Georgia Annual State IT Report FY 2019

Georgia Annual State Information Technology Report
FY 2019

Table of Contents

From the State Chief Information Officer

Technology professionals throughout state government have worked tirelessly over the years to position Georgia as a national leader. Our successes have established Georgia as a model for other states in using technology to make government more accessible, responsive, accountable, and secure. Maintaining our leadership position requires us to keep a steady eye on the future, and considering the pace of technological change, it's a challenging task. The Annual State IT Report looks back at the significant activities and accomplishments of the past year that are strengthening the platform on which we are building the future. Everything we did yesterday and everything we do today prepares us for tomorrow, and this report offers one example after another.

One top priority is Governor Kemp's strategic goal to streamline government and make it easier for individuals and businesses to access the information and services they need, and technology is playing a critical role in achieving his goal. Georgia GovHub launched in April 2019 as an enhanced digital platform for state agencies to use in creating a consistent online experience for citizens.

Ensuring the integrity of state information systems is critical to protecting citizens' private information, and Governor Kemp's executive order requiring cybersecurity training for all state workers in the executive branch is the latest in a series of actions undertaken to counter threats from cyber criminals. Ongoing cybersecurity training is helping workers sharpen their skills and test their ability to spot malicious links and email attachments, common tactics among cyber criminals attempting ransomware and phishing attacks. Cyber Dawg – a three-day, multi-agency security exercise – gives IT professionals a chance to practice their skills in real-world type scenarios.

Strengthening rural Georgia is another of Governor Kemp's strategic goals, and technology is again playing an important role. In today's world, high-speed internet access is essential to a community's economic growth and the quality of life of its residents, but too many rural areas in Georgia lack broadband. Considerable progress was made last year in identifying areas of the state without broadband access and planning future steps to close the technology gap between urban and rural areas.

Georgia provides technology services to state agencies through a partnership with leading private-sector companies. The partnership makes it possible for state agencies to quickly and easily access proven technologies that greatly enhance their operations, such as the rapid provisioning of cloud-based services. At the same time, the partnership is credited with saving the state $379 million over 10 years, more than twice the original estimate. These savings have made it possible for us to afford additional services, most notably advanced cybersecurity protections.

I encourage you to look through this report and spend a few minutes learning more about those accomplishments and activities you find most relevant to your interests. The report is carefully structured and thoughtfully written to serve as an ongoing resource for you. Any feedback you'd like to provide would be sincerely appreciated.

Calvin Rhodes

Purpose

When the Georgia Technology Authority (GTA) was created in 2000, the General Assembly charged GTA with compiling information from state agencies about their IT expenditures and presenting a report to state leaders every year. This charge was placed in state law (see O.C.G.A. 50-25-7.10). With comprehensive and accurate information, state leaders can make facts-based decisions about the allocation of limited state resources to support technology.

The Georgia Annual State Information Technology Report conveys the current state of technology in Georgia state government as assessed by the State Chief Information Officer (State CIO)

The report represents information technology for the state's executive branch agencies only, i.e., those reporting to the Governor. It does not include information regarding information technology matters in the legislative branch, judicial branch, statewide constitutionally elected officeholders, or the University System of Georgia. Data used to create the report comes directly from executive branch agencies and enterprise systems of record. The data is compiled by GTA and reflect the efforts of the State CIO to improve the use of technology in supporting state government operations. The report contains the following major sections:

- Executive Summary
- Cybersecurity
- Information Technology Vision and Strategy
- Georgia's Approach to Rural Broadband
- Information Technology Investment Management
- Technology Services
- Digital Services Georgia
- Georgia's Information Technology Excellence
- Appendix

Executive Summary

During FY 2019, the state of Georgia continued to strengthen and expand the technology services state agencies rely on to provide information and services to their constituents.

Cybersecurity is a top technology concern for Georgia, and the state uses a multi-faceted approach to protecting sensitive citizen data and the IT enterprise. The **Cybersecurity** section on page 15 outlines numerous activities that allows the state to deal with these threats.

The first line of cybersecurity defense in any organization, according to many experts, is the workforce. Accordingly, Governor Kemp issued an executive order in August 2019 mandating **cybersecurity training** for all state workers in executive branch agencies. Under the oversight of the State Government Systems Cybersecurity Board, the Georgia Technology Authority (GTA) offers an enterprise training solution provided at no charge to executive branch agencies.

Cybersecurity training is among several new **managed security services** available to state agencies. Among the services are a Security Operations Center (SOC), Security Information and Event Management (SIEM), Vulnerability Management System (VMS), and Enterprise Governance, Risk, and Compliance (EGRC) services.

The Enterprise Cybersecurity Risk Register provides state agencies with a common framework for categorizing and responding to cybersecurity risks. State agencies rate their information systems as having a high, medium, or low impact, depending on the worst-case potential outcome of a cybersecurity incident. Ongoing **IT security assessments** help to determine the state's overall cybersecurity risk posture.

The Georgia Cyber Center continues to support Georgia's cybersecurity efforts. With two adjacent buildings totaling 332,000 square feet, the $100 million Cyber Center represents the single largest state government investment in a cybersecurity facility in the nation to date.

Updated in 2019, the **Georgia Enterprise IT Strategic Plan 2025** captures Georgia's vision for its use of technology. The plan aims to assist Georgia government leaders in making informed technology decisions for their agencies. It establishes IT focus areas and goals and sets the technology direction for the state's IT enterprise. More information can be found in the **Information Technology Vision and Strategy** section on page 19.

The Achieving Connectivity Everywhere (ACE) Act (SB 402), passed by the Georgia General Assembly in 2018, calls for promoting and deploying **broadband services** to unserved areas throughout the state. Considerable progress has been made since the legislation's passage. Most notably, the Georgia Department of Community Affairs (DCA) is developing a statewide map of over 5 million residential and business locations to determine the unserved locations and designate served and unserved census blocks. More information can be found in **Georgia's Approach to Rural Broadband** on page 25.

Tracking IT expenditures is one of GTA's statutory responsibilities. In FY 2019, agencies reported spending $752 million on IT infrastructure services, network services, application development and support, and related activities. The **IT Investment Management** section on page 27 looks at these expenditures and the various ways in which the state manages its

technology investments. Information on spending can also be found in the Appendix on page 45.

Since 2009, GTA has offered technology services through a **public-private partnership**. Using this somewhat unique approach, GTA provides a full range of managed network services and IT infrastructure services to 14 executive branch agencies, as well as a-la-carte services to many other agencies. Now in its 10th year, the partnership continues to meet its original goals of consolidating IT infrastructure; securing state data and systems; and ensuring a modern, reliable, and recoverable operating environment. Further, it has delivered **10-year savings of $379 million**, more than double the original estimate. The **Technology Services** section on page 35 includes information about the program. The section also describes the GTA Direct program, which offers Georgia agencies, local governments, colleges and universities, and boards of education quick access to a range of IT services from pre-qualified service providers.

The **Digital Services Georgia** section on page 39 describes the April 2019 launch of **GovHub**, a digital platform for state agencies to use in creating a consistent online experience for citizens. As the state's official web-publishing platform, GovHub aligns with the state's digital compliance policy for ensuring accessibility for people with a range of disabilities affecting vision, hearing, mobility, and cognition; adhering to best practices and standards; and serving as a single source of consistent and accurate information across all of the state's various communication channels.

The state of Georgia has taken bold steps to modernize its IT enterprise over the past decade. In doing so, it has earned a **national reputation as a leader among states** in the use of technology to transform government operations. Among the honors highlighted in the section titled **Georgia's Information Technology Excellence** beginning on page 41 are the 2019 Global Excellence in Outsourcing Award from IAOP and finalist designations for two Georgia state government projects in the State IT Recognition Awards sponsored by the National Association of State Chief Information Officers (NASCIO). In addition, **Georgia earned a letter grade of A**, the highest ranking possible, in the most recent Digital States Survey, which evaluates states' use of technology to improve service delivery, increase capacity, streamline operations, and reach policy goals.

Innovative technology projects are adding value to Georgia government and accolades. Several of these projects are highlighted starting on page 42. Here are a few examples:

- Following Hurricane Michael in October 2018, the **Georgia Department of Agriculture** Rapid Response Team used the agency's GIS app for the first time to inspect food facilities affected by the storm, such as grocery stores and food-processing plants. The enhanced operational efficiency helped inspectors maintain the safety of Georgia's food supply.

- The **Department of Driver Services** deployed online appointment software that allows constituents to schedule their own appointment for road tests. Constituents can view and select available dates, times, and locations. The new system adds convenience for constituents while also freeing staff to respond to other types of calls.

- The **Georgia Student Finance Commission** deployed the College HOPE Eligibility Calculation Service (CHECS) which provides a central calculation system for Georgia's Helping Outstanding Pupils Educationally (HOPE) programs.

As this report demonstrates, GTA remains committed to working in partnership with state agencies to take full advantage of technology's potential and to respond to the challenges it presents.

Cybersecurity

A Multi-faceted Approach to Cybersecurity

As technology advances, so do the threats from cybercriminals and hostile nations. According to Gartner, a leading IT research and advisory firm, cybersecurity demands focus and vigilance, and this section of the Annual State IT Report describes the multi-faceted approach that the state takes to protect sensitive citizen data and the IT enterprise. Georgia's Enterprise IT Strategic Plan 2025, which is available in PDF format on the GTA website, https://gta.georgia.gov/enterprise-governance-and-planning-main-page/it-strategic-plan-2025 , also examines the role of cybersecurity in the foreseeable future.

Many cybersecurity experts say the first line of defense in any organization is the people who work there. Accordingly, Governor Kemp issued an executive order on August 13, 2019, that mandates ongoing **cybersecurity training** for all state workers in the executive branch agencies.

GTA plays an important role in delivering the required semiannual training, though many agencies are training more frequently. Under the oversight of the **State Government Systems Cybersecurity Board**, GTA offers the training on the Proofpoint Wombat platform, an enterprise training solution provided at no charge to executive branch agencies. Through the online training modules, state workers can continually sharpen their skills and test their ability to spot malicious links and email attachments, common tactics among cyber criminals attempting ransomware and phishing attacks.

Cybersecurity training is one of several new **managed security services** available to state agencies. The services are offered by Atos, which provides mainframe services for the Georgia Enterprise Technology Services (GETS) program and includes several tools and defenses that build on other services already in place. In addition to cybersecurity training, these services include:
- Security Operations Center (SOC)
- Security Information and Event Management (SIEM)
- Vulnerability Management System (VMS)
- Enterprise Governance, Risk, and Compliance (EGRC)

SOC and SIEM offer centralized, 24/7 security monitoring and proactive response to any threats to help keep them from spreading. VMS involves scanning servers, laptops, and desktop computers to identify vulnerabilities. Meanwhile, EGRC provides the capability to obtain a single, dashboard view of the full risk landscape and risk remediation. All three combine to build a more rigorous defense for state systems and data. State agencies can order additional, specialized security services, such as penetration testing, computer security incident response team, and digital forensics.

