of the grant at the same time proved to be a challenge. This was true at the state level and within districts and classrooms.

¹⁵⁹ Governor's Office of Student Achievement. State Report Cards. www.gosa.org

¹⁶¹ The ACT. (2014) ACT Profile Report – State, Graduating Class 2014 Georgia. ACT, Inc.

CONCLUSION

TABLE 6.1: RACE TO THE TOP PROJECT LIST¹⁶²

	Activities in Years 1-4			
	Year 1	Year 2	Year 3	Year 4
A) Project management and projects spanning all assurance areas				
Provide project management/oversight/evaluation	Х	Х	Х	х
2. Create and manage an Innovation Fund	Х	Х	Х	х
3. Improve early learning outcomes		Х	Х	х
Provide base funding amount to partnering LEAs	Х	Х	Х	х
5. Indirect Cost	Х	Х	Х	х
B) Standards and assessments				
 Organize, evaluate, and improve existing resources in preparation for Common Core Georgia Performance Standards (CCGPS) implementation; and raise awareness of existing resources and new standards 	Х	X	Х	Х
2. Develop and provide training on new standards	Х	Х	Х	х
3. Create formative assessments	Х	Х	Х	х
4. Create benchmark assessments	Х	Х	Х	Х
5. Provide PSAT examinations and develop new state virtual courses	Х	Х	Х	х
C) Data systems				
Design, develop, and implement a P-20 Entaprise Data Hub to electronically link educational information	х	х	Х	Х
Develop and implement student matching system	Х	Х	Х	х
Develop and implement decision support systems	Х	Х	Х	Х
4. GaDOE specific projects	Х	Х	Х	х
5. Professional Standards Commission (PSC) specific projects	Х	Х	Х	х
6. University System of Georgia (USG) specific projects	Х	Х	Х	х
7. Technical College System of Georgia (TCSG) specific projects	Х	Х	Х	
D) Great teachers and leaders				
Develop and implement value added/growth model	Х	Х	Х	х
2. Develop, field test, validate and implement other quantitative measures	Х	Х	Х	Х
Refine evaluation instrument, validate and implement	Х	Х	Х	Х
4. Provide training for evaluation instrument	Х	х	Х	х
5. Provide performance-based pay for teachers				х
6. Provide performance-based pay for principals				х
7. Provide relocation bonuses for teachers				х
8. Increase the supply of effective science and mathematics teachers-Uteach	х	Х	х	х
9. Develop focused professional development for teachers in math and science – CEISMC	Х	Х	Х	х
10. Share school level best practices – Summer Leadership Academy	Х	Х	Х	х
11. Expand Quality Plus Leadership Academy	Х	х	Х	
E) Turning around the lowest achieving schools				
Expand Teach for America in Georgia	х	х	х	Х
2. Partner with The New Teacher Project	х	х	х	Х
Provide resource reallocation support	х	х	х	
4. Expand Communities In Schools – Performance Learning Centers	х	х	х	х

¹⁶² Georgia Department of Education. (2010). Race to the Top: State of Georgia Scope of Work. Atlanta.

CONCLUSION PTER 6

The work happening under the grant can easily be categorized into five main areas:

- 1. Project management,
- 2. Standards and assessments,
- 3. Data system development,
- 4. Great teachers and leaders, and
- 5. Turning around the lowest achieving schools.

However, it is important to note that there were more than five reform strategies happening at the same time. Each reform area had a list of multiple projects. Each project contained multiple goals and milestone achievements. Milestones and goals needed to be developed and/or finalized at the state level with partner input and implemented at the district and classroom level – all within four years. For example, under the Great Teachers and Leaders reform category, there were 11 individual projects that represented 17 different project goals and 118 milestone achievement measures that had to be met. To accomplish all this, a vast amount of coordination and tracking were required by GaDOE and partner institutions. For a complete breakdown of projects and their timelines, see Table 6.1.

As each of the various projects was developed and implemented in districts and classrooms, many teachers and school and district leaders felt overwhelmed by the number of the reforms being put in place. New standards were being rolled out with uncertain impacts on student assessments. Teacher and leader effectiveness systems were changing along with teacher preparation programs, professional development pathways, and data systems.

