TOP TEN ISSUES TO WATCH IN 2016

GEORGIA
PARTNERSHIP
FOR EXCELLENCE
IN EDUCATION

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GEORGIA PARTNERSHIP
FOR EXCELLENCE IN EDUCATION

T   The Georgia Partnership for Excellence in Education is quickly approaching its 25th anniversary (2017). Times have changed during that time but the Georgia Partnership has been consistent in its mission of working tirelessly to improve student achievement in our state. Challenge is what has kept this organization on a path of continuous improvement and as we enter 2016 there are more opportunities to grow and make lasting impact. The pages that follow will detail many of the current education challenges facing us all.

So what exactly does the Georgia Partnership do? You will find our mission statement at the bottom of this page. How do we translate mission into action? Here are a few examples:

Nonpartisan research is a hallmark of our work. We are always searching for the best way to make Georgia's public education system better, unencumbered by political influences, and to ensure it provides equal opportunity for every student throughout the birth to work pipeline. We often review our findings with policy and decision makers who come to us for valuable counsel.

We have a variety of programs that have impact. For example, we start every year on the fast track with our **Media Symposium** in early January. This event brings education reporters and editors in from around the state for a day-long look at the key issues facing legislators as they start their new term. It is here the newest Top Ten report is released to the public. Education is a complicated subject and reporters have a difficult job in accurately telling the story. The Symposium, filled with education experts in many fields, facilitates their work.

Publicly addressing key topics is something we have been doing almost since we were born. We do this through our **Critical Issues Forums** which we present three times a year. Looking back over 2015 we provided inside looks at the economic power of early care and education, the challenges presented by shifting demographics, and how the state can better close the higher education attainment gap. The Forums are always free and open to all. Plan to join us throughout 2016.

We are especially proud of our **Education Policy Fellowship Program** or EPFP. Since 2008 we have been increasing Georgia's education policy expertise by graduating Georgians from a variety of fields — government, education, business, civic — who better understand the complexities of education policies and the critical need to make the right decisions first. Take a look and consider applying for the Class of 2017.

This brief review only scratches the surface. The door is always open to those who want to learn more about our work and especially wide open to new partners who want to be a part in making Georgia's public education system a national leader. We encourage you to join our mailing list and follow us on Twitter and Facebook. You will be among the first to know about new reports, programs and developments in key areas and by regularly visiting our "Hot News" and research pages, you will be among the best informed.

The Georgia Partnership for Excellence in Education's greatest strength is that it creates and nurtures the conditions that stimulate critical change. Visit our web site at www.gpee.org or click on the QR code here. We welcome your support and participation in our work. We need you. Georgia needs you.

INTRODUCTION

Welcome to 2016 and the 12th Edition of the Georgia Partnership's *Top Ten Issues to Watch.* This is an exciting time in education as the state continues to look for ways to reform its educational system. However, these are also uncertain times. Questions over the proper role of technology and innovation, flexibility for schools and districts, and issues over accountability, funding equity and how to address chronically failing schools continue to dominate the educational landscape. Debates about the proper role of government at all levels — federal, state, and local — continue to impact decisions about how best to serve our schools.

Throughout 2015, Governor Nathan Deal's Education Reform Commission conducted a "top to bottom review of public education" and issued recommendations that, if adopted, would overhaul K-12 funding, increase charter and flexibility options for schools and districts, impact the delivery of instruction and assessments, and improve access to quality early learning options. Moving forward, the General Assembly will be considering these recommendations and may pass legislation that could significantly impact the educational landscape of the state.

In November, voters will consider a constitutional amendment creating a statewide Opportunity School District (OSD), allowing state take-over of failing schools. If passed, the OSD would not only add another tool to address chronically failing schools, but also fundamentally change the nature of the relationship between local schools, districts, and the state.

Not only are there significant changes at the state level, but also at the federal level. The recent passage of the Every Student Succeeds Act has provided Georgia an opportunity to set its own direction and determine the best way to support schools and districts. This legislation substantially reduces federal control over K-12 education and is returning a majority of decision-making power to states and school districts, including issues related to standards and accountability, and how to identify and intervene in low-performing schools.

Throughout 2016, Georgia will be investigating new and innovative ways to improve teaching and learning. Free of many former federal guidelines, the state now has a greater responsibility for building a world class education system. In doing so, Georgia should carefully assess the reforms put in place over the past decade, fully support those that show marked results and where necessary, seek new approaches to further enhance student learning. To maximize this opportunity, Georgia must have positive and effective leadership at both the state and local levels. We need leaders with the courage to demand high standards for all students while providing proper equity in resources to meet those standards.

We believe that the data and commentary presented in this document will guide conversations with policy-makers, educators, and community and business leaders about these challenges and opportunities. Armed with reliable, comprehensive information and guided by a common vision for excellence, together we can target strategies that will ensure educational success and a brighter future for all of our students, our state, and our nation.

Dr. Stephen D. Dolinger
President, Georgia Partnership for Excellence in Education

INDICATORS FOR SUCCESS: WHERE IS GEORGIA TODAY?

How does Georgia fare in producing excellent results for our citizens throughout the birth to work pipeline?

What additional progress is necessary to move our state above the national average and into the top tier of states to make Georgia a national leader?

These *Indicators for Success* reveal where Georgia stands on critical indicators of child well being, educational attainment, and workforce readiness. Shown in each graph is a comparison of trends in Georgia relative to national averages. These data represent outcomes related to student achievement and success. Changes in these outcomes will require focused, collaborative work on each of the issues discussed in this publication. The Georgia Partnership for Excellence in Education is committed to tracking these indicators over time and advocating for policies and practices that will enable our state to emerge as a national education leader.

LOW-BIRTHWEIGHT BABIES, 2009–2013

Source: The Annie E. Casey Foundation. KIDS COUNT Data Center. datacenter.kidscount.org
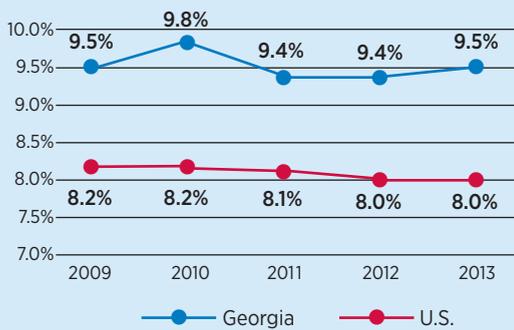
CHILDREN LIVING IN POVERTY, 2009–2014

Source: The Annie E. Casey Foundation. KIDS COUNT Data Center. datacenter.kidscount.org
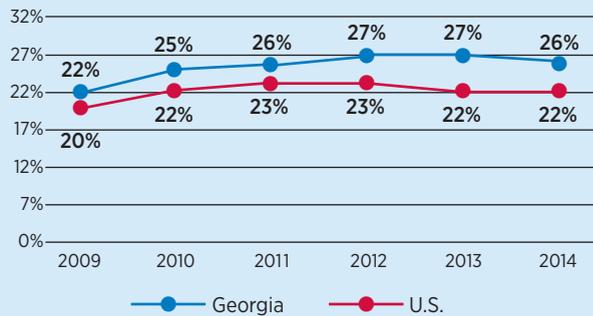
CHILDREN AGES 3 TO 5 ATTENDING PRESCHOOL, 2007–2013

Source: The Annie E. Casey Foundation. KIDS COUNT Data Center. datacenter.kidscount.org
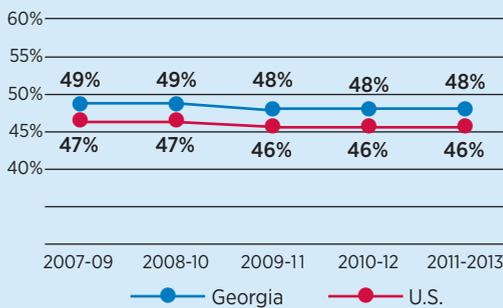

FOURTH GRADE NAEP READING: AT OR ABOVE PROFICIENT, 2007–2015

Source: The Annie E. Casey Foundation. KIDS COUNT Data Center. datacenter.kidscount.org
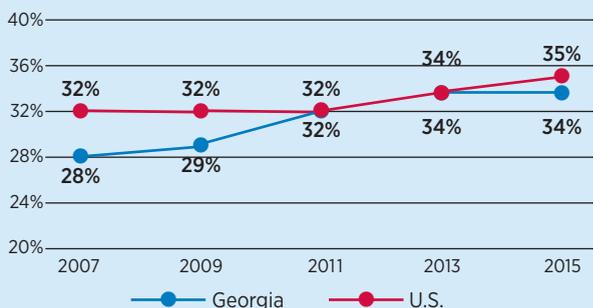
EIGHTH GRADE NAEP MATHEMATICS: AT OR ABOVE PROFICIENT, 2007-2015

Source: National Center for Education Statistics, National Assessment of Education Progress

Year	2007	2009	2011	2013	2015
Georgia	25%	27%	28%	29%	28%
U.S.	31%	33%	34%	34%	33%
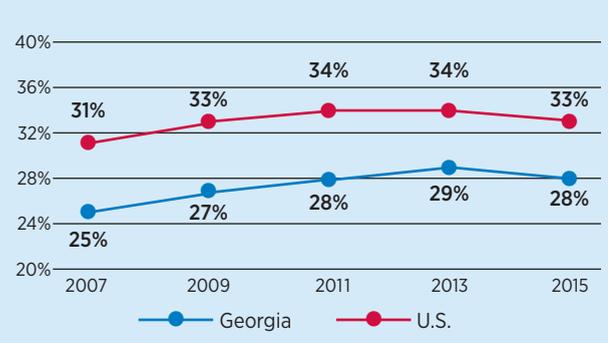
STUDENTS EARNING AP COLLEGE CREDIT IN HIGH SCHOOL, 2009-2013

Source: The College Board, AP Report to the Nation

Year	2009	2010	2011	2012	2013
Georgia	18%	19%	20%	22%	21%
U.S.	16%	17%	18%	20%	20%
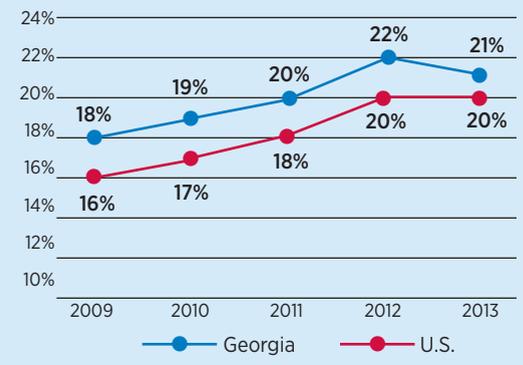
HIGH SCHOOL GRADUATION RATES*

Source: National Center for Education Statistics, Public Four-Year On-Time Graduation Rates: School Years 2010-2011, 2011-12, 2012-2013
*Public high school 4-year adjusted cohort graduation rate.

Year	2010-11	2011-12	2012-2013
Georgia	67%	70%	72%
U.S.	79%	80%	81%
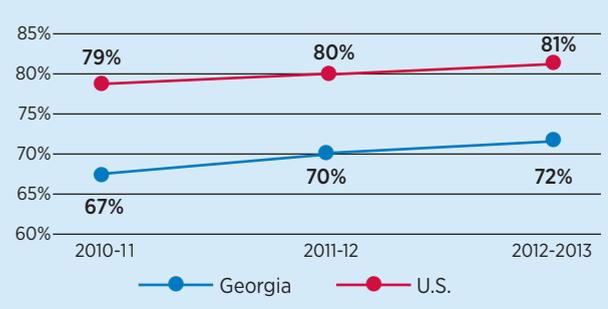
ADULTS OVER AGE 25 WITH AN ASSOCIATE'S DEGREE OR HIGHER, 2010-2013

Source: NCHEMS Information Center for Higher Education Policymaking and Analysis

Year	2010	2011	2012	2013
Georgia	33.8%	34.1%	34.6%	34.9%
U.S.	35.4%	35.8%	36.2%	36.6%
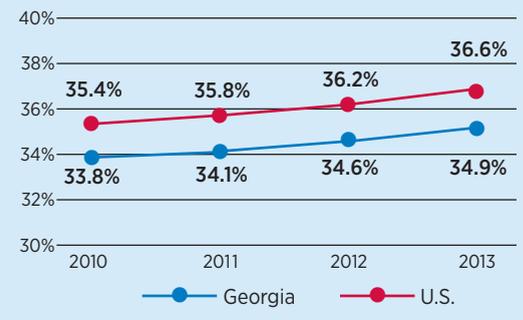
ISSUE 1: SUCCESS FOR ALL: WHAT TO DO WITH CHRONICALLY FAILING SCHOOLS?

ISSUE OVERVIEW

Historically, efforts focused on turning around the nation's 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 that states and districts receiving federal dollars to turnaround their lowest performing schools were successful in directing those dollars to the appropriate schools. However, schools receiving the funding made "little progress in implementing the mandated components."[1] In fact, the targeted turnaround schools were less likely to implement the various required elements than were comparison schools not receiving federal assistance.

These findings 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.[2] The problem with many of these "remedies" is not that they couldn't 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.[3]

To help provide that support and scalability, many states have enacted policies to allow the state to intervene in persistently failing schools. The most prominent of these is the Recovery School District (RSD) in Louisiana established in 2003. Significantly expanded after Hurricane Katrina in 2005, the RSD removes schools from their local districts, and intensive turnaround policies are administered by the RSD instead. Tennessee created the Achievement School District (ASD) in 2011 to remove failing schools from their local districts and place them under the authority of the state's Department of Education. In total, 23 states have enacted policies allowing the state to take over individual schools in cases of financial or academic crisis.[4]

Georgia is currently considering the establishment of a similar Opportunity School District (OSD), a new state-run school district with the authority to step in and run "chronically failing" schools. The OSD concept was introduced during the 2015 legislative session, raising the visibility of these persistently low-performing schools and the challenges they face. Questions concerning what should be done and the best way to intervene are now dominating much of the education policy discussion across Georgia.

SIGNIFICANCE FOR GEORGIA

Under waivers to NCLB, there has been a significant departure in how school performance is measured. The waivers allowed for the elimination of the Needs Improvement Status,[5] and in Georgia, schools are now categorized as Reward, Priority, Focus or Alert. These categories are based on school performance, primarily academic performance. Persistently low-performing schools are now categorized as priority or focus schools and qualify for intensive turnaround assistance from the Georgia Department of Education (GaDOE). Within GaDOE, the Division of School and District Effectiveness works directly with these schools to improve school and district efforts to positively impact student performance.

A Priority School is a Title 1 school in the bottom 5 percent of all Title 1 schools based on a three-year average of student academic achievement, or a high school with a graduation rate lower than 60 percent for two consecutive years. Schools exit the priority status when they no longer meet the definition of the priority school and

1   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.
2   Hess, R. (2012, September). *Making sense of school turnarounds.* Retrieved November 17, 2012, from Pie Network: www.pie-network.org.
3   Ibid.
4   The Alliance to Reclaim Our Schools. (2015). *Out of control: The systematic disenfranchisement of African American and Latino communities through school takeovers.* Washington, DC: The Alliance to Reclaim Our Schools.
5   In September 2011, the Obama Administration and the U.S. Department of Education announced that states could apply for waivers from the key requirements of NCLB. Among them are the requirements that 100 percent of all students will test at the "proficient" level in reading and math by 2014, and the implementation of specified interventions in all schools and districts labeled as "failing," or "needs improvement." Georgia received its first waiver in 2012 and continues to determine school and district performance and accountability under the waiver guidelines.

1. Demonstrate a 5 percentage point increase in student academic performance, or
2. Attain a graduation rate of over 60 percent in the most recent year and prior year.[6]

In 2012, 79 schools were named priority schools. By August 2014, 14 had exited priority status and five had closed. In 2015, another 81 (the bottom 5 percent of Title 1 schools) were categorized as priority.

Focus schools are determined by the achievement gap, calculated as the difference between a school's performance for a subgroup of students versus the state mean performance for that same group of students. All Title 1 schools are ranked by their gap scores, and those that are not already identified as priority schools and fall within the bottom 10 percent are identified as focus schools. Schools can exit the focus school status when they no longer meet the definition of a focus school and demonstrate a 2.5-point increase in the three-year average of achievement gap scores.[7]

In 2012, 156 schools were identified as focus schools, with seven exiting two years later. In 2015, 164 schools were identified as focus schools.

The work of GaDOE's Division of School and District Effectiveness has shown promising results for these schools on the state's accountability system, the College and Career Ready Performance Index (CCRPI).[8] The CCRPI results, shown in Figure 1.1, indicate that focus schools are improving at the same rates as non-focus or priority schools across the state — an average CCRPI score increase of .87 over two years. Priority schools, in comparison, posted nearly a 2 point gain, on average, over the same two-year period.

FIGURE 1.1: CCRPI SCORES FOR PRIORITY AND FOCUS SCHOOLS, 2012–2014

Category	2012	2014
Focus	67.52	68.39
Priorty	54.52	56.44
Nonfocus or Priority	74.36	75.23
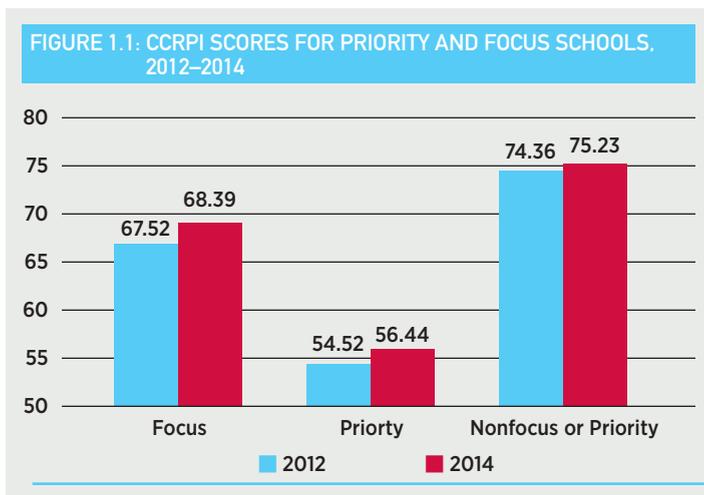
Through its work with the schools, GaDOE has made significant changes to how it supports struggling schools. GaDOE found the same elements that national research has cited as necessary to implement and maintain turnaround efforts: leadership and support for sustainability. Relatedly, one of the main lessons learned through working with these persistently low-performing schools is that any improvements made within a particular school building are extremely difficult to maintain over the long term without district support and involvement. Along with school improvement, Georgia is focusing on the capacity of districts and district leaders to support struggling schools.

Research has found that leadership disparities explain almost a quarter of the difference in student performance at the school level.[9] In school systems, the leadership role is paramount. School districts have enormous power to support principals and teachers in driving instructional improvement. When district leaders effectively address specific responsibilities, they can — and do — have a profound, positive impact on student achievement in their districts.[10] Positive leadership at the district level can translate to effective leadership at the school level as well. Empowering school-level leaders is one of the most important steps districts can take to support student learning. Leadership is second only to classroom instruction among all school-related factors that contribute to student achievement.

To support the connection between school and district leaders, state turnaround efforts work in tandem with schools and their district leaders. While working in schools, GaDOE also supports district improvements in a variety of ways:

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6 Georgia Department of Education. (2015, June). *ESEA flexibiity waiver renewal: Summary of priority, focus and reward identification criteria.* Retrieved from Division of School and District Effectiveness: http://www.gadoe.org/Curriculum-Instruction-and-Assessment/Accountability/Documents/Priority.Focus.Rewards_Identification%20Summary%2006.12.15.pdf
7 Ibid.
8 The CCRPI produces a score ranging from 0 to 100.
9 Ibid.
10 Waters, J. T., & Marzano, R. J. (2006). *School district leadership that works: The effect of superintendent leadership on student achievement.* Denver, CO: Mid-continent Research for Education and Learning.

1. Connecting and coordinating the improvement efforts from various district and state divisions and departments,
2. Developing a sense of ownership and responsibility within district leadership for the success of leaders within the school building,
3. Building the capacity of district personnel in the various areas of leadership and technical skills by expanding their knowledge base, and
4. Coaching district leaders to focus on limited goals and initiatives as well as how to plan, develop, implement and monitor progress.

GaDOE has developed the Georgia District Performance Standards, which allow districts to assess their progress across standards of best practices for high-performing districts. Developing leaders in the school system and at the district level has become a priority in addressing the needs of priority and focus schools.

In addition to efforts at the state level, many local districts are working on innovative approaches to turnaround persistently low-performing schools within their system. For example, Fulton County Schools has implemented its own Achievement Zone. In this pilot, Fulton is focusing on the geographic area around Banneker High School in the southern end of the county. This area includes all the elementary and middle schools that feed into Banneker. The schools within this area experience high rates of mobility, poverty and crime, and they lack intensive supports for struggling students. The mission of the zone is to accelerate and concentrate research-based reform efforts that provide a wide range of supports and remove barriers, with the ultimate goal of making dramatic school improvements.

The first phase of the Achievement Zone began in the spring of 2015. Immediate strategies implemented in the 2015-2016 school year include creating a culture of high expectations, recruiting high-quality staff and providing intensive supports for struggling students through multiple partners and programming. See Table 1.1.

TABLE 1.1: EXAMPLES OF SUPPORTS FOR FULTON COUNTY ACHIEVEMENT ZONE SCHOOLS[11]

- **The Junior Achievement-Magnet Business Academy (JA-MBA) at Banneker High School**
- **Expansion of AVID (Advancement Via Individual Determination) at McNair Middle School, Woodland Middle School and Banneker High School**
- **Strategically staffing high-performing teachers at Feldwood Elementary, Heritage Elementary and McNair Middle School**
- **Recruitment incentives for new staff to all Achievement Zone schools**
- **Teach for America K-3 Literacy Grant at Brookview Elementary**
- **8th and 9th grade academies at McNair Middle School, Woodland Middle School, Banneker High School and McClarin High School**
- **Extensive professional development for staff**
- **Real-time coaching support for leadership and teaching**
- **Grant-funded partnerships for social and emotional supports**
- **District assessment and strategic planning for turnaround**

Atlanta Public Schools (APS) is also taking steps to address low-performing schools within the district. After a two-month planning process, APS identified about a dozen elementary schools as possible candidates for Governor Deal's Opportunity School District if approved by voters in 2016. These identified schools will receive additional reading tutoring, extra class time and additional teachers who specialize in reading and math. APS officials plan to expand these changes across the district in the coming years.[12]

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11 Fulton County Schools. (2015, April). *Q&A achievement zone.* Retrieved from Fulton County Schools Achievement Zone Question and Answers: http://www.fulton-schools.org/en/divisions/acd/learncomm/AchievementZone/Documents/Achievement%20Zone%20Question%20and%20Answer.pdf#search=Achievement%20Zone
12 Bloom, M. (2015, November 3). Atlanta schools hope big changes will avert state takeovers. *Atlanta Journal Constitution.*

ACTION STEPS FOR GEORGIA

Work done by GaDOE has demonstrated that 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. When 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. Finally, engaging district leaders and building district capacity to support school turnaround efforts are necessary to sustain long-term changes.

In addition to the work already happening across the state, Georgians will vote on a constitutional amendment in November 2016 on whether to create an Opportunity School District (OSD), one of Governor Deal's primary policy goals for education. If approved by voters, the OSD would establish a state-run school district that would step in and take over Georgia's worst-performing schools. See Table 1.2 for details of the OSD proposal.

