

# **SOUTH CAROLINA K-12 SCHOOL TECHNOLOGY INITIATIVE**



**21  
22**

**PROGRESS  
REPORT**

Much has been accomplished in the effort to transition K-12 education in South Carolina into the digitally connected era, yet much remains to be done. Achieving this goal requires bold educational and technological initiatives as well as steadfast programmatic and budgetary support from our state's leadership.

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## ABOUT THE INITIATIVE

The South Carolina K-12 School Technology Initiative was founded in 1996 as part of the General Assembly's proactive approach to addressing technology infrastructure, connectivity and education in schools throughout the state. The Initiative, steered by a unique public/private partnership, guides the distribution of funds appropriated by the Governor and General Assembly. These funds collectively help to meet our schools' needs for software, hardware, connectivity, digital content, instructional technologies, cybersecurity protection and professional development opportunities.

### Department of Administration

The South Carolina Department of Administration serves as the central administrative agency for state government with a mission to lead, collaborate and innovate. In this capacity, Admin utilizes shared services and centralization to help agencies efficiently and securely carry out common government functions, thereby allowing them to focus on their core missions.

### Department of Education

The South Carolina Department of Education is tasked with providing leadership and support so that all public education students graduate prepared for success in college, careers and citizenship. By 2022, districts will have available a system of personalized and digital learning that supports students in a safe learning environment to meet the Profile of the South Carolina Graduate.

### Education Oversight Committee

The South Carolina Education Oversight Committee, an independent group made up of educators, business people and elected officials, is charged with encouraging continuous improvement in our public schools, approving academic content standards and assessments, and establishing the state's educational accountability system.

### Educational Television

South Carolina ETV is the state's public educational broadcasting network. Using television, radio and the web, SCETV's mission is to enrich lives by educating children, informing and connecting citizens, celebrating our culture and environment and instilling the joy of learning. SCETV provides national and local content to classrooms and provides teacher training and re-certification opportunities.

### State Library

The South Carolina State Library is the primary administrator of federal and state support for libraries, and is responsible for public library development, library service for state institutions, service for the blind and physically handicapped, and library service to state agencies. The State Library develops, supports, and sustains a thriving statewide community of learners committed to making South Carolina stronger.

### Private-Sector Partners

In addition to the five public-sector partner agencies, the K-12 School Technology Initiative is also made up of two private-sector representatives, AT&T and the South Carolina Telecommunications and Broadband Association. These partners help guide and steer the Initiative as it seeks to support the provisioning of high-quality, information-rich education for all students.



## INITIATIVE PARTNERS

The partners that make up the South Carolina K-12 School Technology Initiative are extremely proud of the progress that has been made in the development and implementation of educational technology as well as the strides made in providing infrastructure initiatives designed to produce more successful students in South Carolina. It is our hope that South Carolina's leaders will continue their history of using the K-12 School Technology Initiative to guide the provisioning of high-quality, information-rich education for all students.



Department of Administration  
1200 Senate Street, Columbia, SC 29201  
Website: [admin.sc.gov](http://admin.sc.gov)  
Marcia Adams, Executive Director



Department of Education  
1429 Senate Street, Columbia, SC 29201  
Website: [ed.sc.gov](http://ed.sc.gov)  
Molly Spearman, State Superintendent of Education



Education Oversight Committee  
P.O. Box 11867, Columbia, SC 29211  
Website: [eoc.sc.gov](http://eoc.sc.gov)  
Matthew Ferguson, Executive Director



Educational Television  
1041 George Rogers Blvd., Columbia, SC 29201  
Website: [scetv.org](http://scetv.org)  
Anthony Padgett, President and Chief Executive Officer



State Library  
1500 Senate Street, Columbia, SC 29201  
Website: [statelibrary.sc.gov](http://statelibrary.sc.gov)  
Leesa Aiken, Director



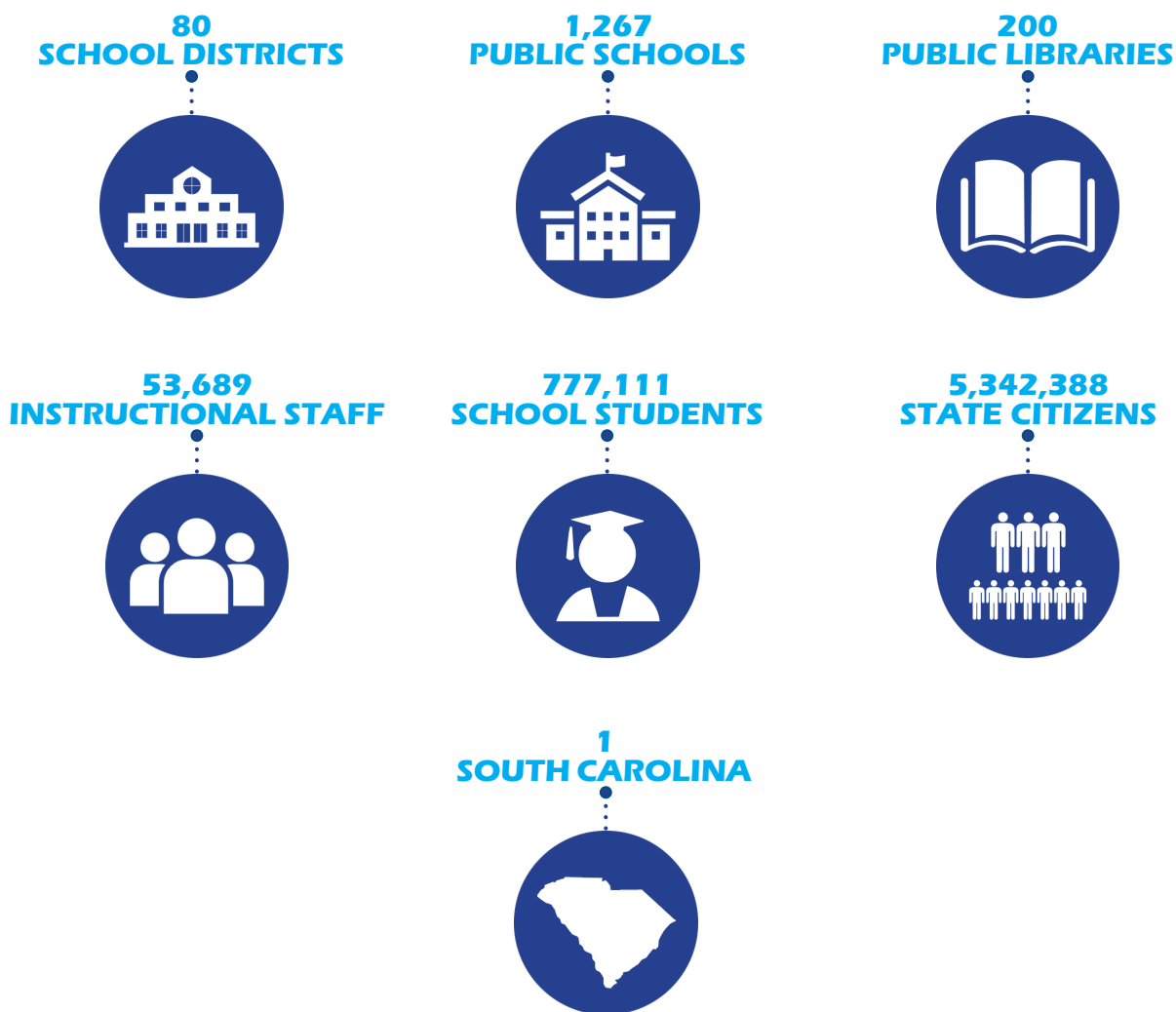
AT&T  
1441 Main Street, Suite 305, Columbia, SC 29201  
Website: [att.com](http://att.com)  
Jane Sosebee, President, AT&T South Carolina

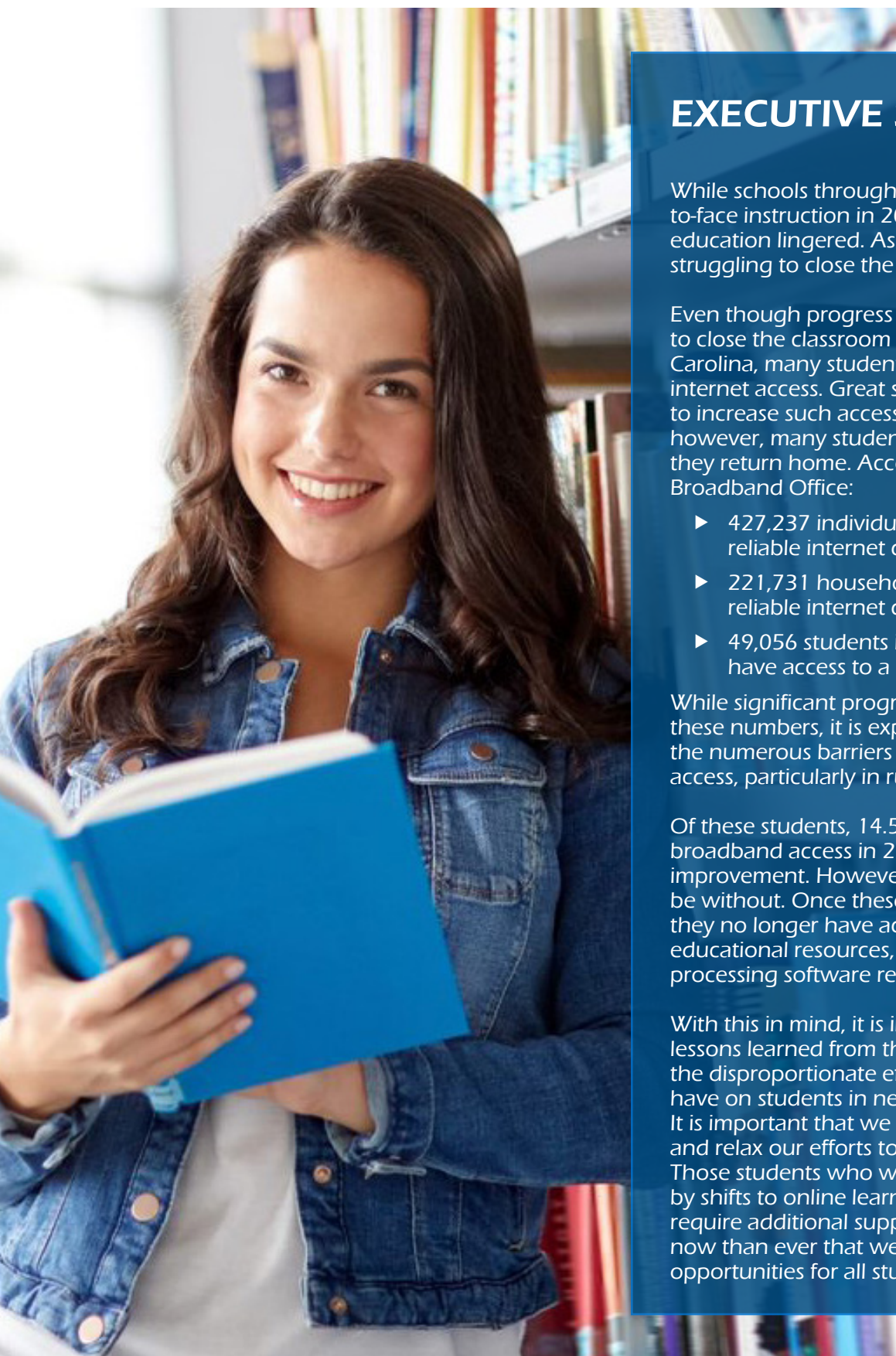


SC Telecommunications & Broadband Association  
1122 Lady Street, Suite 840, Columbia, SC 29201  
Website: [sctba.org](http://sctba.org)  
Nola Armstrong, Executive Director

## WHO DOES THE INITIATIVE SERVE?

The partners that make up the K-12 School Technology Initiative help provide a wide variety of essential services to public schools and libraries located throughout the state. Such services include technology infrastructure, connectivity, educational content, information security, professional development and collaborative opportunities. Together, these efforts have a profound and lasting impact on the state's 700,000+ public school students while also helping to shape and improve the future of our state and each of its citizens.