The State Government Systems Cybersecurity Board is charged with reviewing the cybersecurity of executive branch agencies to identify risks, promote best practices, and audit for cybersecurity training compliance. The board is chaired by the Governor's Technology Advisor and includes the Adjutant General, GTA's Chief Information Security Officer, the Director of the Georgia Bureau of Investigation, the Director of the Georgia Emergency Management and Homeland Security Agency, and the Executive Director of the Georgia Cyber Center at Augusta University. The board meets at least quarterly and provides an annual briefing to the Governor.

The **Enterprise Cybersecurity Risk Register** provides state agencies with a common framework for categorizing and responding to cybersecurity risks.

State agencies rate their information systems as having a high, medium, or low impact, depending on the worst-case potential outcome of a cybersecurity incident. Agencies are responsible for ensuring their compliance with **cybersecurity reporting requirements**. GTA regularly administers questionnaires soliciting information about each agency's cybersecurity program and the security of information systems and individual applications.

With funding allocated in 2016, GTA began IT security assessments to determine the state's overall cybersecurity risk posture. The work is an ongoing part of operations, and the findings are reviewed by the State Government Systems Cybersecurity Board, which sets statewide priority for addressing recommendations for closing gaps. Security assessment planning continued in 2019, with six assessments scheduled to be completed by June 30, 2020.

An effective strategy for cybersecurity calls for information and intelligence sharing among local, state, and federal agencies. The **Georgia Information Sharing and Analysis Center (GISAC)**, one of 77 U.S. Department of Homeland Security recognized fusion centers in the United States, serves as the primary repository for counterterrorism and criminal intelligence information in the state. Operated by the GBI with participation from several agencies and organizations, including GTA, GISAC distributes bulletins and threat assessments to law enforcement, public safety, emergency management, and private sector partners throughout Georgia.

GTA's Office of Information Security (OIS) facilitated responses for state and local government agencies that suffered ransomware attacks in 2019. One incident involved a county government in Northeast Georgia. The attack likely started with a spear-phishing email which, when opened, enabled access to the county's small network of computers, some lacking current patching. County commissioners voted to pay the negotiated $400,000 ransom, and cybercriminals released the decryption key. The FBI launched an investigation of the incident, and GISAC received a request for assistance on behalf of the county.

A team from GTA's OIS was on site in the county to perform the initial assessment. The team recommended a more comprehensive cybersecurity assessment and thorough remediation of the county's networks by an independent third party. GTA negotiated an agreement with a pre-approved, qualified vendor, and the vendor produced an incident response summary, a security assessment report, a gap analysis, and a plan of action and milestones. The GTA team gained valuable experience that helped shape the assistance they can provide when called on again.

GTA's OIS also coordinated **Cyber Dawg 2019**, a three-day, multi-agency security exercise aimed at sharpening technical response to ransomware attacks. Held in May at the Georgia Cyber Center in Augusta, the exercise brought together information security professionals from the departments of Defense, Behavioral Health and Developmental Disabilities, and Transportation, along with the Georgia Emergency Management and Homeland Security Agency, the GBI, and GTA. Through a special partnership, the group also welcomed participation from representatives from the Republic of Georgia. The exercise, to be conducted annually, highlighted the value of practicing live-action cyber scenarios and building connections across agencies and with our Georgia National Guard partners.

The **Georgia Cyber Center** at Augusta University is currently the nation's single largest investment in a cybersecurity facility by a state government. The $100 million, state-owned facility is a unique public/private collaboration among academia, state and federal government, law enforcement, the U.S. Army, and the private sector. It is equipped to keep up with the changing face of cybersecurity and provides needed focus in key areas:

- Education and training for agencies, the military, and the private sector
- Incubation of new security ideas
- Research and development with an emphasis on cyber defense
- IT security information sharing among Georgia agencies, homeland security, and the private sector
- Public-private partnerships for cybersecurity innovations

The Cyber Center is comprised of two adjacent buildings totaling 332,000 square feet, and its cutting-edge features make it unlike any other facility in the nation:

- In partnership with Augusta University and Augusta Technical College, the center provides **21st century workforce training** through certificate programs and undergraduate- and graduate-level programs in cybersecurity and cyber sciences.

- The **Georgia Cyber Range** helps strengthen the stability, security, and performance of cyber infrastructures. It is available to students, industry, and government professionals for education and training, product development, offensive activity and competition, detection and defensive competition, response and recovery, and evaluation and benchmarking.

- The **Georgia Bureau of Investigation's Cyber Crime Unit** allows law enforcement professionals throughout the state to take advantage of the GBI's expertise in digital forensics.

- The center supports **incubation and accelerator programs** through a strategic partnership with theClubhou.se, an Augusta-based non-profit organization with a proven record of helping technology startups succeed.

- **Demonstration space** is used to highlight cyber research taking place at University System of Georgia institutions throughout the state, including basic and applied research at Augusta University.

- **Build-to-suit Class A partner space** is available for lease to cybersecurity companies, which can then leverage the center's resources and the convenience of co-location with state, federal, and other industry associates.

GTA is responsible for partner coordination and played a key role in bringing leading private-sector companies to the Cyber Center, including:
- BAE Systems, a global defense, aerospace, and security firm
- Defense Digital Service, which applies private-sector technology and approaches to the U.S. Department of Defense's most important initiatives
- Parsons Corporation, an engineering, construction, technical, and professional services firm offering cybersecurity and technical solutions

The Cyber Center positions the Augusta community and the state of Georgia as the nation's leader in the critically important field of cybersecurity.

Information Technology Vision and Strategy

Georgia's vision for information and communications technology is captured in the **Georgia Enterprise IT Strategic Plan - 2025,** the latest update to the state's assessment of issues influencing which technology solutions agencies will deploy in the years ahead. The plan was published in May 2017 with an updated edition published in September 2019. The updated vision is accessible online at https://gta.georgia.gov/it-strategic-plan-2025.

The plan is intended to aid Georgia government leaders in making informed technology decisions. It defines IT focus areas and goals and sets the technology direction for the state's IT enterprise.

The Enterprise IT Strategic Plan does not replace the business-oriented strategic plans of individual state agencies but provides a look ahead to help them align their technology with the direction established for the state's IT enterprise.

In developing and maintaining the state's IT vision, GTA collaborates with technology leaders throughout Georgia state agencies to understand their business priorities and gathers insights from other states and the private sector to leverage proven technologies. This work identified the following long-term IT priorities:

- Ensuring cybersecurity for Georgia's agencies, citizens, and businesses
- Managing a growing pool of data to support state decision makers
- Taking advantage of proven technologies to improve interactions between government agencies and our constituents
- Evolving our portfolio of shared technology services to ensure agency access to the best services at competitive prices
- Partnering with the private sector to bring the latest innovative technologies to bear on the state's business problems

Strategic Planning

The goal of IT strategic planning is to help agencies make better use of technologies that support their business needs and the Governor's vision for Georgia. During FY 2019, agencies aligned their IT strategies with Governor Kemp's stated initiatives and their underlying priorities (https://gov.georgia.gov/about-us/initiatives-and-priorities):

- Make Georgia number one for small business
- Reform state government
- Strengthen rural Georgia
- Put Georgians first

Georgia's IT Strategy Cycle

The IT strategy cycle is a framework for supporting Georgia agencies in their effective and efficient use of technology to achieve the Governor's vision. A collaborative environment where agencies recognize shared objectives and work together to achieve greater enterprise benefits is key to success. GTA serves as a facilitator in identifying common needs, as a technology guide in identifying technology-enabled business strategies that have proven successful in other organizations, and as an advocate for agency solutions that show promise for the enterprise.

The Strategy Cycle is comprised of the following five components:

1. Scan Technology Enablers	2. Survey Agency Priorities	3. Refresh Enterprise IT Strategy	4. Identify Innovation Opportunities	5. Host Technology/ Strategy Summit

Environmental Scan for Technology

Technology scanning is a continuous process of gathering information about how technology may help Georgia state agencies meet their objectives. It identifies what is relevant and shares appropriate findings through periodic reports and presentations. Effective new uses of technology are incorporated into the annual update of the Georgia Enterprise IT Strategic Plan.

GTA relies on numerous sources for information about new business uses of technology, including Gartner, the National Association of State Chief Information Officers (NASCIO), and the Center for Digital Government.

In addition, GTA monitors a broad range of publications and participates in professional organizations and national summits, conferences, and symposia targeting the effective application of technology to business problems.

Survey Agency Priorities

GTA places high value on understanding agency business needs and continues to review agency strategic plans, conduct agency surveys, and hold regular meetings with agencies to ensure a clear picture of the business objectives that drive technology needs. In addition to one-on-one meetings with agency leaders, the State Technology Annual Report Register (STARR) is used to conduct an annual IT strategy survey of all agency CIOs or IT Directors.

Refresh Enterprise IT Strategy

As mentioned in the opening section, the Georgia Enterprise IT Strategic Plan provides a vision of future technology use and establishes focus areas for the state's IT enterprise in a multi-year look ahead. It guides agency IT leaders in choosing new technology solutions that align with the state's enterprise IT vision and direction.

Identify Innovation Opportunities

GTA continues to recognize agency successes in using technology to deliver services in new and better ways. Top innovations are recognized at the annual Georgia Digital Government Summit. Examples of these successes can be found beginning in the section titled **Technology Innovations Showcase** on page 42.

GTA also works closely with the Governor's Office and the Office of Planning and Budget to identify agency and statewide business needs that are ripe for new applications of technology. GTA provides leadership in identifying and adopting proven technologies to solve pressing government issues.

Host Technology/Strategy Summit

GTA's annual Technology/Strategy Summit, first hosted in 2012, addresses a limited range of high-value technology opportunities or issues. The summit is directed toward both business leaders and technology professionals in state agencies and features presentations by subject matter experts from leading technology companies.

More than 250 state employees and vendors attended the 2019 summit, which was held in Atlanta in May and focused on the use of artificial intelligence and data analytics in state government.

# Strategic Planning Survey – 2019 Results

GTA continued its annual survey of agency CIOs in 2019 to better understand how agencies depend on IT to meet their strategic objectives. Data from agencies are carefully analyzed and used to inform GTA's efforts at leveraging innovations in a rapidly changing technology environment and ensuring better support for state operations. Agency data are also used to update the Georgia Enterprise IT Strategic Plan.

The first part of the IT strategy survey focused on the following areas related to enterprise IT objectives:
- Cybersecurity
- Data management
- Digital services

A total of 37 agencies responded to the survey. Selected questions and responses are below.