TABLE 1.2: GEORGIA'S OPPORTUNITY SCHOOL DISTRICT UNDER CONSIDERATION FOR 2016 VOTER APPROVAL

- The statewide school district OSD would be overseen by a superintendent appointed by and reporting to the governor.
- Eligible schools would be those that earn an "F" for three consecutive years on the state's accountability system. This is a score below 60 on the CCRPI.
- The OSD would be authorized to take up to 20 schools per year with a maximum of 100 at any given time.
- The OSD superintendent would be responsible for selecting among the eligible schools, weighing factors such as geography, school clusters, and parent and community feedback.
- The superintendent would ultimately select from one of four intervention models for selected schools:
    1. Direct management by OSD
    2. Shared governance by the OSD and the local board of education, with the board operating the school and the OSD superintendent directing the changes
    3. Conversion to a charter school if approved by the State Charter Schools Commission
    4. School closure
- The superintendent would select the principals for non-charter schools.
- For charter schools within the OSD, the superintendent would select the charter board, which would, in turn, select the principal.
- The superintendent would establish an agreement with the school principals, local board of education and/or the charter school governing boards over the strategies and goals for improving student outcomes.
- Schools would remain in the OSD for at least five consecutive years unless they earn a "D" or better for three consecutive years to earn an early exit.
- Upon release from the OSD, effective charter schools could remain with the State Charter School Commission or transition back to the local district. Ineffective charters would remain with the OSD.
- Schools could remain within the OSD for a maximum of 10 years.

The OSD is being offered as another tool to help chronically low-performing schools and is one that should be considered. If the OSD were operational in 2015, 139 schools would qualify under the definition of "chronically failing" as outlined by the legislation. These schools have at least three consecutive years of receiving an "F" on the CCRPI, the state's accountability system. These schools have been trapped in a cycle of dismal performance for multiple years, and local districts have been unable to turn them around. A new and different approach is warranted.

However, as the state moves forward in considering the OSD, attention must be given to how this tool can fit with the other reforms already happening across the state. A majority of students enrolled in the schools that were identified as currently eligible for the OSD are from poor and minority families. Nearly 92 percent of the students in these schools participate in the free or reduced-price lunch program, and more than 90 percent are students of color.[13]

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13 Suggs, C. (2015). *Opportunity school district needs transparency, community role.* Atlanta, GA: Georgia Budget and Policy Institute.

High-poverty schools have greater teacher turnover rates and more new, less effective teachers than more affluent schools. They also have higher principal turnover, making it hard for staff to sustain improvement efforts. As previously stated, the focus on school leadership and leadership development must be a core strategy in turning around low-performing schools, whether they are in an OSD district or not. To improve leadership, many lessons from within Georgia can guide best practices.

Gwinnett County has implemented the Quality Plus Leader Academy (QPLA) within the district. The QPLA is a coherent, intentionally aligned logic model to identify, recruit, prepare, select, develop, train, support and retain school leaders. It provides a pipeline of developing leaders through its Aspiring Leaders Program for developing assistant principals and the Aspiring Principal Program for developing principals. The district also provides mentoring for first- and second-year principals and assistant principals. These developing leaders have district support and are able to align their school goals with their districts' strategic plans and prioritization of resources.

Georgia is also home to Georgia Leadership Institute for School Improvement (GLISI), a nonprofit organization whose mission is to develop world-class education leaders who advance student achievement and organizational effectiveness. GLISI brings together practical expertise in school leadership and strong research chops to develop effective leaders. GLISI's services target teacher leaders, principals, and superintendents to build their ability to cast a compelling vision, create school cultures where learning thrives, and support teachers to continuously improve instruction. These are key ingredients for schools that are successful in helping students to succeed academically regardless of race, family income, or zip code.

GLISI's signature program, Base Camp and Leadership Summit (BCLS), is an intensive training experience aimed at helping leadership teams use data analysis, performance management, and root cause analysis to lead systemic school improvement. Since 2011, 59 of Georgia's 181 districts have sent a team to BCLS. GLISI also offers in-district coaching and technical assistance to give side-by-side help to leaders as they practice new skills on their home turf, and to help districts put in place systems such as selection and hiring practices for new teachers and leaders that sustain change over time.

GLISI's partners have consistently outperformed the state average 4-year cohort graduation rate, and 2013-2014 CGR data indicates the gap between the state's CGR and GLISI partners' CGR is widening.[14]

Best-practice research, as well as Georgia's own experiences with turnaround schools, indicates that district capacity and leadership development are key factors in sustaining long-term outcomes, though neither of those are addressed in the OSD proposal. However, potentially the OSD could take over the highest needs schools for a period of time while GaDOE and local districts work to improve district capacity and remove barriers to reform. There would still need to be coordinated communication and open dialogue about ultimate school and district goals and how they can align and support each other.

As the debate about the OSD moves forward, just the threat of a pending OSD has caused many districts to rethink how they support struggling schools. Traditionally, these schools are located in neighborhoods of high poverty and high crime, both of which can easily undermine any effective school turnaround reform agenda if not addressed. Community engagement and comprehensive wrap-around services may be needed to support and stabilize the schools. Districts are already rethinking how to engage resources and help struggling schools identify existing community supports that can be integrated into the improvement process.

The greatest test for the K-12 system is turning around the lowest performing schools. Success will require a comprehensive and coordinated assessment of current policies and practices of the state and local districts, the effectiveness of those policies and, if approved, what gaps the OSD can address to avoid duplicating or undermining the efforts of those already working toward the same goal.

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14 Georgia Leadership Institute for School Improvement. (2015). *Leadership development programs.* Retrieved from GLISI: http://glisi.org/about-us/our-work/leadership-development/

ISSUE 2: ASSESSMENTS: WHAT IS THEIR RIGHTFUL PLACE?

ISSUE OVERVIEW

How do you solve a problem like assessments? On the one hand, they are incredibly important. Within education, quality assessments aligned to the material being taught demonstrate a student's academic progress and provide educators with the information needed to tailor teacher training and instruction to best meet student needs. Standardized tests in particular can guard against students receiving artificially inflated grades when they have not mastered the material, and they can help hold all students to the same learning expectations.

While public support for higher standards and expectations remains high, there is growing concern about the amount of testing occurring in schools. Relatedly, concerns are also being expressed about how the results are being used to evaluate teachers and hold schools and educators accountable for student outcomes.

The Council of the Great City Schools recently conducted a study to determine the amount of testing that was occurring in schools and how those data were being used. Some of the major findings include the following:

- Students were required to take an average of 111.3 tests between pre-K and 12th grade, and about eight standardized tests per year.
- There is considerable redundancy in the tests that schools and districts administer and those that the states require.
- A majority of tests were neither aligned with new college and career ready standards nor with each other.
- It was not clear whether many of the tests administered were designed for the purpose for which they were being used.
- No relationship was found between the amount of testing and state-level results on the National Assessment of Education Progress (NAEP).[15]

Essentially, the Great City Schools report concluded that there is unnecessary testing and not enough clarity about why tests are being administered. These issues have already emerged as a central debate in the U.S. House of Representatives and Senate over the reauthorization of the federal Elementary and Secondary Education Act (ESEA). Based on the conclusions outlined in the Great City Schools report, President Obama has recently called on Congress to reduce the overall testing burdens on schools through its reauthorization of ESEA, including limiting the amount of standardized testing to 2 percent of classroom time.[16]

One issue with this recommendation is that there is no research base that points to an acceptable time frame for how much testing is necessary to inform student outcomes and improve instruction. Moreover, the amount of time students actually sit taking tests is only one concern. There are broader issues such as whether the results of the tests are being used in appropriate ways, or at all.

Under reforms associated with No Child Left Behind (NCLB), Race to the Top grants and federal waivers to NCLB, the culture of assessments has moved into areas of accountability and school, district and state performance rankings. A fundamental tension and debate currently exist about the appropriate role of assessments in the public school systems. Are they to be viewed as tools to improve teaching and learning or as the basis for an accountability system for the adults in the system? Or both?

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15 Hart, R., Casserly, M., Uzzell, R., Palacios, M., Corcoran, A., & Spurgeon, L. (2015). *Student testing in America's Great City Schools: An inventory and preliminary analysis.* Washington, DC: Council of the Great City Schools.

16 U.S. Department of Education. (2015). *Fact sheet: Testing action plan.* Washington, DC: Office of Communication and Outreach.

SIGNIFICANCE FOR GEORGIA

The prior literature on best practices of other high-performing nations[17] indicates that virtually all of them have a system of gateway exams that mark the key transition points:

1. from basic education to upper secondary,
2. from upper secondary to university,
3. from basic education to job training, and
4. from job training into the workforce.[18]

At each of these gateways, there is some form of national assessment. Moreover, the upper secondary curriculum, the upper secondary exams and university requirements are all closely aligned. There is also considerable alignment between employer requirements and the skills students acquire in their job training programs.[19]

This structure differs from what is present in Georgia and across the United States. The reauthorization of ESEA in 2001, commonly known as No Child Left Behind, increased states' focus on assessments with its requirement that students be tested annually in reading and mathematics in grades 3–8 and once in high school. In addition to these federally required tests, some states — including Georgia — also required the use of end-of-course exams for certain subjects in grades 9–12.[20, 21]

In Georgia, the state-required assessments are primarily the Georgia Milestones Assessment System (Georgia Milestones). The Georgia Milestones have been aligned to the Georgia Standards of Excellence and have replaced the old Criterion-Referenced Competency Tests (CRCT). They were administered for the first time during the 2014-2015 school year. These high-stakes assessments are implemented in grades 3 through 12 as end-of-grade (EOG) and end-of-course (EOC) assessments. EOG assessments in language arts, mathematics, science and social studies are administered in grades 3–8. In grades 9–12, EOC assessments are administered across eight subjects.[22]

The state-mandated tests not only monitor student learning progress, but they are also used to evaluate teacher performance in the classroom and school leader performance. Student academic growth is a primary component of these evaluation systems — 50 percent for teachers and a full 70 percent for school leaders.

The student growth measure is calculated using tested subjects, which are subjects taught by teachers who use an existing state standardized test — assessments that fall under the Georgia Milestones. However, only a small number of Georgia educators teach a tested subject. Approximately 70–75 percent of teachers teach a nontested subject for at least some portion of the day, such as health, music, physical education or foreign languages.[23]

To develop metrics of student growth for subjects that have no statewide test, 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 nontested subject category. These SLOs describe what students are expected to learn in a given academic year or semester course as measured by a pre- and post-assessment. These district-determined SLOs are course-specific, grade-level learning objectives that are measureable, focused on growth and student learning, and aligned to curriculum content standards.[24] Therefore, in addition to administration of the Georgia Milestones, districts are required by the state to administer SLO assessments in all classes that do not fall under the Georgia Milestones system.

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17 Other high-performing nations include the top 10 scoring nations on the Program for International Student Assessment (PISA). Those countries are Canada, China, Estonia, Finland, Hong Kong, Japan, Korea, Poland, Singapore and Taiwan.

18 Tucker, M. S. (2011). *Standing on the shoulders of giants: An American agenda for education reform.* Washington, DC: National Center on Education and the Economy.

19 Ibid.

20 McIntosh, S. (2012). *State high school exit exams: A policy in transition.* Washington, DC: Center on Education Policy.

21 In December 2015, Congress reauthorized ESEA and it is now knows as the Every Student Succeeds Act (ESSA). Under ESSA, federal testing requirements will continue to require annual testing in grades 3-8 and once in high school for reading and math. Science needs to be tested at least once in elementary, middle, and high school.

22 Ninth Grade Literature & Composition, American Literature & Composition, Coordinate Algebra, Analytic Geometry, Physical Science, Biology, U.S. History and Economics.

23 Georgia Department of Education. (2014). *Student learning objectives.* Retrieved September 14, 2014, from Georgia Department of Education: www.gadoe.org

24 Ibid.

In addition to the state-required tests, districts and schools also administer their own tests, mostly known as formative assessments. Formative assessments are used to periodically gauge students' knowledge while they are still learning the standards. 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. It is not generally known how many assessments each individual district is administering throughout the state. But the increased focus on elevated rigor and accountability has opened the door for teachers and principals to turn to assessments to help drive instruction. One concern is that districts are implementing SLOs for the sole purpose of meeting requirements for the teacher evaluation system, and use their own tests — such as midterms and final exams — to monitor student progress of the material.

In Georgia, as in the rest of the nation, assessments have become an increasingly critical component of education systems. In fact, most of the education reforms implemented over the past decade depend on high-quality assessments. Policymakers are relying more than ever on large-scale tests to make high-stakes decisions about students, teachers and schools. Georgia is using assessments to measure the progress of students and schools and to hold teachers and administrators accountable for raising achievement. Assessments are increasingly tied to high-stakes decisions not only about students' grade promotion but teacher effectiveness as well.

NEXT STEPS FOR GEORGIA

To date, no research indicates how much testing is the right amount to inform teaching and support student learning and how much is too much. However, a considerable body of research examines how high-quality tests can impact learning outcomes and what constitutes a "high-quality" test.

Based on their research, the Council of Chief State School Officers (CCSSO) and the Council of the Great City Schools (CGSC) highlight two guiding principles around assessments. First, at the state level, assessments must be of high quality and aligned with college and career ready standards. This level of quality must be able to measure students' ability to think critically, synthesize material from multiple sources, analyze problems and explain responses.[25]

For classroom assessments, or formative assessments, there should also be a clear purpose that supports teaching and learning. They should also be aligned with learning expectations, be of various types, and be administered using a variety of methods to allow students to demonstrate their learning. Students should be meaningfully engaged in the process, and results should be communicated to the students as a means of learning.[26]

Second, assessments should be part of a coherent system. All assessments, whether required by national, state or local officials, should complement each other and not result in multiple assessments of the same students for similar purposes.[27] The Georgia Milestones were designed as a comprehensive assessment system to measure how well students have mastered the material in the state standards. As a vertically integrated system, it provides students, teachers and parents with information about achievement and readiness for the next stage of learning.[28] What remains unclear is how local districts have responded with their own additional assessments and how integrated they are with the Georgia Milestones.

In considering the use of assessments, Governor Nathan Deal's Education Reform Commission is making recommendations about how assessments can support state education priorities. Among other recommendations, the Move on When Ready subcommittee has proposed two recommendations specific to use of assessments:[29]

25 Council of Chief State School Officers & Council of the Great City Schools. (2014). *Commitments from CCSSO and CGCS on high-quality assessments.* Washington, DC: Council of Chief State School Officers.

26 Zaleski, D. (2015). *Guiding principles for classroom assessment.* Springfield, IL: Illinois State Board of Education.

27 Council of Chief State School Officers & Council of the Great City Schools. (2014). *Commitments from CCSSO and CGCS on high-quality assessments.* Washington, DC: Council of Chief State School Officers.

28 Georgia Department of Education. (2014). *Georgia Milestones Assessment System.* Retrieved from http://www.gadoe.org/Curriculum-Instruction-and-Assessment/Assessment/Pages/Georgia-Milestones-Assessment-System.aspx

29 Education Reform Commission. (2015, November 19). *Recommendations from sub-committees to full commission.* Retrieved from Meeting 10 Materials: https://gov.georgia.gov/meeting-10-materials-november-19-2015

1. Develop and implement multiple formative assessments in literacy and numeracy for students in grades K-3 that would serve the function of student learning objectives (SLOs) in those grades, and extend these assessments to grades 4 and 5 numerical fluency once K-3 is in place.
2. Increase opportunity for advancement or remediation of students through flexible Georgia Milestones testing window available throughout the calendar school year, preferably every nine weeks.

Both recommendations support a primary proposal from the Move on When Ready subcommittee: begin the transition to a competency-based education (CBE) system. CBE moves away from seat time (credit-hour measurements of courses/classes completed) to content mastery. Once students can demonstrate mastery of course content, they may gain credit for that course and move to the next level of learning The subcommittee recommends allocating $10 million for pilot programs that would address the planning and development of proficiency-based competencies, professional development for implementation, appropriate assessments and necessary data-reporting tools.

The implementation of a CBE system will rely heavily on the use of appropriate assessments to closely monitor student progress and gauge content mastery. Other states such as New Hampshire, Iowa and Ohio have recently established CBE systems.[30] In Georgia, Gwinnett and Henry counties have begun using the idea of competencies to better engage learners and provide a more rigorous tool to assess true mastery of the material. It is still too early in program implementation to evaluate long-term student outcomes of a CBE system or its impact on assessments.

The amount of testing in Georgia classrooms has arguably increased, and the public perception is that it has become too burdensome with no obvious benefit to students. It is unclear how much testing is really occurring across the districts in Georgia. The overall number of state-required tests has actually declined in recent years. However, that decline may be offset by an increasing number of tests at the local level as districts comply with and prepare for mandates related to reporting on student progress and teacher evaluation systems.

Many states are now participating in an assessment inventory process to help answer the questions of how much testing is occurring in their schools and to what end. The newly reauthorized ESEA includes grant funding for states to conduct audits of state and local assessment systems. These types of audits (or inventories) can help district leaders take stock of their assessments and assessment strategy, and do so from a student perspective. Through inventory processes, districts can evaluate the assessments students are taking and determine the minimum testing necessary to serve essential diagnostic, instructional and accountability purposes. They can help ensure that every district-mandated test is of high quality, is providing the information needed for specific school and district purposes, and is supported by structures and routines so that assessment results are actually used and action steps are taken that will help students.

How do we, as a state and a nation, change the conversation around assessments to put them back in their rightful place: a tool for teaching and learning? The first step is to gain an understanding of how many assessments are actually being administered and why. Only then can we have an informed conversation about what to do about assessments and answer the questions that are dominating education right now: Is there too much testing in schools? Is it taking time away from instruction? What are the results used for? How can assessments truly inform instruction and improve student achievement?

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30 Wolk, R. A. (2015, March 18). Competency-based education is working. *Education Week.*

ISSUE 3: GEORGIA'S TEACHING PIPELINE: PROTECTING OUR FUTURE

ISSUE OVERVIEW

Teacher quality matters. In fact, it is the most important school-related factor influencing student achievement.[31] Research confirms that students with the highest rates of achievement are those taught by the most effective teachers.[32] Thus, issues of both the supply and demand of quality teachers have become critical for states in addressing student achievement.

In terms of demand, it has been approximately five years since a majority of states — including Georgia — adopted college and career ready standards. This significant effort seeks to raise the expectations for the knowledge and skills students need to be college and career ready. Since the standards were adopted, more than one million new teaching candidates have graduated from teaching preparation institutions across the United States.[33] As expectations for students increase, teachers must also rise to the challenge and be prepared to help students meet these higher standards.

On the supply side, while traditional university-based and alternative certification teacher preparation programs are being encouraged to raise their own rigor to better prepare teachers, there has been a growing concern about a shortage of teachers across the country. Current estimates indicate that there are about 100,000 fewer public school teachers than there were in 2008.[34] Data show that these shortages are especially acute in the areas of special education and the science and math fields.[35]

Adding to the problem of fewer teachers currently in the profession, the number of individuals entering teacher preparation programs has been decreasing at an accelerated rate. For example, New York and Texas each saw enrollments in teacher preparation programs drop by more than 17,000 students in just two years.[36] A recent survey conducted by ACT found that the number of high school students interested in becoming educators has dropped significantly. From 2010 to 2014, the number of high school graduates indicating an interest in education decreased by more than 16 percent.[37]

High-quality teaching is important. But, the issue of the quantity of available teachers, now and in the future, must be addressed. The challenge for policymakers is to strike a balance, ensuring rigorous expectations for the teaching profession without creating a shortage of qualified teachers in the process.

SIGNIFICANCE FOR GEORGIA

The Supply Side
To meet the demands of quality and quantity, Georgia needs a robust teacher pipeline that recruits, trains and retains highly effective teachers. Since the 2013-2014 school year, the number of teachers in Georgia has dropped by 12 percent, a decline from more than 111,000 in 2008 to just over 108,000 in 2014.[38] This decrease happened despite a 5 percent increase in the student population during that same time period.[39]

In addition to focusing on the teachers currently in the classroom, Georgia must consider the beginning of the pipeline. The recruitment of highly qualified students into teacher preparation programs — either university-based programs or alternative certification programs — has implications for the long-term impacts of high-quality teaching. In terms of recruiting and producing teachers, Georgia mirrors the national trend of a declining number of individuals completing teacher education programs.

31 Rice, J. K. (2003). *Teacher quality: Understanding the effectiveness of teacher attributes.* Washington, DC: Economic Policy Institute.
32 Georgia Department of Education. (2015). *Equitable access to effective educators.* Atlanta, GA.
33 National Council on Teacher Quality. (2014). *2014 state policy yearbook.* Washington, DC.
34 Brenneman, R. (2015, August 6). Is there a teacher shortage? That depends on how you frame it. *Education Week.*
35 Ibid.
36 Sawchuk, S. (2014, October 22). Steep drops seen in teacher-prep enrollment numbers. *Education Week.*
37 ACT. (2015). *The condition of future educators – national.* Iowa City: ACT.
38 The Governor's Office of Student Achievement. (2015). *Annual report cards.* Retrieved November 2, 2015, from School Performance Report Cards: https://gosa.georgia.gov/school-performance-and-report-card
39 https://app3.doe.k12.ga.us/ows-bin/owa/fte_pack_enrollgrade.entry_form

Enrollment in teacher preparation programs across the state has declined dramatically, within both the traditional university-based programs and the alternative certification programs.[40] Since 2010, the number of students enrolled in a traditional program has declined by 32 percent. The number of students in an alternative certification program has declined by 63 percent.[41] See Figure 3.1.

FIGURE 3.1: TOTAL PROGRAM ENROLLMENT 2010-2014[42]

■ Traditional Programs　■ Alternative Programs
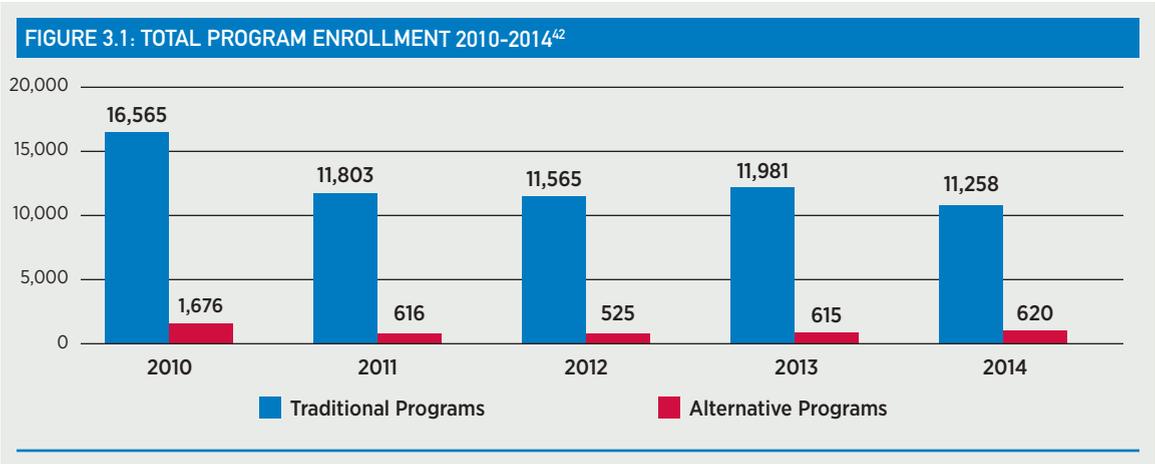
Also mirroring national trends, Georgia produces more teachers for early childhood/elementary than any other field (33%), followed by middle grades (14%) and special education (10%). Figure 3.2 shows the distribution of top discipline areas. Top disciplines in the "Others" category include English (4.7%), health/physical education (4.7%), history (4.1%), mathematics (3.8%), music (2.9%) and art (2.2%).[43]
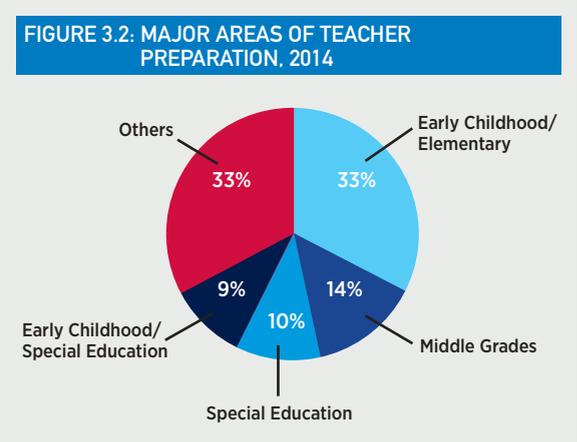
One alarming trend in the Georgia teacher pipeline, mirroring a national trend, is the decline in teachers being prepared to teach in the fields of science, technology, engineering and math (STEM). Research tells us that Georgia needs to produce one million more STEM graduates across the country over the next decade.[44] In Georgia, only 20 percent of eighth graders are taught by science teachers with an undergraduate degree in science.[45] To increase the quality and quantity of students interested in the STEM fields, high-quality STEM teachers need to be in the classrooms.