## EXECUTIVE SUMMARY

While schools throughout the state returned to face-to-face instruction in 2021-22, COVID-19's impact on education lingered. As a result, many students are still struggling to close the gap caused by the pandemic.

Even though progress is being made nationally to close the classroom connectivity gap, in South Carolina, many students still don't have reliable internet access. Great strides have been made to increase such access in schools and libraries; however, many students lose this access the minute they return home. According to the South Carolina Broadband Office:

- ▶ 427,237 individuals do not have access to a reliable internet connection.
- ▶ 221,731 households do not have access to a reliable internet connection.
- ▶ 49,056 students in public K-12 schools do not have access to a reliable internet connection.

While significant progress is being made to decrease these numbers, it is expectedly slow-moving due to the numerous barriers associated with broadband access, particularly in rural areas.

Of these students, 14.5% are expected to receive broadband access in 2022, which is a tremendous improvement. However, 41,925 students will still be without. Once these students return home, they no longer have access to online tutoring, free educational resources, and even to affordable word processing software required for typed assignments.

With this in mind, it is important that we use the lessons learned from the pandemic to help minimize the disproportionate effect that educational shifts have on students in need and in rural communities. It is important that we do not let our guard down and relax our efforts to close the connectivity gap. Those students who were disproportionately affected by shifts to online learning are still behind and still require additional support. Therefore, it is more vital now than ever that we work to increase educational opportunities for all students across South Carolina.





## INFRASTRUCTURE, CONNECTIVITY, SECURITY AND PRIVACY

### **South Carolina Technology Plan Goal:**

To support the state's learning goals, by 2024 South Carolina's public schools will have more secure networks, fast and stable technology infrastructure, and up-to-date computing devices. Public school students will have improved access to broadband internet at school and at home.

# INFRASTRUCTURE, CONNECTIVITY, SECURITY AND PRIVACY

## Partner Efforts to Support the Goal:

The partners that make up the South Carolina K-12 School Technology Initiative engage in a wide variety of activities and programs designed to improve the areas of infrastructure, connectivity, security and privacy. Such activities and programs are detailed throughout this section of the 2021-22 Progress Report.

## EXPANSION OF HIGH-SPEED BROADBAND INFRASTRUCTURE

The South Carolina Department of Administration (Admin) works to expand network connectivity for the state's K-12 public schools and libraries. The focus of this initiative is designed to provide a stronger technology foundation for students, teachers and library patrons as they acquire the skills needed to prepare for emerging educational technologies and job opportunities. As a direct outcome of this effort, fiber-based, high-capacity broadband connectivity continues to be expanded on a statewide basis among school and library entities.

### Bandwidth Growth

Internet connectivity for South Carolina's public schools and libraries has seen tremendous growth in recent years. Since June 2015, the number of districts with internet bandwidth of 1,000 Mbps or more has grown from 22 to 61.

As of May 2022, school districts accounted for over 337 Gbps of internet bandwidth capacity, including 9.3 Gbps to library systems and 21.5 Gbps to charter schools. While the average library system and charter school had roughly 277 Mbps of internet bandwidth capacity, the average school district had a capacity 4,065 Mbps.

Looking ahead, the K-12 School Technology Initiative will need to consider the network connectivity needs of schools and libraries over the next decade and set forth new connectivity goals that support the Initiative's vision.

### Category Two State Matching Funds Program

In FY 2021–22, Admin allocated \$2 million from the K-12 School Technology Initiative for the Category Two (C2) E-Rate State Match Program. The program reimburses school districts, library systems and charter schools for the non-discounted share of their FY 2021–22 Category Two E-Rate applications. The reimbursed funds were reinvested by the beneficiary to continue to upgrade network infrastructure. The program provided funding to 18 library systems, 16 charter schools and 55 school districts.

## SCHOOLS AND LIBRARIES E-RATE PROGRAM

Since 1998, the Schools and Libraries E-Rate Program has proven to be transformational for education technology in public schools, charter schools and libraries across the state. The support provided by this program is utilized by the South Carolina Department of Administration (Admin) to acquire broadband services for the state's K-12 school and library network participants.

Admin is also responsible for the administration of the South Carolina E-Rate Consortium (Consortium), which includes:

- ▶ 76 school districts.
- ▶ 66 charter and special schools.
- ▶ 43 library systems.
- ▶ Three state agency districts.



As of FY 2021–22, the Consortium was one of the largest E-Rate consortia in the United States with a total funding request of over \$28 million. The Consortium prepares and files annual applications for network connectivity on behalf of many of the state’s public schools and libraries, relieving the administrative burden on those organizations.

Consortium staff also assist districts and libraries with navigating the complex process of filing their own E-Rate applications. Such assistance is provided through the K-12 School Technology Initiative website with current program news, resources and deadlines. Assistance is also provided through virtual training sessions.

To support the Consortium, Admin manages funding from the K-12 School Technology Initiative to pay service providers who supply internet access to connect public schools, charter schools and libraries with wide area network (WAN) services. These high-speed networks are built to meet the ever-expanding needs of students, teachers and library patrons for enriching content

The funding support offered by the Schools and Libraries E-Rate program is essential to the continued expansion of education technology in districts and libraries throughout the state.

## E-Rate Program Trends

State schools and libraries have been able to fund improvements to network infrastructure, due in part, to the Schools and Libraries E-Rate Program’s Category Two (C2) funding mechanism.

In FY 2021–22, 55 school districts, 18 library systems and 20 charter schools requested over \$45.2 million in reimbursements for Category Two products and services such as routers, switches and other internal connections. Of this amount, \$35.9 million has been approved for funding. In June 2021, these school districts and library systems were disbursed \$9.5 million in reimbursements from the E-Rate program.

When comparing the FY 2020-21 and FY 2021-22 Category Two E-Rate filing data, several notable program trends were identified.

- ▶ The number of schools and libraries participating in the C2 E-Rate program decreased from 115 to 92.
- ▶ Applicants requested over \$23.3 million more C2 funds in FY 2021-22 than in the previous year.
- ▶ Applicants saw more E-Rate applications approved over the previous year.
- ▶ The FY 2021-22 E-Rate Efficiency Factor was

## **BROADBAND INFRASTRUCTURE:** At a Glance

**337 Gbps**  
District  
Bandwidth  
Capacity

**9.30 Gbps**  
Library  
Bandwidth  
Capacity

**21.5 Gbps**  
Charter  
School  
Bandwidth  
Capacity

Broadband Efforts:  
Connectivity for public  
schools and libraries

Agency:  
Admin

Website:  
[admin.sc.gov](http://admin.sc.gov)  
[sck12techinit.sc.gov](http://sck12techinit.sc.gov)

 **admin**  
THE SOUTH CAROLINA  
DEPARTMENT of ADMINISTRATION

92%, up from 87% the previous year.

It should be noted, E-Rate program rules allow applicants to invoice as late as 16 months after the funding year, which will cause these figures to change over time.

With the goal to reach 100% E-Rate Efficiency Factor, the Consortium and the K-12 School Technology Initiative must continue to provide additional opportunities for E-Rate training for school districts and library systems.

### **For Additional Information**

To learn more about the E-Rate program, please visit [sck12techinit.sc.gov/e-rate/program-information](http://sck12techinit.sc.gov/e-rate/program-information).

## **VALUE OF STATE MASTER CONTRACTS**

In many states, school districts and library systems do not have a statewide E-Rate consortium that provides broadband connectivity services, files required documentation and coordinates service ordering on their behalf. In this scenario, schools and libraries must devote more personnel to procurement, E-Rate compliance, and ultimately pay more for broadband connectivity services.

Fortunately, schools and libraries in South Carolina benefit from the avoided administrative burden of filing for E-Rate discounts on broadband connectivity and very low costs for those services through state term procurement.

### **Reduced Costs, Increased Capacity**

In January 2019, the South Carolina Department of Administration (Admin) awarded a seven-year state master contract for network services to AT&T. Most notably, the contract lowers the cost for wide area network (WAN) circuits by 29%. These lower rates went into effect July 2020. The contract also provides circuit bandwidth capacity speeds of 15 Gbps and 20 Gbps to schools and libraries for the first time. These high-capacity circuits allow the state's largest school districts to continue to grow their networks.

In March 2022, Admin awarded a five-year state master internet services contract to Segra. The contract lowers the cost of internet services by 20%, offering a wide range of bandwidth 10MB to 20 Gbps. The new contract went into effect July 1, 2022.

Cost savings from state master contracts fuel internet and WAN bandwidth capacity increases and, in many cases, lowers the cost shares for South Carolina E-Rate Consortium members. The Consortium provides higher circuit bandwidth on best-in-class service for a fraction of the cost of similar services a decade ago.

## **INTERNET SECURITY PROTECTION**

To help the state's schools and libraries combat the ever-increasing number and complexity of malware, ransomware and other advanced security threats, the K-12 School Technology Initiative provides Cisco Umbrella to districts, library systems and charter schools.

Cisco Umbrella is a leading, cloud-based, internet security product which complements the school or library's current internet security measures. Specifically, Cisco Umbrella leverages its constantly updated list of known domain name server (DNS) security threats with internet security policies providing drastically improved defense and a user-friendly experience.

### **Cisco Umbrella Usage**

It is important to note that South Carolina is the only state which provides Cisco Umbrella internet security services to all public school districts, library systems and charter schools through a coordinated statewide effort.