USING REGIONAL EDUCATIONAL SERVICE AGENCIES (RESAs) TO STITCH REFORM PIECES TOGETHER

GaDOE made consistent strides to amplify its own communication, but faced limitations in staff and resources. One of GaDOE's successful strategies appears to have been increased collaboration with the RESAs. Combined with and through the support of GaDOE, RESAs played a critical role in delivering training on how the puzzle pieces of reform align with one another. Anecdotally, and based on increased demand, RESAs have seen outstanding success in providing professional development on Formative Instructional Practices. Without increasing workload, these practices of instruction stitch the pieces of reform together and bring them to life in the classroom. They are also tightly aligned to teacher and leader effectiveness systems, the higher standards, and Georgia Milestones expectations.

One of the key lessons learned during this process was the importance of communication. Many teachers and school and district leaders initially did not understand the relevance of the individual reforms or how they all fit together. Initial frustration was high, especially in the classroom, where all 28 individual projects came together.

When developing and implementing each of the projects, GaDOE first focused on each one separately and how it differed from how things were previously done. For example, initially the training on the new standards focused on the difference between the old Georgia Performance Standards and the new Common Core Georgia Performance Standards (CCGPS). It did not focus on what implementing the CCGPS in the classroom would entail or how the change in standards was tied to the overall vision of Georgia's education reform plan. Though GaDOE had a coherent vision for success supported by the RT3 grant, it was not being conveyed to the districts and the classrooms.

In response to district frustration, made clear by an ongoing grant evaluation, the state changed its communication and training strategy and began to convey the full vision whenever addressing a particular section. For example, when providing training on the new teacher effectiveness system (the TKES), trainees were offered an understanding of how the TKES is not only supported by but also informs the new longitudinal data system and the Path to Personalized Learning. Also, part of the training included an understanding of how the TKES was connected to student assessments that informed and helped produce college- and career-ready graduates. See Figure 6.2.

In addition to the importance of communication, another key lesson learned for a project of this size and scale was the vital collaboration of all education agencies and relevant partners in Georgia. The state was embarking on deep systematic change to the entire education pipeline, from early learning through higher education. This was not an endeavor that could be accomplished by GaDOE alone. All relevant partners and agencies needed to be involved. Moreover, they needed to understand not only their role, but also how the role of other agencies affected their own work and the overall vision of where Georgia was headed.

Since 2006, the Georgia Alliance of Education Agency Heads (AEAH) has led collaborative initiatives across the education agencies. This interagency governing council includes the leaders of all the state education agencies from Pre-K up through higher education. In other states this is sometimes called a P–20 council. Georgia's AEAH includes GaDOE, University System of Georgia, Georgia Professional Standards Commission, Technical College System of Georgia, Department of Early Care and Learning (DECAL), Georgia Student Finance Commission, and the Governor's Office of Student Achievement as well as the Governor's Education Advisor. While the leaders of these agencies have

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FIGURE 6.2: GEORGIA'S EDUCATIONAL VISION163

COLLEGE AND CAREER READY GRADUATE DEVELOPMENT OF COMMON ASSESSMENTS Establishes equity among Allows teachers to measure Requires the development of Professional Learning schools, districts, states Communities at the School, District, and State Level progress COLLEGE AND CAREER READY PERFORMANCE INDEX (CCRPI) PILOT AND IMPLEMENTATION OF TKES/LKES TIERED CERTIFICATION DEVELOPED BY PSC Allows districts to inspect what Allows identification of professional Assists in ensuring every student is taught is expected strengths and weaknesses by a highly effective teacher **DEVELOPMENT OF LONGITUDINAL DATA SYSTEM** Provides formative assessment data at Provides management tool for common Provides formative and summative data for the classroom, district, and State levels assessments, both locally developed instructional decisions and information to and Georgia milestones determine professional development ADOPTION/REFINEMENT OF COMMON CORE STANDARDS Provides the basis for a guaranteed Tracks students growth over time Implements student growth percentiles for and viable curriculum to ensure mastery of standards tested subjects and student learning objectives for non-tested subjects STRENGTHENING OF EARLY LEARNING PROGRAMS Links pre-school education to Solidifies research-based practices Provides equitable school readiness kindergarten for early learning programs for students **SOLID BASE OF SUPPORT IS NEEDED** Parents and Students **Teachers** Department of Early Local Boards State Board & Governor and Care and Learning of Education Department of Education Legislators Professional **Professional Standards US** Department **University System** Technical College **Business** Associations of Education of Georgia System of Georgia Commission Community