FIGURE 3.2: MAJOR AREAS OF TEACHER PREPARATION, 2014

Figure 3.3 shows that among new teacher credentials issued in 2014, only a small proportion were in areas that support STEM. The largest percentage of new STEM-related credentials were issued in mathematics (6 percent) followed by a broad field science credential (4 percent).

40 Examples of alternative certification programs include Teach for America, New Teacher Project and programs through districts and Regional Education Support Agencies (RESAs).

41 Title II Higher Education Act. (2015). Data tools: *Enrollment by state, by program type 2010–2012.*

42 Ibid.

43 Ibid.

44 University System of Georgia. (2012). *Educational access and success.* Retrieved October 27, 2015, from STEM Initiative: http://www.usg.edu/educational_access/stem

45 Change the Equation. (2015). *Change the equation.* Retrieved October 27, 2015, from Vital Signs - Georgia: http://vitalsigns.changetheequation.org/state/georgia/overview

FIGURE 3.3: NEW CREDENTIALED TEACHERS IN GEORGIA. THE SCIENCE AND MATH FIELDS AS A PERCENTAGE OF ALL NEW CREDENTIAL TEACHERS, 2014[46]

Mathematics N=490: 6%
Broad Field Science N=356: 4%
Biology N=67: 1%
Chemistry N=17: .19%
Physics N=9: .10%
Earth Science N=1: .01%
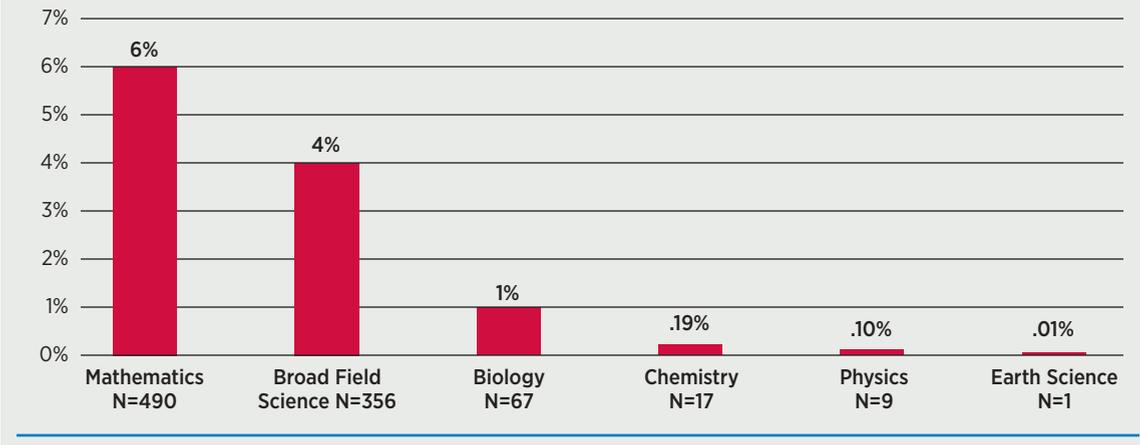
The (More Rigorous) Demand Side

To increase the number of high-quality teachers in the classroom, under Georgia's Race to the Top grant, the state developed new effectiveness systems for teachers and school leaders, primarily principals. 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.

The goal 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. Half of each teacher's final effectiveness score is based on student growth, how much the student learned during the instructional period. For school leaders, 70 percent of the final score is composed of student growth within the school. These systems were implemented statewide during the 2014-2015 school year.

Impacting the beginning of the teacher pipeline, Georgia also changed how it trains and licenses new teachers through increased rigor and accountability for teacher and leader preparation programs, for both university-based education programs and alternative certification 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.[47] Most of these rule changes will be implemented by the end of the 2015-2016 school year.

Another significant change relates to teacher preparation program accountability. The effectiveness of programs that train teachers and leaders — either traditional university-based programs or alternative certification programs — are now being assessed by a Preparation Program Effectiveness Measure (PPEM): one measure for teacher preparation and another for leader preparation.

The exact components of these measures are still under review and development. The current proposal under consideration for the teacher PPEM has four main components:
- The performance of program graduates once they are in the field based on the statewide teacher assessment system, 50 percent;
- The results of the content knowledge and subject-specific performance assessments of current college students, 30 percent;

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46 Title II Higher Education Act. (2015). *Georgia: Teachers prepared by program area of credential, 2014.* Retrieved from https://title2.ed.gov/Public/Report/PrintSection.aspx?Year=2014&StateID=13&Section=140161

47 For a complete description please see: Georgia Professional Standards Commission. (2014, October 30). *Understanding the 2014 educator certification rule changes.* Retrieved October 27, 2015, from Georgia Professional Standards Commission: http://www.gapsc.com/Commission/policies_guidelines/Downloads/2014EducatorCertificationRuleChanges.pdf; Georgia Partnership for Excellence in Education. (2014). Top ten issues to watch 2014: Issue 3, teacher preparation programs. Retrieved from http://www.gpee.org/fileadmin/files/PDFs/GPEE_Top_Ten_2014_Final.pdf

- 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 measures of performance such as retention within the profession, timely completion rates and the yield rate, which is the percentage of college students who gain employment in the specific field in which they were trained, and surveys of employers and program completers, 10 percent.

During the 2015-2016 academic school year, the Georgia Professional Standards Commission (GaPSC) began using the PPEMs to evaluate educator preparation programs. It will be in use for two years before any consequences are attached to teacher preparation programs, but ultimately these measures will be used to inform the program approval and certification process.[48]

These evaluation data will be used by GaPSC and other state agencies for several purposes:

- Holding educator preparation programs accountable to high program standards,
- Establishing a consensus of effectiveness measures across all teacher and leader preparation programs,
- Improving the effectiveness of teacher and leader preparation programs,
- Informing the citizens of Georgia about program quality, and
- Improving teaching and learning in P-12 schools.[49]

As previously stated, the first PPEM scores went into effect during the 2015-2016 academic year. In future years, GaPSC will focus on continuous improvement of the PPEM data collection, analysis, interpretation and reporting procedures. Adjustments may be made in measures beyond 2016-2017.

ACTION STEPS FOR GEORGIA

Georgia is continuing to strengthen the teacher pipeline and increase the supply of high-quality teachers to meet increasing demand. A subcommittee of Governor Nathan Deal's Education Reform Commission was specifically charged with examining state policies related to recruiting and retaining high-quality teachers.[50]

The commission has proposed several recommendations that may be considered for either legislation or adoption during 2016. The potential recommendations are divided into three priority areas. In all, the subcommittee proposed 12 recommendations across three priority levels.[51] In general, though, the recommendations can be divided into the two primary (though interrelated) categories shown in Table 3.1: 1) recruiting and training new teachers, and 2) supporting current high-quality teachers.

Depending on which recommendations the governor and state legislators choose to act on, there could be significant changes in how teachers are trained and compensated. However, many of suggested approaches can build off strategies already in process and being implemented by the GaPSC.

The reforms being put in place concerning teacher preparation and training shift the focus toward results in the classroom. For example, two primary goals of the new induction certificate are results-focused. First, the purpose of the improved content knowledge exams and the addition of the 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.

To strengthen induction programs and facilitate relationships with school districts, the GaPSC has established a new requirement that educator preparation programs establish formal collaborative partnerships with local school systems that are aimed at school improvement and student achievement. Many of these are focused on changing the clinical model, as being recommended by the Education Reform Commission.

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48 Georgia Professional Standards Commission. (2015). *Georgia educator preparation reform.* Retrieved October 29, 2015, from Preparation Program Effectiveness Measures (PPEMs): http://www.gapsc.com/GaEducationReform/PPEMs/PPEMs.aspx

49 Ibid.

50 Governor Nathan Deal, Office of the Governor. (2015). *Priorities.* Retrieved October 29, 2015, from Education Reform Commission: https://gov.georgia.gov/education-reform-commission

51 For details of all 12 recommendations, see https://gov.georgia.gov/meeting-10-materials-november-19-2015.

52 Education Reform Commission. (2015, November 19). *Recommendations from sub-committees to full commission.* Retrieved from Meeting 10 Materials: https://gov.georgia.gov/meeting-10-materials-november-19-2015

TABLE 3.1: SELECT RECOMMENDATIONS OF EDUCATION REFORM SUBCOMMITTEE ON TEACHING, RECRUITMENT, RETENTION AND COMPENSATION[52]	
Recruitment and Training New Teachers	Increase funding for K-12 education in order to allow local districts to have the flexibility to recruit, retain and reward the most effective teachers and maintain competitive teacher salaries.
	Investigate a Service Cancellable Loan program for education graduates of the University System of Georgia (USG), and recognize teaching as a High Demand Career Initiative in Georgia.
	Study the benefits of moving to a full-year clinical practice model for those pursuing a degree in education from the USG, as opposed to a single semester student teaching model.
	Develop strong induction programs and encourage teacher mentorship programs in all charter and strategic contracts. Make grants available to districts that communicate a clear and consistent program of induction support.
Supporting Current Teachers	Investigate a sustainable state-level funding program for providing compensation to classroom teachers for supervising teacher interns.
	Incorporate a question on the leader evaluation system on how well principals protect teacher planning time.
	Develop guidance to assist districts in developing strategic compensation models for teachers.
	Modify Georgia's teacher evaluation system to allow for flexibility in implementation, including fewer classroom observations for the most effective teachers.

For example, Armstrong Atlantic State University and Savannah-Chatham Schools are engaging in the co-teaching and collaboration model. Co-teaching is defined as "two teachers working together with groups of students and sharing the planning, organization, delivery and assessment of instruction and physical space."[53] In this model, an experienced teacher is paired with a teaching candidate, allowing both adults to share responsibilities in the classroom. Data from an evaluation of programs in other states show that students in co-taught classrooms scored approximately 20 percentage points higher on their state reading tests than students who were not co-taught. There was an approximate 10-percentage point increase in math scores.

Georgia is also exploring new ways to strengthen the number of teachers in the STEM fields throughout the state. The Woodrow Wilson Georgia Teaching Fellowship program has been established to help meet this need. This fellowship program is working with five universities and their local school districts to 1) recruit high-ability individuals with an undergraduate degree in math or science to prepare them to teach in those subjects in high-need schools for a minimum of three years, and 2) transform the teacher education programs that prepare science and math teachers at participating universities with the goal of creating models for the state and the nation. Participating fellows receive a mentor from the school where they are placed as well as a mentor from their university program. Research has demonstrated that double mentoring reduces professional dropout by a third and helps move new teachers along the induction track.[54]

In terms of teacher pay and salary structure, the teacher recruitment and retention subcommittee recommends increasing the base salary of teachers. Their rationale is that the decline in enrollments in teacher preparation programs must be met with a strong statement, through compensation, that says teaching is viewed as a worthy profession.[55]

In the current salary structure, the state sets a base salary of $33,424, and teachers receive step increases based on the number of years of experience in the classroom and education level. The alternative compensation models would allow local districts to waive experience and education level as factors in determining teacher pay and weigh other factors, such as teacher classroom effectiveness, high-need teaching areas and so forth.

53 St. Cloud State University, The Academy for Co-Teaching and Collaboration. (2013). *What is co-teaching?* Retrieved November 14, 2013, from St. Cloud State University: http://www.stcloudstate.edu/soe/coteaching/default.asp
54 For a full description of the Teaching Fellow Program, please see: http://www.wwteachingfellowship.org/.
55 Governor Nathan Deal, Office of the Governor. (2015). *Priorities.* Retrieved October 29, 2015, from Education Reform Commission: https://gov.georgia.gov/education-reform-commission

Some local school systems are currently experimenting with alternative compensation models based on district need and teacher performance. They have waived the standard state salary model driven only by years of experience and education level. The new tiered-certification system allows for a career ladder for classroom teachers, but those differing levels of certification have not been tied to teacher pay. As these are new experiments, results on the success of these programs have yet to be determined.

Generally, research does not link earning advanced degrees with increased teacher effectiveness as measured by student test scores, except in math and science. However, research does show that teacher effectiveness is connected to years of experience. The greatest gains from experience tend to come during the first few years of teaching, but they do continue in the years beyond. Decoupling teacher salary from both years of experience and education level may come with unforeseen consequences.

Finally, most of the recommendations will require a significant investment of state dollars, such as raising the base pay of teachers, offering service cancellable college loans, and providing bonuses to mentor teachers. It is currently unclear how much additional state revenue will be earmarked for such programs.

Over the past several years, Georgia has implemented a myriad of new policies aimed at strengthening the teacher pipeline and increasing the quality of teachers in the classroom. At the same time, the number of future teachers in the teacher pipeline is shrinking. Fewer people are electing to enter education as a profession. Georgia is facing a growing demand and a shrinking supply. The state must consider how state policies induce the best and brightest to go into teaching, and how to retain them throughout their education career. The recommendations of the Education Reform Commission and ensuing legislation are critical factors in addressing this growing crisis.

ISSUE 4: STUDENT FUNDING: A MORE EQUITABLE PIE?

ISSUE OVERVIEW

Nationally, discussions and policies around funding formulas for K-12 systems are shifting from advocating equal funding across districts to considerations of equity. The equity approach recognizes that it simply costs more to educate some students than others. For example, low-income students tend to start school academically behind, requiring additional academic supports, extra learning time and potentially outside services related to social services or foster care.[56]

Clearly, money is not the only thing that matters to school success. Districts with similar demographics and similar funding levels can, and do, produce very different outcomes for their students. However, inequalities in funding can be the basis for growing inequalities within and across school systems. Districts with more resources can pay teachers more and attract higher quality teaching candidates. More affluent districts can provide students with enrichment activities and supportive services missing in cash-strapped districts.

One national study found that funding inequalities are large. The highest poverty districts receive about $1,200 less per student than the lowest poverty districts.[57] Nationally, when accounting for the needs of low-income students, the highest poverty districts receive an average of $2,200 per student, or 18 percent, less than low-poverty districts.[58]

One budget model designed to increase equity based on student need is called student-based budgeting (SBB), or the weighted student funding model. Under SBB, schools receive funding based on the number of enrolled students and their individual needs. These needs can vary from poverty to special education status to English Language Learners to high or low academic performance and so forth.[59]

Across the country, more than 10 of the largest urban districts have adopted SBB. A few states, including New Jersey and most recently California, have adopted similar funding systems that distribute money to districts based on student need, including poverty status.[60]

In February 2015, Governor Nathan Deal established the Education Reform Commission to conduct a "top to bottom review of public education" during his second term.[61] As part of this review, Governor Deal challenged the funding subcommittee to develop a new formula to distribute state dollars to public schools. In doing so, he also called for greater flexibility for school districts in how they spend the money.

SIGNIFICANCE FOR GEORGIA

To understand where Georgia may go with its funding model, it is important to understand the current model and the recent history of K-12 education funding.

The majority of state funds for Georgia public schools are provided according to the Quality Basic Education (QBE) formula, which was established by state legislation in 1985. QBE earnings are the state's primary mechanism for funding public schools and represent the state's estimate of what it costs to provide a quality basic education for students. The QBE earnings are used to fund both direct and indirect instructional costs.

The QBE is a highly complex formula consisting of 18 student categories based on grade and academic level, such as special education or career, technical and agricultural education programs (CTAE). The weights are based on the class size of each category, which determines the number of teachers the state will fund for each district. The state's salary

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56 The Education Trust. (2015). *Funding gaps 2015: Too many states still spend less on educating students who need the most.* Washington, DC.
57 Ibid.
58 Ibid.
59 Travers, J., & Catallo, C. (2015). *Following the dollars to the classroom doors: Why and how effective student-based budgeting must be linked with strategic school design.* Watertown, MA: Education Resource Strategies.
60 Ibid.
61 Yarbrough, D. (2014, October 21). Everything on the table, public education reform, says Gov. Deal. *The Telegraph.*

schedule for teachers based on education level and years of experience determines how much money is allocated for each teacher. Essentially, districts "earn" money from the state based on how many teachers they require to meet their class size needs.

The formula also provides funding for maintenance and operations, instructional materials, other instructional and administrative staff, and other routine costs. These amounts are determined on a per-student basis.

Over the years, only minor adjustments have been made to the funding formula, the most notable of which has been state austerity cuts. These state-level reductions in funding levels, which were initiated during a time of economic decline, have significantly limited the amount that local school systems receive from the state, despite the level of funding guaranteed by the QBE law.

The austerity cut for FY 2016 was $466 million. Since the first austerity cuts were imposed in 2003, the cumulative effects have been a total reduction in state education funding of more than $8.8 billion.[62] See Figure 4.1.

FIGURE 4.1: ANNUAL AUSTERITY CUTS, 2003–2016[63]

Quality Basic Education Funds
Georgia Department of Education Allotment Sheet 2016 fiscal year, Midterm 2003-2015 fiscal years.

FIGURE 4.2: PERCENTAGE OF STUDENTS LIVING IN POVERTY AND INFLATION-ADJUSTED QBE FUNDING, 2002–2016[65]

Inflation Adjusted QBE Funding per Student
Free and Reduced Price Lunch Eligibility
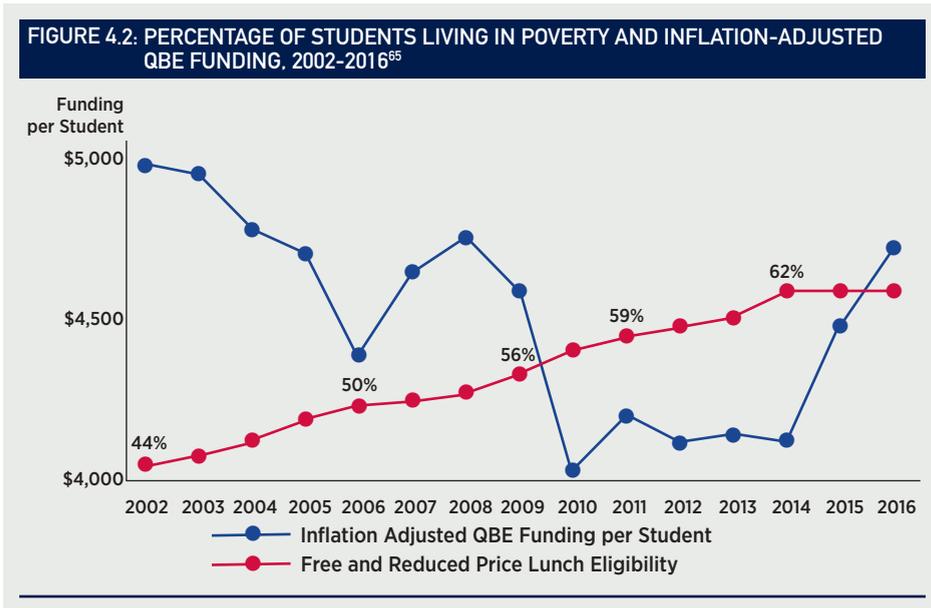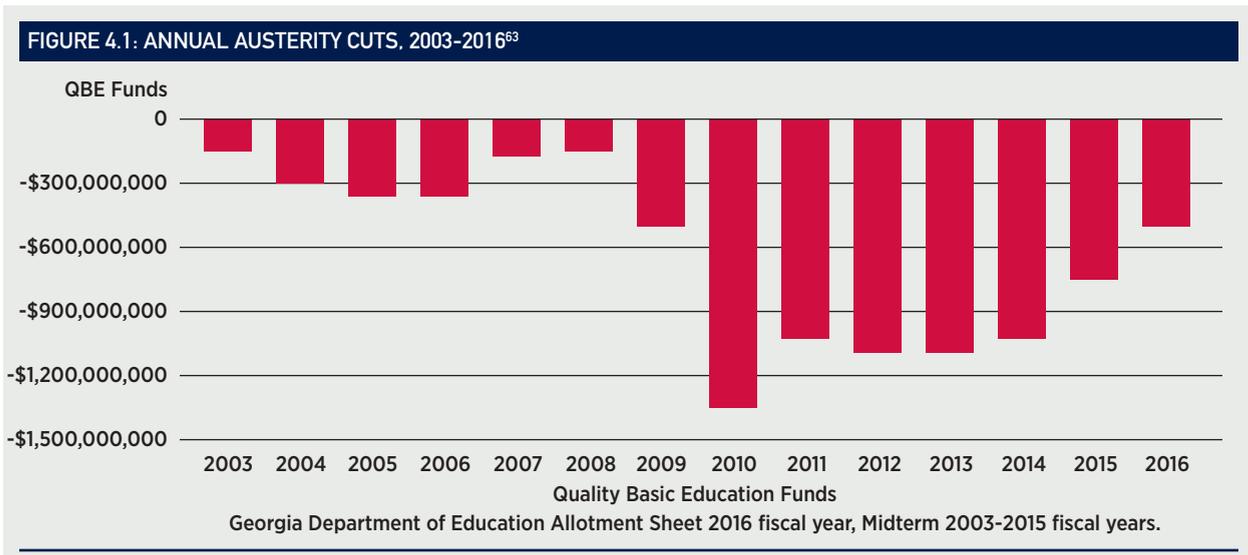
The reduction in available resources came in tandem with an increase in the needs of students. Georgia's K-12 funding is 3.6 percent lower on a per-student basis in 2016 than in 2002 when adjusted for inflation. While this is an improvement over recent years, the number of children living in poverty increased nearly 20 percentage points during that same time period, as Figure 4.2 shows.[64] Students living in poverty frequently need extra supports from the school systems to meet high levels of academic

62 Georgia Budget and Policy Institute. (2015). *Georgia budget primer 2016*. Atlanta, GA.
63 Ibid.
64 Ibid.
65 Ibid.

achievement. Strategies such as longer school days and years and smaller class sizes can help low-income students catch up with their more affluent peers. However, the districts with the highest percentages of low-income students tend to be the least resourced to offer these support programs.