- To what extent has the Georgia Cybersecurity Strategic Plan been helpful in developing your agency's cybersecurity plan?
- To what extent has GTA's Cybersecurity Workforce Academy training improved your agency's cyber awareness, preparedness, and resilience?
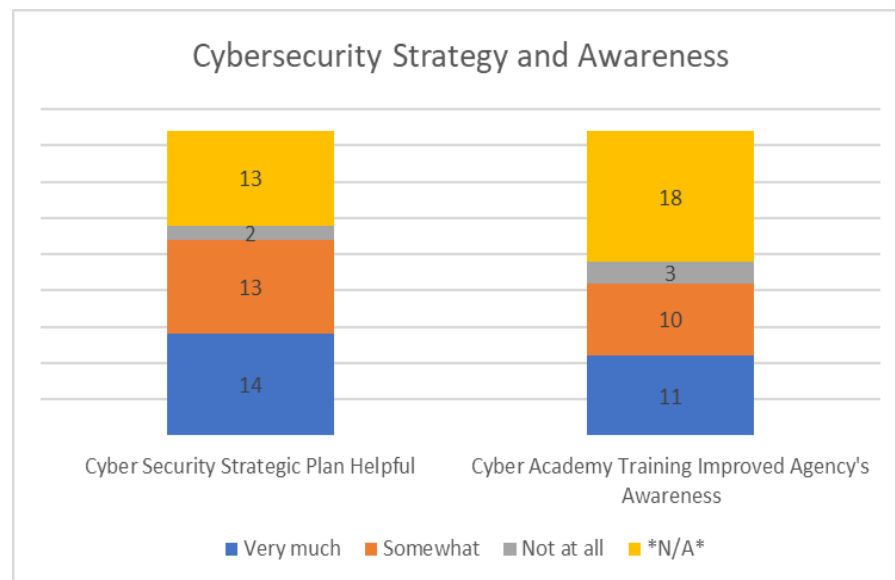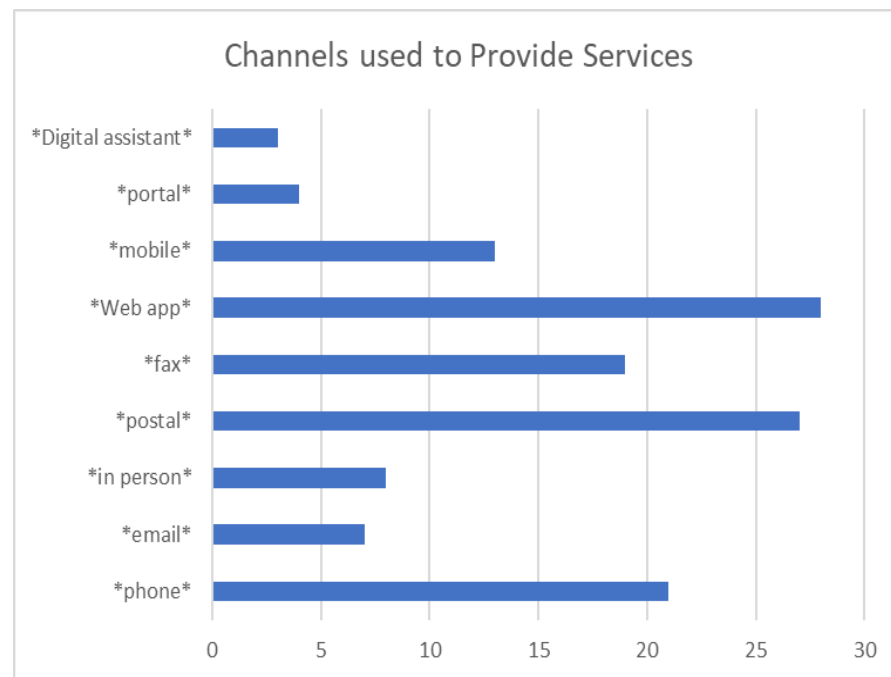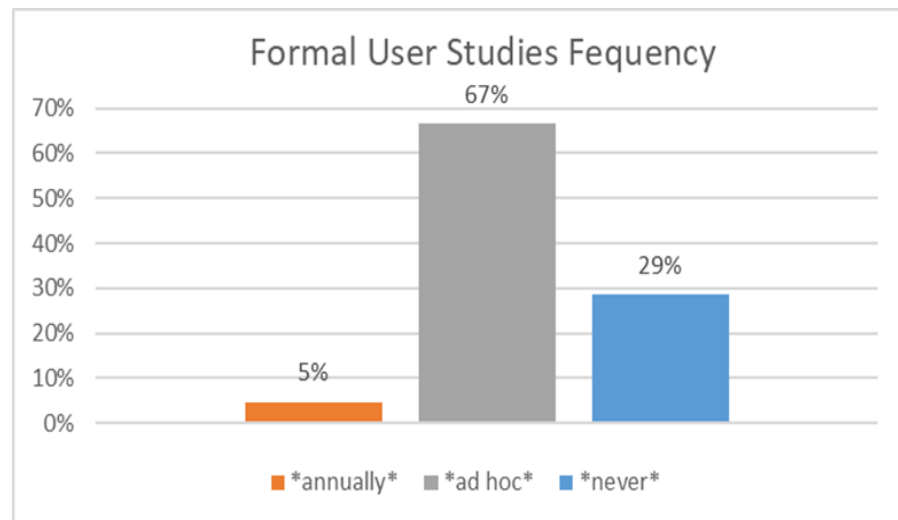

- To what extent has your agency adopted any industry data standards for organizing data for use within your agency?
- Is your agency sharing agency data with other agencies?
- Has your agency assigned a data steward to act as liaison for cross-agency data sharing?

The breakdown of the first question is below. The responses to the second and third questions are that 74% shared data with other agencies and 62% of agency CIOs or IT directors were aware that their agency had a data steward.
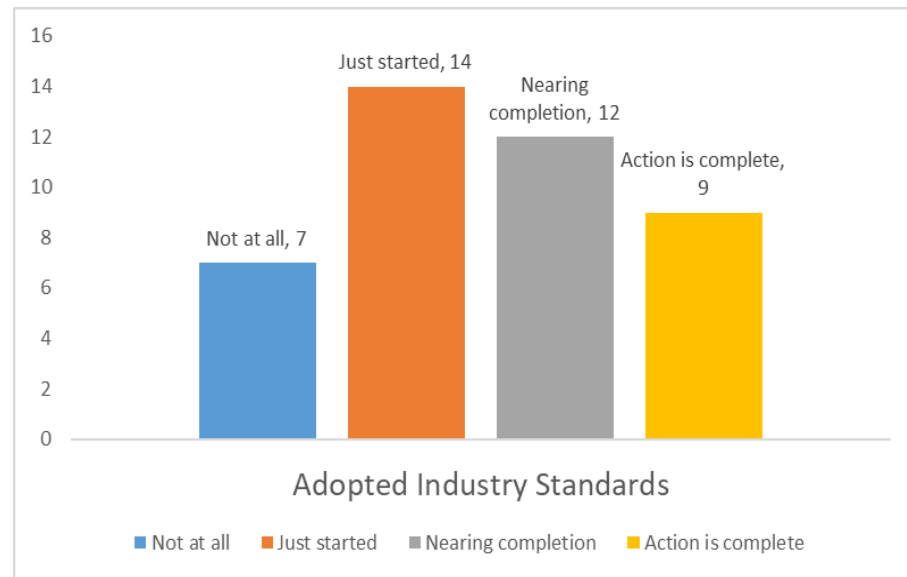
- What channels does your agency use to provide services to your constituents?
- Thinking about the services your agency provides to citizens, what portion of your agency's transactions will be conducted digitally through a web or mobile interface within the next three years?
- How often does your agency conduct formal user studies to improve your digital services delivery decisions?

Transaction Portion Conducted Digitally

- 5% (100%)
- 50% (2/3)
- 7% (1/2)
- 19% (1/3)
- 19% (None)

Legend: ■ 100% ■ 2/3 ■ 1/2 ■ 1/3 ■ None

Formal User Studies Fequency

- 5% (*annually*)
- 67% (*ad hoc*)
- 29% (*never*)

Legend: ■ *annually* ■ *ad hoc* ■ *never*
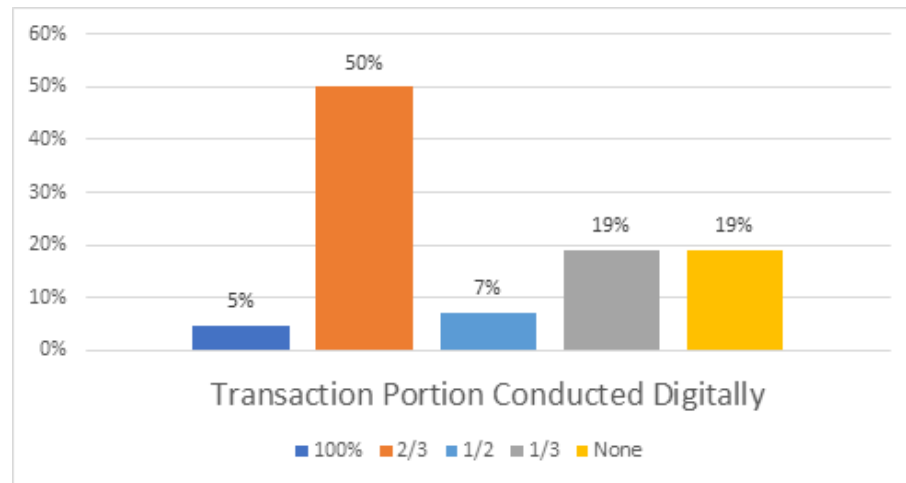
The second part of the IT strategy survey focused on individual agencies' strategic objectives. It asked agencies to rate the importance of information technology in supporting their activities in the following areas:

- Automating or improving business processes
- Analyzing data for decision support
- Sharing information or data with other agencies
- Improving citizen access to services (including mobile apps)
- Improving the security of sensitive information

Respondents identified 154 IT-dependent strategic objectives. The top three uses of technology in enabling agency strategic plans were unchanged from the previous survey: process automation, data analytics, and improved security. Responses are summarized in the following bar graph.