collaborated on state policy since the AEAH's inception, the coordination among agencies rose to a new level of interdependence and understanding during RT3. The connectedness of each of the individual reform strategies impacts all agencies. For example, DECAL is implementing new professional development for Pre-K teachers to ensure students are ready for kindergarten, thereby impacting the grade-level reading gap for which elementary teachers and schools are held accountable. The new student assessment system informs the teacher effectiveness system, which is the benchmark for the effectiveness of teacher preparation programs. Put simply, what happens within one system can significantly affect the outcomes of another system.

One high-ranking official within the GaDOE stated, "Relationships matter. There is now a feeling of having a colleague in another agency that is focused on the same goal that I am. That was not true at the beginning of the grant. It is now." Previously, there were connections and discussions among the individual agency heads, but those discussions did not always filter down into the heart of the agencies themselves. Decisions about policy and resources were oftentimes made in isolation. Now, these decisions are addressed in a cooperative manner, not only across agency heads, but via staff members within agencies as well.

For RESAs, RT3 has strengthened their relationship with GaDOE. The recession of 2007 brought with it budget and personnel cuts to GaDOE. Given this void and the launch of RT3 in 2010, the need for GaDOE to do more work with less staff made RESAs a perfect fit for filling the communication and outreach gaps to districts. More than one RESA director described their role as the "boots on the ground" throughout the state for GaDOE.

While the education agencies are now more united and are functioning with increased coordination with one another, there is still work to be done on broader partnerships. For example, CEISMC staff reported that although they were happy with their relationship with GaDOE, they would like to have been more involved with other partners working on RT3 initiatives. Business and community leaders worked on many parts of the grant as well, but much like teachers and districts at the beginning of the process, they have yet to understand their role in the overall vision for Georgia students.

Timing

As Georgia set about implementing the RT3 grant in 2010, timing emerged as a challenge. Leadership (both at the state and local levels) had a significant impact on being able to develop and implement systematic change. Strong leaders have the vision to understand all of the moving parts of a complicated reform and ensure that teachers, schools, and districts have the support they need to implement and sustain the myriad of strategies being implemented. Strong leadership and a clear vision are keys to successful implementation.

When awarded in 2010, the RT3 grant supported the strong – and complex – vision that was already in progress under the leadership of then Governor Sonny Perdue and State School Superintendent Kathy Cox. However, in 2010, Georgia elected a new governor, Nathan Deal, and a new State School Superintendent, John Barge. Neither of the two was involved in creating this vision for Georgia, and John Barge specifically ran on a campaign opposing Georgia's participation in the RT3 competition. Due to these leadership changes at the state level, the bulk of the required implementation staff was not hired until late spring of 2011, despite year-one grant commitments beginning in 2010. 164

There were also changes at the district level, where the majority of reform efforts were to be pilot-tested and implemented. During the first year of implementation alone, six of the largest participating school districts hired new superintendents. 165 This meant that close to one-quarter of the participating districts had leaders who had not initially agreed to be a pilot district for the grant yet were charged with carrying it out upon their arrival.

Leadership change at the beginning of the grant period was only one issue related to timing. The second was the amount of time allowed (four years) to accomplish an overwhelming amount of work. Most of the goals and deliverables required that projects begin development and implementation immediately. After losing a year to leadership and administration transitions, there was not much time left for pre-planning work that would include such things as building relationships with districts and schools, pilot testing programs and communication tools, and so forth. As one official stated, "We were building the plane while we were flying it."

As Table 6.1 shows, most of the individual projects were scheduled to start in 2010, during year one. However, with many of the primary staff personnel not in place until 2011, much of the actual work on the grant was compressed into about 36 months, instead of the full four years. As a state, Georgia underestimated the amount of planning time it would take to establish the infrastructure necessary to coordinate and implement the work of the grant.