In a study of Georgia's QBE-based funding system, Education Resource Strategies found that the QBE provides a funding system that is fairly equitable — 92 percent of districts fall within 20 percent of the state's median dollars per pupil.[66] Other studies have come to a similar conclusion — that Georgia's current education finance system is relatively equitable.[67]

However, all of these studies found room for improvement. The QBE model is based on teacher allotment determined by segments of time that students are in particular classrooms, which restricts any district flexibility over how to spend state dollars or be strategic with their resources. The formula also does not account for poverty. It was this lack of accounting for poverty, particularly concentrations of poverty, that researchers believed were driving the observed inequalities.[68]

Moving to an SBB model would mean that dollars are awarded to districts based on student need rather than staff allotments. It would also provide greater flexibility to districts to strategically target resources around student needs. With this increased flexibility, all SBB models increase accountability to districts over student outcomes. This accountability shifts the focus from questions around funding resource inputs to questions concerning funding student outcomes.[69]

ACTION STEPS FOR GEORGIA

Governor Nathan Deal charged the funding subcommittee of the Education Reform Commission (ERC) to develop a new formula to distribute state dollars to public schools that replaces the current QBE formula. The governor is also requesting that the state provide district leaders with greater flexibility in how they spend state money.

The funding subcommittee of the ERC has recommended that Georgia move to an SBB model. The recommendation sets a base amount that districts receive for every student and then identifies additional categories of students whose needs will require increased financial resources. The final proposal recommends that the base amount for students in grades 6–8 be set at $2,393.13 per student.[70] Students in the remaining categories receive the base amount plus extra dollars determined by a weight intended to account for providing additional services. Table 4.1 shows the student categories and proposed weights.

TABLE 4.1: SUMMARY OF STUDENT-BASED BUDGETING MODEL WITH PROPOSED WEIGHTS[71]

STUDENT CATEGORY	FUNDING WEIGHT
1. Grades 6–8 (base)	1.000
2. Grades K–3	0.2872
3. Grades 4–5	0.0800
4. Grades 9–12	0.0822
5. Economically Disadvantaged	0.0970
6. English to Speakers of Other Languages	0.1937
7. Gifted	0.3231
8. CTAE	0.0502
9. Special Education - Category A	0.4089
10. Special Education - Category B	0.7099
11. Special Education - Category C	1.7762
12. Special Education - Category D	2.4710
13. Special Education - Category E	4.8947

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66 Education Resource Strategies. (2014). *Awarding dollars based on student need.* Watertown, MA.

67 Public Impact. (2012). *Smarter funding, better outcomes.* Atlanta, GA: Georgia Chamber of Commerce. p. 19. "In a report analyzing state and local finance data from 2007 through 2009, the Education Law Center (ELC) found that funding levels in Georgia increased relative to student poverty, controlling for a range of other factors. Georgia was one of just 17 states where that happened. Education Week's analysis of 2009 finance data gave Georgia a B+ for funding equity, slightly above the average state. Similarly, evaluators in the federal Race to the Top competition in 2010 awarded Georgia 4.8 out of a possible 5 points for equitable funding, which was more than half a point higher than the average state that entered the competition's second phase."

68 Education Resource Strategies. (2014). *Awarding dollars based on student need.* Watertown, MA.

69 Ibid.

70 Education Reform Commission. (2015, November 19). *Recommendations from sub-committees to full commission.* Retrieved from Meeting 10 Materials: https://gov.georgia.gov/meeting-10-materials-november-19-2015

71 Ibid.

It is important to note that the weights are not based on an assessment of the actual costs of educating students in each category. Rather, the Governor's Office of Student Achievement staff developed preliminary weights based on a review of similar categories assigned by other states and the current QBE formula, while taking into account that total funding was not to exceed the already established 2016 level.[72]

In addition to changing the funding formula, the ERC has also recommended changes to how districts earn money from the state to pay their teachers. If approved by the General Assembly, this recommendation would require districts to either select a state-developed compensation model or develop their own compensation model to be approved by the state. These new models must include at least one measure of teacher performance. All new teachers hired after this proposal is approved will be subject to the new pay models. Current teachers may choose to opt into the new system or continue to be paid under the old state salary structure, which is exclusively based on years of experience and education level. However, this would not apply to teachers in districts that already have a contract in place with the State Board of Education (SBOE) that waives the state salary structure, such as a charter system or a system with a strategic contract.[73]

If the state adopts the proposals and makes no additional changes to the weights, the new model would lock in the deep cuts made under QBE. Most districts would receive less money under the proposed formula than if the state fully funded the current QBE model.[74] For the current year under QBE, the General Assembly appropriated $460 million less than the formula requires. It also underfunded school transportation by an additional $180 million. The new formula proposal does add an additional $258 million over what was allocated for the current year — assuming the General Assembly approves the recommendations. These dollars would help close the gaps left by the years of austerity cuts but would still leave a $421 million overall shortfall.[75] The funding subcommittee has recommended that an additional $209 million be added beginning in the FY 2018 budget if and when funds become available.[76]

The Georgia constitution includes language guaranteeing an adequate public education for all citizens. Yet, determining whether the state actually provides adequate resources to schools is a dominant issue in school finance in Georgia, as well as in many other states. There are two major components to the policy debate over the adequacy of education funding:

1. What is an adequate education in terms of standards, teachers and curriculum?
2. What is the appropriate funding level to provide that?

Georgia has put a stake in the ground on defining an adequate education by publically proclaiming that "every student will graduate from high school, be successful in college and/or a career and be competitive with their peers throughout the United States and the world."[77] To accomplish this, Georgia has committed to increasing standards and accountability for students, teachers and districts. What Georgia has not done is develop an understanding of the actual costs of this ambitious vision. Lawmakers set what the state is willing to spend, but that is different from what it would cost to achieve the stated outcomes.

For years, state leaders have been criticized for the austerity cuts in education. There is concern that any funding reform in Georgia will simply be a recalculation of the funding formula to match current available resources in the state budget, thereby doing away with the need for austerity cuts altogether. The current work of the Education Reform Commission appears to do exactly this. It is proposing a formula that matches predetermined state available dollars. Absent is a discussion around how this formula supports the learning goals for Georgia better than the formula it may be replacing.

72 Governor's Office of Student Achievement. (2015, August 12). *Student-based funding formula.* Retrieved November 4, 2015 from https://gov.georgia.gov/sites/gov.georgia.gov/files/related_files/site_ page/Narrative%20August%2012%20FINAL.pdf
73 Education Reform Commission, Funding Subcommittee. (2015). *Funding model narrative draft.* Retrieved from Governor Nathan Deal, Office of the Governor: https://gov.georgia.gov/materials-0
74 Suggs, C. (2015). *Funding committee comes up short for Georgia's students.* Atlanta, GA: Georgia Budget and Policy Institute.
75 Ibid.
76 Education Reform Commission. (2015, November 19). *Recommendations from sub-committees to full commission.* Retrieved from Meeting 10 Materials: https://gov.georgia.gov/meeting-10-materials-november-19-2015
77 Georgia Department of Education. (2010). *Race to the Top: State of Georgia scope of work.* Atlanta, GA.

After studying Georgia's funding structure, ERS did recommend an SBB formula. However, this move would not be made because the QBE formula is inequitable, but because an SBB formula would create considerable flexibility for districts. An SBB formula would allow districts to allocate resources in line with student needs and focus on factors that research says drives student outcomes.[78]

In fact, proponents of student-based budgeting recommend that these types of formulas be developed in concert with district and state goals. The first step is to identify fundamental needs and then to build budgets and strategic plans based on those needs and goals.[79]

When California adopted an SBB approach, the state also required districts to create a three-year local control accountability plan. These plans must show how districts are supporting disadvantaged students while also addressing eight state educational priorities.[80]

One of Governor Deal's directives to the funding committee was to allow greater flexibility to districts in how they use state funds. An SBB approach certainly supports this vision, and when coupled with district strategic planning, this type of formula could have large impacts on student outcomes. However, Georgia cannot currently track education expenditures to the school level, which would be required to track state dollars to the student level. Moreover, without the ability to link schools' financial data to the state's longitudinal data system, there is no basis for understanding the relationship between expenditures and student outcomes. How much does it costs to provide an adequate education? That is a question the current funding commission cannot answer and is not able to reasonably consider, primarily due to the lack of data.

If Georgia is committed to producing world-class students, the state should establish a data system that allows a serious study of current expenditures within schools that is linked to student outcomes. A properly funded SBB formula is a good place to start to allow districts to target resources. It is possible that many schools are producing the results that would match Georgia's student outcome goals with current funding levels through flexibility allowed through a SBB formula and innovation. However, many schools and districts are not. Transparency in spending would help Georgia gain some understanding of the level of funding that is truly adequate to achieve state educational outcome goals. Being able to identify best instructional practices and efficient financial practices would go a long way toward informing any funding reforms being considered at the state level. Georgia has made high expectations for students' educational outcomes a policy priority. Serious discussions about how to financially support that priority are now in order.

78 Education Resource Strategies. (2014). *Awarding dollars based on student need.* Watertown, MA.

79 Travers, J., & Catallo, C. (2015). *Following the dollars to the classroom doors: Why and how effective student-based budgeting must be linked with strategic school design.* Watertown, MA: Education Resource Strategies.

80 Ujifusa, A. (2014, December 4). California's K-12 funding overhaul slowly takes root. *Education Week.*

ISSUE 5: MIND THE GAPS: EQUITY AND OUTCOMES IN EDUCATION

ISSUE OVERVIEW

Political scientist Robert Putnam has declared that the American dream in crisis.[81] Measures of gaps in net worth have increased exponentially since the recession in 2007. By 2013, the wealth gap between whites and African Americans had increased 13-fold since 2007, and the wealth gap between whites and Hispanics increased 10-fold during that same time. The actual gaps are startling. In 2013, the average net worth of white households was $141,000. This compares to $11,000 for African American households and $13,700 for Hispanic households.[82]

In addition to a widening income gap, research has also shown that American children are less likely than children living in other developed countries to grow up to make more money than their parents.[83] A 2015 Harvard University study found that lack of social mobility, or the inability to work one's way out of poverty, is especially prominent in the southeastern United States, with the Atlanta metropolitan area ranking 49th out of the nation's 50 largest commuting areas.[84]

Several causes have been given for this lack of opportunity: high concentrations of minority populations, geographic concentrations of poverty segregated from middle-class regions, and educational quality.[85] Americans have always believed that, regardless of family background, all people should have an equal opportunity to work and improve their lives and that education is the key to that opportunity.

However, achievement gaps have made continuing on the education pathway a challenge for many. Students from our nation's lowest income families are more than twice as likely to drop out of high school as students from families in the top half of incomes.[86] The likelihood of college enrollment for low-income high school graduates is less than 50 percent, while 80 percent of their high-income peers will enroll in college.[87]

The challenge of ensuring educational equity is a formidable one. In 2014, the U.S. Department of Education's Office for Civil Rights released a comprehensive look at civil rights data from every public school in the nation. These data are disaggregated for race/ethnicity, English learner status, sex and disability. The data

1. measure student access to various educational programs (college- and career-prep, AP courses, SAT/ACT tests, gifted and talented programs, interscholastic athletics, etc.),
2. track teacher and resource equity (such as teacher experience, teacher salary levels, and access to school counselors), and
3. reveal school climate disparities (including school discipline, restraint and seclusion, bullying and harassment).[88]

All three of these equity components are crucial, and distribution of and access to effective teachers has become a central priority nationwide. Teachers matter more to student achievement than any other aspect of schooling. A teacher is estimated to have two to three times the impact of any other school factor, including services, facilities and even leadership.[89] The report revealed that poor children and minority students are less likely to have highly qualified, effective teachers in their classrooms.[90]

81 Putnam, Robert. (2015). *Our kids: The American dream in crisis.* New York, NY: Simon and Shuster.
82 Kochhar, R., & Fry, R. (2014, December). *Wealth inequality has widened along racial, ethnic lines since end of Great Recession.* Retrieved from Fact Tank, News in the Numbers: http://www.pewresearch.org/fact-tank/2014/12/12/racial-wealth-gaps-great-recession/
83 Harvard University. (2015). *The equality of opportunity project.* http://www.equality-of-opportunity.org/
84 Ibid.
85 Ibid.
86 National Center for Education Statistics. (2015, April). *Status dropout rates.* Retrieved from The Condition of Education: http://nces.ed.gov/programs/coe/indicator_coj.asp
87 National Center for Education Statistics. (2015, March). *Immediate college enrollment rate.* Retrieved from The Condition of Education: http://nces.ed.gov/programs/coe/indicator_cpa.asp#f
88 U.S. Department of Education. (2015, November 24). *Overview.* Retrieved from Civil Rights Data Collection: http://ocrdata.ed.gov/Overview
89 RAND Corporation. (2012). *Teachers matter: Understanding teachers' impact on student achievement.* Retrieved from http://www.rand.org/pubs/corporate_pubs/CP693z1-2012-09.html
90 DeMonte, J., & Hanna, R. (2014, April 11). *Looking at the best teachers and who they teach.* Retrieved from Center for American Progress: https://www.american-progress.org/issues/education/report/2014/04/11/87683/ looking-at-the-best-teachers-and-who-they-teach/

In response to these findings, U.S. Secretary of Education Arne Duncan required all states to analyze their data and create comprehensive educator equity plans to ensure that students from low-income families and students of color are not taught by inexperienced, unqualified or out-of-field teachers at higher rates than other children. State teacher equity plans were submitted in 2015.[91] How well these plans are implemented to improve equity and outcomes in the future remains to be seen.

SIGNIFICANCE FOR GEORGIA

Georgia public schools have the seventh largest percentage of low-income students in the nation.[92] Economically disadvantaged and Hispanic students are among the state's fastest growing demographic groups, while the percentage of white students in state schools is shrinking. In the last 10 years, schools have seen an 8 percent decrease in white students, who comprised only 42 percent of public school students in 2014-2015.[93] Illustrating the achievement gap, Figure 5.1 shows that white students and students who are not economically disadvantaged graduate at significantly higher rates than African-American and Hispanic, and impoverished students.

In response to the directive from the U.S. Department of Education, Georgia has submitted an educator equity plan to address these achievement gaps. In the plan, data reveal an equity gap *on every metric* included in an analysis for both low-income students and minority students, as shown in Figure 5.2. Metrics include:

FIGURE 5.1: GEORGIA GRADUATION RATES BY SUBGROUP 2014-2015[94]

	GRADUATION RATE	PERCENT ENROLLMENT
State	78.8	100
Economically Disadvantaged	74.5	62
Not Economically Disadvantaged	80.7	38
White	82.8	42
African-American	75.2	37
Hispanic	72.0	14

- Percentage of teachers in their first year of teaching,
- Average years of teaching experience,
- Percentage of teachers "out-of-field" (teachers not teaching in their field of certification),
- Percentage of classes being taught by teachers who are not "highly qualified,"[95]
- Average teacher days absent,
- Adjusted average teacher salary,
- Percentage of teacher turnover,
- Percentage of principal turnover, and
- Average student growth relative to their peers (mean growth percentiles).[96]

91 Duncan, A. (2014, July 7). *Key policy letters from the education secretary and deputy secretary.* Retrieved from U.S. Department of Education: http://www2.ed.gov/policy/elsec/guid/secletter/140707.html

92 Southern Education Foundation. (2015, January). *A new majority research bulletin: Low income students now a majority in the nation's public schools.* Retrieved from http://www.southerneducation.org/getattachment/4ac62e27-5260-47a5-9d02-14896ec3a531/A-New-Majority-2015-Update-Low-Income-Students-Now.aspx

93 Governor's Office of Student Achivement. (2014). *Report card.* Retrieved from https://gosa.georgia.gov/report-card

94 Georgia Department of Education. (2015). FTE enrollment by ethnicity/race; Georgia Department of Education. (2015, November 10). 2015 four-year graduation rate by subgroup.

95 "Highly qualified" teachers as defined by the Georgia Department of Education must hold a valid Georgia teaching certificate, hold a bachelor's degree from a Georgia Professional Standards Commission–accepted and accredited institution, have evidence of competence in the subjects they teach, and have a teaching assignment appropriate for the field(s) listed on their Georgia teaching certificate.

96 Graduation rate for students with disabilities is also included, but the sample sizes are too small to be broken out for the analysis. The new Teacher Effectiveness Measure and Leader Effectiveness Measure will be included in the future, but these data are not yet available.

## FIGURE 5.2: EDUCATOR EQUALITY PROFILE BY POVERTY AND MINORITY QUARTILES

School Type	% of teachers in first year	Average years experience	% of teachers "out-of field"	% of classes taught by teachers not highly qualified (N classes=300,000)	Average days absent	Adjusted average teacher salary	% teacher turnover, fall 2012-fall 2013	% principal turnover fall 2012-fall 2013 (N=2,300)	Graduation rate for SWD at district level, 2014	Mean Growth Percentile 2012-2013
All Schools N teachers=112,000	5.6% (N=6,200)	13.5	1.6% (N=1,800)	1.1% (N=3,300)	9.5	$56,235	17.1% (N=19,000)	18.7% (N=400)	36.5	49.1
Schools in the highest poverty quartile N teachers=23,000	7.7% (N=1,800)	12.6	2.1% (N=500)	1.4% (N=800)	N/A	$55,260	20.9% (N=4,800)	23.1% (N=100)	N/A	47.5
Schools in the lowest poverty quartile N teachers=33,000	4.4% (N=1,400)	14.0	1.5% (N=500)	0.6% (N=600)	N/A	$55,452	14.3% (N=4,700)	15.5% (N=100)	N/A	51.5
Poverty equity gap	**3.4%**	**1.4**	**0.6%**	**0.8%**	**N/A**	**$192**	**6.5%**	**7.6%**	**N/A**	**3.9**
Schools in the highest minority quartile N teachers=26,000	9.2% (N=2,400)	11.8	2.2% (N=600)	2.2% (N=1,500)	N/A	$52,995	23.1% (N=5,900)	22.4% (N=100)	N/A	48.0
Schools in the lowest minority quartile N teachers=27,000	3.5% (N=900)	14.9	0.9% (N=200)	0.4% (N=300)	N/A	$58,654	13.4% (N=3,600)	16.5% (N=100)	N/A	50.4
Minority equity gap	**5.7%**	**3.1**	**1.3%**	**1.8%**	**N/A**	**$5,659**	**9.7%**	**5.9%**	**N/A**	**2.3**

The state plan highlights equity gaps related to minority and poverty status. Figure 5.2 shows that higher percentages of inexperienced, first-year teachers are found in schools with the highest concentration of minority students and students living in poverty. Students in these schools are twice as likely to have a teacher who is teaching out of field. Both teacher and principal turnover is also higher.

In addition to income and race/ethnicity, the equity report highlights locale equity gaps (contrasting city, suburb, town, and rural area educator equity). The majority of Georgia's highest poverty schools are in rural districts. The greatest number of variables of concern were identified in these areas. Schools that are home to both the highest minority and highest poverty student bodies appear to be concentrated in the metro-Atlanta and southwest Georgia regions. Figure 5.3 provides a map of locations with high-minority and high-poverty concentrations.

To prepare the equity plan, Georgia needed to understand both the magnitude of the equity problem and the causes of that problem to propose solutions. Root cause analyses were conducted and strategies were identified to address these gaps. The plan includes four themes for ensuring equitable access to effective educators for Georgia students:

FIGURE 5.3: LOCATION OF HIGH-MINORITY/HIGH-POVERTY GEORGIA: BASED ON EQUITY PROFILE DATA 2014[97]
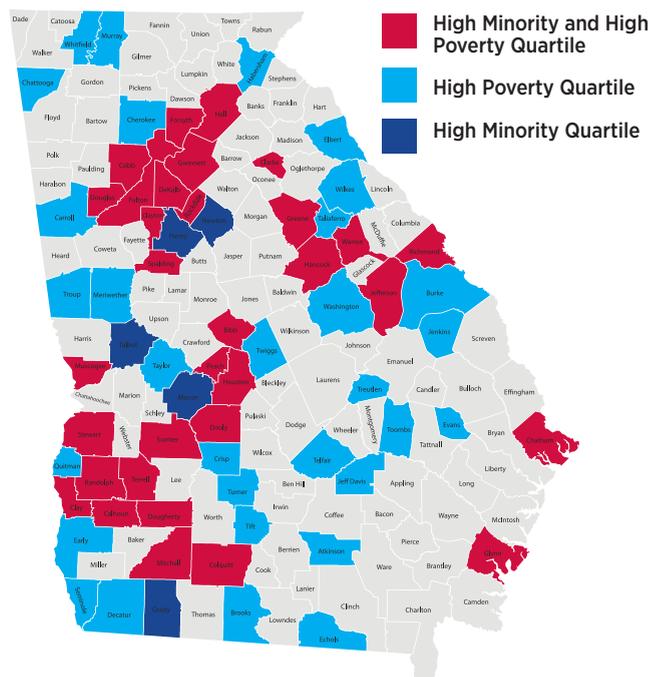
High Minority and High Poverty Quartile

High Poverty Quartile

High Minority Quartile

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97   Georgia Department of Education. (2015, September 14). *Equitable access to effective educators.* Retrieved from U.S. Department of Education: http://www2.ed.gov/programs/titleiparta/equitable/gaequityplan91415.pdf

1. Recruitment and teacher preparation,
2. Teacher and principal effectiveness,
3. Retention and professional growth, and
4. Factors that impact the learning and working environment.

Each of these themes builds on the education reform work of both the recent Race to the Top grant and Governor Deal's Education Reform Commission. The state's goal of providing a wider, more diverse recruitment pool of effective educators relies heavily on the continued implementation of reforms aimed at increasing the rigor and quality of Georgia's teacher preparation programs, both those within the university system and alternative certification programs. For a more detailed discussion of changes to teacher recruitment and preparation policies, see Issue 3 – Georgia's Teaching Pipeline.

Similarly, promoting equitable teacher and principal effectiveness (theme 2 above) relies on Georgia's success in providing a rigorous and transparent teacher and leader evaluation system. Theme 3 (improving retention and professional growth of educators) is closely tied to a new statewide tiered-certification system for educators created through Race to the Top, also detailed in Issue 3 – Georgia's Teaching Pipeline.

Theme 4, counteracting factors impacting the learning and working environment (such as income level, race, and where students live) will be addressed through a two-fold approach:

1. Creating local equity plans at the district level that are aligned to the state plan. The state will monitor the implementation of these plans.
2. Implementing the Positive Behavioral Interventions and Supports (PBIS) model to address school climate challenges. PBIS is a research-validated, school-based framework for improving school climate. It supports and promotes appropriate behaviors while preventing inappropriate behavior. The primary goal for PBIS is to help schools design positive school climates that provide an environment to make effective teaching possible and student academic performance more likely.

The state plan requires that by 2018, building-level leaders will review student placement procedures to ensure an equitable distribution of effective teachers. Likewise, at the district level, building-level leaders will work to ensure placement of effective teachers in the highest need situations.

ACTION STEPS FOR GEORGIA

Equity in U.S. education is becoming more urgent as the diversity of the nation grows. Racial and ethnic minorities make up almost half of children under age five,[98] and a majority of students in public schools are from low-income families.[99] By 2030, the American labor force will be a racial and ethnic tapestry made up mostly of non-white individuals.