- ▶ In total, 150 school districts, library systems and charter schools are currently using Cisco Umbrella.
- ▶ Between July 1, 2021, and April 30, 2022, over 147.2 billion queries from schools and libraries were handled by Cisco Umbrella.
- ▶ Of those queries, 21.2 million security threats and potentially harmful or inappropriate websites were blocked.

## EXPANDED EDUCATOR ACCESS

South Carolina Educational Television (SCETV) expands access to educational web resources like Knowitall and PBS LearningMedia to educators across the state. These high-quality resources support standard-aligned learning experiences, many of which are specific to South Carolina history and designed for South Carolina College and Career Ready Standards.

SCETV also expands access to the internet to select education facilities within T-Mobile's coverage areas through the provision of free Wi-Fi devices. During the 2021-22 funding year, the T-Mobile and Sprint merger expanded the market for this free service.

In 2021-22, SCETV provided 284 Wi-Fi devices as gateways to broadband internet to applicable early childhood educators and other educational organizations, including after-school programs. SCETV bundles Wi-Fi access with its quality professional development and content funded by the K-12 School Technology Initiative.

The project helps close the digital divide in South Carolina while preparing early learning students for reading and STEM skills before and after school. The initiative also supports the work of

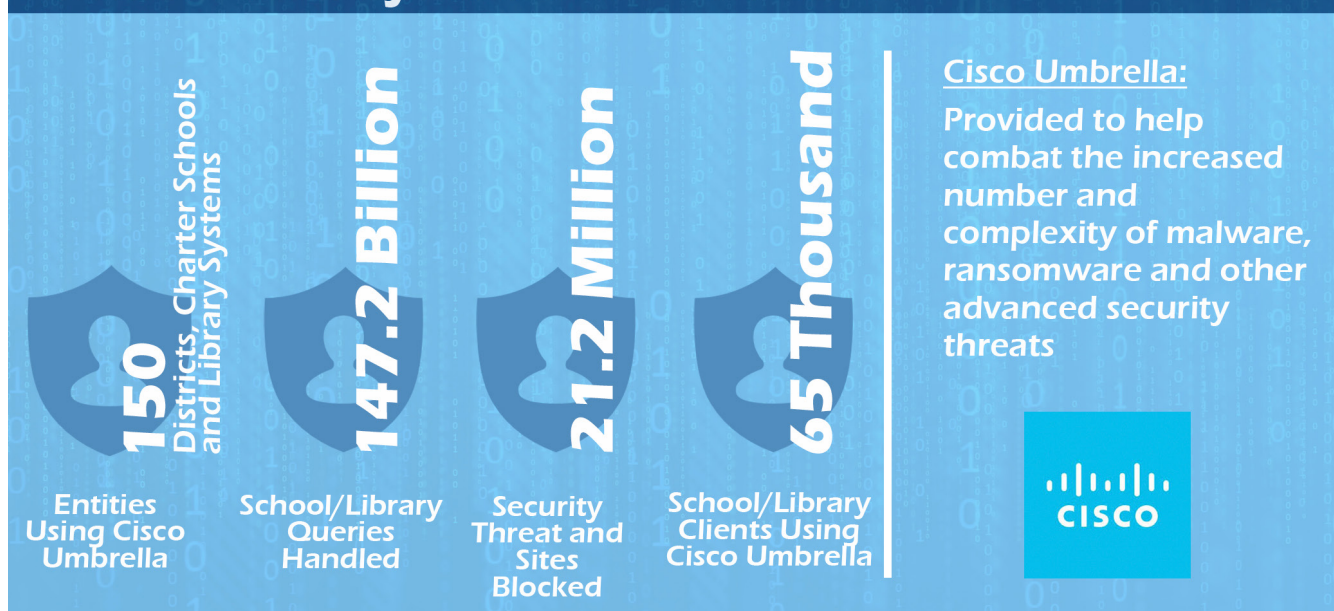
SCETV to engage parents and caregivers. Since 2020, nearly 10,000 teachers, parents and students have received training as a result of the work in this area.

## EXPANDED STUDENT ACCESS

ETV Learning+ is an at-home learning initiative created by South Carolina Educational Television (SCETV) to reduce cases of interrupted learning due to the COVID-19 pandemic. In 2021-22, funding was used to support the development of Super Sizzling Summer. Through this initiative, resources made available on Knowitall were included in the ETV main channel modified broadcast schedule. These modifications provided middle and high school learning content to student households between 1-4 p.m., Tuesday through Thursday. Learning supplements for each program were made also available on Knowitall and on the agency's remote learning webpage. Programming reached households in all 46 counties throughout the state.

Where internet access is unavailable or limited, SCETV offers datacasting as a complementary solution. Datacasting is a one-way communication system that allows educators to send learning content to student devices using

### Internet Security Protection: At a Glance





the broadcast signal. Specific activities funded through this work include updates to user manuals, student engagement videos, general marketing materials, and the development of parental outreach materials.

### **For Additional Information**

To learn more about the ETV Learning+ and datacasting initiatives, please visit [scetv.org/education/services-school-districts/datacasting](https://scetv.org/education/services-school-districts/datacasting).

## **SCDE DISTRICT INFRASTRUCTURE SUPPORT**

During 2021-22, the South Carolina Department of Education (SCDE) assisted several districts and schools in need of infrastructure support by providing used technology equipment — including servers, promethium boards, wireless controllers, access points, monitors, Chromebooks and desktop PCs — from its inventory and that of other state agencies.

## **DISTRICT BACKUP RECOVERY SERVICES INFRASTRUCTURE**

The South Carolina Department of Education (SCDE) provides data backup recovery services to participating districts throughout the state. The infrastructure for this effort includes an Avamar and Data Domain backup and recovery system, which has 97 terabytes (TB) of usable storage and is located in Columbia, South Carolina. SCDE also provided funding to procure Meraki communication devices needed for school districts to participate in the service.

The response from districts to this shared service offering has been greater than expected. Originally, only small school districts were targeted for this initiative; however, as of April 2022, SCDE has been providing data backup for 13 school districts of various sizes and is actively working to onboard additional districts.

Of the 13 school districts implemented, SCDE is backing up 101 servers and 40TB of data. Some

school districts back up a portion of their data while others are using the service to back up all data. SCDE will continue to review current storage resources as usage continues to grow.

## **IMS GLOBAL LEARNING CONSORTIUM MEMBERSHIP**

In 2021, The South Carolina Department of Education (SCDE) purchased an IMS Global Learning Consortium affiliate membership to expand the support it offers to the state's school districts. Membership in the consortium provides a wide variety of benefits, including access to development tools not available to the public, guidance on the effective implementation of IMS specifications, and information on new innovations in the learning industry.

Consortium membership also provides districts the ability to access the TrustedApps utility, which includes access to an application-vetting rubric and a set of applications that meet defined security and privacy requirements. It also provides support for implementing IMS global standards for developing a digital learning environment.

## **DISTRICT TECHNOLOGY TRAINING**

The South Carolina Department of Education (SCDE) coordinated technical and non-technical training opportunities for school districts throughout the state.

### **District Technologist Training**

SCDE offered Information Privacy and Data Incident Management Training to all school district IT directors. This two-part, multiday live hands-on training was recorded and made available to districts for future reference. More than 75 individuals representing 49 school districts, including 12 Abbeville Plaintiff Districts, registered to participate in this opportunity.

Topics covered during these training sessions included the following:

### **Privacy Threshold Analysis (PTA) and Privacy Impact Assessments (PIA)**

- ▶ How these fit in an overall privacy program.
- ▶ The difference between PTAs and PIAs.
- ▶ Identifying privacy risks.
- ▶ Partnering with process owners.
- ▶ Steps in performing an assessment.
- ▶ Developing a mitigation plan.
- ▶ PTA/PIA templates.

### **Privacy Incident and Breach Response**

- ▶ Privacy incident response lifecycle.
- ▶ Response and notification components.
- ▶ Exercise.
- ▶ Response readiness considerations.
- ▶ Developing an incident response plan.

### **District Online Professional Development**

SCDE offered school districts the opportunity to acquire a site license for online professional development courses through SkillSets of Silicon Valley. The site license provides unlimited dashboards and access to a large variety of both technical and non-technical courses, assessments and practice labs.

With unlimited access, this resource can be extended to both school district staff and students. As of May 31, 2022, 71 school districts have taken advantage of this opportunity, including:

- ▶ 1,056 courses (technical and non-technical).
- ▶ 23 certification assessments.
- ▶ 172 practice labs.
- ▶ 31 job aids.

### **Technical Assistance Funding**

SCDE allocated \$1,000 initially to the Abbeville Plaintiff Districts for the purpose of providing technology technical assistance via district technology leaders and staff. All other qualifying districts received this funding allocation for the same purpose.

The funds were intended to help enable recipient technical skills and strategic planning in supporting teaching and learning. District technology leaders and staff were permitted to use these funds for costs associated with attending in-person and virtual professional development training events, technical conferences and classes related to educational technology which increase the school district's capacity to provide the following:

- ▶ Secure online testing.
- ▶ Increased access to technological and online resources to support student development and achievement.
- ▶ Technology strategic planning tools.
- ▶ Technology collaboration.
- ▶ Professional development (support teaching and learning).
- ▶ Secure network connectivity and internet access.

### **Electronic Document Accessibility Training**

SCDE also offered virtual training on how to make online documents accessible to school district educators and support staff. This two-day, hands-on training reviewed how to check for and repair common accessibility issues in Microsoft, Google and PDF documents. This training focused on online instruction and content development for posting online. Over 103 participants registered for this training session.



## TEACHING AND LEARNING

**South Carolina Technology Plan Goal:**  
To promote students' meeting the Profile of the South Carolina Graduate and to support Personalized Learning, by 2024 South Carolina's public schools will have more accessible tools for "anytime, anywhere, any pace" learning.

# TEACHING AND LEARNING

## Partner Efforts to Support the Goal:

The partners that make up the K-12 School Technology Initiative engage in a wide variety of activities and programs designed to improve the areas of teaching and learning. Such activities and programs are detailed throughout this section of the 2021-22 Progress Report.

## DISCUS

Digital Information for South Carolina Users ([Discus](#)), South Carolina's virtual library, is an invaluable collection of more than 70 free electronic resources that is administered by the South Carolina State Library (State Library) and supported by the K-12 School Technology Initiative. The State Library uses funds through this partnership to assist in providing a comprehensive electronic library of credible, high-quality information, and educational resources for all state residents through schools, higher education institutions and public libraries.

Available on a 24/7 basis, Discus includes millions of articles from general magazines, professional periodicals, encyclopedias, newspapers, videos, e-books, primary sources, career assessments, live tutors and much more. Discus resources also support educators with lesson plans, student activities, maps and photographs.

The State Library curates resources for Discus that are authoritative, age-appropriate, curriculum-aligned and designed to help meet the needs of our communities and provide equitable access to all South Carolinians. Discus is a safe place for students to explore and understand history, social issues, current events and other topics from a variety of aggregated sources without the influence of ad revenue or sponsored content.