This problem is not specific to Georgia. A 2011 report by the Center on Reinventing Public Education (CRPE) examined the extent to which state education agencies had the capacity to implement large-scale reform efforts, such as reforms related to No Child Left Behind and RT3 implementation. The CRPE found that most state education agencies have traditionally lacked the required resources and infrastructure necessary to implement broad-reaching, multifaceted reform programs. 166

Each of these time issues come together in what can be termed "the three Cs" of challenges to successful implementation: capacity, communication, and courage. 167 In terms of capacity, putting systems change policy into practice requires skills more related to design and engagement than to compliance. Most state education agencies have traditionally focused on compliance-related issues. Capacity also affects the second and third challenges. If communication resources are limited, it is difficult to ensure that all partners understand the changes as implementation moves forward. A lack of capacity and communication, in turn, can contribute to negative experiences in implementation. These negative experiences have an impact on courage – the courage of leaders to continue to move reform plans forward even as political pressures may build against existing efforts. It also affects the courage of teachers and other education professionals to follow the leaders. 168

¹⁶⁴ U.S. Department of Education, (2012), Race to the Top Georgia State-Specific Report Year 1: School Year 2010–2011, Washington, DC.

¹⁶⁵ bid

¹⁶⁶ Policy Innovators Network. (2014). 2014 PIE Network Implementation Case Study. Minneapolis.

¹⁶⁷ Ibid.

¹⁶⁸ Ibid.

CHAPTER 6

Georgia addressed each of these challenges through one of the greatest lessons learned throughout implementation – relationships. The grant provided the resources for Georgia to build the internal capacity necessary to deliver the ambitious goals of the RT3 grant. Through the work of the AEAH, Georgia is now in a much better position to successfully implement a broad reform strategy that simultaneously focuses on multiple cross-agency initiatives. GaDOE's collaboration with RESAs has also helped in overcoming capacity and communication challenges. In terms of courage, GaDOE, not unlike other states, has withstood public scrutiny of the CCGPS. While shortcomings in initial capacity and communication may have contributed to this, Georgia will look to future leadership and relationships to maintain the courage to continually improve the implementation and public-awareness process. Though Georgia's RT3 faced time, scale, and scope challenges, all leaders in Georgia – whether they be at the state level with AEAH, regional RESA leaders, or district and classroom leaders – stand with significantly more capacity for reform coordination going forward.

NEXT STEPS AND SUSTAINABILITY

Georgia has developed a sustainability plan to ensure the work done over the past four years continues into the future. It combines the use of a no-cost extension from US ED – meaning Georgia has additional time, though no additional funding, to complete some projects included in the original grant – with next steps and goals for the future.

Georgia has identified 10 goals for sustainability that will continue the work implemented over the past four years. 169

- Early learning opportunities will be strengthened through continual professional development of Pre-K teachers.
- 2. CCGPS will continue to be fully implemented statewide.
- 3. Student academic growth will be measured with authentic assessments.
- 4. The focus on STEM courses, activities, and initiatives will continue to drive innovation.
- 5. Innovative projects will continue to be funded and replicated.
- 6. Teacher and leader effectiveness will continue to be strengthened through the use of the teacher and leader effectiveness systems to identify underperforming and high-performing educators and to support them through targeted professional development.
- Tiered certification will be fully implemented to allow teachers the opportunity to grow professionally and remain in the classroom.
- 8. Teachers and principals will have real-time access to student data to provide an individualized learning environment for all students.
- 9. Data will be accessible to practitioners and researchers through GA•AWARDS to answer critical questions and inform policy decisions.
- 10. Teacher and leader preparation programs will be strengthened through the use of data gathered while candidates are students in the programs and once they are practicing in the workplace.

No-Cost Extension

The RT3 grant was initially scheduled to end in September 2014. The state received a no-cost extension through June 2015. At the state level, extended projects are primarily related to implementing the new teacher and leader effectiveness systems and providing support to the districts. Georgia now has until June 2015 to further refine the student growth model (in tested subjects), fully develop and implement student learning objectives (SLOs) (in non-tested subjects), and continue to refine and validate the teacher and leader assessment instruments. The state will also continue to provide training on these items and collect feedback from educators on the new assessment systems being used for teachers and education leaders.¹⁷⁰

Next Steps

At the state level, in addition to continued support and refinement of the teacher effectiveness system, Georgia will begin fully implementing the new tiered certification system for teachers and collecting the necessary data to assess teacher preparation and training programs.