How important is the following use of IT for success of your strategic objectives?
154 objectives from 35 Agency Strategic Plans (2019)

	Essential	Very Important	Somewhat Important	Not Important
Automating or improving business processes	30	83	29	12
Analyzing data for decision support	45	64	36	9
Sharing information or data with other agencies	25	51	46	32
Improving citizen access to services (including mobile apps)	25	37	36	56
Improving the security of sensitive information	40	44	34	36
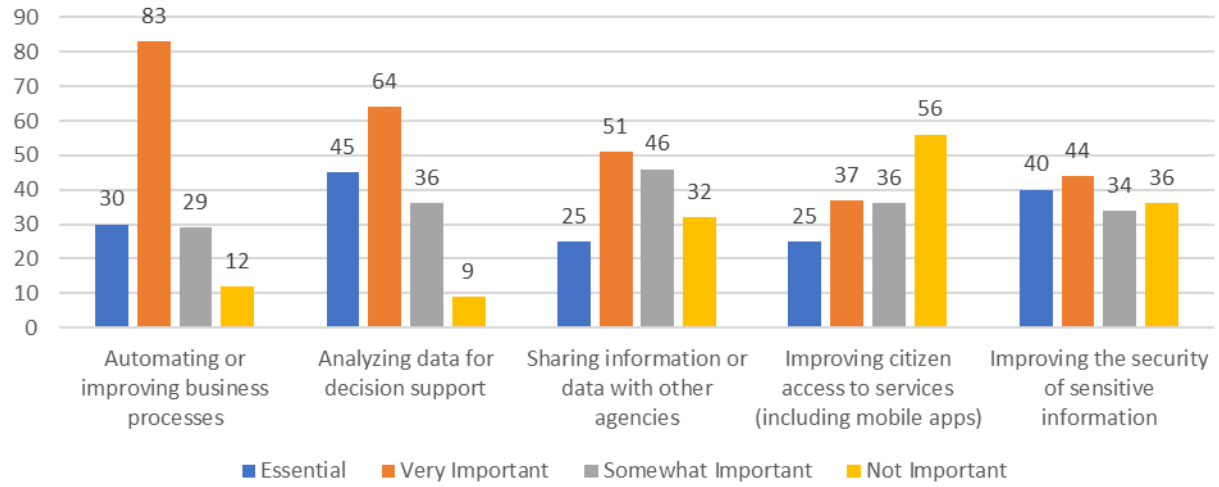
Georgia's Approach to Rural Broadband

Broadband has become essential to business, education, healthcare, agriculture, and overall quality of life. Unfortunately, Georgians in many rural communities do not have high-speed access to the internet.

An estimated 1.6 million Georgians lack broadband access, according to 2014 data from the Georgia Broadband Initiative.

Recognizing the importance of broadband availability to all Georgians, the General Assembly passed the Achieving Connectivity Everywhere (ACE) Act (SB 402) in 2018. The legislation calls for promoting and deploying broadband services to unserved areas throughout the state, with minimum speeds of 25 Mbps for downloads and 3 Mbps for uploads.

Accurate mapping of broadband availability is critical to identifying unserved locations and developing the Georgia Broadband Deployment Initiative. The initiative will assist communities in applying for federal funding to support comprehensive planning for broadband deployment.

The Georgia Department of Community Affairs (DCA) is developing a grant model and GTA is supporting them in development of the statewide map of over 5 million residential and business locations to determine the unserved locations and designate served and unserved census blocks. DCA's mapping is a joint collaboration between the University of Georgia and over 40 broadband provider companies. The initial statewide map will be completed by June of 2020.

DCA and GTA are leading the Georgia Broadband Initiative in collaboration with the Department of Economic Development, the State Properties Commission, and the Department of Transportation.

Considerable progress has been made since the ACE Act's passage:

- Created a new Executive Director of Broadband position within DCA to oversee the Georgia Broadband Deployment Initiative and ACE implementation
- Established a framework and governance for ACE implementation
- Established an advisory committee comprised of broadband service providers and local government representatives; conducted the committee's first meeting
- Established stakeholder working groups for model ordinances and mapping
- Kicked off the statewide mapping with over 40 broadband service providers
- Established Broadband Ready Designations for communities that prioritize broadband expansion and for sites with 1 Gbps service
- Developed and approved the state grant program rules
- Provided technical assistance to Georgia organizations applying to the USDA Reconnect broadband grant program
- Conducted briefings for the Georgia Municipal Association, the Association County Commissioners of Georgia, broadband service providers, and Georgia's electric membership corporations
- Completed a three-county pilot mapping project to verify data accuracy
- Awarded first Broadband Ready Community designations
- Expanded collaboration to include additional state agencies to leverage existing state-owned broadband assets, infrastructure, and resources

- General Assembly authorized telephone cooperatives, electric membership corporations, and their broadband affiliates to provide broadband service to their customers

The team continues to build a strong foundation to extend broadband services across the state, strengthen rural Georgia, and make Georgia the number-one state for small businesses.

Information Technology Investment Management

The state of Georgia spends a large sum of money every year on information technology, including services, equipment, applications, personnel, software licensing, development, and maintenance. However, determining exactly how much is spent, where the money goes, and what taxpayers are getting in return can be difficult to report on in the aggregate. Coupled with this challenge is the need to better understand whether Georgia is receiving or could receive greater value for the dollars invested in information technology. This is likely to be a continuing challenge due to the rapid changes in technology each year.

The General Assembly has charged the Georgia Technology Authority (GTA) with compiling information from executive branch agencies about their IT expenditures and presenting a report to state leaders every year (O.C.G.A. 50-25-7.10). With comprehensive and accurate information, state leaders can make facts-based decisions about the allocation of limited state resources to support technology.
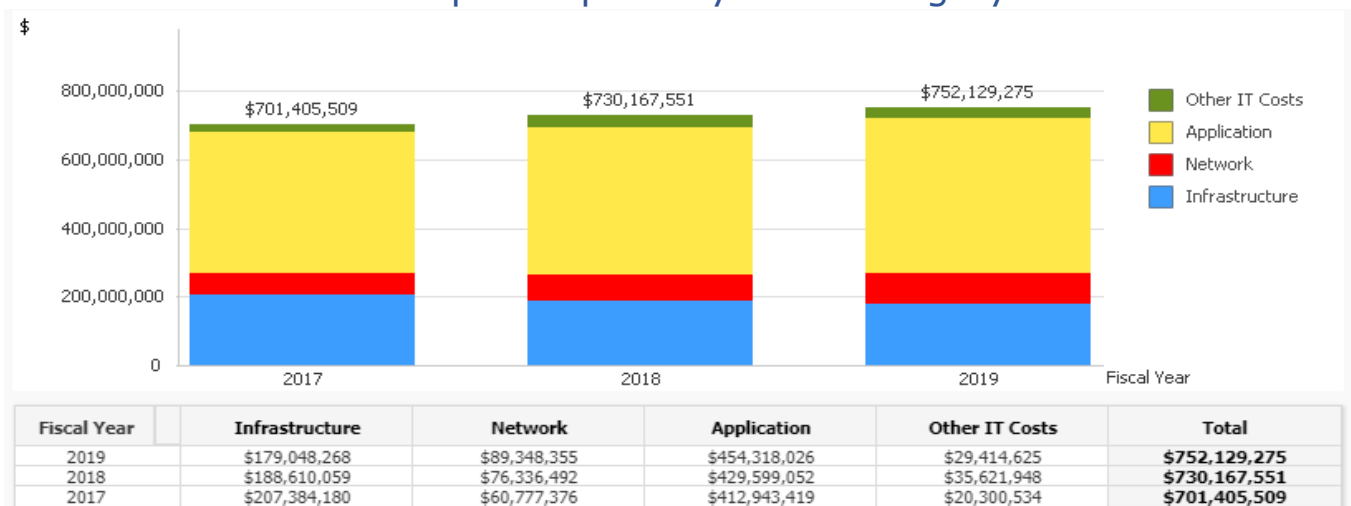
GTA uses the State Technology Annual Report Register (STARR) to collect data about IT expenditures from executive branch agencies. Information is requested in the categories of application, infrastructure, network, other IT costs, and projects.

The state has a more comprehensive understanding of the cost of infrastructure and network services than it does for applications. Infrastructure and network services are provided through the Georgia Enterprise Technology Services (GETS) program. Under GETS, Georgia can measure consumption and value through detailed reporting for all agency users of infrastructure and network services.

Enterprise IT Spend

The following graph depicts the most comprehensive summary available of IT expenditures by infrastructure, network, application, and other IT costs in FY 2017, FY 2018 and FY 2019.

Enterprise Spend by Cost Category

Fiscal Year	Infrastructure	Network	Application	Other IT Costs	Total
2019	$179,048,268	$89,348,355	$454,318,026	$29,414,625	$752,129,275
2018	$188,610,059	$76,336,492	$429,599,052	$35,621,948	$730,167,551
2017	$207,384,180	$60,777,376	$412,943,419	$20,300,534	$701,405,509

Agency Participation in IT Expenditure Reporting

A total of 49 out of 53 agencies submitted a report, or 93%, which was the same percentage as FY 2018.

Complete listings of the agencies reporting, and their expenditures are in **Appendix A** and **Appendix B**. The agencies listed in Appendix A with NR in the "Reported 2019" column did not submit reports because:

- The agency no longer exists.
- Its expenditures were included in the report from an agency to which it is administratively attached.
- The agency is attached to one of the state's constitutional agencies, which are exempt from filing the report.

In addition to constitutional agencies, other state entities with large IT budgets are not required to report their IT expenditures, including the University System of Georgia.

Did IT expenditures increase in FY 2019?

Participating agencies spent over **$752 million** on technology in FY 2019, more than the **$730 million** reported in FY 2018. Even though the cost overall went up year to year, some agencies reduced their IT spend by reducing mainframe costs. The difference in spending is attributable to:

- More accurate application costs captured in the application inventory.
- More accurate IT Full-time Equivalent and IT Contractor costs.

GTA continues working with agencies to increase both the quantity and quality of data received.

Annual Investment Strategy Sessions

GTA's investment strategy sessions in FY 2019 included agency decision makers in business, operations, and finance. The agenda was targeted to increase awareness of the challenges associated with technology investments while also providing tools and best practices for a variety of investment scenarios. The information gathered in these sessions provides the baseline for annual reporting on Planned New Investments as shown on page 32.

Procurement Reviews

GTA enhanced the procurement review process to provide more proactive support as agencies plan for large investments. A Procurement Review Checklist is provided at the initiation of the process, so agencies are aware of key elements to include in procurement documents, including recommended language for technology requirements, terms, and conditions. The checklist has shortened the time it takes GTA to review procurements and allowed for better collaboration during development of a Request for Proposal (RFP), thereby ensuring Georgia receives the best value possible.