As a nation, we have been working through issues of equality and equity for over half a century. When it comes to education, there has always been a tension between the federal government and states' rights. Beginning in 1954, along with *Brown v. Board of Education,* physical desegregation was the nation's goal. The Civil Rights Act of 1964 shifted the focus to equal treatment and equal access under the law. In 2001, the federal government attempted to mitigate structural educational inequities by setting measurable, high-stakes goals for educational improvement through the No Child Left Behind Act. For the first time, states were being held accountable for achievement gaps among student subgroups. Federal law outlined steps states needed to take to address achievement gaps among student subgroups, and lack of progress in addressing those gaps was subject to penalties.

In December 2015, Congress reauthorized the Elementary and Secondary Education Act (ESEA), and it is now known as the Every Child Succeeds Act (ESSA). ESSA significantly scales back the federal role in education. States must continue to ensure equity by reporting on the achievement of students by subgroup. However, states have been freed of federal requirements and can formulate their own accountability measures, monitor progress, and decide if and how to intervene in low-performing schools.

98 Annie E. Casey Foundation. (2014). *Race for results: Building a path to opportunity for all children.* Baltimore.
99 Southern Education Foundation. (2015, January). *A new majority research bulletin: Low income students now a majority in the nation's public schools.* Retrieved from http://www.southerneducation.org/getattachment/4ac62e27-5260-47a5-9d02-14896ec3a531/A-New-Majority-2015-Update-Low-Income-Students-Now.aspx

For Georgia specifically, the realization of the state's educator equity plan hinges both on statewide and local success at implementing systematic education reform initiatives. State-level education agencies (GaDOE and its partners such as the Georgia Professional Standards Commission) are responsible for continuing the implementation of Race to the Top reforms and those recommended by the Education Reform Commission. These include ensuring a fair and transparent teacher effectiveness system and supporting increased rigor for Georgia's teacher preparation and training programs. State-level agencies must be both proactive and responsive when districts/educator preparation programs require assistance in carrying out statewide reforms and in implementing their local equity plans. At the local level, districts are responsible for on-the-ground implementation and ensuring that their most vulnerable populations have the supports they need.

Data transparency and data usage to inform next steps is essential. Georgia's state equity plan currently identifies rural areas and the highest need areas as recipients of focused support, such as scaling up effective programs/strategies and identifying areas of challenge. Reliable data are the foundation for identifying and addressing issues of inequity. Unfortunately, rural areas are the least resourced and trained to use the data and address these issues.

Community support is another piece of the equation. GaDOE intends to continue to refine the state educator plan in collaboration with stakeholders, prioritizing district- and school-level leaders in the process.[100] Local nonprofits, advocacy groups and the business community need to be engaged in local equity plans. Collective strength can be found in local collaborations. These collaborations can use collective impact models to lead and sustain change.

In high-performing education systems, the majority of students attain high-level skills and knowledge, with their accomplishments depending more on student ability and drive than socio-economic background. Nationwide, states are paving the way for fairness in the distribution and prevalence of effective educators through their educator equity plans.

It has been over 60 years since the *Brown v. Board of Education* decision that stated education "must be made available to all on equal terms." Today, that promise remains unrealized. The nation's most recent step in identifying equitable teacher distribution as a key priority holds potential to get us a step closer. Can Georgia use collaboration, data, clear accountability, community support and limited resources to move the dial on equity in education? The American promise of educational opportunity — regardless of background or family — depends on it.

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100 Georgia Department of Education. (2015, September 14). *Equitable access to effective educators*. Retrieved from U.S. Department of Education: http://www2.ed.gov/programs/titleiparta/equitable/gaequityplan91415.pdf

ISSUE 6: EARLY LEARNING: AN ECONOMIC FOUNDATION FOR GEORGIA

ISSUE OVERVIEW

Now, more than ever, the American public is embracing the importance of high-quality early learning. During the critical time between birth and age five, when the brain undergoes its most rapid development, children learn more than during any other five-year period of life. Early experiences influence the development of children's cognitive and social skills and behavioral and emotional health. Thus, the first years of life largely determine a child's readiness for school and may be predictive of future academic success.

Rigorous studies have repeatedly demonstrated that strong preschool education programs enhance early learning and development, thereby producing long-term improvements in school success. These successes create benefits to individuals and the broader society that far exceed the costs of the programs.[101]

Access to quality early learning also has a direct impact on a state's future workforce and the ability of that workforce to attract and keep business and industry. Studies show a high return on investment, making early care and education a good economic development strategy as well as sound education policy. These returns can range from $1.26 to $17 for every $1 invested, depending on the quality of the care provided.[102]

However, to achieve these levels of outcomes, the focus must be on the quality of the program. National research indicates that, generally, the quality of prekindergarten programs is not good. Moreover, quality was the lowest for those children whose parents had the least education,[103] thereby reducing the return on investment that so many seek when implementing early learning programs.

Georgia has been a national leader in early learning through Georgia's Pre-K Program. The state is now working on increasing both the supply of and demand for early care and education, especially for its most vulnerable young children. As the nation turns its attention to this important issue, Georgia is poised to lead again in the effort to close the achievement gap and is just beginning to understand the important benefits that investing in early learning can bring to the state.

SIGNIFICANCE FOR GEORGIA

Georgia has long been committed to early learning. It was the first state in the nation to establish a state-level department responsible for early learning: Bright from the Start: Georgia Department of Early Care and Learning (DECAL). DECAL administers Georgia's state-funded Pre-K Program, licenses child care centers and home-based child care, administers federal nutrition programs and manages voluntary quality-enhancement programs.

In recent years, DECAL has taken aggressive action to improve the quality of and access to early learning programs across the state. Those investments are having positive effects for both the children participating in the programs and the economic health of Georgia as a whole.

Currently, the Frank Porter Graham Child Development Institute at the University of North Carolina at Chapel Hill is conducting a series of independent evaluations of Georgia's Pre-K Program. These evaluations are examining children's learning outcomes during Pre-K, enrollment and accessibility patterns across the state, the effects of participation in the Pre-K Program on children's school-readiness skills, and the long-term learning outcomes of program participants.

101 Barnett, W. S. (2013). *Expanding access to quality pre-k is sound public policy.* New Brunswick, NJ: National Institute for Early Education Research.
102 IssuesPA. (2007). *Early learning return on investment.* Retrieved from Pennsylvania Economy League, Inc.: http://issuespa.org/content/early-learning-return-investment
103 Barnett, W. S. (2013). *Expanding access to quality pre-k is sound public policy.* New Brunswick, NJ: National Institute for Early Education Research.

These studies began in 2011 and are still ongoing. However, current findings are already showing that Georgia's Pre-K Program is having positive and significant impacts on students. During their Pre-K year, children made significant gains across all domains of learning, including language and literacy skills, math skills, general knowledge and behavioral skills. These gains were even greater than expected for many areas. Children who were Spanish-speaking dual-language learners showed growth in skills in both English and Spanish, even though the primary language of instruction in these classrooms was English.[104] The follow-up study confirmed that when Pre-K students entered kindergarten, they had significantly higher school-readiness skills across most measures in the areas of language, math and general knowledge than children who did not participate.[105]

These evaluations of Georgia's Pre-K Program also examine the quality of the classroom experience for students. Evaluators have found that the classroom practices were generally in the medium to high range across different aspects of quality that were measured.[106] Table 6.1 shows highlights from the quality study.

Teacher beliefs about teaching practices were the most consistent factor in predicting differences across classroom quality. Teachers who scored higher on measures of developmentally appropriate beliefs about teaching practices had classrooms that rated higher on measures of broad aspects of quality.[108]

Georgia is also focused on expanding access to high-quality early learning experiences prior to entering the Pre-K Program by increasing the supply of and access to quality programs for infants through three-year-olds. A primary tool to achieve this goal is the Quality Rated program, a tiered quality rating and improvement system. Quality Rated provides incentives and resources for early childhood programs to improve quality while working through several manageable steps, or levels. At the same time, the centers receive public recognition for their efforts as they achieve new levels of quality.

TABLE 6.1: MEASURES OF QUALITY IN GEORGIA'S PRE-K PROGRAM CLASSROOM[107]		
Teacher-Child Interactions	Emotional support	High
	Classroom organization	High
	Instructional support	Low-Medium
General Classroom Environment		Medium
Language and Literacy		Medium
Global Quality of Classroom Practices		Medium

Quality Rated was launched in Georgia in January 2012. It uses one, two and three stars to indicate programs that meet defined standards beyond Georgia's minimum licensing requirements. The program is voluntary for all child care centers. Participating programs become eligible for free professional development, technical assistance and financial incentive packages supported by foundations and businesses.[109]

In addition, Georgia is continuing to implement the Race to the Top – Early Learning Challenge grant. While the goals of the grant are to improve program quality and outcomes for all children, specifically Georgia is focused on increasing enrollment of children with high needs in high-quality early learning and development programs. The projects associated with the grant must also help close the achievement gap between children with high needs and their peers by supporting efforts to increase kindergarten readiness. Georgia is receiving $51.7 million over a four-year grant period to expand the five critical areas outlined in Table 6.2.[110]

104 Peisner-Feinberg, E. S., Schaaf, J. M., & LaForett, D. R. (2013). *Children's growth and classroom experiences in Georgia's Pre-K Program: Findings from the 2011-2012 evaluation study executive summary.* Chapel Hill, NC: University of North Carolina, FPG Child Development Institute.

105 Peisner-Feinberg, E. S., Schaaf, J. M., LaForett, D. R., Hildebrandt, L. M., & Sideris, J. (2014). *Effects of Georgia's Pre-K Program on children's school readiness skills: Findings from the 2012–2013 evaluation study, executive summary.* Chapel Hill, NC: University of North Carolina, FPG Child Development Institute.

106 Peisner-Feinberg, E. S., Schaaf, J. M., Hildebrandt, L. M., & Pan, Y. (2015). *Children's Pre-K outcomes and classroom quality in Georgia's Pre-K Program: Findings from the 2013–2014 evaluation study, executive summary.* Chapel Hill, NC: University of North Carolina, FPG Child Development Institute.

107 Ibid.

108 Ibid.

109 Bright from the Start: Georgia Department of Early Care and Learning. Georgia's new "Quality Rated" program marks another milestone [Press release]. October 2012. Retrieved from http://decal.ga.gov/BftS/earlyLearningchallenge.aspx

110 Bright from the Start: Georgia Department of Early Care and Learning. (2014). Race to the Top: Early Learning Challenge Grant, 2014. Retrieved from http://decal.ga.gov/BftS/earlyLearningchallenge.aspx

TABLE 6.2: RACE TO THE TOP – EARLY LEARNING CHALLENGE GRANT[111]	
CRITICAL AREA	**PROJECT LIST**
1. Building Successful State Systems	■ Develop Early Education Empowerment Zones (E3Zs), where the state will align supports, activities, and services in four geographical areas with large numbers or high percentages of children with high needs and where the state will improve infrastructure for high-quality early learning programs.
2. Increasing High-Quality Accountability Programs	■ Validate Quality Rated and expand research and data activities that will evaluate current and future efforts and support policy revisions. ■ Drastically increase program and parent participation in Quality Rated.
3. Promoting Early Learning Outcomes	■ Expand the comprehensive roll-out of the newly launched Georgia Early Learning and Development Standards (GELDS). ■ Expand Georgia's home visiting program, Great Start Georgia, by creating home visiting and family engagement hubs in 3-star child care centers in each E3Z.
4. Developing a Great Early Childhood Education Workforce	■ Increase articulation among institutions of higher learning to increase student success and persistence in achieving advanced credentials in early childhood education. ■ Expand scholarships and incentive programs to increase the number of early childhood educators moving along a knowledge and career pathway.
5. Measuring Outcomes and Progress	■ Create a Task Force for Comprehensive Assessment to identify a single set of common child assessments with professional development and policy guidelines. ■ Design and implement a formative assessment that will be conducted during the first six weeks of children's kindergarten experience so each student receives a measurement of kindergarten readiness that teachers can use to individualize instruction. ■ Expand the quality of data collected for children, programs, and educators by pooling additional, existing data feeds from participating state agencies to expand the Cross Agency Child Data System.

These investments in early learning are allowing Georgia to produce larger returns in terms of human capital development. What is less commonly understood are the immediate economic impacts of a vibrant early learning industry. A collaborative effort between the University of Georgia's Carl Vinson Institute of Government and Georgia State University's Andrew Young School of Policy Studies recently analyzed the short-term economic impact of Georgia's early learning industry. The findings were astonishing:[112]

■ The total annual gross receipts of the industry for a 12-month period are estimated to be $2.45 billion.
■ The additional economic activity associated with the industry contributes another $2.24 billion to Georgia's economy annually. Thus, the early care and education industry generated $4.7 billion dollars of economic activity in the state for 2013, putting it on par with industries such as pharmaceutical preparation manufacturing, printing, and health and personal care stores.
■ A conservative estimate of the level of parents' annual earnings supported by the availability of child care in Georgia is $24 billion.
■ Through employment and other spending in the industry and by fueling expansions in other sectors of the economy, the industry annually generates $374 million in federal tax revenue and $161.7 million in state and local tax revenues.
■ Early care and education provides 67,507 jobs in the industry itself and generates an additional 17,454 jobs in other market segments.

Early care and education in Georgia is a multibillion-dollar industry. It also supports the ability of other industries across the state to prosper. Early care providers buy goods and services to operate their businesses and employ teachers, administrators and a variety of support staff from janitorial to food services. Finally, the existence of high-quality early education allows parents and families to work in other industries and businesses due to the availability of child care.

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111   Ibid.
112   Carl Vinson Institute of Government, University of Georgia & Andrew Young School of Policy Studies, Georgia State University. (2015). *Economic Impact of the Early Care and Education Industry in Georgia, Executive Summary.* Atlanta, GA: Bright from the Start: Georgia Department of Early Care and Learning.

ACTION STEPS FOR GEORGIA

For the past several years, Georgia has been focused on improving both the quality of and access to early learning programs across the state, especially for young children and their families with the greatest needs. Under DECAL's leadership, the state has:

- Established the Quality Rated program;
- Implemented the Georgia Early Learning and Development Standards;
- Provided resources for statewide family and community engagement grants;
- Expanded center-based home visitation programs for family, friend and neighbor care for children being cared for in private homes;
- Continued to increase the knowledge and competencies of educators who work in the early care industry; and
- Developed a comprehensive assessment system for early learning.

This commitment is being supported and potentially enhanced by Governor Nathan Deal's Education Reform Commission (ERC). The commission's goal is to provide recommendations to improve Georgia's educational system, including increasing access to early learning programs. Governor Deal challenged the early learning subcommittee to study and make recommendations for expanding early education options, including the following:

- Addressing the current funding formula for Georgia Pre-K,
- Expanding Pre-K access in Georgia,
- Increasing access to Quality Rated programs for all children from birth to age five, and
- Considering innovative approaches for getting more children into high-quality programs.[113]

To help support the ongoing work of DECAL and the early learning community, the ERC subcommittee on early learning proposed a series of recommendations aimed at increasing both the supply of quality programs and the demand for them from consumers. Table 6.3 provides a full list of the subcommittee's recommendations.

To increase the supply of quality programs, especially for low-income students, the ERC recommends that a timeline be developed stipulating that programs receiving the child care subsidy fund must participate in Quality Rated. This will help ensure that the children most in need are enrolling in early learning programs of a certain quality. To support these programs, the ERC also recommends that the subsidy rates that Quality Rated providers receive be adjusted and that those rates be more closely aligned with the true cost of providing quality care.

As DECAL is looking to increase the supply of quality options through the expansion of the Quality Rated program, the ERC is also making recommendations to increase the demand for high-quality early learning options among parents, community members and the early care industry itself. These recommendations include a series of refundable tax credits for programs and providers that are Quality Rated, for early learning educators to increase their teaching credentials while working in a Quality Rated program, and for parents who enroll their child in an early learning program that participates in Quality Rated.

Finally, as supported by the Pre-K evaluation study, quality in Georgia's Pre-K Program classrooms is largely determined by the quality of teaching instruction. The ERC is recommending the development and implementation of a teacher pay structure based on teacher experience and credentials as well as an increase in the pay of assistant teachers in these classrooms.

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113   Governor's Education Reform Commission. (2015, May 10). *Early childhood education subcommittee status report.* Retrieved from http:/ https://gov.georgia.gov/education-reform-commission

TABLE 6.3: EDUCATION REFORM COMMISSION – EARLY CHILDHOOD EDUCATOIN SUBCOMMITTEE RECOMMENDATIONS[114]	
Increase the number of Quality Rated programs	Develop a timeline outlining when child care programs must be Quality Rated to receive child care subsidy funds.
	Adjust subsidy rates for Quality Rated providers to more closely align with the true cost of tuition.
Increase the demand for quality	Provide appropriate funding to match private dollars raised to support a campaign that promotes public awareness of Quality Rated and the overall importance of high-quality early learning.
	Pass legislation to create a business tax incentive for Quality Rated child care providers.
	Pass legislation to create an occupational tax incentive based upon teacher credentials for educators employed by a Quality Rated provider.
	Pass legislation to create a consumer tax incentive for families who enroll their children in Quality Rated programs.
Increase the quality of Georgia's Pre-K Program	Increase start-up costs for new Georgia Pre-K classes from $8,000 to $12,000 and increase operating costs from 5 to 8 percent.
	Develop and implement a pay structure for Pre-K lead teachers based on experience and credentials.
	Increase pay for Pre-K assistant teachers.
	Reduce Pre-K class sizes from 22 to 20 students.
	Support the implementation of the Positive Behavior Interventions and Support (PBIS) framework in early learning programs.
	Fund demonstration grants to select Pre-K programs to support effective instruction for dual-language learners.

Governor Deal's inclusion of early learning in the work of the ERC recognizes the important foundation that it plays in supporting the broader K-12 educational pipeline. Governor Deal has publically stated that he would like to spend an additional $50 million for Georgia's Pre-K Program, primarily focused on increasing teacher salaries and reducing class sizes.[115]

That type of commitment is a step in the right direction. However, Georgia's early learning industry is more than just the Pre-K Program. Taken as a whole, the early learning industry generates more than $4.7 billion in economic activity annually. That puts this industry on par with other important sectors of Georgia's economy such as the hotel and motel industry, pharmaceutical preparation manufacturing, and home health care. These industries receive significant state support in the form of tax credits, training support programs and other subsidies. Georgia should be engaging in innovative ways to support entrepreneurial activities in early learning and professionalization of the field as a community economic development strategy.

The importance of early learning has become increasingly visible in recent years, only reemphasizing what educators have known for quite some time: high-quality early learning is the cornerstone for student success. In Georgia, we now know that high-quality early learning is also the building block for community and state economic growth. Through its work on quality improvements and access, Georgia is once again leading the nation in providing this foundation to the state's youngest learners. But a long-term commitment of resources is necessary to sustain that leadership role.

114 Education Reform Commission. (2015, November 19). *Recommendations from sub-committees to full commission.* Retrieved from Meeting 10 Materials: https://gov.georgia.gov/meeting-10-materials-november-19-2015
115 Bluestein, G. (2015, August 30). Governor plans to pump $50 million into Georgia's Pre-K Program. *Atlanta Journal-Constitution.*

ISSUE 7: AFTER SCHOOL TIME: WHERE LEARNING CONTINUES

ISSUE OVERVIEW[116]

During their academic career, an average student between the ages of five and 18 will spend only about 10 percent of their time in the classroom — based on six hours of instruction over a 180-day school year. That is compared to 33 percent of their time sleeping and a full 57 percent of time away from school and out of bed.[117]

Research has shown that what happens outside the classroom (during that 57 percent) directly impacts what is possible to accomplish inside the classroom.[118] Over the past decade, there has been a fundamental shift in where and when students are learning and experiencing the educational system. The result of this shift has been a dramatic increase in the number of children participating in afterschool programs. Nationwide, participation in afterschool programs increased nearly 60 percent between 2004 and 2014, with nearly 4 million children now participating.[119]

The benefits for students participating in afterschool programs are clear. Research has confirmed that high-quality afterschool programming increases academic achievement, promotes civic and social development, and reduces risk-taking behaviors.[120] Moreover, students who are the furthest behind in school gain the most from afterschool academic services such as tutoring and homework help.[121] These high-quality programs are important and often necessary tools for reducing the achievement gap.

In Georgia, more than 280,000 (16%) school-aged children participate in afterschool programs.[122] However, the supply of quality afterschool options has not kept pace with demand. It is estimated that nearly 600,000 more children would enroll if programs were available in their community, a 14 percent increase in demand since 2004. Across Georgia, more than 300,000 children are alone and unsupervised between the hours of 3:00 pm and 6:00 pm. Furthermore, 45 percent of existing programs report that they need to at least double their capacity to serve the demand within their community.[123]

As Georgia looks to move the needle on achievement for all students, the role of afterschool programs becomes increasingly important. Considerations about the supply and quality of these offerings for all students, especially low-income and at-risk students, must be part of the larger education strategy discussion.

SIGNIFICANCE FOR GEORGIA

In 2014, Georgia hit a milestone in its afterschool participation rate, and not a good one. For the first time, afterschool participation rates fell below the national average and dropped back to the 2004 level of 16 percent.[124] As previously stated, 18 percent of Georgia's students are alone and unsupervised between the hours of 3:00 pm and 6:00 pm. While a majority of those tend to be older students, 3 percent are young children between kindergarten and fifth grade. See Figure 7.1.
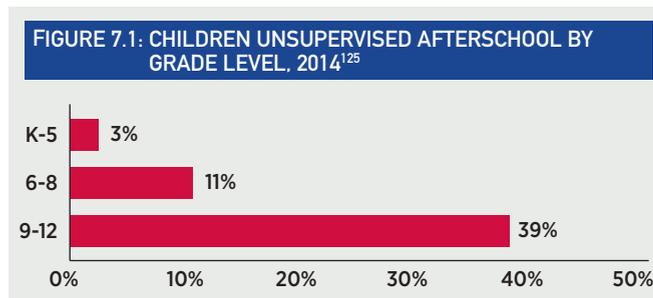
FIGURE 7.1: CHILDREN UNSUPERVISED AFTERSCHOOL BY GRADE LEVEL, 2014[125]

Grade Level	Percent
K-5	3%
6-8	11%
9-12	39%

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116 For clarity, "afterschool" is a general term used to describe programs that serve youth ages 5–18 during any of the following time frames: before school, after school, during times and days when there is no school, vacations and summer.
117 WestED. (2014). *Academic parent teacher teams: Final manual.* San Francisco, CA.
118 National Research Council, Committee on Successful Out-of School STEM Learning. (2015). *Identifying and supporting productive STEM programs in out-of-school settings.* Retrieved from http://www.nap.edu/21740
119 Afterschool Alliance. (2014). *America after 3pm: Afterschool programs in demand.* Washington, DC.
120 Lopez, M. E. (2015). *Leave them wanting more: Engaging youth in afterschool.* Cambridge, MA: Harvard Family Research Project.
121 Ibid.
122 http://www.afterschoolalliance.org/AA3PM/detail.html#s/GA/demand/p_of_children_in_programs_2014
123 Ibid.
124 Ibid.
125 Ibid.

In Georgia, there are two primary sources of afterschool programs: 1) The 21st Century Community Learning Centers (CCLC) and 2) afterschool programs operated jointly by the Georgia Department of Education (GaDOE) and the Georgia Division of Family and Children Services (DFCS).

The 21st Century Community Learning Centers (CCLC)

The 21st CCLC initiative is the only federal funding source dedicated exclusively to before school, after school, and summer learning programs. As a component of Title 1 funding for low-income students enrolled in high-poverty, low-performing schools, 21st CCLC programs are administered through GaDOE. These programs are required to provide:

- Academic enrichment activities that help students meet state and local achievement standards,
- A broad array of additional services designed to reinforce and complement the regular academic program, and
- Literacy and related educational development services to the families of children who are served in the program.