The state will also continue to administer the Innovation Fund. The Innovation Fund was established to support programs that focused on applied learning opportunities, teacher and leader induction programs, growing the teacher and leader pipeline, or developing or expanding charter schools. Most current grantees will continue receiving RT3 funds through June 2015. To continue the Innovation Fund work beyond RT3, the FY 2015 Georgia budget includes \$5 million in state funding.¹⁷¹

¹⁶⁹ Georgia Department of Education. (2014). Georgia's Educational Initiatives Funded by Race to the Top Sustainability Plan. Atlanta.

¹⁷⁰ Andrews, S. C. (2014). Race to the Top: Passing the Baton. Summer GAEL.

¹⁷¹ Ibio

Much of the sustainability work will be passed to the regional and district levels. The RESAs will continue to support standards training and implementation through the use of math and ELA specialists. Local districts are being charged with continuing to focus on the implementation of standards, resource development for educators, and support for all schools, including low-performing and turnaround schools. 172

One concern about sustainability is the continued funding of the work. Even with the RT3 no-cost extension through June 2015, the ongoing support work will need to be financed through a combination of state and local funds. Georgia's FY 2015 state budget includes a \$314 million increase in education spending, ¹⁷³ some of which will go to support continuing the sustainability plan.

In submitting its plan to the state budget office, GaDOE requested between \$9.4 million (minimal level of support) and \$12.1 million (optimal level) to continue its work. 174 The approved FY 2015 state budget includes \$9.6 million to support the work. The budget also includes an additional \$8 million to fund the new Georgia Milestones assessment system.¹⁷⁵ See Table 6.2 for details of funding categories.

As shown in Table 6.1, 45 percent of the funds are being directed toward Georgia Milestones, 25 percent to support the Innovation Fund grants, and 16 percent to support the data systems, either the GA•AWARDS or the longitudinal data system. Essential support for the data and student assessment systems will continue to be provided by the state. Much of this work will continue to be funded through June 2015 under the RT3 extension. The sustainability request for the FY 2016 budget is \$4.3 million. 176

To date, the 26 RT3 districts that have implemented many of these reform strategies have been supported by federal dollars from the RT3 grant. Even with the federal dollars, local implementation was difficult. Georgia is now rolling out many of these reforms statewide. One RESA director pointed out the increased challenges non-RT3 districts are beginning to face in implementing the same reforms without comparable levels of federal support and time to adjust to policy changes. Achieving the same level of fidelity and consistency will be an issue for the majority of non-RT3 systems.

TABLE 6.2: FY 2015 AGENCY FUNDING TO SUSTAIN RT3 WORK

AGENCY	PURPOSE	AMOUNT
Governor's Office of Student Achievement	Personnel and operating costs for GA•AWARDS	\$1,039,178
	Innovation Fund grants	\$5,000,000
Georgia Department of Education	Continued development of longitudinal data system	\$982,240
	Statewide administration of the PSAT	\$1,190,000
	Georgia Milestones	\$8,000,000
Georgia Student Finance Commission	GA•AWARDS support	\$75,645
Technical College System of Georgia	GA•AWARDS support	\$431,640
Georgia Professional Standards Commission	GA•AWARDS support	\$250,000
RESAs	\$720,000 to partially fund the ELA/Language Arts specialists	\$720,000

Many, if not most, local school districts are still struggling from a decade of austerity cuts coupled with declining local revenues. Over the past decade, Georgia has struggled to fully fund its education budget, resulting in over \$8.4 billion in austerity cuts since 2003, shifting even a larger burden of funding for education to the local districts. ¹⁷⁷ Moreover, between 2008 and 2013, property values - the basis for local school funding - declined in more than 90 percent of Georgia school districts. At the same time, student needs began to grow. In 2002, 45 percent of public school students were economically disadvantaged. By 2014, that had increased to 62 percent.¹⁷⁸ In response to the increased need of students and a shortage of funding, most districts had to cut staff and services. Despite an increase in the FY 2015 budget, many districts must continue to increase class sizes and cut instructional programs. A survey of districts found the following for the current 2014–2015 school year: 179

- ➤ 49 districts (nearly 33 percent) have a school calendar less than the standard 180 days.
- ➤ 127 districts (85 percent) have larger class sizes than during the 2009–2010 school year.
- ➤ 61 districts will furlough teachers this year.
- ➤ 66 districts have cut or eliminated art and music programs since 2009. Of those, two-thirds have not restored them.