GTA's procurement review process continues to provide valuable feedback as agencies navigate complex RFPs and provider Service Agreements. Over the past year, GTA reviewed more than 12 sets of procurement documents, including RFPs, Requests for Information (RFIs), Scopes of Work (SOWs), and contracts representing over $100 million in investments.
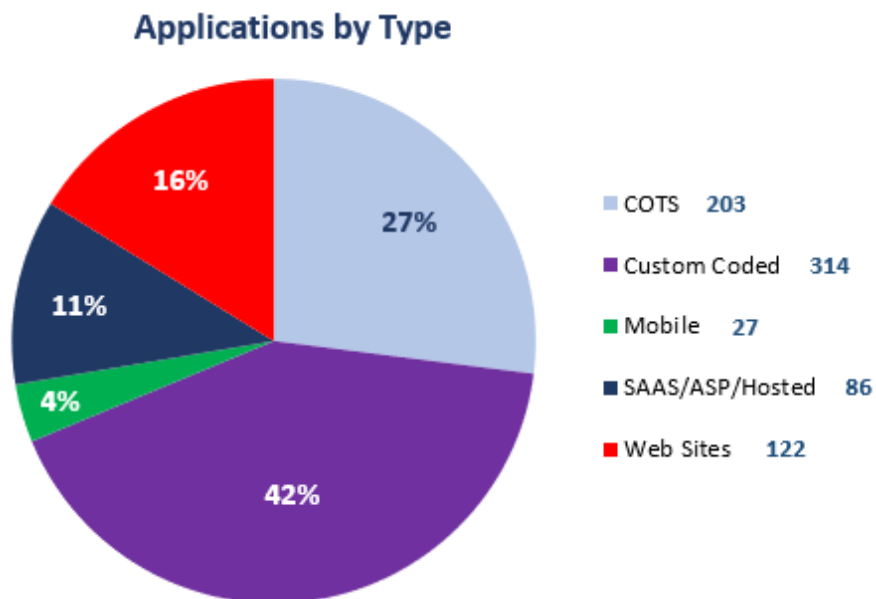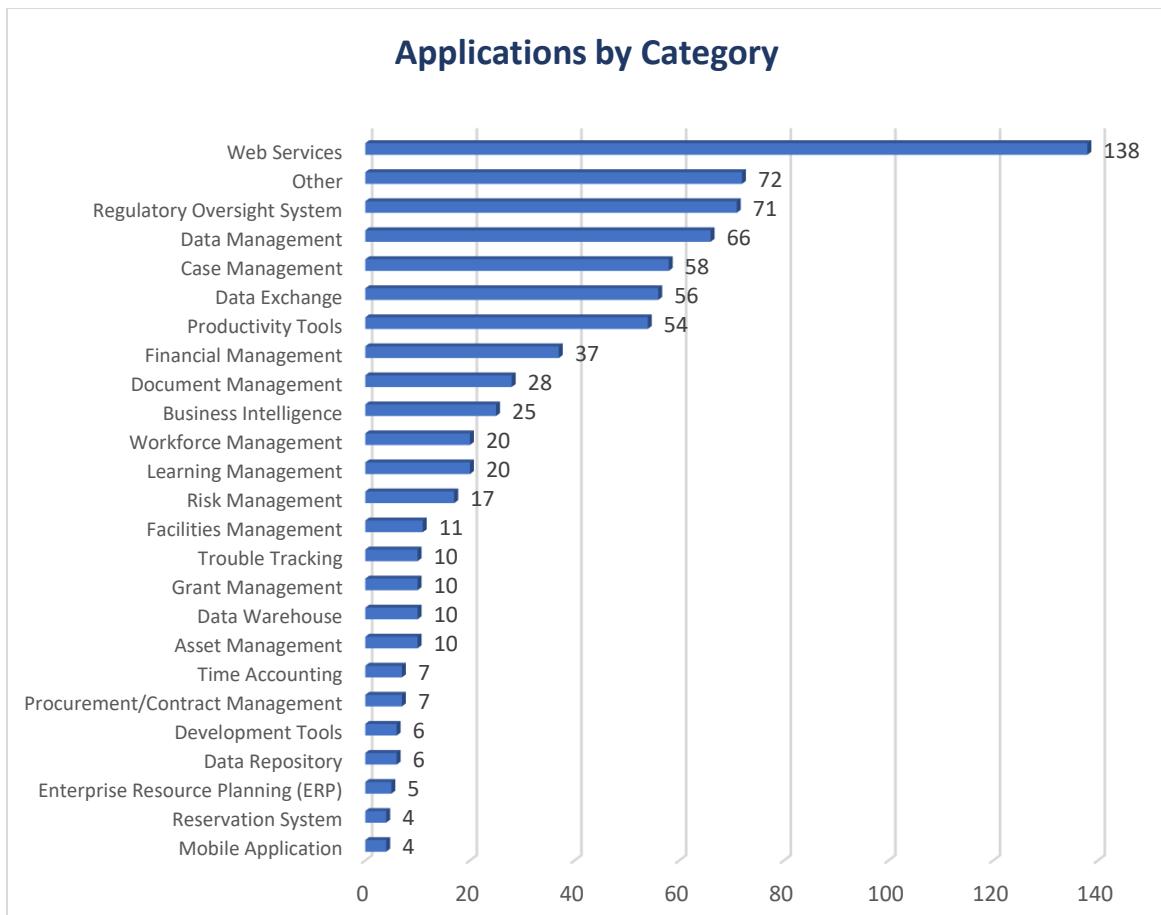
Collaboration with State Purchasing

GTA and the Department of Administrative Services (DOAS) continued a successful collaboration to support agency technology needs. For the second consecutive year, they partnered in educating procurement offices about best practices and lessons learned for technology procurements at the 2019 State Purchasing Conference.

The two agencies also joined forces to identify Georgia-specific requirements and contract specifications for a cloud contract managed by the National Association of State Procurement Officers (NASPO). This contract has a stable of preapproved vendors qualified to provide cloud-type solutions to any participating state. GTA and DOAS successfully negotiated the first of several planned Participatory Agreements from this contract to help agencies meet immediate needs for quickly implementing non-critical solutions.

IT Application Portfolio

The state's IT application portfolio included 752 applications in FY 2019, an increase of 180 since FY 2013. The following graph shows the number and percentage of applications by type.

Applications by Type

- COTS 203
- Custom Coded 314
- Mobile 27
- SAAS/ASP/Hosted 86
- Web Sites 122

Applications by Category

Category	Count
Web Services	138
Other	72
Regulatory Oversight System	71
Data Management	66
Case Management	58
Data Exchange	56
Productivity Tools	54
Financial Management	37
Document Management	28
Business Intelligence	25
Workforce Management	20
Learning Management	20
Risk Management	17
Facilities Management	11
Trouble Tracking	10
Grant Management	10
Data Warehouse	10
Asset Management	10
Time Accounting	7
Procurement/Contract Management	7
Development Tools	6
Data Repository	6
Enterprise Resource Planning (ERP)	5
Reservation System	4
Mobile Application	4

**Applications by Category (752 Applications)**

The graph above shows the number of applications by category.

Note: These applications were categorized by the reporting agency based on definitions provided by GTA. Many applications are accessible on mobile devices, but they are not categorized as mobile-only applications.

New Investments by Agency

The FY 2019 total project portfolio of $617 million shows a significant decrease since FY 2018, primarily due to the completion of a large project and more accurate planning estimates. The FY 2019 portfolio is tracking over 40 active projects in 17 agencies. Several projects span multiple years. In addition to the active projects, several large projects totaling $309 million are in the planning phase.

The following chart/graph depicts each agency's percentage of the total budget for all active projects.
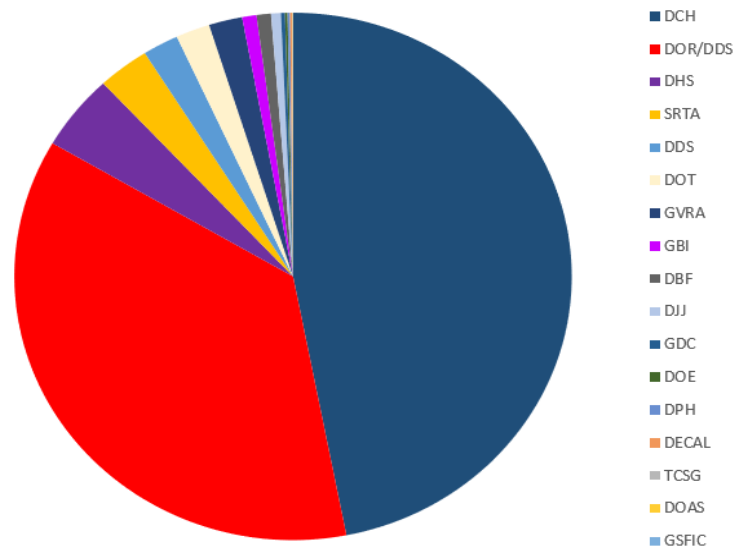
Department of Community Health	$140,769,811	45.62%
Department of Driver Services/Department of Revenue	$109,472,076	35.48%
Department of Human Services	$13,934,016	4.52%
State Road and Tollway Authority	$8,992,222	2.91%
Department of Driver Services	$8,595,492	2.02%
Department of Transportation	$6,235,000	1.92%
Georgia Vocational Rehabilitation Agency	$5,932,446	1.89%
Georgia Bureau of Investigation	$5,821,142	<1%
Department of Juvenile Justice	$2,500,000	<1%
Department of Banking and Finance	$2,500,000	<1%
Department of Corrections	$1,703,382	<1%
Department of Education	$700,000	<1%
Department of Public Health	$442,163	<1%
Department of Early Care and Learning	$433,888	<1%
Technical College System of Georgia	$350,000	<1%
Department of Administrative Services	$107,504	<1%
Georgia State Financing and Investment Commission	$49,593	<1%
TOTAL	**$308,538,734**	

Planned New Investments by Agency

The following graph depicts the several large projects totaling $309 million that are in the planning phase.
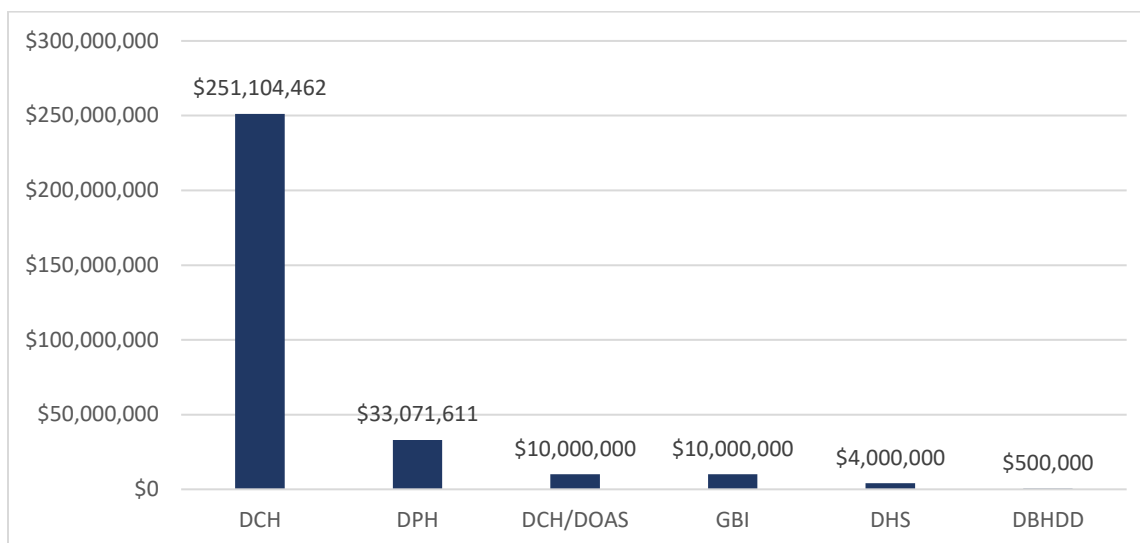
Department of Community Health	$251,104,465
Department of Public Health	$33,071,611
Department of Community Health/Department of Administrative Services	$10,000,000
Georgia Bureau of Investigation	$10,000,000
Department of Human Services	$4,000,000
Department of Behavioral Health and Developmental Disabilities	$500,000
Total	**$308,676,073**

Project Delivery Effectiveness
Large IT Project Board

GTA has utilized its Critical Project Review Panel as the primary governance body for complex and risky projects in the state's portfolio. However, for projects costing over $10 million, the panel continues to see a variety of situations that could be addressed with even closer oversight and direction. To ensure such oversight and direction for these higher-dollar projects, the Large IT Project Executive Decision-Making Board policy was enacted by GTA, OPB, and DOAS at the start of 2017. It specifies new top-level management of the state's large, multifaceted, and lengthy IT projects. The policy establishes a governing board whose members are the DOAS Commissioner, the State CIO and GTA Executive Director, the State Budget Officer, and a representative from the Governor's Office, along with agency heads who rotate on and off the board based on the project under evaluation. The board meets on a regular basis to review and make business decisions affecting selected large, critical projects. During FY2019, the Board reviewed three programs: DPH's Enterprise Service Modernization and DCH's Medicaid Enterprise System Transformation and GBI's Criminal Justice E-Filing Project.