The subjects considered essential to the Profile of the South Carolina Graduate — language arts, math, world languages, STEM, arts and social sciences — are readily available in Discus. Providing scholarly knowledge with excellent skills such as critical thinking and communication enhances life and career opportunities while helping improve the quality of life for all.

During 2021-22, the State Library successfully migrated the Discus website to a new platform, Drupal 8, which provides enhanced functionality and a new color scheme. The updated website is mobile-friendly and easy to search and navigate.

Incorporating EZproxy, a state-of-the-art authentication solution, into Discus offers seamless access for South Carolina residents and provides a 97% successful access rate. Equitable access to Discus ensures all students throughout the state can easily utilize excellent, scholarly information with seamless access without the need for usernames, passwords or other credentials.

## Enhanced Discus Resources

The State Library continues to focus attention on South Carolina's students to ensure they have the resources available to complete unfinished learning due to the effects of the COVID-19 pandemic. With the assistance of the K-12 School Technology Initiative and the South Carolina Department of Education, the State Library was able to renew the subscription for Tutor.com and provide high-quality academic support at no cost to families.

In the fall of 2021, the State Library announced a three-year \$1.5 million partnership with the South Carolina Department of Education to address the continuing academic impact of the pandemic.



Utilizing the American Rescue Plan Elementary and Secondary School Emergency Relief Fund (ARP ESSER), the [Tutor.com](#) service provides equal access to individualized learning for all students and families. Tutoring is available for English and Spanish speakers on a 24/7 basis and offers access to highly qualified tutors in more than 200 subject areas.

Math tutoring far outpaces other subjects with 66% of all tutoring sessions being math-related. In addition to individual tutoring, Tutor.com provides a service for administering practice tests to determine if students are on the trajectory for content mastery as well as submitting writing assignments for review and feedback. In addition to improving grades, tutors assist with time management and planning strategies. Student comments and evaluations of the service have been very positive with a student satisfaction rating of 97% and steady increases in the tutoring sessions used.

The K-12 School Technology Initiative also assisted the State Library with continued funding for TumbleMath, a popular e-book collection that targets students in grades K-6. The engaging platform provides teachers with the ability to connect literacy and numeracy.

In addition, several resources were added to the Discus collection for students and educators. Such additions include:

- ▶ PebbleGo by Capstone, which includes [Animals](#), [Animales](#), [PebbleGo Next](#), [Biographies](#) modules for K-5 students.
- ▶ [Ferguson's Career Guidance Center](#) aids students of all ages with exploration and career planning.
- ▶ [African-American History](#) explores more than 500 years of African-American history and culture.
- ▶ [Gale eBooks](#): Drama, Novels, Short Stories and Poetry for Students assists in the analysis of the most-studied works of all time periods, nations and cultures.
- ▶ [TeachingBooks](#) is designed to enrich every student's reading experience.

These new subscriptions are quite popular and provide a wealth of information for research and projects. Adding the PebbleGo resources reaches younger students and Spanish speakers and assists in elementary biographical projects. In the first three quarters of the fiscal year, 882,418 articles were viewed and games played in these two databases.

Ferguson's Career Guidance Center supports students choosing a career path, graduates entering the workforce, or professionals looking to change careers. TeachingBooks provides resources supporting children's and young adult books including guides, activities, teaching ideas and student homework help. This is a popular resource as indicated by the approximately 700,000 items accessed by students and educators in the first quarter it was available.

### Discus Usage

Discus resource usage for the first three quarters of FY 2021-22 remained steady as compared to the same period the previous year. During this time, South Carolinians retrieved 14,427,960 items using Discus resources, including full-text retrievals, videos viewed, e-books read and tutoring sessions initiated.

Several Discus resources experienced significant increases in usage during this time, including:

- ▶ Britannica Online usage rose 17%.
- ▶ Gale Cengage usage rose 29%.
- ▶ ProQuest CultureGrams usage rose 20%.
- ▶ Tutor.com sessions increased 21%.

These results are strong evidence that Discus electronic resources and services are extremely popular with students and educators alike.

The partnership with the South Carolina Department of Education has been immensely helpful in marketing Tutor.com to administrators, educators, families and students around the state. The expanded hours and subjects allow students more opportunities to use the tutoring service and provide individual attention that is not rushed or judged.

During FY 2021-22, over 17,000 tutoring sessions were conducted as compared to 13,738 sessions the previous year, indicating that the service is helping students who are having academic difficulty or may be at risk of not meeting on-time graduation requirements.

Britannica Online remains a strong resource in the Discus collection. This trusted encyclopedia provides information for all ages in an easy-to-use interface. Gale Cengage, another trusted partner, experienced higher usage in each of the three databases included in Discus. Gale in Context Biography, Gale in Context Elementary, and Opposing Viewpoints are examples of aggregated content that is accurate, authoritative and peer-reviewed.

### Discus Return on Investment

School media centers, public libraries and academic libraries receive direct benefits from the Discus statewide consortia. In the South Carolina Department of Education's Standards for School Library Resource Collections, Discus is included as an indispensable resource to aid school libraries in meeting standard collection recommendations for all grade levels in nonfiction, fiction and professional journal collections. Without Discus, many resource-constrained schools could

not meet these core collection guidelines. The ability for all libraries to have access to scholarly resources regardless of race or socio-economic status is imperative to the intellectual development of South Carolina citizens.

The State Library thoroughly vets potential resources throughout the year to stay up to date on new products, technology and features. Each Discus addition aligns with South Carolina curriculum standards for all grade levels and fills gaps within the collection. Potential databases are analyzed for price point, content, ease of navigation, authentication capabilities and ability to integrate with the most popular learning management systems. The State Library closely monitors resource usage to wisely utilize funding by providing a comprehensive collection of databases.

Discus licensing costs for the 2021-22 fiscal year totaled \$3,526,514, with primary funding provided by a South Carolina General Assembly appropriation. Statewide licensing eases the costs for libraries to free up funds for other materials or programming. Were each library to purchase access to DISCUS databases separately, the total cost would exceed \$32 million, assuming libraries and schools have the technology available to successfully access the databases.

## DISCUS: At a Glance



Discus:  
South Carolina's  
virtual library

Agency:  
SC State Library

Website:  
[scdiscus.org](http://scdiscus.org)



The State Library's administration of this valuable and popular statewide program provides a cost avoidance for South Carolina institutions of over \$28 million. This return on investment proves that Discus is an excellent example of cost efficiency and learning opportunities.

### **For Additional Information**

To learn more about the State Library's Discus, please visit [scdiscus.org](http://scdiscus.org).

## **DISCUS PROFESSIONAL DEVELOPMENT**

Due to the effects of the COVID-19 pandemic and the uncertain status of on-site learning, the South Carolina State Library (State Library) conducted professional development and training online for a second consecutive year. In July, a full day of live virtual workshops were offered to educators to present the newest Discus additions and ways to integrate them into lessons and research. The training included sessions on PebbleGo, Tutor, Gale eBooks, African-American History and Ferguson's Career Guidance Center. The virtual sessions were effective and well attended by media specialists, educators and librarians, with each attendee able to ask questions and share feedback with the presenter.

### **Discus Professional Development Offerings**

The State Library's decision to offer virtual training provided an opportunity to connect with libraries and collaborate with new organizations to share the valuable resources found in Discus. In the fall, the Discus Training and Outreach Coordinator presented at two civil rights conferences hosted by the University of South Carolina's School of Library and Information Science. These presentations were very successful and provided assistance to teachers using Discus primary sources and tools to support professional development.

Discus continued its commitment to train librarians, educators, students, caregivers and home-school families in the effective use and integration of Discus resources. A total of 1,576

individuals attended the hands-on offerings or watched the recorded sessions. In addition to the two conferences, presentations were also made to the following groups:

- ▶ Coastal Carolina Secondary Social Studies Teachers.
- ▶ S.C. Association of School Librarians.
- ▶ S.C. Connections Academy.
- ▶ S.C. Education and Business Summit.
- ▶ S.C. Independent Schools.
- ▶ S.C. Leaders of Literacy.
- ▶ S.C. Library Association.
- ▶ S.C. Midlands Summit.

Through training opportunities and electronic resources, teachers and administrators learned how to implement research-proven strategies to enable the effective integration of technology to support and enhance student achievement.

## **DIGITAL TOOLS FOR TEACHING AND LEARNING**

The South Carolina Department of Education (SCDE) deployed a robust, integrated digital learning solution designed to support teaching and learning. The solution — which includes four learning management systems (LMS), a learning object repository (LOR), and a suite of standards-based digital learning resources from Discovery Education — provides every student and educator the ability to access high-quality, standards-aligned content, ready-to-use digital lessons, and professional learning resources no matter their location or learning environment.

### **Learning Management System**

The learning management system deployed by SCDE is a software framework through which education content is delivered and managed. Students and educators are assigned licenses to access content and complete assignments.

SCDE allowed districts to choose from one of four LMS platforms; Canvas, Schoology, Blackboard and Google Classroom. Based on these choices,



SCDE provided the following:

- ▶ Blackboard to one school district and three public charter schools (3,593 licenses).
- ▶ Instructure (Canvas) to 19 school districts and five public charter schools (239,442 licenses).
- ▶ Schoology to 37 school districts and 10 public charter schools (274,468 licenses).

In addition, 13 school districts were partially reimbursed for LMS expenses they incurred before the statewide offering.

### Learning Object Repository

The learning object repository deployed by SCDE serves as a digital library of educational content. The content can be seamlessly shared with the district LMS regardless of brand, and teachers can use LOR resources to develop lesson plans and find compelling content to help streamline planning activities and assignments for students in personalized ways.

SCDE selected [SAFARI Montage](#) as the state's LOR provider with teacher access paid through 2023. SAFARI Montage provides outstanding educational video resources, including all of the original Bill Nye: The Science Guy episodes, the current PBS, BBC, A&E and National Geographic documentaries, plus video from hundreds of the finest educational video publishers for all grade levels and subject areas.

In addition, there are thousands of free web resource links which have been curated to save teachers and students time. All resources are aligned with South Carolina College and Career Ready Standards. SCDE-created content and district-level exemplar lessons and units are included in the LOR, which provides all South Carolina teachers with the opportunity to share within the district and across the state.

### Discovery Education Resources

SCDE partnered with [Discovery Education](#), a Charlotte-based leader in standards-aligned digital curriculum resources, to populate the learning object repository. All state public school teachers and students receive access to [Discovery](#)

[Education Experience](#), which connects educators to a vast collection of high-quality, standards-aligned content, ready-to-use digital lessons and professional learning resources. Together, these resources provide educators with everything they need to facilitate instruction in any learning environment and create lasting educational impact.

Discovery Education provides South Carolina's teachers with dedicated interactive professional development sessions designed to help integrate the new digital resources into classroom and online instruction. These best practices will help maximize the state's investment, increase student engagement and support their continued academic development.