¹⁷³ Georgia Budget and Policy Institute. (2014). Cutting Class to Make Ends Meet 2014. Atlanta.

¹⁷⁴ Andrews, S. C. (2014). Race to the Top: Passing the Baton. Summer GAEL.

¹⁷⁵ The Georgia Milestones system falls outside of the scope of sustainability of RT3 initiatives; however, it is integral to the overall vision for Georgia education reform.

Georgia Department of Education. (2015). Georgia's Educational Initiatives Funded by Race to the Top Sustainability Plan - FY16. Atlanta.

¹⁷⁷ Georgia Budget and Policy Institute. (2014). Cutting Class to Make Ends Meet 2014. Atlanta.

¹⁷⁸ Ibid.

¹⁷⁹ Ibid

Current allocations from the state budget shift the burden for sustained reform implementation from the state to the regional and district levels. Under current local financial conditions, shifting the bulk of the work to districts without additional supports threatens the continued success of reform efforts.

Additionally, at the regional level, one RESA director noted the importance of continuing to support administrative and instructional leadership development well after RT3. Limited by financial and human resource constraints, inadequate continued support from the Georgia legislature could lead to shortfalls in statewide educator training, negatively impacting reform efforts. As a support structure that prevents the duplication of services, RESAs are an important key to continued reform.

As stated earlier, the "three Cs" are the keys to successful and sustained implementation of systematic change: capacity, communication, and courage. While RESAs will benefit from sustainability allocations, at least in the short run, it is not evident that local districts currently have the capacity to take over financial responsibility for reform efforts. Without proper capacity, communication and the courage to move forward are threatened.

MOVING FORWARD

Now that Georgia has gone through four years of intensive and extensive education reform, what are the next steps? Where does the state go from here? It is clear from the reforms put in place that Georgia wants to 1) increase the focus on student growth to determine teacher effectiveness, as opposed to simply measuring overall achievement, 2) utilize a standards-based approach to teaching and learning, 3) continue to use data to drive instruction and policy decisions, and 4) support turnaround efforts for the lowest achieving schools.

Due to the work on the RT3 grant, Georgia is well positioned to undertake new and innovative ways to improve teaching and learning. However, this creates a twofold challenge for the state moving forward. First, the systemic changes put in place under RT3 are not yet finished. In a 2013 piece, Rick Hess described implementation as the "missing half of school reform," as stakeholders, officials, and advocates show less interest in implementing existing reforms than in tackling new initiatives. 180

Second, Georgia needs a new strategic plan to continue its vision. Capacity and leadership are the keys to answering both issues. Both in terms of ensuring sustainable systematic change and providing a roadmap for the future, leadership is paramount. As the current set of reforms are being implemented, positive and effective leadership at both the state and local levels is needed to ensure that teachers and educators are being supported and provided adequate professional development and resources, that student assessment and teacher effectiveness systems are being implemented with fidelity, that data systems are being used to their fullest potential, and more.

In addition to finishing what was started before and during the RT3 grant period, Georgia needs to consider, and begin to design, a roadmap for the future. In November, a new state superintendent, Richard Woods, was elected with his own vision for public education in Georgia. Under this new leadership, questions about the proper role of student assessments, standards, and educator effectiveness systems may be up for discussion.

Newly re-elected Governor Nathan Deal has announced that he will conduct a "top to bottom review of public education during his second term." 181 As part of this review, Governor Deal wants to examine the funding structure, charter, and flexibility options for schools and districts, while keeping good teachers in the classroom and continuing to turn around failing schools. 182 Where this review will take the state and how it supports the current vision is unclear.

Georgia has done a good job of identifying areas of education reform that will lead to improved student outcomes and high school graduates who are ready for college or to embark on a career. Increased rigor and teacher quality are the right foci to produce these changes. Georgia must work hard to recommit to the vision implemented over the past four years and articulate a strategic plan on how the recent systemic changes will be fully implemented, engrained, and sustained. The RT3 grant provided a roadmap for reform for the state to follow. That roadmap is close to becoming out of date. Taking the lessons learned over the past four years, Georgia leaders need to work together to come up with a new roadmap, or blueprint, to clearly identify where the state is now headed and how we will get there.