Critical Project Review Panel

The monthly reviews of the Critical Project Review Panel continue to have a positive impact on the success of the monitored projects. The panel limits its reviews to the

most critical projects in the state's portfolio. For FY 2019, the critical project portfolio was valued at $318 million and encompassed 10 projects in nine agencies.

The information below puts into perspective the value and benefits of portfolio management and oversight.

Applying industry statistical information (based on the Standish Group's 2018 CHAOS Report) to our current active and approved portfolio of critical projects yields the following projected results:

- 22% of projects would be cancelled = $70 million
- 52% would cost 189% of the original estimate = $313 million
- 26% would be successful with no cost increase = $83 million

Without disciplined project, program, and portfolio management, the current portfolio of $318 million would deliver only 78% of the functionality originally planned.

The chart below displays how the state of Georgia compares to government and industry metrics compiled for the Standish Group's 2018 CHAOS Report for technology projects. It measures only critical IT projects that were completed in each fiscal year. The chart indicates a decrease in challenged projects from FY 2018 to FY 2019. Of the 10 projects in the critical project portfolio, two were completed during FY 2019.

Project Delivery Effectiveness (by % of $) FY 2019
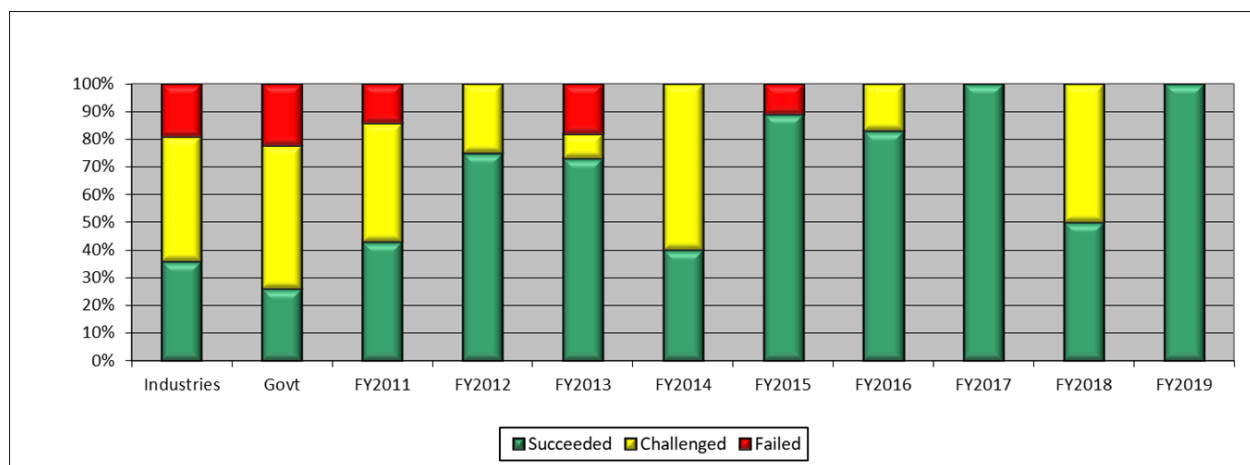
* Note: Chart reflects Georgia data for FY 2011 – FY 2019.

Technology Services

Georgia's Unique Approach

Georgia takes a different approach than most states when it comes to providing technology services.

Since 2009, GTA has offered technology services through a public-private partnership. Using this method, GTA provides a full range of managed network services and IT infrastructure services to 14 agencies in the state's executive branch, as well as a-la-carte services to many other agencies. The managed technology services approach aligns directly with Governor Kemp's strategic goal to **"Expand public-private partnerships and leverage technology to best utilize limited state resources."** Other states have paid close attention as Georgia has demonstrated a viable alternative to states developing and delivering technology services themselves.

Now in its 10th year, the partnership continues to meet its original goals of consolidating IT infrastructure; securing state data and systems; and ensuring a modern, reliable, and recoverable operating environment. In addition, it has delivered **10-year savings of $379 million**, more than double the original estimate.

Over 100,000 workers spread across more than 1,200 state and local government locations received managed network services through the partnership in FY 2019. In addition, the partnership provided 40,000 state workers with IT infrastructure services while hosting 54,000 e-mail accounts and managing 2,500 servers. The state's storage environment offered 2.5 petabytes of storage space (a petabyte equals one quadrillion bytes).

Georgia uses a cyclical five-stage procurement process to contract for technology services from leading private-sector providers. The resulting plug-and-play model allows for quick response to agencies' changing business needs. It ensures competitive pricing and a readiness to capitalize on market innovation by regularly rebidding services. It makes it easy to expand the types of services and the number of service providers to meet demand. It's also easy to replace service providers when warranted. By utilizing the world-class skill set of the selected providers, Georgia is able to stay current with technological progress while containing costs and reducing risk in the state's IT environment.

To better manage service delivery and ensure consistency, the state applies the same business processes across all technology service providers. A strong governance structure benefits from regular involvement of agencies in defining business needs and in other aspects of the procurement process.

Using the state's five-stage process, GTA has competitively rebid mainframe, print and mailroom/courier, end user computing, and server services in recent years. The re-procurements reduced overall costs by 20 percent and increased the number of providers by 300 percent, while also producing numerous service enhancements. The cost savings allowed for procurement of managed security services as an entirely new service line to address a fast-growing need.

Mainframe Services

IT services company Atos provides mainframe services. Mainframe processing continues at the state's North Atlanta Data Center (NADC). Storage and virtual tape systems are also maintained at the NADC, and a backup

mainframe environment has been established at an Austin, Texas, data center.

Print and Mailroom/Courier Services

Xerox has provided print services since the state's shared IT services program began in 2009, and now under a new contract, the company serves even more state customers in new and expanded ways. The current contract includes not only enhanced print services, but also print-to-mail (mailroom) and courier services from the Capitol Hill Mailroom in Atlanta's Twin Towers building. The service allows customers to print, package, and mail, all through one provider, leveraging a single, more streamlined process.

End User Computing Services

NTT DATA provides end user computing (EUC) services. Those center on the computers on state workers' desks and the technicians who help with any computer problems. EUC also encompasses anti-virus and encryption software, network printers, and regularly scheduled refreshes of laptop and desktop computers and network printers.

The refresh cycle features automated refresh notifications, self-service scheduling of refresh appointments, and automated reminders and refresh completion acknowledgements. An enhanced EUC hardware depot enables the delivery of most standard EUC catalog items within five business days. Plus, EUC service covers software license management, helping agencies ensure licensing compliance.

Server Services

While physical and virtual servers in the state's data center continue to be essential, an increasing number of state agencies also capitalize on **cloud-based server services**. GTA helps support their efforts by offering managed cloud server services. That includes standard, public cloud servers which can be ordered through the state's IT service catalog and provisioned within as little as one business day. That's via a new Rapid Server Provisioning process that makes AWS Windows/Linux servers and Azure Windows/Linux servers quickly available to state agencies.

Service provider Unisys manages the cloud servers parallel to the way it manages physical and virtual servers at the state's data center. On agencies' behalf, Unisys also manages the relationship with the cloud provider and then offers related services such as backup, patching, monitoring, virus and malware defense, and technical support as suits an agency's needs. Once a cloud server is provisioned, additional services may still be needed to make it fully functional, including privileged access, business applications, database services, firewall changes, and others. These can be coordinated through Unisys.

Standardization of server types – whether cloud, virtual or physical – has significantly trimmed delivery time by fashioning new servers from an existing standard blueprint. That tactic, adopted in 2019, also promotes a consistent approach across the state's IT enterprise by providing common server standards, configurations, and operating systems, with those standards pre-approved by the state's IT Design Authority Review (DAR). Not every server will qualify for rapid provisioning. Requests for non-standard servers require handling via a streamlined Requirements Gathering and Specialized Solution Request process. There too, efficiency gains are allowing faster delivery times.

On January 1, 2019, Unisys began providing services within the state's IT shared services program. That came upon expiration of the state's contract

with IBM, provider of server services since 2009. Server services encompass server hardware, whether hosted in the state's data center or elsewhere, along with identity and directory management, disaster recovery, and storage services. The state manages approximately 2,500 servers.

Managed Security Services

In a powerful enhancement to the state's information security efforts, Managed Security Services became available in 2019 through service provider Atos. See a description of Managed Security Services in the Cybersecurity section of the report beginning on page 15.

Network Services

Network services, among the state's most extensive technology offerings, include Long Distance, Business Access Lines, Audio and Video Conferencing, Centrex, Voice over IP, and other telecommunications services. Provided by AT&T, the services are used by many local governments in addition to state agencies.

Office 365 Services

GTA offers Microsoft Office 365 services, which include cloud-based email, Microsoft Office applications, Exchange servers, and SharePoint servers. The service supports 54,000 state email accounts and offers state agencies competitive pricing.

GTA Direct

GTA Direct provides quick access to a range of IT services for Georgia agencies, local governments, colleges and universities, and boards of education statewide. GTA qualifies the pool of vendors and provides governance over the service contracts, while agencies purchase the services directly from the providers and manage the relationships themselves.

GTA Direct offers numerous benefits:

- The procurement process is faster and easier since agencies purchase the services from providers who have been pre-qualified by GTA.
- Agencies can take advantage of the state's purchasing power and contract pricing, which is likely more favorable than agencies can obtain on their own. For most categories, services are available from multiple, competing providers.
- Service contracts are specifically suited to government customers with data handling and protection assurances built-in. The pre-qualified providers understand the regulatory requirements that government entities must meet and include the necessary provisions.