## **REMOTE LEARNING IMPACT**

While the South Carolina Education Oversight Committee (EOC) concluded its eLearning pilot project in 2021, it has continued to look at the effects of remote learning and technology access in South Carolina. Recognizing the "unprecedented upheaval to the education of students in every corner of the state" and the need for a data-driven approach to the state's response to COVID-19, EOC staff undertook a thorough review of the opportunities for innovation, lessons learned for planning, and barriers to success during emergency remote learning. Highlights of the study's findings are provided below:

### Obstacles Identified

- ▶ Unequal distribution of internet access and 1:1 devices.
- ▶ Lack of a digital ecosystem to support long-term virtual instruction.

### Emerging Issues

- ▶ Many vulnerable students opt for virtual options, while more resourced students are opting for brick-and-mortar schooling.
- ▶ Concerns with the reliability of assessments delivered remotely.
- ▶ The need for quality assessments to make data-informed decisions.



## **Impact on Student Learning**

- ▶ Students declined in projected proficiency and in median percentile rank in both mathematics and reading. The decline was most dramatic in elementary math.
- ▶ Significant achievement gaps among historically underachieving students and their higher achieving peers continue to exist, but do not appear to have widened during emergency remote learning.
- ▶ In a sample of 14 state districts, there was no statistically significant difference observed in the COVID slide of students with respect to instructional method.

## **Recommendations**

- ▶ Require coordinated efforts and deploy strategies to establish communication with students who are not attending school or disengaging from instruction.
- ▶ Continue to address disparities in learning opportunities by ensuring that supports, such as access to the internet and a device, are in place for students.
- ▶ Provide access to a robust virtual curriculum for students engaged in remote learning.
- ▶ Provide tutoring services and extra interventions for at-risk students.

## **For Additional Information**

For additional information and for links to the full report, visit <https://bit.ly/EOCReport22>.

## **SCETV EDUCATIONAL RESOURCES**

South Carolina Educational Television's (SCETV) Education Services delivers a wide range of high-quality digital learning content for students and educators throughout the state. SCETV provides professional development and curriculum support to support personalized, collaborative learning experiences. As part of this effort, SCETV creates, organizes and distributes educational content to support pre-K-12 student needs, while also providing a variety of online and face-to-face professional development opportunities for teachers, staff and administrators.

Over the past two decades, funding from the K-12 School Technology Initiative has been used

to help provide resources used extensively by the state's pre-K-12 children. This funding has helped support SCETV's on-demand multimedia curriculum resource sites and professional development, including KnowItAll, PBS Learning Media and PD At Home. This funding now supports the development of user resources for SCETV's datacasting initiative.

Over the past year, SCETV offered synchronous virtual training and professional development on several instructional technology topics to nearly 2,500 educators. Funds were also used to engage on-site student visitors in hands-on project based, standard-aligned activities using emerging technologies and computer assisted design. During this fiscal year, over 300 students were engaged via this initiative.

### **KnowItAll.org**

KnowItAll.org, a long-standing service offered by SCETV, is a free online collection of original and engaging educational resources designed specifically for classroom use. Most of the assets are standards-based, include cross-curricular lessons and assessments, and are available in Spanish.

[KnowItAll.org](https://www.knowitall.org) features a wide assortment of approximately 10,000 media assets and curriculum resources. As a result of this funding, SCETV was able to complete the development of an IMS Global common cartridge that permits ingestion of these resources into the state's learning object repository, the SC Instruction Hub.

Funds also provided for application programming interface documentation renewal that supports alignment of educational assets to standards, to include the 2021 South Carolina College and Career Ready Science standards. Additional updates included the addition of a Lesson Outcomes section for sharing the results of lesson implementation among users, enhancements for search optimization, and the addition of Spanish translations for select resources.

Multimedia assets on KnowItAll.org break down into the following categories:

- ▶ 5,049 mobile-friendly videos.
- ▶ 1,336 audio resources.
- ▶ 685 lessons.
- ▶ 2,087 photos.
- ▶ 469 documents.
- ▶ 172 interactives.

During this year of transition, the sight amassed an average of 124,000 pageviews and 44,000 new users per month. Of these users, 52% accessed KnowItAll resources via computer, 45% via smartphone and 2% via tablet.

In addition to website maintenance and development, initiative funding also supported the purchase of new equipment for producing interactive virtual tours of notable historic sites and the update of virtual tours to include insights from South Carolina students. Funding also supported the conceptual pre-production of KidsECON, a new personal and community economics series for use in first grade classrooms, and new episodes of History in a Nutshell focusing on the Lewis and Clark expedition, the Trail of Tears, and the Cold War.

Funding from the 2021-22 funding year also supported the development of Simple.Digital, a digital literacy campaign that provides easy-

to-use guides for navigating digital spaces. The development of South Carolina African American History Calendar vignettes for each honoree and an activity workbook featuring standard-aligned learning activities related to the life of each calendar honoree was also made possible by the funding.

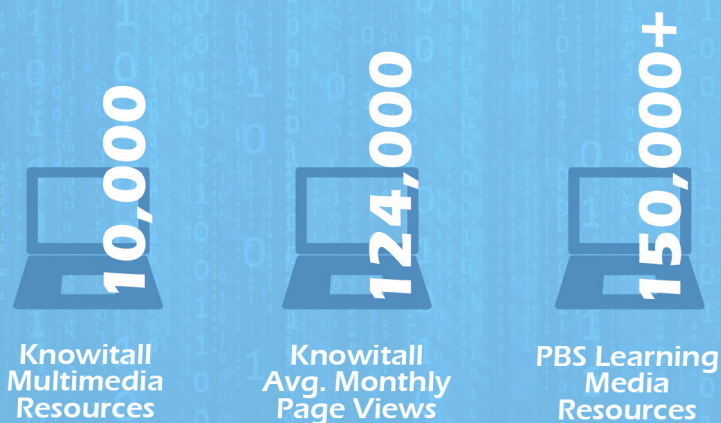
### PBS LearningMedia

In addition to KnowItAll, SCETV is expanding access to web resources through the continued utilization of PBS LearningMedia. In 2021-22, South Carolina PBS's LearningMedia library included more than 150,000 multimedia resources for pre-K-12 educators boasting more than 250,000 users, including 179,000 new users.

Users viewed approximately 700,000 pages, resulting in the streaming of over 1.3 million videos, averaging 120,000 streams per month. During most months, both data points are above the national average.

Peak usage during the past year, reflected 196,700 page views from October to November 2021, and nearly 338,000 video streams from February to March 2022. Training on PBS Learning Media is incorporated into customized workshops designed for educators across South Carolina.

## SCETV EDUCATION SERVICES: At a Glance



Agency:  
SCETV

Website:  
[scetv.org](http://scetv.org)

**KnowItAll**  
.ORG



PBS LearningMedia



## **SCETV Survey Efforts**

All of the aforementioned services are systematically evaluated for effectiveness and efficiency. In order to remain responsive to the needs of the educational community, SCETV surveys teachers, staff and administrators to help identify gaps and gauge the use of technology and educational services in schools.

To date, nearly 1,000 respondents have participated in the annual survey, representing public schools, private schools, charter schools, home schools, child care centers, adult education centers and higher education institutions.

- ▶ Approximately 80% of participants that utilized SCETV educational resources and services indicated that they helped to improve student engagement in the classroom.
- ▶ Of respondents that use KnowItAll as a teaching and learning resource, 97% found it very valuable or valuable.
- ▶ 50% of those same respondents confirmed awareness that KnowItAll.org resources are also available via the SC Instruction Hub.
- ▶ Similarly, 98% of respondents familiar with PBS LearningMedia rated it as a very valuable or valuable resource.

Survey responses indicated an interest and need for additional resources to be translated into Spanish and resources related to teaching students with disabilities, STEM/STEAM, writing, middle and high school science, social and emotional learning, and arts integration.

In addition to content needs, responses gave insights regarding ways SCETV could continue to enhance provided services and resources. Survey results are paramount in assisting SCETV with ensuring that services align not only with the needs of educators, but with the tenets outlined in the Profile of the South Carolina Graduate.

## **For Additional Information**

To learn more about SCETV and the resources it has to offer, please visit [scetv.org/education](https://scetv.org/education).

## **SCETV PROFESSIONAL DEVELOPMENT**

Meeting the needs of educators who impact learning each day in classrooms across the state is one of South Carolina Educational Television's (SCETV) top priorities.

SCETV has historically committed to serving South Carolina's districts, schools and educators by providing free professional development sessions on a variety of topics, including how to effectively integrate SCETV resources into instruction. Typically, sessions are hosted in a face-to-face or blended format, reaching approximately 5,000 persons each year.

During the 2021-22 academic year, the number of individuals trained by SCETV decreased to 2,500 due to various changes resulting from the COVID-19 pandemic. This amount includes educators attending the Super Sizzling Back to School Professional Development series that covered instructional technologies, science and math resources, learning with immersive technology, and designing learning media.

Evaluation results from the annual survey of educational services show that 98% of attendees found the presenters knowledgeable and the sessions valuable in supporting their respective roles. Requested training topics included parent and community engagement, methods of teaching economics for middle school, learning management system tips, classroom studio setups, and teaching English to Speakers of Other Language (ESOL) students.

The free professional development sessions offered through SCETV are complemented by recertification courses available for certificate renewal and graduate-level credit. Courses are made available directly through SCETV and TeacherStep (Converse College).

Educators can search courses through a centralized website by curriculum interest, professional development and credit needed, and also find out if courses qualify for technology



credit. Some courses qualify for Read to Succeed credit, while others place emphasis on topics such as assessment, early childhood pedagogy, digital storytelling, project-based learning, flipped classrooms and culturally relevant pedagogy. The completion of each term yields an overwhelming majority of positive feedback from participants.

### **For Additional Information**

To learn more about SCETV's free professional development sessions and the SCETV Teacher Recertification Courses, please visit [scetv.org/education/recertification-courses#/.](https://scetv.org/education/recertification-courses#/)

## **STUDY SC**

StudySC is the creation of the South Carolina State Library (State Library) and provides a safe, informative place to learn about South Carolina's history, culture, people and geography. Launched in 2010, this fact-filled website supports the state's K-12 Social Studies and English Language Arts Standards with reputable information for students and educators.

StudySC provides the ability to learn more about the state through such sections as:

- ▶ SC Subjects.
- ▶ SC People.
- ▶ SC Counties.
- ▶ SC Facts.
- ▶ SC Glossary.
- ▶ SC Book Awards.

The SC Book Awards section contains information on each nominee for a four-year period and includes the book jacket, synopsis, author biographical information and interviews, book reviews, study guides and other supplemental support materials.