¹⁸⁰ Policy Innovators Network. (2014). 2014 PIE Network Implementation Case Study. Minneapolis.

Yarbrough, D. (2014, October 21). Everything on the Table, Public Education Reform, says Gov. Deal. The Telegraph.

APPENDIX A – REPORT ACRONYMS AND DEFINITIONS

AEAH – Alliance of Education Agency Heads – An interagency governing council that includes the leaders of all the state education agencies from Pre-K up through higher education. In other states, this is sometimes called a P–20 council. Georgia's AEAH includes the Georgia Department of Education (GaDOE), University System of Georgia (USG), Georgia Professional Standards Commission (GaPSC), Technical College System of Georgia (TCSG), Department of Early Care and Learning (DECAL), Georgia Student Finance Commission (GSFC), and the Governor's Office of Student Achievement (GOSA) as well as the Governor's Education Advisor.

ARRA – American Recovery and Reinvestment Act – 2009 federal legislation that provided an unprecedented infusion of funds into the economy to stimulate recovery from the recession, support job creation, and invest in critical sectors such as education. Included in ARRA was the Race to the Top grant competition.

AYP – Adequate Yearly Progress – A measurement defined by the United States federal No Child Left Behind Act that allows the U.S. Department of Education to determine how every public school and school district in the country is performing academically according to results on standardized tests.

CCGPS – Common Core Georgia Performance Standards – Georgia's version of the Common Core State Standards for English/language arts and mathematics. They replaced the previous Georgia Performance Standards in those subjects.

CCRPI – College and Career Ready Performance Index – Georgia's school and district accountability system that replaced AYP when the state received a waiver from the U.S. DOE.

CCSS – Common Core State Standards – The Common Core is a set of high-quality academic standards in mathematics and English/language arts/literacy (ELA). These learning goals outline what a student should know and be able to do at the end of each grade.

CEISMC – Center for Education Integrating Science, Mathematics, and Computing at the Georgia Institute of Technology.

CRCT – Criterion-Referenced Competency Test – End-of-grade tests for grades 3–8. Discontinued in spring 2014.

CTAE – Career, Technical, and Agricultural Education – Division within the Georgia Department of Education responsible for administering the College and Career Pathways.

DECAL – **Georgia Department of Early Care and Learning** – Also known as Bright from the Start, this state department oversees a wide range of programs focused primarily on children ages birth to school age and their families, including, though not limited to, the Georgia Pre-K program and administering the federal Child Care and Development Fund.

ELA – English/language arts

EOCT – end-of-course tests – End-of-course tests given in grades 9–12.

FIP – Formative Instructional Practices – Formal and informal ways that teachers gather evidence of and respond to student learning. Formative Instructional Practices tightly align to and directly support the teacher and leader evaluation systems.

GA-AWARDS – Georgia's Academic and Workforce Analysis and Research Data System – Georgia's P–20 longitudinal data system that is the anchor for Georgia's data collection and usability efforts that can be used to track overall student achievement and inform policy. It is designed to efficiently link data across all agencies, beginning with early learning data from DECAL and spanning to the Georgia Department of Labor (DOL).

GACE – Georgia Assessment for the Certification of Educators – The state of Georgia requires candidates for educator certification to take the GACE. The purpose of the GACE assessments is to assure that the knowledge and skills acquired by prospective Georgia educators are aligned with state and national standards for educator preparation and with state standards for the P–12 student curriculum.

GaDOE - Georgia Department of Education

GaPSC – **Georgia's Professional Standards Commission** – The commission in Georgia responsible for certifying and classifying all professional employees in public schools.

GaVS – Georgia Virtual School – A program of the Georgia Department of Education's Office of Technology Services. The program is SACS CASI accredited and operates in partnership with schools and parents to offer middle school- and high school-level courses across the state. Georgia Virtual School provides a teacher-led, virtual classroom environment. Georgia Virtual School also equips students with an online media center and guidance center to support students throughout their online course experience.

Georgia Milestones – Georgia Milestones Assessment System – Georgia's summative assessments, which include end-of-course and end-of-grade measures of how much of the standards students learned. The Georgia Milestones replaced the CRCTs and previous EOC tests during the 2014–2015 school year.