The following services are offered through GTA Direct:

- Conferencing Services
- Disaster Recovery
- End User Computing Services
- Hosted Contact Center Services
- Mainframe Services
- Managed Print Services
- Managed Security Services
- Oracle Products and Services
- Server and Storage Services
- Software Compliance and Software Professional Consulting Services

- Telecommunications Services
- Wireless Communications Devices and Services

Digital Services Georgia

The Office of Digital Services Georgia (DSGa) manages digital strategy for state agencies and elected officials to cultivate a mature digital presence and citizen-centric service delivery. The focus of DSGa expands GTA's view of the technology landscape from larger systems to granular interactions that the state offers through various consumer devices. Citizens access state digital properties through channels that didn't exist a couple of years ago. To be able to serve this need, DSGa enables an omni-channel approach, keeping content consistent and centralized.

Georgia GovHub Launched

In April 2019, DSGa launched GovHub, a digital platform for state agencies to use in creating a consistent online experience for citizens. GovHub provides an organized framework for planning, creating, and managing public-facing data and content. The scalable platform accommodates individuals or teams of content contributors and makes it quick and easy to add webpages, blogs, press releases, location maps, forms, and other online content.

As the state's official web-publishing platform, GovHub aligns with the state's digital compliance policy for ensuring accessibility for people with a range of disabilities affecting vision, hearing, mobility, and cognition; adhering to industry best practices and standards; and serving as a single source of consistent and accurate information across all of the state's various communication channels.

Migration to GovHub and Drupal 8

The DSGa team worked with more than 65 state agencies during 2019 on a major project to migrate more than 85 agency and program websites to the GovHub platform and Drupal 8, the state's content management software. The project is expected to be completed in March 2020. The migration from Drupal 7 to Drupal 8 and the GovHub platform is bringing new branding, design consistency, and functionality to state agencies' web presence. It also ensures compliance with the latest accessibility, security, and performance standards. Through fall 2019, DSGa migration teams transitioned 57 sites and created two new sites.

GeorgiaGov Pilot Website

DSGa launched www.pilot.georgia.gov in 2019 to provide a preview of the new design for state government's web portal, www.georgia.gov. The DSGa team worked with design and development partners IDEO and Lullabot to build the pilot site and the GovHub platform.

Successful digital initiatives hinge on understanding the needs of those who use websites and other digital properties, and the DSGa team is using more than empirical research, data, and a few assumptions when making decisions about the design of the pilot site. The team encourages feedback from Georgians in an effort to foster an open, collaborative project.

State Content Specialist Certification

To enhance the capabilities of digital content managers in state agencies, DSGa offers six half-day courses on content and understanding audiences. The courses include hands-on exercises to help state workers improve their content strategy and writing skills and promote knowledge of best practices

for accessibility. State workers who successfully complete all six courses receive state certification as content specialists. The courses are open to anyone who plans, produces, or manages digital content for state agencies.

Georgia's Information Technology Excellence

The state of Georgia has taken bold steps to modernize its IT enterprise over the past decade. In doing so, it has earned a national reputation as a leader among states in the use of technology to transform government operations. At the same time, Georgia's pioneering approach to partnering with world-class technology companies has become a model for other governments. The following accomplishments and honors from 2019 document Georgia's continuing successes.

NASCIO State IT Recognition Award Finalists

Two projects in Georgia state government were named finalists in the State IT Recognition Awards sponsored by the National Association of State Chief Information Officers (NASCIO). The Department of Agriculture's Mobile Field Data Collection mobile app was one of three finalists in the category of Information Communications Technology Innovations. The app was developed to help state inspectors ensure the safety of Georgia's food supply. For more information about the project, see Georgia Technology Innovation Showcase on page 42.

In addition, the Georgia Cyber Center, www.gacybercenter.org, was among three finalists in the category of Cross-boundary Collaboration and Partnerships. The center's primary focus is on developing Georgia's cybersecurity workforce.

Georgia Earns Highest Grade in National Survey

Georgia earned a letter grade of A, the highest ranking possible, in the most recent Digital States Survey, which evaluates states' use of technology to improve service delivery, increase capacity, streamline operations, and reach policy goals. Georgia is one of only five states to receive an A in the survey.

Under the Digital States Survey criteria, a letter grade of A indicates a state "is trending sharply upward. They show results across all survey categories. Modernization is used to realize operational efficiencies and strategic priorities. There is evidence of meaningful collaboration, and performance measures and metrics are widely adopted."

Recognition for Innovative Sourcing of IT Services

GTA received the 2019 Global Excellence in Outsourcing Award from IAOP, an association of customers, service providers, and advisors dedicated to improving business service models and outcomes. The award honored GTA for its Market Test and Rebid (MTR) approach to sourcing technology services for state agencies. GTA ensures access for state agencies to the latest technologies at the most competitive price possible by regularly rebidding service contracts. Since its inception in 2017, MTR has helped reduce overall technology costs by 20 percent and increased the number of service providers by 300 percent.

Calvin Rhodes Receives GoldenGov: State Executive of the Year Award

Georgia's State CIO and GTA Executive Director Calvin Rhodes was one of eight people nationwide to receive StateScoop's GoldenGov: State Executive of the Year award. Thousands of IT leaders across the country, primarily in

state and local governments, were nominated for awards in one of six categories as part of StateScoop's 2019 awards program. StateScoop narrowed the nominations to 180 people, and readers cast more than 2 million votes to select the final winners.

NASCIO Honors Nikhil Deshpande with State Technology Innovator Award

GTA's Nikhil Deshpande was honored with NASCIO's 2019 State Technology Innovator Award. The award honors outstanding state government workers who have advanced technology policy by promoting best practices, adopting new technologies, and advancing service delivery. As Chief Digital Officer of Digital Services Georgia, Mr. Deshpande leads the team responsible for managing Georgia.gov, the official online portal to Georgia state government, and GovHub, the state's official publishing platform for delivering state-of-the-art, secure, accessible, and compliant websites. His team's many design and technical innovations have resulted in a robust platform with a mobile-first approach for supporting current and future online services. GovHub hosts 85 state websites.

Technology Innovation Showcase

Mobile Field Data Collection for Food Emergency Response

Georgia Department of Agriculture (GDA)

GDA is responsible for ensuring that unsafe food doesn't make its way to consumers. Following Hurricane Michael in October 2018, GDA's Rapid Response Team (RRT) used the agency's GIS app for the first time to inspect food facilities affected by the storm, such as grocery stores and food-processing plants. The app replaces blank paper survey forms with electronic surveys that are accessible on mobile devices and prefilled with data about the facility under inspection. Data are stored in the cloud and accessible for real-time dashboards. GDA staff can download data to create advanced reports, which are used to identify facilities that require follow-up actions and to monitor enforcement decisions, such as embargoes on unsafe facilities.

The use of GIS technology increased the number of facilities inspected from 400 following Hurricane Matthew in 2016 to 1,400 following Hurricane Michael. The enhanced operational efficiency made possible through leading-edge technology helped GDA inspectors maintain the safety of Georgia's food supply.

Online Road Test Reservation System

Georgia Department of Driver Services (DDS)

DDS needed to replace its customer queuing system, which could not adequately handle the high volume of calls from customers wanting to make a reservation for a road test. DDS chose the online appointment software Ventus from Nemo-Q. It allows customers who have set up an account with DDS to schedule their own appointment by simply clicking the "Schedule a Road Test" link on the agency's website. Customers can view available dates, times, and locations, and select those most convenient for them. After the

appointment is made, the system sends a confirmation email. Customers are also able to reschedule or cancel their appointment. The new system makes it possible for customers to take control of their own schedules while also freeing staff at the agency's contact center to respond to other types of calls.

Retirement Online Application

Employees' Retirement System of Georgia (ERSGA)

The ERSGA team recognized the opportunity to deploy state-of-the-art technology to enhance the level of service it provides state workers while also streamlining the outdated and complex process of the paper retirement application.

The goal of the Retirement Online Application (ROLA) project was to enable a target demographic group of retirement-eligible state workers to apply for retirement online. The scope of the process included comprehensive data and interactive upgrades, which were by nature impossible with the paper application. Actual calculations for options such as the purchase of additional service, partial lump-sum payments, and more are done in real-time using master of record data.

ROLA was designed to be a simple, step-by-step wizard that guides a retiring worker seamlessly through the retirement process with an easy to understand, visually appealing interface.

College HOPE Eligibility Calculation Service

Georgia Student Finance Commission (GFSC)

The College HOPE Eligibility Calculation Service (CHECS) provides a central calculation system for Georgia's Helping Outstanding Pupils Educationally (HOPE) programs. CHECS calculates the academic eligibility of HOPE scholarship, Zell Miller scholarship, HOPE grant, and Zell Miller grant students attending Georgia's 83 HOPE-eligible, postsecondary institutions.

Prior to the implementation of CHECS, educational institutions were solely responsible for creating and using their own technology for calculating ongoing HOPE eligibility for their students, and they employed various methods to share the information with students.

The Georgia General Assembly transferred the responsibility for calculating ongoing eligibility to the Georgia Student Finance Commission. Launched in 2018, CHECS calculates HOPE GPA and Checkpoint status for about 320,000 college students in Georgia, thereby determining their academic eligibility for lottery-funded scholarships and grants, which totaled $671 million in FY 2018. CHECS provides students with their HOPE status through the GAfutures.org website.

Child Labor/Minors in Entertainment Automated System

Georgia Department of Labor (DOL)

The entertainment industry adds billions of dollars annually to Georgia's economy. Employers must obtain approval from DOL before they can hire minors. The Child Labor/Minors in Entertainment Automated System replaced an outdated, manual process for approving minors to work in Georgia's entertainment industry.

The old process required employers to submit written applications for each minor they hired, a process that was burdensome for employers and time-consuming for DOL workers. The number of applications related to minors doubled from 2016 to 2018, and before the new system was implemented, applications were only approved during regular business hours. In addition, it could take as long as five days to review an application seeking approval for a minor to work on a film location.

The new, automated system allows employers to quickly and easily add productions for which they are hiring. The entire registration process for an employer can be completed in less than one hour, including employer, production, and location registrations. Meanwhile, minors can be registered in the system by their adult representative in less than 30 minutes. After the employer, minor, production, and locations are approved, employers enjoy 24/7/365 access to add minors to work locations.

The new system provides immediate approval, even during nonbusiness hours, for a minor to work on a location and gives employers the capability to maintain an online, printable record of their minor hires. The system also provides DOL workers with data for tracking and reporting various statistics and allows for seamless cost recovery, thereby making this DOL business unit self-supporting.

Unclaimed Property eClaims Processing

Georgia Department of Revenue (DOR)

Unclaimed property refers to accounts held by financial institutions and other businesses that have lost the owner of record. Each year, cash, stocks, bonds, securities, and insurance benefits are turned over to DOR by entities that are unable to contact the proper owners. With the Unclaimed Property eClaims Processing project, DOR provided a self-service website where claimants can search for their property and file claims online.