During 2021-22, the State Library completely revised and successfully migrated StudySC to a new platform, Drupal 8, with new content, navigation and color scheme. The new website is mobile-friendly and very easy to search and navigate. The content is rich with images and

primary sources and supported with information from South Carolina Educational Television (SCETV), the South Carolina Encyclopedia, the South Carolina Hall of Fame, county websites, author websites, organizational websites and Discus databases.

Each of the 25 subjects in StudySC is broken into elementary, middle and high school grade levels. Nearly 500 notable people who have made a significant impact on the state and the world through art, business, civil rights, exploration, politics and science are in StudySC. South Carolina's geography, history, facts and county information are all a part of StudySC.

This valuable resource continues to be popular with students and educators. In FY 2021-22, the StudySC usage comprised 108,549 page views.

### **For Additional Information**

To learn more about the State Library's StudySC, please visit [studysc.org](https://studysc.org).

## **VIRTUAL SC**

In 2007, the South Carolina Department of Education (SCDE) developed VirtualSC, the state's virtual school program, with funding from the K-12 School Technology Initiative. Since that time, VirtualSC has become an invaluable resource by offering online courses for credit, free-of-charge to all South Carolina students.

### **Rise in Popularity**

VirtualSC has become increasingly popular since its inception and has now grown to become the fifth largest state virtual school program in the nation based on student enrollments, according to the latest Keeping Pace with K-12 Online Learning Report.

VirtualSC courses are available to any public, private, home-schooled or adult education student in the state, and are provided through the Moodle online LMS. Registration for these courses takes place in the program's student information system, Genius.

Teachers remain in contact with their students through a variety of methods, including via telephone, email, web conferencing and instant messaging systems. Live lessons are also conducted for some courses, such as world language courses, utilizing BlackBoard Collaborate and Jigsaw virtual classrooms.

In the 2022-23 school year, the program will begin to implement Proactive Personalized Communication, which drives teachers to make personalized communication with pupils in a format that works best for the student. Based on student feedback obtained from the program's Student Advisory Board in 2021, it was determined that students have a variety of communication preferences beyond just email and telephone – such as text messaging. Teachers will work to determine the best options for engaging and communicating with individual students and will ensure that students are being proactively communicated with throughout their course. The goal of Proactive Personalized Communication will be to increase student-teacher engagement in an effort to enhance student success in the online courses.

To help ensure course offerings meet quality, design and academic standards, SCDE's Office of Virtual Education developed a curriculum

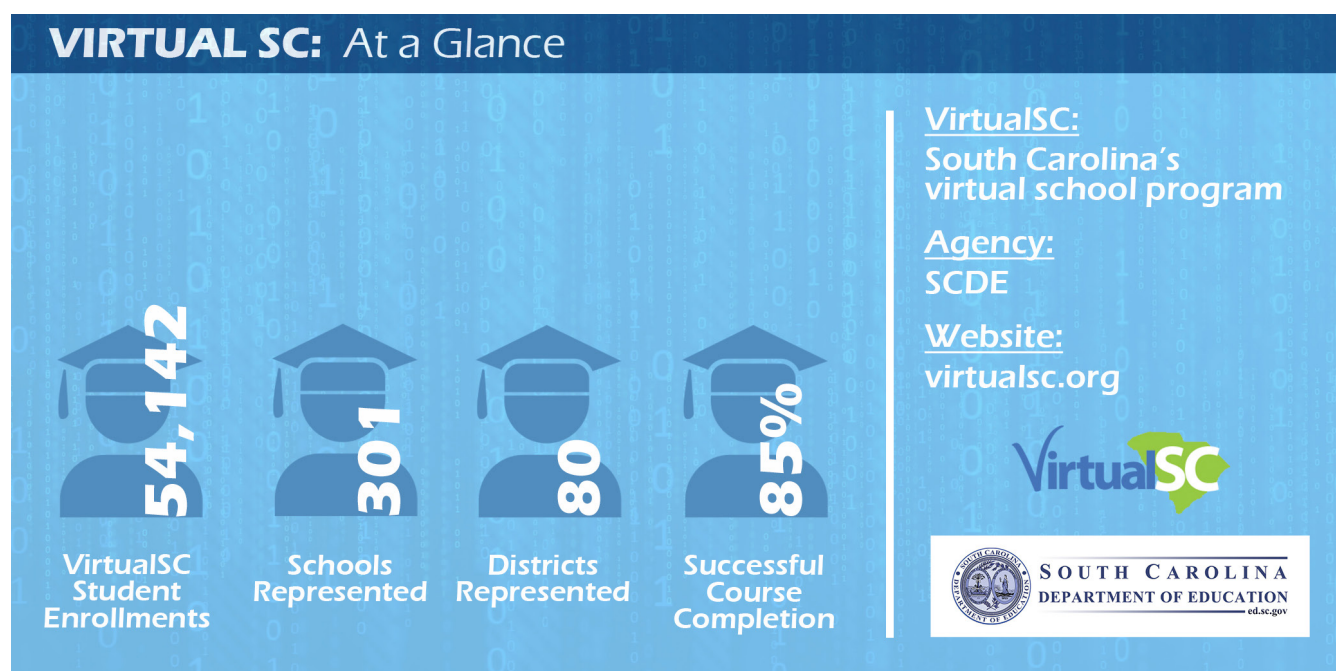
team comprised of instruction designers, media specialists and curriculum coordinators. This team is responsible for the design, development, reviews and revision of courses and related learning objects. VirtualSC continues to align all courses to the Quality Matters framework to ensure accessibility standards are met and external review guidelines are followed.

Courses offered are taught by state-certified teachers who have demonstrated expertise in their individual subject areas. All VirtualSC teachers are certified in their respective program areas. In addition, all full-time and part-time teachers must undergo in-service online professional development training to teach through the program.

VirtualSC consisted of 55 full-time teachers for the academic year, in addition to 164 part-time instructors and language coaches. The number of full-time and part-time teachers has consistently grown over the past several years due to the increased student demand for courses.

### VirtualSC Enrollments

The popularity of the virtual school program continues to grow. During the 2021-22 school year, the program consisted of 54,142 student enrollments, which included students from:



- ▶ 301 schools.
- ▶ 80 public school districts.
- ▶ 25 home school associations.
- ▶ 81 private schools.
- ▶ 19 adult education centers.

VirtualSC had a successful course completion rate of 85% for the school year.

In addition to the 53,499 enrollments for high school level courses, the program also served 643 middle school students as well as approximately 100,000 elementary school students through its free blended elementary typing course offered in 37 public schools, charter schools, and home schools across the state. In 2022-23, the program will begin to incorporate the elementary typing program into the statewide learning object repository, Instruction Hub, after a year of exploration and development to ensure a seamless integration for schools that utilize the free resource.

### VirtualSC Course Offerings

VirtualSC offered courses in the following 10 subject areas:

- ▶ Academic electives.
- ▶ Career and technology education.
- ▶ English and language arts.
- ▶ Health and physical education.
- ▶ Mathematics.
- ▶ Science.
- ▶ Skills recovery and test preparation.
- ▶ Social studies.
- ▶ Visual and performing arts.
- ▶ World languages.

The program offered 102 diverse courses of varying levels, including advanced placement, honors, college preparatory, middle school and credit recovery classes.

In addition to courses in the core content areas of English, mathematics, science and social studies, VirtualSC offered courses in four languages — Spanish, Latin, German and French — as well as a

variety of electives in such popular career majors as health occupations, family and consumer science and business education.

During the 2021-22 school year, VirtualSC added several new course options for students and continued to seek feedback from stakeholders on additional course needs. The program is continuing to work toward expanding its World Language program by adding American Sign Language; however, at the time of this writing an appropriately certified teacher has not been identified to teach the course.

### VirtualSC Middle School Program

In 2021, VirtualSC began a pilot program serving public, private and home-schooled students in middle school grades six to eight. The program consisted of 11 courses in the four core subject areas of English, mathematics, science and social studies, plus three exploratory courses.

This year the program served 643 middle school students, with a completion rate of 70% and a success rate of 91%. This represents a 128% increase in student enrollment in the middle school program compared to the previous year.

VirtualSC plans to continue to expand middle school opportunities by adding further exploratory courses to the catalog throughout 2022-23. In addition, the program will offer middle school courses during the summer semester to provide exploratory course options while most students are on summer break. In an effort to expand course opportunities beyond the existing core academic components, the program also intends to offer niche courses that many schools across the state cannot offer.

The program is currently being funded through the Elementary and Secondary School Emergency Relief Fund; however, additional state funds will be necessary to sustain the program once fully implemented and emergency funds have been utilized. The program has requested state funds in the FY 2023 budget to allow the program to continue to expand and offer additional courses.

## **VirtualSC Partnerships**

As in previous years, VirtualSC has continued to partner directly with schools to offer its Virtual Learning Labs (VLL) program in an effort to help schools fulfill several needs resulting from budget cuts, reduced funding and teaching vacancies at smaller schools across the state. Through these learning labs, schools are provided a standards-based virtual course as well as a highly qualified state certified teacher who meets virtually — utilizing a robot — with students during a set period of the school day to provide instruction.

In the 2021-22 school year, the Virtual Learning Lab program served 472 students with a focus on improving outcomes and expanding options. The VLL program had a 84% completion rate and a 71% success rate.

## **For Additional Information**

To learn more about SCDE's VirtualSC, please visit [virtualsc.org](https://virtualsc.org).





## STATE-HOSTED SERVICES, COLLABORATION OPPORTUNITIES AND SHARED SERVICES

### **South Carolina Technology Plan Goal:**

To better support districts, create efficiencies and improve effectiveness and quality, by 2024 the state will increase and expand state-level technology systems and services, including state-hosted regional technology support centers, backup and recovery services, procurement assistance, coordination of training, an updated student information system (SIS) with district operational data stores, and single sign-on.



# STATE-HOSTED SERVICES, COLLABORATION OPPORTUNITIES AND SHARED SERVICES

## Partner Efforts to Support the Goal:

The partners that make up the K-12 School Technology Initiative engage in a wide variety of activities and programs designed to improve the areas of state-hosted services, collaboration opportunities and shared services. Such activities and programs are detailed throughout this section of the 2021-22 Progress Report.

## SCETV COLLABORATIVE INITIATIVES

In an effort to help inform citizens about the availability of educational programs, services and technologies, South Carolina Educational Television (SCETV) shares stories of projects that serve to address the needs of the state's educational community.

Content broadcast by SCETV provides case studies and best practices for use throughout the state. Several national and statewide television series and educational specials are broadcast and streamed for use in schools and classrooms, providing significant reach to both SCETV's television and radio audiences.

### Carolina Classrooms

SCETV's [Carolina Classrooms](#), a school-year series designed for teachers, educators and parents, features educational initiatives in South Carolina schools. Episodes aired during the funding period focused on topics such as emerging educational technologies, arts integration, South Carolina field trip destinations, special education programs, financial literacy, and quality preschool resources and opportunities.