GaDOE provides grants to local agencies to deliver these services. In 2014, the state awarded over $36 million for 21st CCLC programming across 243 sites.[126] Table 7.1 provides details about the CCLC sites.

Figure 7.2 shows the demographic makeup of students who participate in the 21st CCLC programs by race and age.

TABLE 7.1: CHARACTERISTICS OF 21ST CCLC PROGRAMS IN GEORGIA, 2014[127]		
Total Students Served		26,000
Total Program Sites		243
Location of Program	Schools	65%
	Community-based Organization	30%
	Institutions of Higher Education	5%
Operate Over the Summer		108
Percent in Urban Areas		53%
Percent in Rural Areas		47%

For those that participate in the programs, the results are impressive. Evaluations find that participating students receive the equivalent of at least 45 additional school days, depending on the program. This additional learning time translates into significant gains for students:[129]

- 80 percent increased homework participation
- 70 percent improved classroom behavior
- 87 percent met/exceeded state standards in reading/language arts[130]
- 68 percent met/exceeded state standards in mathematics
- 87 percent of students were satisfied with the program
- 94 percent of parents were satisfied with their child's experience with the program

Georgia Division of Family and Children Services (DFCS)

The Afterschool Care Program, located within Georgia DFCS, also administers federal funds to nonprofit organizations and public agencies to provide services to youth and families during out-of-school time. These programs target the most at-risk students and their families, serving those who are:

FIGURE 7.2: DEMOGRAPHIC CHARACTERISTICS OF 21ST CCLC PARTICIPANTS IN GEORGIA, 2014[128]

AGE

- Pre-K: 101
- Elementary: 13,660
- Middle: 5,865
- High: 6,590

RACIAL MAKEUP

- African American: 55%
- Caucasian: 16%
- Hispanic: 5%
- Asian: 1%
- Other/Not Reported: 23%

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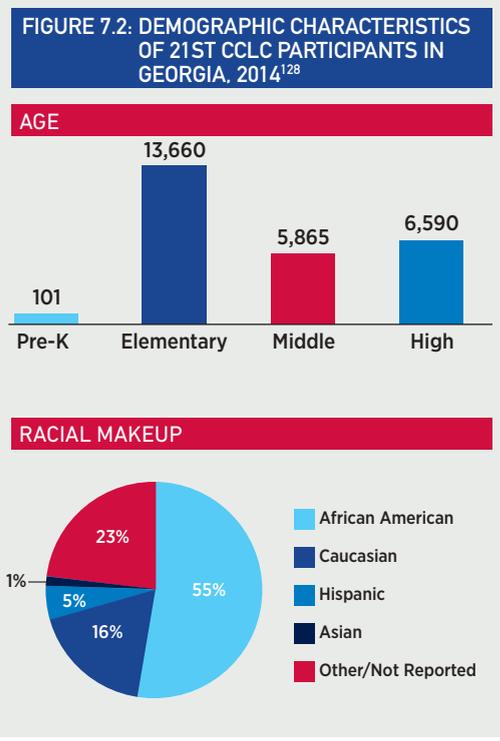
126 Georgia Afterschool Statewide Network (G-SAN). (2015). *A snapshot of 21st CCLC in Georgia.* Retrieved from G-SAN Resources: http://www.afterschoolga.org/wp-content/uploads/2015/10/21stCLCprogramming_final.pdf

127 Ibid.

128 Ibid.

129 Ibid.

130 It is important to note that CCLC programs focus enrollment on students who previously did not meet state standards.

- Currently or previously in foster care
- Low-income families
- Families receiving support services through DFCS, such as TANF, food stamps or Medicaid
- Performing poorly in school due to low attendance, poor grades, etc.
- Pregnant and/or parenting teens
- Using or have used drugs and/or alcohol
- Homeless
- Engaged in the juvenile justice system

In 2015, DFCS provided $15.5 million in funding across the state to support programs. The 256 funded programs serve more than 25,000 students. Of the funded programs, 87 percent are community-based organizations and 13 percent reside in a public agency.[131] The DFCS Afterschool Care Program has three primary goals:[132]

1. **Strengthen youth service organizations.** Programs provide funds to increase capacity to design, implement and sustain quality youth development programs and services. For all students, these programs provide well-being and enrichment activities. Elementary and middle school programs focus on project-based learning opportunities, and high school programs emphasize apprenticeship opportunities.

2. **Provide opportunities for youth to establish positive relationships.** The focus of these programs is to foster relationships with peers and caring adults during traditional nonschool day hours, including before and after school and over the summer.

3. **Provide technical assistance to organizations and agencies.** Programs implement services and activities that support youths' overall safety and well-being to prepare them for the transition into young adulthood.

Much like the 21st CCLC programs, the DFCS programs show significant positive outcomes for participants. A survey of participants reported the following:[133]

- 96% completed homework during the afterschool time
- 85% reported that study skills and test preparation improved
- 81% reported improved reading and language skills
- 78% reported improved math skills
- 69% reported that the afterschool program helped prevent pregnancy, crime or substance abuse problems

In 2014, the high school graduation rate among low-income students was 62 percent, a full 10 percentage points below the state average.[134] Out-of-school time and quality afterschool programs are providing additional learnings and supports for low-income students across Georgia to help close that gap in college and career readiness.

ACTION STEPS FOR GEORGIA

The research on afterschool programs is important for several reasons. First, national research and evaluations of Georgia programs reveal that afterschool programs promote greater school success, improve health outcomes and minimize risky behaviors.[135] Importantly, research also shows that the quality of the program matters.

To support quality afterschool programming, Georgia has joined with 32 other states to develop the Georgia Afterschool and Youth Development (ASYD) Quality Standards. The standards are research-based best-practice guidelines that delineate the critical components of a high-quality youth development program. In Georgia, these standards were developed under a collaborative project endorsed by GaDOE, DFCS, the Georgia Department of Public Health, and the Governor's Office for Children and Families.[136]

131   Cagle, B. (2015). The afterschool landscape in Georgia. *Georgia Statewide Afterschool Network - Leadership Breakfast.* Atlanta: Georgia Division of Family and Child Services.
132   Ibid.
133   Ibid.
134   https://gaawards.gosa.ga.gov/analytics/saw.dll?dashboard
135   Cagle, B. (2015). The afterschool landscape in Georgia. *Georgia Statewide Afterschool Network - Leadership Breakfast.* Atlanta: Georgia Division of Family and Child Services.
136   Georgia Afterschool Statewide Network (G-SAN). (2015). *A snapshot of 21st CCLC in Georgia.* Retrieved from G-SAN Resources: http://www.afterschoolga.org/wp-content/uploads/2015/10/21stCLCprogramming_final.pdf

There are nine standards organized into categories called "Quality Elements" that promote education, families and health. Each of the nine Quality Elements includes a series of related standards — or best practices — and indicators. These indicators help programs understand what successful implementation looks like. Taken together, these standards aim to support educators and student learning, strengthen family partnerships and encourage healthy lifestyles. For a complete list of the Quality Elements, see Figure 7.3.

The standards are currently a voluntarily tool to help programs set goals and focus on professional development. At present, approximately 14 of the 21st CCLC programs are using the standards in a pilot program to focus on continuous improvement. As we move into 2016, more programs will be encouraged to use the standards to guide their strategic planning and development.

In addition to infusing afterschool programs with high-quality standards, Georgia still faces the challenge of accessibility. This need is especially acute among low-income students, the students that benefit the most from participation. Across Georgia's 159 counties, 66 have a GaDOE or DFCS afterschool program: the primary programs serving low-income and at-risk students. See Figure 7.4.

The Afterschool Alliance, the only national nonprofit dedicated to promoting out-of-school programs, conducted state-level assessments to identify where the greatest progress was being made in terms of accessibility, quality and student outcomes. Nearly all of the top ten states have dedicated state and/or local funding streams to help supplement federal funding for afterschool programs.[139] For example, Florida created Children's Services Councils (CSCs), which are government entities established by county citizens to help fund local organizations that provide afterschool services to children and families. In Tennessee, a portion of unclaimed state lottery winnings are used to fund high-quality programs for at-risk students — the Lottery for Education: Afterschool Programs (LEAPs). For the 2014 LEAPs award cycle, more than $13.8 million was awarded to 79 agencies. These city- and state-level investments supplement federal 21st CCLC funding awarded to the state, totaling $21.8 million in 2014.[140]

Robust afterschool programs can do more for a state than just support at-risk students and narrow the achievement gap. They can also help develop the workforce pipeline. Some of fastest growing areas of Georgia's economy are related to the fields of science, technology, engineering and math

FIGURE 7.3: NINE QUALITY ELEMENTS OF THE ASYD QUALITY STANDARDS[137]

GEORGIA'S STANDARDS ARE ORGANIZED INTO NINE CATEGORIES CALLED "QUALITY ELEMENTS

1 Programming and Youth Development
2 Linkages with the School Day
3 Environment and Climate
4 Relationships
5 Health and Well Being
6 Staffing and Professional Development
7 Organizational Practices
8 Evaluation and Outcomes
9 Family and Community Partnerships

FIGURE 7.4: GADOE AND DRCS-SUPPORTED AFTERSCHOOL PROGRAMS[138]

Legend:
0
1-5
6-10
11-15
16-20
21+

137 Georgia Afterschool Statewide Network (G-SAN). (2015). *What are the Georgia afterschool & youth development (ASYD) quality standards?* http://www.afterschoolga.org/wp-content/uploads/2015/10/ ASYDQualityStandards_final.pdf

138 Georgia Afterschool Statewide Network (G-SAN). (2015). *The landscape of afterschool.* Retrieved from http://www.afterschoolga.org/wp-content/uploads/2015/11/StateLandscape_updated_11515-1.pdf

139 Afterschool Alliance. (2014). *Top ten states for afterschool.* Washington, DC.

140 Ibid.

(STEM). The mediocre performance in STEM subjects in Georgia and across the nation has been well documented. These outcomes contribute to weak interest in STEM subjects and narrow the pipeline of STEM talent at a time when employers are hard-pressed to meet the growing demand for STEM knowledge and skills. Well over half of high school seniors, including many who are proficient in math, are not interested in pursuing STEM fields.[141]

Afterschool programs in STEM can help change this outcome. Research suggests that participation in such programs increases interest in STEM by offering hands-on experiences and connections to real-world problems. In the process, they can increase graduation rates and inspire more students to pursue STEM majors in college. Moreover, afterschool programs are also more likely than schools to expose students to engineering and technology, as they can provide many out-of-school hours specifically focused on STEM.[142]

Georgia is focusing on reforms aimed at improving the educational pipeline for students so that they graduate from high school college and career ready. Governor Nathan Deal's Education Reform Commission is currently making recommendations to accomplish just that goal through new strategies aimed at early learning, teachers, funding flexibility and school choice options. All of these strategies can contribute to increased and better outcomes for students. However, each of them is also restricted by the number of hours in the school day and do not address what happens to students the remaining 57 percent of time that they are awake and not in the classroom.

As Georgia addresses increasing poverty as well as increasing demands on its education pipeline to produce a high-quality workforce, the state should consider all options available to support student learning. High-quality afterschool programs need to be aligned with curriculum standards and teacher expectations. Understanding how to incorporate these supports and reinforce the goals of the classroom is vital. Georgia should study programs and investments made by other high-performing states like Florida and Tennessee to see how their afterschool programming supports their overall education goals. The most successful of these programs could be replicated and adapted to Georgia's specific needs.

Moreover, Georgia can learn from its own experiences in how early learning, and specifically the Georgia's Pre-K Program, has been aligned and incorporated into the overall discussion on education. Public-private partnerships support the Quality Rated program for early learning to increase the quality of early learning experiences. A similar model could be used to support the implementation of the ASYD Quality Standards.

Maintaining and potentially increasing the quality and availability of afterschool programs should be part of the overall discussion about ensuring that all children are ready for college or a career when they graduate from high school. Confining resources and conversations to in-school time addresses only 10 percent of the problem.

141   Change the Equation. (2015). *Lost opportunity: Few U.S. students participation in STEM out-of-school programs.* Washington, DC.
142   Ibid.

ISSUE 8: WORKFORCE READINESS: THE ROLE OF K–12

ISSUE OVERVIEW

Are we ready? More specifically, are students ready? Much has been written and reported about students being "college and career ready" when they graduate from high school. College and career readiness has been defined as "having the knowledge and skills in English and mathematics necessary to qualify for and succeed in entry-level, credit bearing postsecondary course work without the need for remediation."[143]

A recent national survey showed that 78 percent of college faculty and 62 percent of employers believe that public high schools are not doing enough to prepare students for the expectations of postsecondary education or to develop the skills necessary to enter the workforce.[144] But it is not for lack of interest on the part of students. Almost all young people report wanting to go to college, including technical college. However, only about one-third are graduating with adequate reading and math skills that allow them to be successful once they leave high school.[145]

Employers are also noticing this gap in student readiness, especially related to specific knowledge, skills and training to fill critical jobs. Many unemployed workers do not have the high skill level that employers need. In 2012, business organizations spent $164 billion to train new employees. In 2013, the training budget jumped another 15 percent.[146] When asked, employers reported the most serious skill deficiencies were in technical and computer skills, followed by a lack of problem-solving skills, basic technical training, and math skills.[147] See Figure 8.1.

FIGURE 8.1: SKILLS IN WHICH EMPLOYEES ARE MOST DEFICIENT[148]

70% technology/ computer skills

69% problem solving skills

67% basic techical training

60% math skills

The workforce in Georgia is expected to grow 11.7 percent by 2020, compared to 2010 employment levels. This accounts for more than 480,000 new jobs.[149] The fastest growing job areas will be in the health care fields and in technology-related occupations, each projected to have 10-year growth averages above 25 percent.[150] To support this type of robust growth and economic development, Georgia is focusing on opportunities that strengthen the education pipeline. The goal is to reduce the skills gap throughout the entire K–12 education system so that the state's high school graduates are college and career ready.

SIGNIFICANCE FOR GEORGIA

According to the Harvard University Pathways to Prosperity report, in the coming years, a majority of jobs in Georgia (60 percent) will require some education or training beyond high school.[151] However, a four-year college degree is not necessary for the majority of available jobs. In fact, it is predicted that only 33 percent of those jobs will require four or more years of college. Many of these opportunities will be middle-skill jobs that require an associate's degree or an occupational certificate.[152] It is in these areas that Georgia has its largest skills gap.

143 http:// http://www.achieve.org/college-and-career-readiness

144 Hart Research Associates & Public Opinion Strategies. (2015). *Rising to the challenge: Views on high school graduates' preparedness for college and careers.* Washington, DC: Achieve.

145 Petrilli, M. J. (2015, August 24). *Two routes to college readiness.* Retrieved from Thomas B. Fordham Institute — Flypaper: http://edexcellence.net/articles/two-routes-to-college-readiness.

146 Business Roundable. (2014). *Closing America's skills gap.* Washington, DC.

147 Giffi, C., Dollar, B., Drew, M., McNelly, J., Carrick, G., & Gangula, B. (2015). *The skills gap in U.S. manufacturing: 2015 and beyond.* Retrieved from http://www.theman-ufacturinginstitute.org/~/media/827DBC76533942679A15EF7067A704CD.ashx

148 Ibid.

149 Georgia Department of Labor, Workforce Statistics & Economic Reseach. (2015). *Georgia workforce trends: An analysis of long-term employment projections to 2020.* Atlanta, GA: Georgia Department of Labor.

150 Ibid.

151 Symonds, W. C., Schwartz, R., & Ferguson, R. F. (2011). *Pathways to prosperity: Meeting the challenge of preparing young Americans for the 21st century.* Cambridge, MA: Pathways to Prosperity Project, Harvard University Graduate School of Education.

152 Ibid.

To help address this need, in May 2010 Georgia passed the BRIDGE (Building Resourceful Individuals to Develop Georgia's Economy) Act, House Bill 400. It was designed to motivate and engage students by providing educational experiences related to their future career ambitions. The BRIDGE Act provides middle and high school students with career counseling and regularly scheduled advisement to choose a focused plan of study.

As part of the BRIDGE Act, all eighth grade students must complete an individual graduation plan (IGP), which helps map out the academic core subjects and focused work students plan to take in math, science, humanities, fine arts and world languages or a sequenced career pathway.[153]

This process of career exploration begins in elementary school. During those grades, students investigate various career areas as part of the curriculum each year to help them be ready to select a career path once they get to high school. (Note that even in high school, students can change their career path as their interests change.) So important is this phase during the elementary grades that Georgia's school and district accountability system, the College and Career Ready Performance Index (CCRPI), has the following indicator specifically related to it:

> The percentage of students in grades 1–5 completing the identified number of grade-specific career awareness lessons aligned to Georgia's 17 Career Clusters.[154]

In 2014, 94.5 percent of all students in elementary school met that criterion. Middle school is viewed as the bridge between elementary and high school and provides students with an opportunity to learn about specific career areas and explore their own aptitude toward different fields. The middle school CCRPI also holds schools and districts accountable for this process. As a predictor for "post–middle school readiness," one indicator reports on the following:

> Percentage of students completing two or more state-defined career-related assessments/ inventories and a state-defined individual graduation plan by the end of grade 8.[155]

In 2014, 93 percent of all Georgia eighth graders met this criterion.[156]

In addition to the regular high school graduation requirements, once students enter high school, to complete their IGP, they must also complete a pathway selected from the four primary options shown in Table 8.1.

TABLE 8.1: GEORGIA HIGH SCHOOL GRADUATION PATHWAYS[157]

Pathway	Description	Completion Requirements
Advanced academics	Allows a focus on English/ language arts, math, science or social studies	1. 4 credits in selected subject[158] 2. 1 Advanced Placement (AP) or International Baccalaureate (IB) course in selected subject 3. 2 credits in one world language
Fine arts	Allows a focus on dance, journalism, music, theater arts and visual arts	3 courses successfully completed in one of the five areas
World language	Allows a focus on French, Spanish, German, Latin, Chinese or Japanese	3 successive courses in selected language. The third course may or may not be an AP or IB course
Career, Technical and Agricultural Education (CTAE)	One of 17 career pathway options	Requirements specific to the pathway are completed

153 Georgia Department of Education. (2015). *What is the BRIDGE law?* Retrieved from http://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/ Documents/BRIDGE-separatecard.pdf
154 http://ccrpi.gadoe.org/2014/
155 Ibid.
156 Ibid.
157 http:// http://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Pages/pathways.aspx
158 For the social studies pathway, students need three credits in social studies.

Georgia's most robust pathway is the Career, Technical and Agricultural Education (CTAE) pathway. In 2014, 61 percent of high school students and 57 percent of middle school students across 180 local school systems were enrolled in the CTAE program.[159] CTAE offers students over 100 pathways within 17 career clusters. Each cluster includes multiple career pathways. For example, the science, technology, engineering and mathematics (STEM) career cluster includes separate pathways for electronics, engineering and technology, and engineering drafting and design. Figure 8.2 provides a description of Georgia's 17 clusters and their enrollments.

Based on the National Career Cluster Model,[161] the rigorous pathway curricula combine CTAE standards, the Georgia Standards of Excellence and the Georgia Performance Standards with career development and industry-specific standards for learning and certification. Completing a career pathway allows the student the option of attending a two-year college, attending a four-year institution, training in a specific trade or moving directly into the workforce upon graduation from high school.

The results of CTAE participation are impressive. CTAE students are more likely to graduate from high school and participate in postsecondary education. Through the CTAE program, teachers and educators also receive professional development to support advanced technical learning. See the sidebar for details on these results.

By participating in CTAE, many high school students graduate with industry certifications and college credits along with their high school diplomas. In fact, many students across all pathway options are taking advantage of dual-enrollment options to gain college-level course experience while still enrolled in high school.

In 2015, the Georgia General Assembly passed two bills that consolidated Georgia's multiple dual-enrollment programs into one, the new Move on When Ready (MOWR) Program. Based on recommendations from Governor Deal's Dual Enrollment Task Force,[163] these two bills (Senate Bill 132 and Senate Bill 2) expand dual opportunities for all students in grades 9–12. SB 132 was based on the task force recommendations and articulates the parameters of the new MOWR program. SB 2 provides a new option for high school graduation and is included in the provisions of SB 132. Both bills were effective beginning July 2015. Table 8.2 provides details of the two Senate bills.

FIGURE 8.2: CTAE PROGRAM ENROLLMENT[160]	
Finance (FIN)	71,148
Business Management and Administration (BMA)	67,976
Government and Public Administration (GPA)	40,765
Information Technology (IT)	39,977
Health Science (HHS)	35,042
Agriculture, Food and Natural Resources (AGED)	32,812
Human Services (HS)	32,408
Hospitality and Tourism (HT)	27,611
Science, Technology, Engineering & Mathematics (STEM)	27,002
Arts, AV/Technology and Communications (AAVTC)	20,755
Architecture and Construction (AC)	20,745
Education and Training (ET)	19,876
Marketing (MKTG)	13,153
Law, Public Safety, Corrections and Security (LPSCS)	6,978
Transportation, Distribution and Logistics (TDL)	6,869
Manufacturing (MANG)	1,846
Engergy (NRG)	1,318
Total HS	466,281

CTAE ACHIEVEMENTS[162]

GRADUATION RATES
- CTAE students = 88.9%
- Non-CTAE students = 73.7%

POSTSECONDARY ENROLLMENT FY 2014
- CTAE students = 10,001
- Non-CTAE stuents = 7,324

GEORGIA STEM PROGRAM
- Over 150 teachers participated in the STEM Georgia Teacher's Academy
- Over 1,200 middle school girls participated in the 5th annual Girls Adventures in STEM
- Over 1,000 educators participated in the CTAE STEM Forum

INDUSTRY CERTIFICATIONS AND TRAINING
- CTAE career clusters held 457 industry certifications in FY 2014, a 2% increase from 2013
- 8,352 high school students earned an industry credential in 2014, a 43% increase from 2013

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159 Career, Technical and Agricultural Education. (2015). *CTAE annual report 2014.* Atlanta: Georgia Department of Education.
160 Ibid.
161 For more information, see http://www.careertech.org/career-clusters/.
162 Ibid.
163 Members of the Dual Enrollment Task Force include leaders from the University System of Georgia, the Technical College System of Georgia, the Georgia Student Finance Commission, the Professional Standards Commission, and the Governor's Office as well as state legislators.

TABLE 8.2: ELEMENTS OF THE 2015 MOWR LEGISLATION[164]	
The New Move on When Ready Program (SB 132)	**New High School Graduation Option (SB 2)**
■ High school students may enroll in eligible partici-pating postsecondary institutions while in 9th–12th grades	■ Students complete 10th grade with the required courses (two English, math, science, social studies; one health and PE and required tests)
■ Earn dual credit	■ Eight courses that require an end-of-course assessment must be completed before student participation
■ May take any course, academic or CTAE	
OR	■ Complete an associate's degree, technical diploma or two technical certificate programs in a career pathway
■ May enroll in a postsecondary program (associate's degree, diploma or technical certificate or credit)	■ Awarded a high school diploma

Under dual enrollment, students receive both secondary and postsecondary credit. Academic courses include those related to English, math, science, social studies and foreign languages as well as CTAE subjects. These can be taught either on the high school or college campus or through distance learning. Participating high school students must meet all the entrance requirements of the postsecondary institution, and specific classes, programs and certificate offerings vary by the individual institution.