Prior to implementation of the Georgia Unclaimed Property website, claimants requested claim forms by email or called DOR's Unclaimed Property Program team. All requests were manually reviewed and verified, and once approved, claim forms were either mailed or emailed to the claimant, who completed and returned them to DOR.

The new website matches and verifies the claimant's identity in real time. Claims meeting fast-tracking criteria are automated from claim initiation to payment processing without the submission of any written forms. If the claim cannot be approved electronically, the system lets claimants print required forms to complete and return to DOR for processing.

The system has significantly increased the number of claims and payments made to property owners.

September 2017 – February 2018
Total claims: 2,761
Total payments: $11,967,734

September 2018 – February 2019
Total claims: 7,735
Total payments: $16,885,541

Appendix

Appendix A – Participation by Agencies

Exhibit 1 – Agencies Reporting IT Expenditures

* = Cost data through the Georgia Enterprise Technology Services (GETS) program

NR in the "Reported 2019" column indicates that the agency did not submit a report because:

- The agency no longer exists.
- Its expenditures were included in the report from an agency to which it is administratively attached.
- The agency is attached to one of the state's constitutional agencies, which are exempt from filing the report.

	Agency Name	Reported 2017	Reported 2018	Reported 2019
1	Administrative Office of Georgia Courts	NR	NR	NR
2	Atlanta Regional Commission	NR	NR	NR
3	Board of Regents	NR	*	*
4	Brain & Spinal Injury Trust Fund Authority	✓	✓	✓
5	Council of Criminal Court Judges	NR	*	*
6	Council of Juvenile Court Judges	NR	*	*
7	Community Service Boards	NR	NR	NR
8	County Health Departments	NR	NR	NR
9	Court of Appeals	NR	*	*
10	Criminal Justice Coordinating Council	✓	✓	✓
11	Department of Administrative Services	✓	✓	✓
12	Department of Agriculture	*	✓	*
13	Department of Audits	*	*	*
14	Department of Banking and Finance	✓	✓	✓
15	Department of Behavioral Health and Developmental Disabilities	✓	✓	✓
16	Department of Community Affairs	✓	✓	✓
17	Department of Community Health	✓	✓	✓
18	Dept of Community Supervision	✓	✓	✓
19	Department of Corrections	✓	✓	✓
20	Department of Defense	✓	✓	✓
21	Department of Driver Services	✓	✓	✓
22	Department of Early Care and Learning	✓	✓	✓
23	Department of Economic Development	✓	✓	✓
24	Department of Education	✓	✓	✓
25	Department of Human Services	✓	✓	✓
26	Department of Insurance	✓	✓	✓
27	Department of Juvenile Justice	✓	✓	✓
28	Department of Labor	✓	✓	✓
29	Department of Law	*	*	*
30	Department of Natural Resources	✓	✓	✓
31	Department of Public Health	✓	✓	✓
32	Department of Public Safety	✓	✓	✓
33	Department of Revenue	✓	✓	✓
34	Department of Transportation	✓	✓	✓
35	Department of Veterans Services	NR	✓	✓
36	Employees' Retirement System	✓	✓	✓
37	Georgia Aviation Authority	✓	✓	NR
38	Georgia Board for Physician Workforce	NR	*	NR
39	Georgia Building Authority	✓	✓	✓
40	Georgia Bureau of Investigation	✓	✓	✓

	Agency Name	Reported 2017	Reported 2018	Reported 2019
41	Georgia Commission on Equal Opportunity	NR	*	*
42	Georgia Commission on the Holocaust	NR	NR	NR
43	Georgia Correctional Industries		*	*
44	Georgia Council for the Arts	NR	NR	NR
45	Georgia Development Authority	NR	*	*
46	Georgia Drugs and Narcotics Agency	NR	*	*
47	Georgia Emergency Management Agency	✓	✓	✓
48	Georgia Environmental Finance Authority	NR	✓	✓
49	Georgia Firefighter Standards and Training Council	✓	✓	*
50	Georgia Firefighters Pension Fund	NR	✓	*
51	Georgia Forestry Commission	✓	✓	✓
52	Georgia Lottery Corporation	NR	*	*
53	Georgia Peace Officer Standards & Training Council	NR	*	*
54	Georgia Peanut Commission	NR	*	NR
55	Georgia Ports Authority	NR	*	*
56	Georgia Professional Standards Commission	NR	*	*
57	Georgia Public Broadcasting	✓	✓	✓
58	Georgia Public Defenders Council	NR	*	*
59	Georgia Public Safety Training Center	✓	✓	✓
60	Georgia Public Service Commission	NR	*	*
61	Georgia Public Telecommunications Commission	NR	NR	NR
62	Georgia Real Estate Commission & Appraisers Board	NR	*	*
63	Georgia Seed Development Commission	NR	NR	NR
64	Georgia State Financing and Investment Commission	✓	✓	✓
65	Georgia Student Finance Commission	✓	✓	✓
66	Georgia Technology Authority	✓	✓	✓
67	Georgia Vocational Rehabilitation Agency	✓	✓	NR
68	Georgia World Congress Center Authority	✓	✓	✓
69	General Assembly	NR	*	*
70	Governor's Office of the Child Advocate	NR	NR	NR
71	Governor's Office of Highway Safety	✓	✓	*
72	Governor's Office of Student Achievement	✓	✓	✓
73	Jekyll Island State Park Authority	NR	*	*
74	Lake Lanier Islands Development	NR	NR	✓
75	Nonpublic Postsecondary Education Commission	NR	*	*
76	Office of Inspector General	*	✓	✓
77	Office of Planning and Budget	✓	✓	✓
78	Office of State Administrative Hearings	✓	✓	✓
79	Office of State Treasurer	✓	✓	✓
80	Prosecuting Attorneys' Council	NR	NR	*

	Agency Name	Reported 2017	Reported 2018	Reported 2019
81	Secretary of State	✔	✔	✔
82	State Accounting Office	✔	✔	✔
83	State Board of Pardons and Paroles	✔	*	✔
84	State Board of Workers' Compensation	✔	✔	✔
85	State Properties Commission	✔	✔	✔
86	State Road and Tollway Authority	✔	✔	✔
87	State Soil & Water Conservation Commission	✔	✔	NR
88	Stone Mountain Memorial Association	NR	NR	*
89	Subsequent Injury Trust Fund	✔	✔	✔
90	Superior Courts of Georgia	NR	NR	*
91	Teachers' Retirement System	✔	✔	✔
92	Technical College System of Georgia	✔	✔	✔

Appendix B – Spending by Agencies

Exhibit 1 – Agency IT Expenditures

Agencies Required to Report

#	Agency Name	2019 IT Spend
1	Department of Administrative Services	$10,509,305
2	Department of Agriculture	$1,848,698
3	Department of Audits	$24,213
4	Department of Banking and Finance	$1,929,119
5	Department of Behavioral Health and Developmental Disabilities	$36,837,613
6	Department of Community Affairs	$4,028,026
7	Department of Community Health	$123,976,533
8	Department of Community Supervision	$9,456,740
9	Department of Corrections	$33,465,003
10	Department of Defense	$3,834,731
11	Department of Driver Services	$32,527,016
12	Department of Early Care and Learning	$14,056,171
13	Department of Economic Development	$635,587
14	Department of Education	$14,550,910
15	Department of Human Services	$111,563,700
16	Department of Insurance	$1,822,074
17	Department of Juvenile Justice	$18,432,234
18	Department of Labor	$17,505,082
19	Department of Law	$265,535
20	Department of Natural Resources	$12,879,326
21	Department of Public Health	$18,341,464
22	Department of Public Safety	$12,224,499
23	Department of Revenue	$59,313,714
24	Department of Transportation	$47,234,937
25	Department of Veterans Services	$195,173
26	Employees' Retirement System	$2,791,965
27	Georgia Aviation Authority	$19,286
28	Georgia Bureau of Investigation	$13,434,427
29	Georgia Forestry Commission	$3,279,513
30	Georgia Public Defenders Council	$498,249
31	Georgia Public Service Commission	$82,356
32	Georgia State Financing and Investment Commission	$2,156,332
33	Georgia Student Finance Commission	$5,695,530
34	Georgia Vocational Rehabilitation Agency	$2,451,546
35	Office of Planning and Budget	$1,195,255
36	Office of State Administrative Hearings	$716,906
37	Secretary of State	$9,355,533
38	State Accounting Office	$22,956,051
39	State Board of Pardons and Paroles	$485,542
40	State Board of Workers' Compensation	$2,869,888
41	State Properties Commission	$64,723
42	Subsequent Injury Trust Fund	$60,962
43	Teachers' Retirement System	$5,927,405
44	Technical College System of Georgia	$39,207,230

Agencies Not Required to Report

#	Agency Name	2019 IT Spend
1	Board of Regents	$4,761,384
2	Brain & Spinal Injury Trust Fund Authority	$35,781
3	Council of Juvenile Court Judges	$5,321
4	Court of Appeals	$72,628
5	Criminal Justice Coordinating Council	$1,529,193
6	Georgia Board for Physician Workforce	$2,025,561
7	Georgia Building Authority	$14,668
8	Georgia Commission on Equal Opportunity	$37,095
9	Georgia Correctional Industries	$2,746
10	Georgia Development Authority	$85,117
11	Georgia Drugs and Narcotics Agency	$1,161,823
12	Georgia Emergency Management Agency	$541,173
13	Georgia Environmental Finance Authority	$0
14	Georgia Firefighter Standards and Training Council	$66,548
15	Georgia Firefighters Pension Fund	$771
16	Georgia Lottery Corporation	$32,956
17	Georgia Peace Officer Standards & Training Council	$4,448
18	Georgia Peanut Commission	$315,627
19	Georgia Ports Authority	$127,331
20	Georgia Professional Standards Commission	$2,632,748
21	Georgia Public Broadcasting	$2,117,095
22	Georgia Public Safety Training Center	$27,956
23	Georgia Real Estate Commission & Appraisers Board	$26,036,422
24	Georgia Technology Authority	$2,261,055
25	Georgia World Congress Center Authority	$136,005
26	General Assembly	$209,441
27	Governor's Office of Highway Safety	$1,488,616
28	Governor's Office of Student Achievement	$75,637
29	Jekyll Island State Park Authority	$9,213
30	Nonpublic Postsecondary Education Commission	$600
31	Office of Inspector General	$36,974
32	Office of State Treasurer	$1,293,766
33	Prosecuting Attorneys' Council	$3,931
34	State Road and Tollway Authority	$4,268,739
35	Stone Mountain Memorial Association	$4,804
	TOTAL	$752,129,275

Appendix C – Managed Technology Services

Exhibit 1 – Georgia's Managed Technology Services Model

Georgia Technology Authority
47 Trinity Avenue, S.W.
Atlanta, Georgia 30034
gta.georgia.gov