Georgia Tech – Georgia Institute of Technology

GOFAR – Georgia Online Formative Assessment Resource – This online portal is part of the Pathway to
Personalized Learning longitudinal data system. It allows
teachers to seek, assign, and monitor formative assessment
progress of students.

GOSA – Governor's Office of Student Achievement

GSFC – Georgia Student Finance Commission

GSGM – **Georgia Student Growth Model** – This model describes the change in student achievement across time. The GSGM is based on a Student Growth Percentile (SGP), which describes a student's growth (how much they learned over a given time period) relative to other students with similar prior achievement statewide.

A - REPORT ACRONYMS AND DEFINITIONS

GYOT - Grow Your Own Teacher - This innovation fund focuses on helping districts and communities grow their teacher and leader pipelines, especially in hard-to-serve districts and hard-to-staff subjects.

IIS – instructional improvement system – This longitudinal data requirement of RT3 is designed to enhance the state's ability to effectively manage, use, and analyze education data to support instruction. In Georgia, the IIS is called the Path to Personalized Learning.

LAS – lowest achieving schools – Schools performing in the bottom 5 percent on student achievement measures

LEM – Leader Effectiveness Measure – The final score generated by the Leader Keys Effectiveness System. It consists of two parts: a survey of instructional practice and student growth.

LKES - Leader Keys Effectiveness System - Evaluation/ assessment systems designed for school leaders, primarily principals.

NCLB - No Child Left Behind - A federal law passed under the George W. Bush administration. NCLB represents legislation that attempts to accomplish standards-based education reform. The law reauthorized federal programs meant to hold primary and secondary schools measurably accountable to higher standards

NGA - National Governors Association

PARCC - Partnership for Assessment of Readiness for **College and Careers –** A group of states working together to develop a set of common core-aligned assessments that measure whether students are on track to be successful in college and their careers. Georgia withdrew from the PARCC consortium in 2013.

PPEM - Preparation Program Effectiveness Measure -A single metric will be used to classify educator preparation programs in one of four performance levels: exemplary, effective, at risk of low performing, or low performing.

RESAs – Regional Education Support Agencies – These are state-supported agencies charged with helping local school systems meet their educational needs through the sharing of services across school system lines. All RESAs are required to provide services in research and planning, staff development, curriculum and instruction, assessment and evaluation, technology, health, and school improvement.

RED – Robotics and Engineering Design – These curricula were developed by CEISMC and offered as part of the middle CTAE offerings. These curricula combine not only robotics and engineering, but also include elements of 3D modeling, manufacturing, physical science, and math.

RT3 - Race to the Top - A \$4.35 billion education fund established by the federal government to support the implementation of education reform efforts.

SBOE - Georgia State Board of Education

SGP - Student Growth Percentile - This describes a student's growth (how much they learned over a given time period) relative to other students with similar prior achievement statewide. Used in Georgia's Student Growth Model

SIG – School Improvement Grant – These are grants awarded by the U.S. Department of Education to state education agencies under the NCLB act focused on improving low-achieving schools.

SLDS – Statewide longitudinal data system – The foundation of the Path to Personalized Learning is a longitudinal data system that provides longitudinal data and analysis to allow teachers to differentiate instruction among their students.

SLOs – Student Learning Objectives – For non-tested subjects, SLOs describe what students are expected to learn in a given academic year as measured by a pre-assessment and post-assessment.

STEM - science, technology, engineering, and mathematics

TCSG - Technical College System of Georgia

TEM – Teacher Effectiveness Measure – The final score generated by the Teacher Keys Effectiveness System. It consists of two parts: a survey of instructional practice and student growth.

TFA – Teach for America – An alternative certification program that recruits recent college graduates to teach for two years in an urban or rural school system.

TKES – Teacher Keys Effectiveness System – Teacher evaluation/effectiveness system used to distinguish between good teachers, great teachers, and ineffective ones. The primary focus of the teacher effectiveness system is to help improve instruction and to better design professional development activities to meet teacher needs.

TNTP - The New Teacher Project - An alternative certification program that provides intensive education training to college graduates and ongoing support to its teachers during their first years in the classroom.

UGS - University System of Georgia

US ED - U.S Department of Education