Simplifying and strengthening the dual-enrollment programs is an important expansion of the K-12 pipeline that can increase college and career readiness while simultaneously supporting Georgia's economic development efforts. While all students explore career alternatives in elementary and middle school, they have a variety of options open to them once they enter high school. CTAE and dual-enrollment programs can combine with other credit-earning programs such as Advanced Placement (AP), International Baccalaureate, and Early College and Career Academies to improve college readiness for students and potentially shorten the time to earn a degree or professional certificate once in college.

ACTION STEPS FOR GEORGIA

Governor Deal charged the Move on When Ready subcommittee of the Education Reform Commission (ERC) to examine all options across the pre-K–12 pipeline to support learning and allow students to "move on when ready." While the recommendations of this subcommittee encompass elementary and middle grades, there are specific recommendations related to dual enrollment that could directly impact Georgia's workforce pipeline.

The Move on When Ready subcommittee recommends that Georgia take steps to increase the number of high school students earning postsecondary credentials through intense professional development for both high school and postsecondary teachers. The subcommittee also recommends expanding the pathways for earning a high school diploma, including the expansion of SB 2 to add several high-demand industry certificates.[165]

The ERC focused its recommendations to support and enhance the work that is currently in progress in Georgia. The Georgia Competitiveness Initiative brought state government and the business community together to develop a long-term strategy for economic development in the state. Led by the Georgia Department of Economic Development and Georgia Chamber of Commerce, the Georgia Competitiveness Initiative examined Georgia's strengths and weaknesses, gathered information and ideas from leaders from various regions and industries, and developed recommendations to stimulate job creation and economic growth.[166]

164 Mealer, G. (2015, July). *The new Move on When Ready dual enrollment program.* Retrieved from GaDOE - Transition Career Partnerships: http://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Documents/New-Move-On-When-Ready-General.pdf

165 Education Reform Commission. (2015, November 19). *Recommendations from sub-committees to full commission.* Retrieved from Meeting 10 Materials: https://gov.georgia.gov/meeting-10-materials-november-19-2015

166 See more at http://www.georgiacompetitiveness.org/about/#sthash.XBrWaj6N.dpuf.

A significant finding of the final report of the Competitiveness Initiative was that education and workforce development was the single most important issue for 10 of the 12 Economic Development Regions statewide. For the other two, it was listed as the second most important issue.

As a continuation of the Georgia Competitiveness Initiative, in 2014 Governor Deal created the High Demand Career Initiative to allow state partners involved in training Georgia's future workforce to hear directly from the private sector about industry needs (i.e., degrees/majors, certificates, courses, skill sets, etc.). Sector-focused meetings highlighted growing industries within the state and included film, television and interactive entertainment; information technology; defense; aerospace; health care; auto manufacturing; agriculture; logistics; and more — such as energy and financial services.[167]

Additionally, the High Demand Career Initiative highlighted the following overall trends in Georgia's workforce that need to be addressed:[168]

- An aging workforce leaving potential for large employment gaps
- The need for more apprenticeships, on-the-job trainings and internships
- The need for soft-skills training
- The need for STEM at an earlier age
- The shortage of local skills workers in the trade industries
- The need for productive partnerships with workforce development resources
- The need for a diverse workforce in STEM-related jobs

GaDOE, specifically the Division of Career, Technical and Agricultural Education, has taken the recommendations seriously and has been working with the business community and Georgia industries to meet the needs of a 21st century workforce. Georgia CTAE has two primary goals for 2016: 1) increase business and industry involvement with the CTAE pathways throughout Georgia, and 2) increase the visibility of CTAE pathway options and opportunities among parents and students.[169]

Several initiatives and partnerships are currently being undertaken to achieve those goals. One is a partnership with Harvard University's Jobs for the Future Pathways to Prosperity project. Pathways to Prosperity is focused on creating a seamless P-20 pathway for students from elementary school through college, vocational training, and into a successful career. In Georgia, 10 state agencies are working together to implement the vision of the Pathways program.[170] The work of the Pathways to Prosperity project will include the following:[171]

1. Increasing the level of communication and collaboration between local school systems and businesses in their communities,
2. Increasing the number of work-based learning programs,
3. Improving the level of exposure students have to industry and career options, and ensuring that they receive that exposure at an earlier age,
4. Analyzing state policies to ensure that they properly foster work, and
5. Aligning CTAE student opportunities and experiences with regional and state labor market needs.

Georgia should also monitor for best practices emerging out of the Carrollton/Carroll County Education Collaborative (CCEC). Consisting of leadership from both school districts, West Georgia Technical College, the University of West Georgia and representatives of the local chamber of commerce and the community, the CCEC has established a common vision for K-16 success. Introduced in late 2014, this regional effort is focusing on aligning curricula and postsecondary success through dual enrollments, postsecondary early readiness in the middle schools, and data sharing on student performance to inform programming and necessary interventions. The goal of this collaborative is for every student to identify and be supported in their own pathway to postsecondary success.

167 Georgia Department of Economic Development. (2014). *High Demand Career Initiative: Preparing Georgia's future workforce now.* Retrieved from http://www.georgia.org/competitive-advantages/workforce-division/programs-initiatives/high-demand-career-initiative-hdci/
168 Wall, B. (2015). Georgia CTAE. *ARC educated workforce committee meeting.* Atlanta: Georgia Department of Education.
169 Ibid.
170 GaDOE, Georgia Department of Economic Development, TCSG, USG, Office of Governor Nathan Deal, Office of Lieutenant Governor Casey Cagle, Georgia Department of Labor, GSFC, Georgia Department of Early Care and Learning, and the Governor's Office of Student Achievement.
171 Ibid.

Is Georgia ready to meet the demands of a 21st century workforce? GaDOE and other state and local agencies have been working hard so that the answer is an unqualified yes. But challenges remain. As Georgia implements the new MOWR program, it must be cognizant of any unintended consequences as more students take advantage of the new regulations regarding dual enrollment and graduation requirements.

The ERC recommendations will require funding and resources to support proper implementation if they are acted upon by the General Assembly and the governor. There has been no discussion about where those resources will come from or how much it would ultimately cost to fully implement the ERC's recommendations. As Georgia moves forward, stakeholders must continually align public and private budgets and initiatives with workforce development strategic plans. Georgia's future economy depends on it.

ISSUE 9: POSTSECONDARY EDUCATION: ACCESS AND SUCCESS

ISSUE OVERVIEW

College pays. Higher education graduates continue to be more likely to exceed their parents' family income and wealth no matter where they start on the economic spectrum.[172] Compared to workers without any postsecondary training, those with a postsecondary degree earn 80 percent more on average.[173] There has been a large decline in the number of low-skill jobs that require a high school education or less, and substantial growth in managerial and professional jobs requiring postsecondary degrees.[174]

Looking ahead, the importance of postsecondary success is continuing to increase. By 2020, more than 60 percent of all jobs will require training beyond high school. Individuals with a high school diploma will have fewer employment options, while individuals with postsecondary degrees will be in higher demand, earning more.

President Obama has championed the idea that America is capable of reducing inequality and growing the middle class by dramatically expanding access to postsecondary education and training. In 2015, the president announced his intent to make two years of college as free and universal as high school. The Senate's America's College Promise Act of 2015 bill fulfills the president's vision, proposing a $79.7 billion investment over the next 10 years to provide two free years of community and technical college tuition for first-time students.[175] This legislation comes at a time when the nation is facing increased tuition costs. Over the past three decades, the average tuition at a public four-year college has more than tripled, while a typical family's income has only modestly increased.[176] Student loan debt is second only to mortgages among all categories of household debt.[177]

The challenge does not stop at higher education access. The researchers at the Georgetown University Center on Education and the Workforce say it best in their "The Economy Goes to College" report:

> While expanding access to education, the two-tier nature of the postsecondary education system must also be addressed. Simply expanding access to postsecondary education won't be enough to combat inequality. Currently, the U.S. postsecondary system is deeply divided between a top tier of roughly 500 universities that provide enormous advantages to their graduates and the remainder of the schools that confer far fewer benefits to their students.

The report explains that top-tier schools spend two to five times more per student on instruction than other institutions. Stark differences between top-tier institutions and the rest can be seen in the graduation rates of minority students and in education and career outcomes.[178]

A clear pathway to success is not always readily available for all college students, as Figure 9.1 shows. Over the last 20 years, more than 31 million students have gone off to college but never earned a degree.[179] Many get lost in the process, slowed down by unclear expectations and obstacles, and have no clear pathway to graduation day.

172 Pew Charitable Trusts. (2012, July). *Pursuing the American dream: Economic mobility across generations.* (2012, July). Retrieved from http://www.pewtrusts.org/~/media/legacy/uploadedfiles/wwwpewtrustsorg/reports/economic_mobility/pursuingamericandreampdf.pdf

173 Carnevale, A. P., & Rose, S. J. (2011, June). *The undereducated American.* Washington, DC: Georgetown University Center on Education and the Workforce. Retrieved from https://cew.georgetown.edu/wp-content/uploads/2014/11/undereducatedamerican.pdf

174 Carnevale, A. P., & Rose, S. J. (2015). *The economy goes to college: The hidden promise of higher education in the post-industrial service economy.* Washington, DC: Georgetown University Center on Education and the Workforce. Retrieved from https://cew.georgetown.edu/wp-content/uploads/IO-Executive-Summary-web.pdf

175 Committee on Education and the Workforce Democrats. (2015). *America's College Promise Act of 2015.* Retrieved from http://democrats.edworkforce.house.gov/sites/democrats.edworkforce.house.gov/files/America%27s%20College%20Promise%20-%20Summary.pdf

176 College Board. (2015). *Trends in college pricing 2015.* Retrieved from http://trends.collegeboard.org/sites/default/files/trends-college-pricing-web-final-508-2.pdf

177 The Domestic Policy Council & Council of Economic Advisors, The White House. (2014, June). *Taking action: Higher education and student debt.* Retrieved from https://www.whitehouse.gov/sites/default/files/docs/student_debt_report_final.pdf

178 Carnevale, A. P., & Rose, S. J. (2015). *The economy goes to college: The hidden promise of higher education in the post-industrial service economy.* Washington, DC: Georgetown University Center on Education and the Workforce. Retrieved from https://cew.georgetown.edu/wp-content/uploads/IO-Executive-Summary-web.pdf

179 Complete College America. (2014). *Four-year myth: Make college more affordable.* Restore the promise of graduating on time. Retrieved from http://completecollege.org/wp-content/uploads/2014/11/4-Year-Myth.pdf

70% of community college students referred to remedial math had not even attempted a college-level math class within two years.

1 advisor is available for every 400 students on average. With dozens of majors to choose from and no clear direction, overwhelmed students make avoidable mistakes based on uninformed choices.

Too many students wander the course catalog, wasting too much time and money. On average, graduates accumulate:

Associate degrees:
81 credits instead of the customary 60

Bachelor's degrees:
134 credits when 120 is almost always sufficient

1.7 million students each year begin college in remediation, including more than 50 percent of two-year students.
1 in 10 remedial students graduate.

75% of students juggle school, family, and work. Unpredictable class schedules mean college takes longer than it should.

60% of bachelor's degree recipients change colleges — and nearly half of them lose some or all of their credits because of broken transfer policies.
$600 million is lost each year if just two courses per transfer student fail to transfer.

Most full-time students do not take the credits necessary to graduate on schedule (15 credits per semester or 30 credits per year), opting instead for lighter course loads that put them on the five- and six-year plans.
29% of students at two-year institutions are taking enough credits to graduate on time.
50% of students at four-year institutions are taking enough credits to graduate on time.

Many institutions have excessive degree requirements: more than 120 credits for a bachelor's degree, more than 60 credits for an associate degree, and more than 30 credits for a certificate.
$1.5 billion a year is the cost to Americans when bachelor's degree students go just three credits above what is needed for their degrees.

When needed courses aren't available, students take any courses they can to maintain financial aid eligibility.
20% of students at two-year institutions are taking enough credits to graduate on time.
33% of students at four-year institutions are taking enough credits to graduate on time.

As a result, higher education institutions across the nation are working on a reform movement to enhance counseling, structure academic pathways and better coordinate workforce connections.[181] Ensuring higher education access and success is vital to our economic development goals nationwide.

180 Ibid.
181 American Association of Community Colleges. (2015, July 8). *America's College Promise Act of 2015.* Retrieved from http://www.aacc.nche.edu/Advocacy/Pages/acpa2015.aspx

SIGNIFICANCE FOR GEORGIA

Access

Along with the nation, Georgia families have experienced the rising cost of higher education, limiting access among low-income students. The state's allocation for higher education funding to the Technical College System of Georgia (TCSG) and University System of Georgia (USG) has dropped dramatically over the last decade and has yet to return to pre-recession levels. For FY 2016, state funding per full-time student in the TCSG is about 13 percent below 2007 in inflation-adjusted dollars.[182] For the USG, state funding is a full 51 percent below 2001 in inflation-adjusted dollars.[183]

This reduction in state support has translated into increased tuition. Between 2008 and 2015, tuition has increased 65 percent at TCSG and 75 percent at USG institutions. As the median family income remains below pre-recession levels, these tuition increases come at a time when families are less able to absorb the costs.

Along with the increase in tuition, support from the state's longstanding merit-based HOPE Scholarship and HOPE Grant assistance programs has declined. To cut program costs, significant changes were implemented to the HOPE Scholarship and Grant programs in 2011 such that they now only cover a percentage of tuition and no mandatory fees. See Table 9.1.

| TABLE 9.1: HOPE AWARD PERCENT COVERAGE[184]		
	2011	**2016**
Research Universities	90.9%	63.0%
Comprehensive Universities	85.8%	63.8%
State Universities	88.1%	65.2%
State Colleges	84.9%	62.9%

To offset these changes, a growing number of students rely on loans to cover increasing college costs. Between 2008 and 2013, the percentage of students graduating from a postsecondary institution with a college loan increased from 55 percent to 61 percent.[185] The amount of debt incurred by students increased 47 percent during that time frame, from an average of $17,296 in 2008 to $24,517 in 2013.[186] In Georgia, more than 1.3 million students have outstanding federal student loans totaling nearly $40 million dollars. This is the ninth highest rate in the nation.[187]

Success

In 2011, Governor Deal launched Complete College Georgia (CCG), a statewide initiative to improve college completion and produce 250,000 more adult postsecondary credentials by 2025. The TCSG and USG have been central to carrying out the initiative.

Over the past five years, shortening time to degree, restructuring education delivery models and strengthening remedial courses have all played central roles in implementing the CCG plans across institutions of higher education. Georgia State University (GSU) is one example of the work being conducted. GSU has been using innovations in data and technology to implement an early warning system that identifies students who may be struggling and in danger of dropping out. Such systems allow academic advisors to focus their attention and resources on students who are the most in need of support services so that plans can be made to move toward degree completion. GSU's use of this system has contributed to increased graduation rates for students overall and for specific minority and economically disadvantaged students. Figure 9.2 illustrates some of these successes.

FIGURE 9.2: GRADUATION RATE INCREASES AT GEORGIA STATE UNIVERSITY[188]
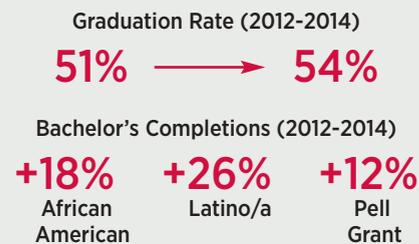
Graduation Rate (2012-2014)

51% ⟶ 54%

Bachelor's Completions (2012-2014)

+18% African American   +26% Latino/a   +12% Pell Grant

182 Georgia Budget and Policy Institute. (2015). *Georgia budget primer 2016.* Retrieved from http://gbpi.org/wp-content/uploads/2015/08/Georgia-Budget-Primer-2016.pdf
183 Ibid.
184 Ibid.
185 Ibid.
186 Ibid.
187 The Domestic Policy Council & Council of Economic Advisors, The White House. (2014). *Taking action: Higher education and student debt.* Washington, DC.
188 EAB. (2015). GSU's top 10 tips for successful implementation. *President's Summit 2015 Symposium, Complete College Georgia.* Retrieved from http://www.completegeorgia.org/node/4329

The University System of Georgia has made the findings from GSU — specifically the change management, communication and leadership tactics — a priority for other institutions. Sharing lessons learned is a focus of the second half of Complete College Georgia. For example, 12 USG institutions are participating in a data- and strategy-sharing initiative, the Student Success Collaborative (SSC). Retention supports at SSC institutions were analyzed at a recent USG 2015 CCG conference. The analysis showed that current retention practices are concentrated early and late in the careers of college students. Yet about 25 percent of dropouts occur between a students' second and sixth year (the "murky middle") nationally. The opportunity could be even bigger in Georgia, where 36 percent of SSC dropouts occur in the murky middle years.[189] The SSC institutions are exploring new ways to target students during those years by expanding the use of early warning systems similar to the one used at GSU.

To implement this expanded focus, the SSC shared a holistic, four-pronged risk assessment strategy with USG institutions:

1. Identify historical patterns of student attrition,
2. Create an initial risk profile based on pre-enrollment data,
3. Calibrate risk based on first week "to-dos," and
4. Provide advisors with an intervention strategy for each cohort.

This suggested new approach is highlighted in Figure 9.3.

FIGURE 9.3: NEW APPROACH TO STUDENT SUCCESS[190]

OLD APPROACH	NEW APPROACH
Target resource intensive support services and staff to highest risk students	Recognize "murky" middle students as attrition risks with opportunity for improvement
Focus efforts and programs on first year students to boost retention	Address sophomore and upper division attrition and emphasize persistence to graduation
Monitor academic progress to identify students at risk of probation	Apply a holistic risk model with academic and non-academic factors to identify students at risk of withdrawal

CCG incorporates another less traditional approach to meeting its 2025 goal — students are being drawn from older, more diverse populations further removed from secondary completion.[191] In order for CCG to reach its goal of 250,000 new postsecondary graduates, a significant portion (60,000–90,000) will have to be former students returning to campus. Governor Deal launched the "Go Back. Move Ahead." initiative in 2014, re-engaging and supporting former students in higher education completion.

One impediment to the CCG goal of re-engaging adult learners is the fact that Georgia has the ninth highest rate of adults in the United States without a high school diploma or GED between the ages of 18 and 64.[192] Nearly 14 percent of Georgians in this age group must overcome the high school completion hurdle before they can help the state meet its college completion goals.[193] To address this issue, Georgia has just completed the work of a $1.25 million three-year grant from Jobs for the Future to implement Accelerating Opportunity. This work focused on redesigning adult education to align traditional adult basic education programs, GED programs and other developmental programs that provide supports for nontraditional students and allow more low-income adults to complete high school and earn a postsecondary credential.

The TCSG contributed an additional $785,600 to the effort to keep the program funded in 2014 and 2015. This initiative builds on the best thinking in adult education by allowing such students to secure both a college credential and their GED in under one year. By October 2014, 678 students were participating in the program, and by February 2015, students had secured 685 credentials in a range of fields, including welding, nursing and aviation. Funding for this program expired on June 30, 2015.

189 EAB. (2015). A new perspective on student success. *President's Summit 2015 Symposium, Complete College Georgia.* Retrieved from http://www.completegeorgia.org/sites/default/files/resources/USG_EPV_Final.pdf
190 bid.
191 Pingel, S., & Sponsler, B. A. (2015, April). *Redesigning state financial aid: Principles to guide state aid policymaking.* Denver, CO: Education Commission of the States. Retrieved from http://www.ecs.org/clearinghouse/01/18/28/11828.pdf
192 Johnson, M. (2015, August). *Improved adult education support critical to Georgia's bottom line.* Retrieved from Georgia Budget and Policy Institute: http://gbpi.org/wp-content/uploads/2015/08/Improved-Adult-Education-Support-Critical-to-Georgia%E2%80%99s-Bottom-Line.pdf
193 Ibid.

Since the CCG program began, the number of degrees we are producing as a state has been on the rise. Over the past five years, Georgia has seen a nearly 45 percent increase in the number of one- and two-year certificates earned, and over a 25 percent increase in four-year degrees. See Figure 9.4. Georgia is continuing to look for new and innovative ways to increase efficiency to degree completion and support struggling and nontraditional students in gaining the credentials they need to productively engage in the workforce.

FIGURE 9.4:[194] DEGREES CONFERRED IN GEORGIA

% change in number of degrees produced over last five years	1- to 2-year certificates	**44.9%**
	2-year associates	**36.5%**
	4-year bachelor's degrees	**26.6%**
Average annual % change in number of degrees produced	1- to 2-year certificates	**9.0%**
	2-year associates	**7.3%**
	4-year bachelor's degrees	**5.3%**
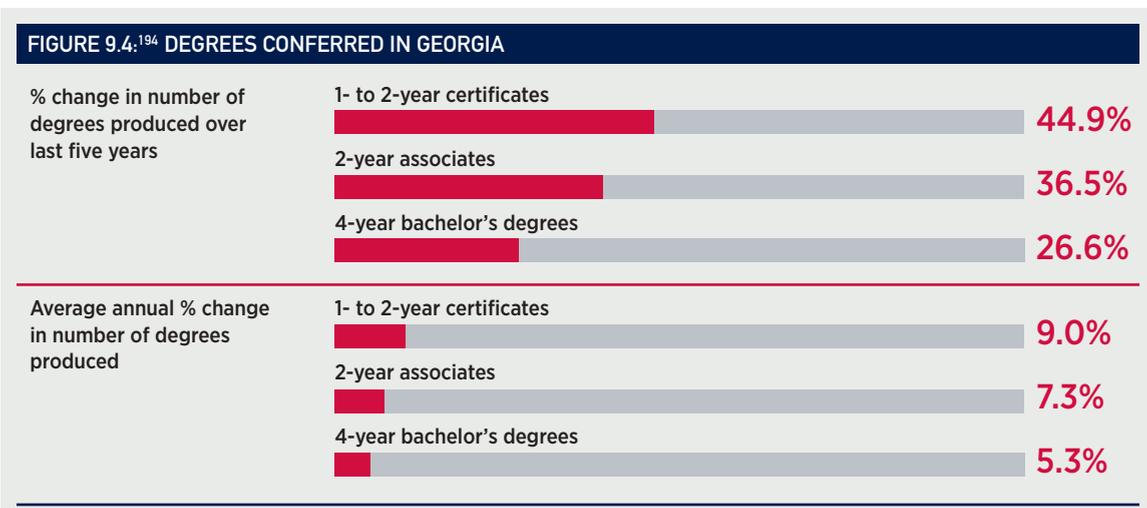
ACTION STEPS FOR GEORGIA

Educated workers are needed to support Georgia's increasingly skill-driven economy and meet the state's economic development goals.[195] Nationwide, leaders are re-examining student needs and what it takes to promote not only higher education access but also to ensure completion and workforce ready success.

Postsecondary access, especially for low-income students, continues to be a challenge in Georgia. With the reduction in the HOPE Scholarship and HOPE Grant, obtaining access to higher education in Georgia amid strained financial resources is a barrier many low-income students cannot overcome.

Universal access through legislation like the bill set forth in the U.S. Congress would drastically increase the financial feasibility of higher education for students throughout the state. Statewide access could also be promoted through state-allocated need-based aid — Georgia is one of only two states without a statewide need-based aid program (the other state is New Hampshire).[196]

Both the HOPE Scholarship and HOPE Grant are merit-based programs, and the HOPE Scholarship in particular is becoming increasingly so, restricting further program access. To be eligible, 2015 high school graduates must have completed two advanced classes in addition to meeting the 3.0 GPA requirement. The advanced class requirement will increase to three in 2016 and four in 2017.[197] This will result in extremely limited state aid programs for low-income students who are not top academic performers.