These episodes were produced in collaboration with partners like the South Carolina Department of Education (SCDE), South Carolina First Steps, Koger Center for the Arts, Roper Mountain Science Center, in addition to various colleges, universities, schools and districts in the state.

Promotion of Carolina Classrooms and other aforementioned programs is provided through a variety of platforms, including the SCETV Press Room, educational websites, social media and broadcast interstitials. Further, education outreach efforts take place consistently throughout the year through staff participation in K-12 conferences, community engagement events, presentations and the submission of awards. An advisory group of educators from across the state also assists the station in increasing awareness of educational resources and services.

### SCETV Education Newsletter, Guest Blog and Social Media

Throughout the year, SCETV distributes an education-related newsletter in collaboration with the South Carolina Education Oversight Committee (EOC) and SCDE for the promotion of SCETV education features. The monthly newsletter assists with informing over 33,500 pre-K-12 administrators, teachers and staff of timely education resources and services.

Additionally, SCETV has a monthly Educator blog which features perspectives on a variety of topics from educators across the state. SCETV also uses social media including Facebook, Twitter, Instagram, Pinterest and YouTube to engage the education community.

## SCDE TECHNOLOGY PARTNERSHIPS

The South Carolina Department of Education (SCDE) is engaged in a variety of technology-related partnerships with districts throughout the state. These partnerships, designed to support and enhance district efforts, are detailed below.

### Standards Authoring Tool

SCDE's standards authoring tool is populated with academic standards — including all academic standards, competencies from the Profile of the South Carolina Graduate, and the South Carolina Teacher Standards — that can be loaded into a state-level learning object repository (LOR) and district learning management systems (LMS) in a machine readable format. This ability is a key component for providing direct access to state standards and the resources needed to facilitate remote K-12 learning opportunities in a digital ecosystem.

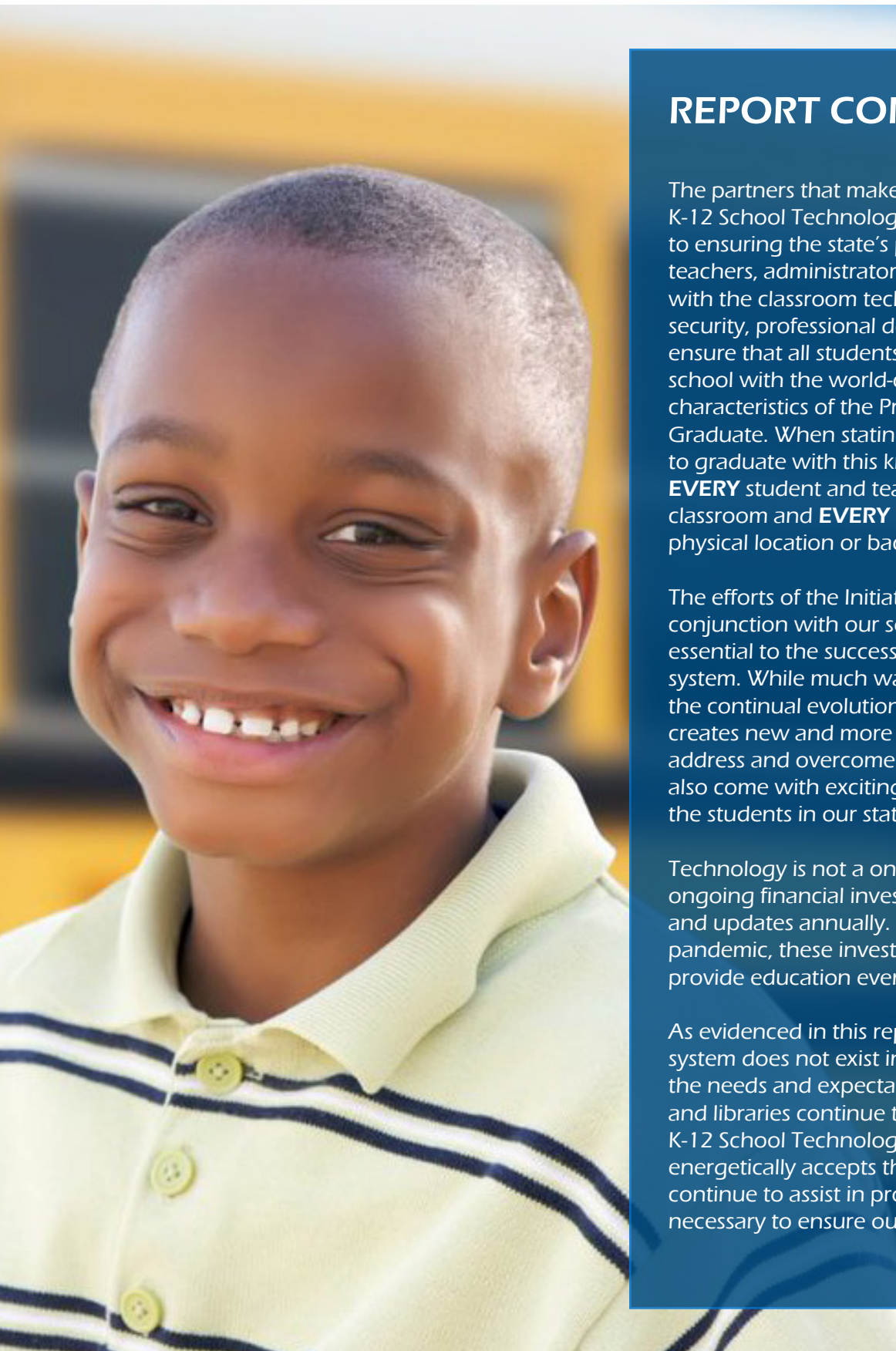
The standards authoring tool is being utilized to digitize the activity coding manual, and next year SCDE should be able to include a base course description with activity codes.

### IMS Global Membership

SCDE was able to use Elementary and Secondary School Emergency Relief Fund (ESSER) funds to purchase an IMS Global Learning Consortium associate membership for all state school districts. This membership provides technology planning support around related standards, as well as access to a privacy and security vetting service known as TrustedApps.

### District Data Governance Group

SCDE has also entered in partnership with a subset of school districts to form the District Data Governance Group (DDGG). This group manages change requests through PowerSchool — the web-based student information system platform — and supports members with the development of the Ed-Fi Operational Data Store (ODS) in each district.



## REPORT CONCLUSION

The partners that make up the South Carolina K-12 School Technology Initiative are dedicated to ensuring the state's public school students, teachers, administrators and libraries are provided with the classroom technology, infrastructure, security, professional development and resources to ensure that all students graduate from public high school with the world-class knowledge, skills and characteristics of the Profile of the South Carolina Graduate. When stating the desire for "all" students to graduate with this knowledge, this means **EVERY** student and teacher in **EVERY** public school classroom and **EVERY** public library, regardless of physical location or background.

The efforts of the Initiative's partners, working in conjunction with our schools and libraries, are essential to the success of the state's public education system. While much was accomplished in FY 2021-22, the continual evolution of educational technology creates new and more complicated challenges to address and overcome. However, these innovations also come with exciting new opportunities to support the students in our state in new and exciting ways.

Technology is not a one-time expense but rather an ongoing financial investment that requires purchases and updates annually. However, as shown by the pandemic, these investments are necessary to provide education even in the most trying times.

As evidenced in this report, our public education system does not exist in a static environment. As the needs and expectations associated with schools and libraries continue to evolve, the South Carolina K-12 School Technology Initiative willingly and energetically accepts these challenges and will continue to assist in providing the tools and resources necessary to ensure our students' success.

# APPENDIX A: INITIATIVE BUDGET

## FY 2021-22 K-12 School Technology Initiative Budget

Base Appropriation: School Technology	\$12,271,826
<b>Total Appropriations:</b>	<b>\$12,271,826</b>
<b>Carry Forward:</b>	
State Library	\$0
SCETV	\$0
SCDE	\$0
Department of Administration	\$0
<b>Total Carry Forward:</b>	<b>\$0</b>
<b>Total Available Funds:</b>	<b>\$12,271,826</b>
E-Rate Funds (Estimated)	\$24,589,123
Total Funds Anticipated:	\$36,860,949
Total Budget Requested:	\$36,860,949
<b>Net Remaining Funds:</b>	<b>\$0</b>



Principals Budget Requests	Budget Requests	School Tech Appropriation	E-Rate Funds (Estimated)	Approved Budgets
<b>NON DISCRETIONARY</b>				
<b>Department of Administration</b>				
1- Network Connectivity Costs	\$32,935,702	\$8,346,579	\$24,589,123	<b>\$32,935,702</b>
2- E-Rate Field Training and Outreach	\$10,000	\$10,000		<b>\$10,000</b>
3- DNS-based Internet Security License Renewal	\$817,976	\$817,976		<b>\$817,976</b>
4- Infrastructure Upgrades Schools and Libraries	\$2,000,000	\$2,000,000		<b>\$2,000,000</b>
<b>Total:</b>	<b>\$35,763,678</b>	<b>\$11,174,555</b>	<b>\$24,589,123</b>	<b>\$35,763,678</b>
<b>Department of Education</b>				
1- School District Technology Technical Assistance	\$350,000	\$350,000		<b>\$350,000</b>
<b>Total:</b>	<b>\$350,000</b>	<b>\$350,000</b>	<b>\$0</b>	<b>\$350,000</b>
<b>Total Non-Discretionary:</b>	<b>\$36,113,678</b>	<b>\$11,524,555</b>	<b>\$24,589,123</b>	<b>\$36,113,678</b>
<b>Total Available Budget:</b>	<b>\$747,271</b>	<b>\$747,271</b>		<b>\$747,271</b>
<b>DISCRETIONARY</b>				
<b>Department of Administration</b>				
1- Network Infrastructure Funding	\$320,271	\$320,271		\$320,271
<b>Total:</b>	<b>\$320,271</b>	<b>\$320,271</b>		<b>\$320,271</b>
<b>State Library</b>				
1- TumbleMath	\$50,000	\$50,000		\$50,000
2- Tutor.com	\$127,000	\$127,000		\$127,000
<b>Total:</b>	<b>\$177,000</b>	<b>\$177,000</b>		<b>\$177,000</b>
<b>Department of Education</b>				
1- Rescinded Request	\$0	\$0		\$0
<b>Total:</b>	<b>\$0</b>	<b>\$0</b>		<b>\$0</b>
<b>SCETV</b>				
1- KnowItAll.org Maintenance and Upgrades	\$50,000	\$50,000		\$50,000
2- Standard Alignment and Content Development	\$100,000	\$100,000		\$100,000
3- STEM Content - AR/VR, Coding, 3D Printing & Robotics	\$100,000	\$100,000		\$100,000
<b>Total:</b>	<b>\$250,000</b>	<b>\$250,000</b>		<b>\$250,000</b>
<b>Total Before Carry Forward:</b>	<b>\$36,860,949</b>	<b>\$12,271,826</b>	<b>\$24,589,123</b>	<b>\$36,860,949</b>
<b>Total Carry Forward From Previous Year:</b>	<b>\$0</b>			<b>\$0</b>
<b>Budget Surplus/Shortfall:</b>	<b>\$0</b>	<b>\$0</b>		<b>\$0</b>
<b>Grand Total for a Balanced Budget:</b>	<b>\$36,860,949</b>	<b>\$12,271,826</b>	<b>\$24,589,123</b>	<b>\$36,860,949</b>