194 Complete College America. (2015). *Game changer state data.* Retrieved from http://completecollege.org/state-data-loader/?state=Georgia&code=ga
195 Carnevale, A. P., & Rose, S. J. (2015). *The economy goes to college: The hidden promise of higher education in the post-industrial service economy.* Washington, DC: Georgetown University Center on Education and the Workforce. Retrieved from https://cew.georgetown.edu/wp-content/uploads/IO-Executive-Summary-web.pdf
196 Inside Higher Ed. (2015, October 5). *States grow need-based aid.* Retrieved from https://www.insidehighered.com/news/2015/10/05/financial-need-aid-priority-most-states
197 Georgia Budget and Policy Institute. (2015). *Georgia budget primer 2016.* Retrieved from http://gbpi.org/wp-content/uploads/2015/08/Georgia-Budget-Primer-2016.pdf

To encourage success in higher education, Georgia's TCSG and USG leaders have promised to focus on "high-impact strategies" that will help meet the state's goal of increasing college completion by 2025.[198] To accomplish this, in addition to the continued implementation of the CCG plans, USG institutions are converging on five strategies:

1. Holding regional meetings to network institutions in developing and implementing high-impact strategies,
2. Increasing faculty engagement and involvement in CCG work,
3. Ensuring all institutions can obtain the data necessary to use predictive analytics to inform strategic planning and measurement of outcomes,
4. Devising effective strategies to comprehensively address student need, especially in the area of strong advising, and
5. Streamlining the process for CCG status reports.[199]

Another key strategic opportunity can be found in adult education and the continuation of the TCSG's Accelerating Opportunity initiative. As an example of a program that streamlines longstanding challenges into proven results, Accelerating Opportunity is exactly the type of strategy Georgia should leverage and grow. This program integrates academic preparation with increased support that allows adult students to enroll in college while simultaneouly earning a high school credential. Programs like this boost the rigor of adult education and GED-to-college bridge programs. Accelerating Opportunity also mirrors the Move on When Ready dual-enrollment programs offered to traditional high school students, a priority of Governor Deal's Education Reform Commission.

It will take both increased higher education access and success to get Georgia to its statewide economic growth goals. On the way to 2025, the foundation toward successful completion is being laid. There have been both signs of promise and major challenges, especially in terms of resources for low-income students and adult learners. Accomplishing the goal of producing 250,000 more adult postsecondary credentials by 2025 will rely on Georgia's ability to leverage innovation and provide a clear pathway to postsecondary success for all students.

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198 Board of Regents of the University System of Georgia and Technical College System of Georgia. (2014, December 1). *Complete College Georgia progress report 2014.* Retrieved from http://teched.tcsg.edu/all_forms/complete_college_georgia/ccg_tcsg_improveplans_2014.pdf
199 Complete College Georgia, the University System of Georgia. (2015). *Complete College Georgia Forum 2015.* Retrieved from http://www.completegeorgia.org/content/complete-college-georgia-forum-2015

ISSUE 10: FUTURE OF EDUCATION IN GEORGIA: WHERE ARE WE GOING?

ISSUE OVERVIEW

The 21st century economy has been described as highly complex, global and technologically driven. To be competitive in the workforce, all students graduating from high school must be ready for the rigors of postsecondary education if they are to be successful in the 21st century global economy. How young people engage and use technology is also changing. A national survey reported that 34 percent of teenagers own their own tablet computer, and 86 percent of teenagers report that they will purchase a smart phone for their next device.[200]

To keep students engaged, educators are infusing technology into course curricula to make the learning experience more rigorous, relevant and personalized to the students, their learning goals and their individual needs. This shift in learning styles among students and increasing demands of the labor market have led to a change in how instruction is being delivered in classrooms.

Classroom practices have historically been grounded in teacher-driven instruction. However, many educators are now implementing a student-focused approach that has been described as personalized learning, learning centered, or student driven. Regardless of the name, these approaches all have specific elements in common that support rigorous college and career expectations.[201]

> *Personalized learning* – data-driven frameworks that set goals, assess progress and ensure students receive the academic and development supports they need

> *Performance-based learning* (also called competency-based education) – allows students to demonstrate mastery of skills based on high, clear and commonly shared expectations

> *Anytime, anywhere opportunities* – flexible and constructive learning environments beyond the boundaries of a classroom or traditional school schedules

This shift away from a teacher-as-lecturer to a personalized learning culture has been shaped by technology, leading to the creation of e-learning systems that seek to manage and engage the needs of all students. Through online classes, schools, and blended learning models, resources and learning opportunities are now available to students outside the traditional classroom.

As Georgia and the rest of the nation moves forward into the technology-driven world of the 21st century, it is important that we take the time to understand how technology is impacting these changes, how it is being used in the classrooms and whether it is delivering on the promise of better prepared students who are ready for the rigors of the global, complex economy.

SIGNIFICANCE FOR GEORGIA

When thinking about incorporating technology into the classrooms, it is useful to consider two primary questions: 1) what function will the technology have, and 2) how does the school system guarantee access to that technology in a cost-effective way?

In terms of functionality, Georgia is focusing resources to increase digital learning to alter how instruction is delivered. The Georgia Department of Education (GaDOE), along with many local school districts, has multiple virtual learning programs that are designed to move students through the educational system at their own pace. These programs provide course flexibility and access, thereby cutting down on seat time for accelerated students and allowing extra time for students who need it.

200 Education Week. (2013, March 14). *K-12 technology usage infographic.* Retrieved from EdWeek: http://www.edweek.org/ew/tc/2013/25infographic.h32.html?print=1
201 See Martinez, A., & Poon, J. D. (2015). *Innovation in action: State pathways for advancing student-centered learning.* Washington, DC: Council of Chief State School Officers; Wolf, M. A. (2012). Culture shift: Teaching in a learner-centered environment powered by digital learning. Washington, DC: Alliance for Excellent Education.

The Georgia Virtual School (GAVS), operated by GaDOE, is fully accredited and works in partnership with parents and schools to offer courses across the state through a teacher-led virtual classroom environment. The GAVS offers a full high school curriculum as well as Advanced Placement (AP) courses and a limited number of middle school courses. The school offers more than 100 courses per year, serves over 30,000 students during the school year, and provides online courses to more than 150 school districts.[202] The goal of the GAVS is to supplement regular public, private and home school course offerings for students.

Georgia also has three statewide fully online schools: Georgia Connections Academy (K-12), Georgia Cyber Academy (K-12) and Provost Academy (9-12). Together, these schools enrolled more than 18,000 students for the 2013-2014 school year, a 34 percent increase over the previous year.[203]

Local school districts are also offering fully online course options. The Gwinnett County Online Campus served 350 fully online students in 2013-2014 and an additional 5,000 supplemental enrollments. Cobb Virtual School served nearly 3,000 students during that same time. Forsyth County's iAchieve Virtual Academy offers fully online programs for county residents, and Twiggs County Virtual School is a fully online school that serves students across nine districts. Fulton, DeKalb and Henry counties are also implementing online classes and programs for their students.[204]

The results of these online programs are mixed. Students taking GAVS classes tend to score higher on state end-of-course assessments than students who take the course in a classroom. See Figure 10.1.

FIGURE 10.1: END-OF-COURSE PASS RATES

Spring 2014 EOCT Pass Rates
■ State   ■ GAVS
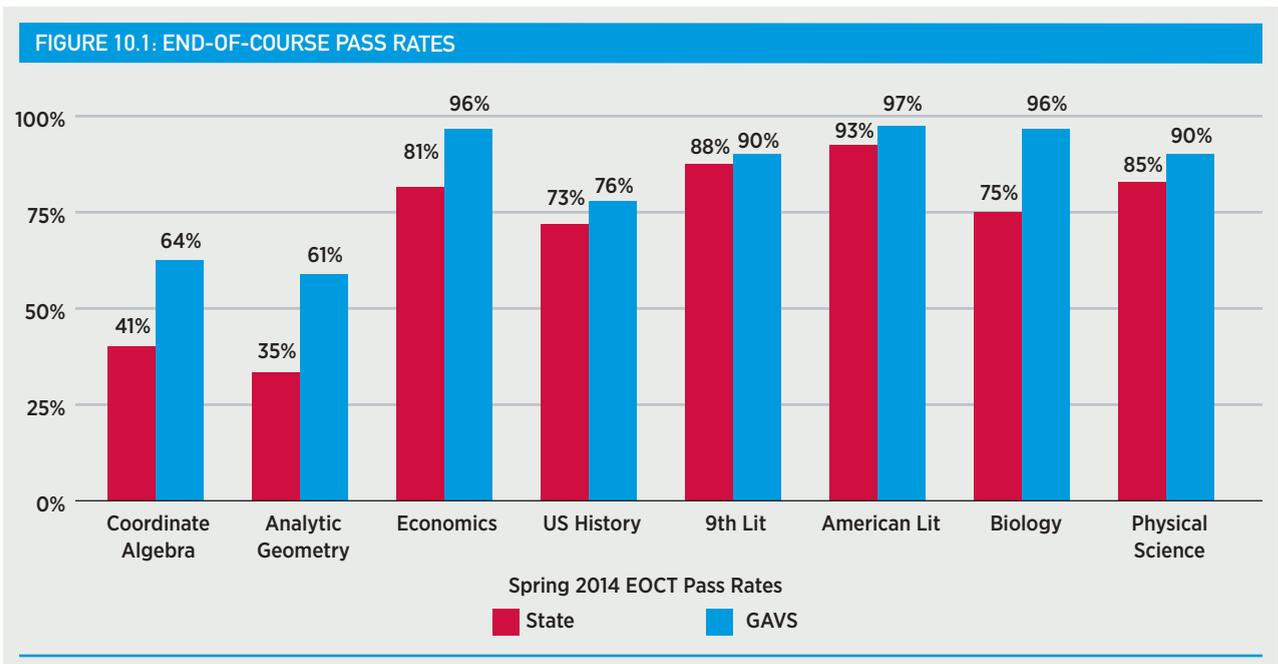
However, in terms of accountability, the statewide online charter schools score below the state averages on the College and Career Ready Performance Index (CCRPI), as Table 10.1 shows.

TABLE 10.1: 2014 CCRPI SCORES[205]

	Elementary	Middle	High
Georgia Cyber Academy	59.1	69.0	47.4
Georgia Connections Academy	61.1	65.6	51.3
Provost Academy	N/A	N/A	33.2
State Average	72.7	73.8	68.4

202 http://www.gavirtualschool.org/
203 Keeping Pace with Digital Learning. (2015). *Georgia digital learning snapshot.* Retrieved from Keeping Pace 2014: http://www.kpk12.com/
204 Ibid.
205 State Charter Schools Commission of Georgia. (2015, April). *2014 academic accountability update.* Retrieved from State Charter School Commission: http://scsc.georgia.gov/sites/scsc.georgia.gov/files/related_files/site_page/2013-2014%20SCSC%20ACCOUNTABILITY%20BRIEFING_FINAL_0.pdf

These outcomes may be mixed for a variety of reasons. One is that the type of student that would enroll in a single online class through GAVS may typically be a more high-achieving, motivated student seeking additional course work beyond what the local system can offer. On the other hand, fully online schools may offer learning options for students that typically struggle in a traditional learning environment. Thus, issues of quality and implementation need to be closely evaluated as these programs expand and offer more learning options and environments for Georgia's students.

Virtual classes (or online courses) are not the only innovative content delivery option that is being used in Georgia, or nationwide. Increasingly more common is blended learning, which brings digital resources into the physical classroom. In this model, students continue to receive in-class instruction from their teachers and continue to participate in other traditional classroom activities. However, the learning is supplemented by online activities, some of which can be self-directed and self-paced, while others promote student collaboration. Research has shown that this combination of traditional classroom instruction and the digital environment has the potential to create a highly personalized and productive learning environment that may lead to better outcomes.[206]

One of the most prominent of the blended learning models in Georgia has been the Direct to Discovery Program, which is a partnership between Barrow County Schools and the Georgia Institute of Technology (Georgia Tech). Direct to Discovery was funded under Georgia's Innovation Fund, which was a part of the state's Race to the Top program.

Direct to Discovery uses a high technology framework to bring science, technology, engineering and math (STEM) content to students in Barrow County. A primary aspect of the program is long-term collaborations between Barrow County middle and high school teachers and leading scientists, many from Georgia Tech. The teams design the interactive lessons, which are then led by the scientists from their college or laboratory sites and broadcast through 55-inch monitors in the classrooms. The lessons can be conducted in multiple classrooms concurrently, allowing exposure in up to 25 science and math courses across the county's middle and high schools.

Evaluations from the Governor's Office of Student Achievement found Direct to Discovery to be a success. The program served 1,353 students during the 2013-2014 school year. Participants performed well on the end-of-course test for physical science, a course that utilized the program. Ninety-five percent achieved scores of Meets or Exceeds Expectations, with 55 percent scoring in the Exceeds range. Below the high school level, 8th graders at demonstrated strong results on the state's end-of-grade assessment, with an 84 percent Meets/Exceeds rate for math and a 78 percent Meets/Exceeds rate for science.[207]

Georgia is continuing the Innovation Fund programs and has invested $5 million for FY 2015. For the 2015 grant cycle, all 12 Innovation Fund recipients are addressing an area of blended learning and/ or applied learning, primarily to support the expansion of STEM learnings.[208]

Outside of the work being supported by the Innovation Fund, Forsyth County Schools has been leading the state, and the nation, in technology use within schools. Its flagship program is Bring Your Own Technology (BYOT), which encourages students to bring their personal technology tools to school for learning.[209] As students utilize their own devices (laptop computers, tablets, e-readers, netbooks, Internet-capable gaming devices, cell phones, etc.) in school, they are encouraged to collaborate and interact with their teachers and each other to research information, solve complex problems, create original products and publish their work.

All Forsyth County schools are involved in the BYOT program, and an average of 46 percent of classrooms are fully engaged, regularly using BYOT.[210]

206 schoolwires. (2012). *Blending the best of online and face-to-face learning to improve student outcomes.* Retrieved from www.schoolwires.com.
207 Wilkerson, B. (2014). *The Race to the Top Innovation Fund report: A look at 19 trailblazers in Georgia education.* Atlanta, GA: Governor's Office of Student Achievement.
208 For a list of award winners, see: https://gosa.georgia.gov/awards-granted.
209 For more information about Forsyth County's BYOT, see http://www.forsyth.k12.ga.us/byot.
210 Forsyth County Schools. (2015). *Frequently asked questions.* Retrieved from http://www.forsyth.k12.ga.us/byot

This project-based learning approach promotes increased differentiation, collaboration and a focus on inquiry of results — elements necessary to instill critical thinking skills in students. Substantial professional development for educators and continued support from school and district leaders has been necessary. The district also supports additional staffing by providing a school-based instructional technology specialist and media specialist in every school to model instruction with teachers and develop new instructional skills and strategies to keep up with the evolving technology options.

These new models of content delivery lead directly to question two: How does the system guarantee access to that technology in a cost-effective way? The answer for Georgia is in its educational data system known as the Path to Personalized Learning, which is designed to enhance the state's ability to effectively manage, use and analyze education data to support instruction. Ultimately, the vision for 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 began developing a student longitudinal data system (SLDS) in the mid-2000s. A unique identifier has been given to each student enrolled in Pre-K–12 with the goal of improving instruction by delivering longitudinal student data and analysis to assist teachers in the differentiation for students (i.e., individualized instruction based on student skill level).

The SLDS is only a small portion of — and the foundation for — the Path to Personalized Learning now being implemented in Georgia. When fully operational, this system 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 Georgia Standards of Excellence, delivering these data to the desktop of every Georgia teacher.

Parents also have access to the same online resources as teachers to help their children with specific content standards by linking to electronic resources that can support the student at home. For teachers, the Path to Personalized Learning data system can be used to help measure their own effectiveness. Teachers and school leaders can also use it to target professional development needs based on teacher evaluations and student growth in the classroom over time.

During 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.[211] Georgia has reached roughly 95,000 of the state's 110,000 teachers with training on the SLDS.[212] 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.[213]

The final area of accessibility and infrastructure is an ongoing challenge for Georgia. The State Educational Technology Directors Association conducted a study assessing the bandwidth needed to fully support a SLDS similar to Georgia's. The study concluded that schools should have a minimum of 100 Mbps per 1,000 students by 2014–2015.[214] By 2017–2018, schools will need 1 Gbps per 1,000 students. The Georgia legislature approved funding for the PeachNet Project to 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 for individual schools, classrooms and students.

This could be a difficult burden for districts. To support the expansion of their BYOT program, Forsyth county voters approved special purpose funding in 2007 and a second bond referendum in 2014 to support the infrastructure upgrades necessary. Currently, the district's total bandwidth is 2.5 GB, which is not sufficient to support the increased traffic of covering all schools. Moreover, this level of connectivity does not provide the signal strength in some areas of the county that the BYOT handheld devices require.[215] 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.

211 U.S. Department of Education. (2014). *Georgia progress report: Spring Year 4.* Washington, DC: Author.
212 Ibid.
213 Georgia Department of Education. (2014). *Race to the Top progress update: June 2014 monthly call* [Section (E)]. Atlanta, GA.
214 Fox, C., Waters, J., Fletcher, G., & Levin, D. (2012). *The broadband imperative: Recommendations to address K–12 education infrastructure needs.* Washington, DC: State Educational Technology Directors Association.
215 Ibid.

ACTION STEPS FOR GEORGIA

Simply providing devices to students and making technology available does not impact student learning. The challenge for states and districts is to identify digitally driven, innovative practices that work and then be able to scale them up. As Georgia moves aggressively forward in the use of technology to enhance student learning, it is important to learn from other states and districts within Georgia about their experiences using technology.

In the fall of 2013, districts across the country were implementing ambitious 1-to-1 computing initiatives, where every student receives a laptop or tablet, to expand the use of digital curricula and transform learning. Los Angeles Unified School District halted the first phase of a plan to provide iPads to all 651,000 students over readiness and price issues. In North Carolina, Guilford County recalled thousands of tablets due to hardware problems. The Fort Bend Independent School District in Texas abandoned a plan to deliver interactive science curricula via iPads after 19 months of problems, including poor wireless coverage and digital lessons that did not align to standards.[216]

These costly mistakes were due to a lack of clarity of purpose and not understanding the costs and infrastructure needs of the plans. Many districts try to do too much too fast, which can tax their ability to provide the needed resources to support a district-wide roll-out of a new technology program.[217]

To contain costs, many districts have turned to BYOT programs like Forsyth County's. BYOT has proven to be a more cost-effective and flexible option than the 1-to-1 computing goals to expand the use of digital curricula. However, there are challenges with BYOT as well. The professional development required to effectively implement the program is substantial. Not only is it a cultural shift for the role of the educator, but also the logistics of incorporating a variety of devices of differing capabilities within one classroom or project can be daunting for any educator.[218]

In addition to the lessons learned from Forsyth's experiences with BYOT, Georgia can also learn from Hall County. That school district has also implemented the BYOT program and has a significantly higher percentage of low-income students than Forsyth. Nearly 60 percent of students are low-income and only about half of the students own a device they can bring to school.[219] To make up for this device gap, Hall County Schools have worked to make computing devices available for check-out on the school campus, loaning them out for home use and encouraging teachers to allow students to choose between completing the work online or on paper. As a district outside of the metropolitan area, Hall also has problems with Internet connectivity, especially outside the school building. Hall County Schools support a discounted Internet service and circulate information about free Wi-Fi locations throughout the district.[220]

Overall, when looking for best practices to follow, there continues to be little consensus about which aspects of blended learning and classroom technology will increase student outcomes. A main problem is that blended learning and technology uses look significantly different, not only between districts but between schools and classrooms. What researchers do know is that the success of digital learning in the classroom does depend on two primary elements: 1) how it is being implemented, and 2) how well are teachers being trained.[221]

A full understanding of the use and focus of digital learning must be shared by all. Districts must be clear about whether the specific program and use is targeted to supplement advanced learners, provide remediation for struggling students, or is infused in regular education classes for all students. The answer to that question would impact the necessary professional development for educators.

Finally, the use of technology and digital learning does not only impact how and when students receive the material. Technology has a large role to play as educators and policymakers search for new ways to translate rigorous standards of learning into actual skills. One such approach is competency-based education, which moves away from seat time (credit-hour measurements of courses/ classes completed) to content mastery. Once students can demonstrate mastery of course content, they can gain credit for that course and move to the next level of learning. New Hampshire, Iowa and Ohio have all recently established competency-based education systems.[222]

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216 Herman, M. (2015, June 11). Districts learn lessons on 1-to-1 from others' missteps. *Education Week.*
217 Ibid.
218 Ibid.
219 Cavanagh, T. (2015, June 11). Districts turn "BYOT" disorder to their advantage. *Education Week.*
220 Ibid.
221 Sparks, S. D. (2015, April 13). Blended learning research yields limited results. *Education Week.*
222 Wolk, R. A. (2015, March 18). Competency-based education is working. *Education Week.*

Governor Deal's Education Reform Commission recommends that Georgia also move to a competency-based system. The Move on When Ready subcommittee presented two primary recommendations to support this reform.

1) Begin transition to a competency-based education system — Develop a pilot program of competency-based education, incorporate the model as a priority in Georgia's Innovation Fund, and explore possibilities of integration into various school governance models.

2) Increase the opportunity for advancement or remediation through flexible Georgia Milestones testing — Develop a flexible assessment window allowing testing every nine weeks to maximize instructional effectiveness.

The implementation of such a system requires significant uses of technology, especially in the area of assessments to closely monitor student progress and gauge mastery. For the 2014-2015 school year, approximately 30 percent of students in grades three through eight took the end-of-grade assessment online. Over 70 percent of high school students took their end-of-course assessments online.[223] GaDOE has a goal of 100 percent online test administration over the next five years.[224]

In a 2013 article, Rick Hess of the American Enterprise Institute described implementation of education policy as the "missing half of school reform," as stakeholders, officials and advocates show less interest in implementing existing reforms than in tackling new initiatives.[225] As new ideas and initiatives come into fashion, existing efforts often are left only partially implemented or not supported in the classroom as resources are diverted to new projects.

To undertake new and innovative ways to improve teaching and learning and incorporate technology into an overall strategic plan for education, Georgia must have positive and effective leadership at both the state and local levels. These leaders must have the vision for the evolution and integration of technology. They must understand how to implement new programs and technology with fidelity and allow enough time for reforms to take hold and show impact. New projects cannot distract leaders and allow Georgia to fall victim to the "missing half of school reform." They will need to understand and support the long-term investments in the professional development, hardware and infrastructure required to ensure that Georgia's students will receive the 21st century quality education that they deserve and that our state economy desperately needs.

Georgia has long been viewed as a national leader in incorporating technology into its reform agenda. However, simply making the resources available will not be enough. Education professionals at every level must be engaged in using technology and committed to the education paradigm shift that technology represents.

223 Fincher, M. (2015). Georgia Milestones Assessment System. *2015 Fall Assessment Conference.* Atlanta, GA: Georgia Department of Education.
224 Ibid.
225 Policy Innovators Network. (2014). *2014 PIE Network implementation case study.* Minneapolis, MN.

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