## APPENDIX B: BY THE NUMBERS

### BROADBAND INFRASTRUCTURE: At a Glance

**337 Gbps**  
District  
Bandwidth  
Capacity

**9.30 Gbps**  
Library  
Bandwidth  
Capacity

**21.5 Gbps**  
Charter  
School  
Bandwidth  
Capacity

**Broadband Efforts:**  
Connectivity for public  
schools and libraries

**Agency:**  
Admin

**Website:**  
[admin.sc.gov](http://admin.sc.gov)  
[sck12techinit.sc.gov](http://sck12techinit.sc.gov)



### Internet Security Protection: At a Glance

**150**  
Districts, Charter Schools  
and Library Systems  
  
Entities  
Using Cisco  
Umbrella

**147.2 Billion**  
  
School/Library  
Queries  
Handled

**21.2 Million**  
  
Security  
Threat and  
Sites  
Blocked

**65 Thousand**  
  
School/Library  
Clients Using  
Cisco Umbrella

**Cisco Umbrella:**  
Provided to help  
combat the increased  
number and  
complexity of malware,  
ransomware and other  
advanced security  
threats



### DISCUS: At a Glance

**14,438,259**  
  
Discus  
Items  
Accessed

**\$32,267,735**  
  
Cost  
Avoidance  
Provided

**8,391,056**  
  
Britannica  
Online Items  
Retrieved

**17,081**  
  
Tutor.com  
Tutoring  
Sessions

**Discus:**  
South Carolina's  
virtual library

**Agency:**  
SC State Library

**Website:**  
[scdiscus.org](http://scdiscus.org)



## APPENDIX B: BY THE NUMBERS

### SCETV EDUCATION SERVICES: At a Glance



Knowitall  
Multimedia  
Resources



Knowitall  
Avg. Monthly  
Page Views



PBS Learning  
Media  
Resources

Agency:  
SCETV

Website:  
[scetv.org](http://scetv.org)

KnowItAll  
.ORG



PBS LearningMedia



### VIRTUAL SC: At a Glance



VirtualSC  
Student  
Enrollments



Schools  
Represented



Districts  
Represented



Successful  
Course  
Completion

VirtualSC:  
South Carolina's  
virtual school program

Agency:  
SCDE

Website:  
[virtualsc.org](http://virtualsc.org)

VirtualSC

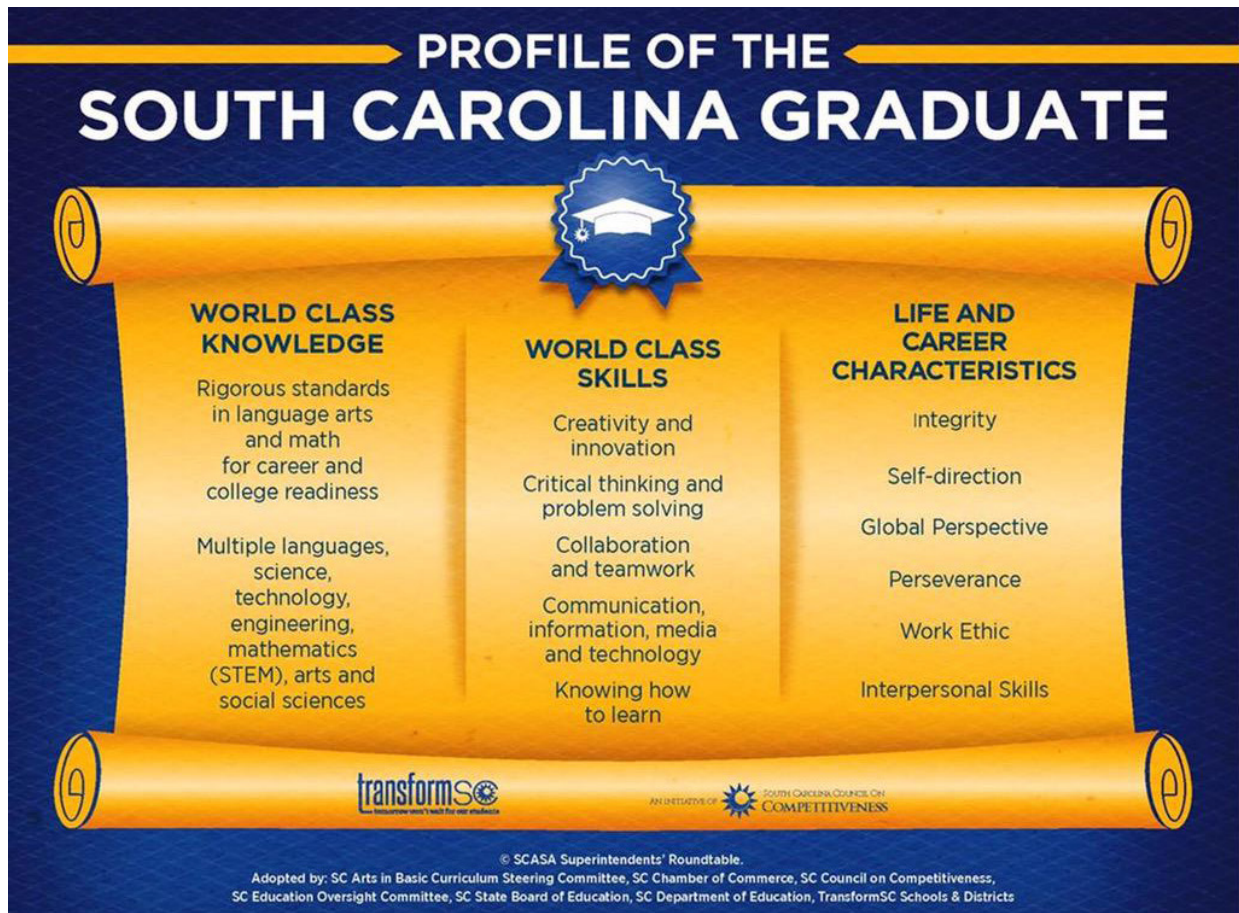


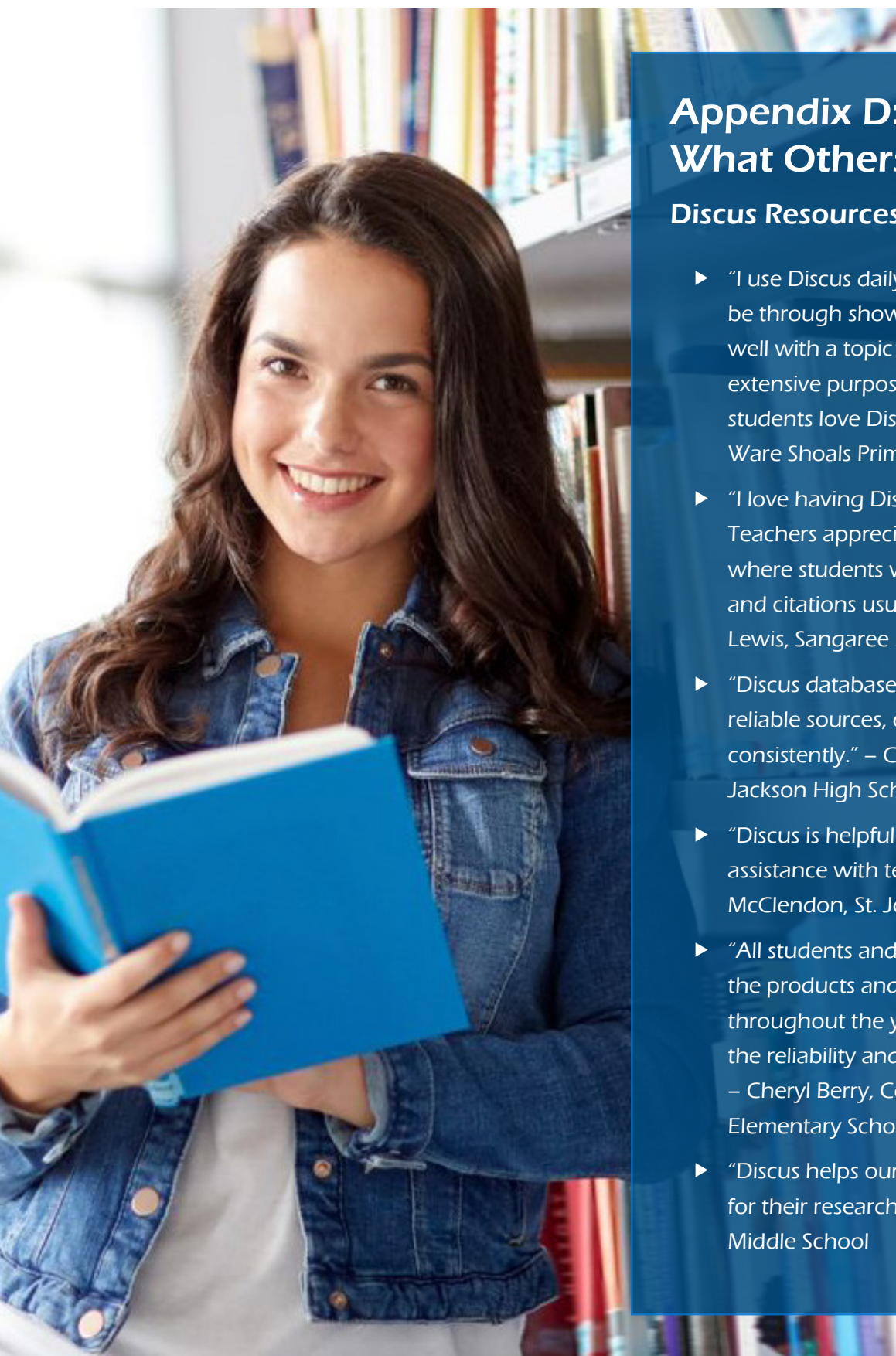
SOUTH CAROLINA  
DEPARTMENT OF EDUCATION  
[ed.sc.gov](http://ed.sc.gov)



# APPENDIX C: PROFILE OF THE SC GRADUATE

The [Profile of the South Carolina Graduate](#) is designed to identify the knowledge, skills and characteristics high school graduates should possess in order to be prepared for success as they enter college or pursue a career. The profile is intended to guide all that is done in support of college and career readiness.



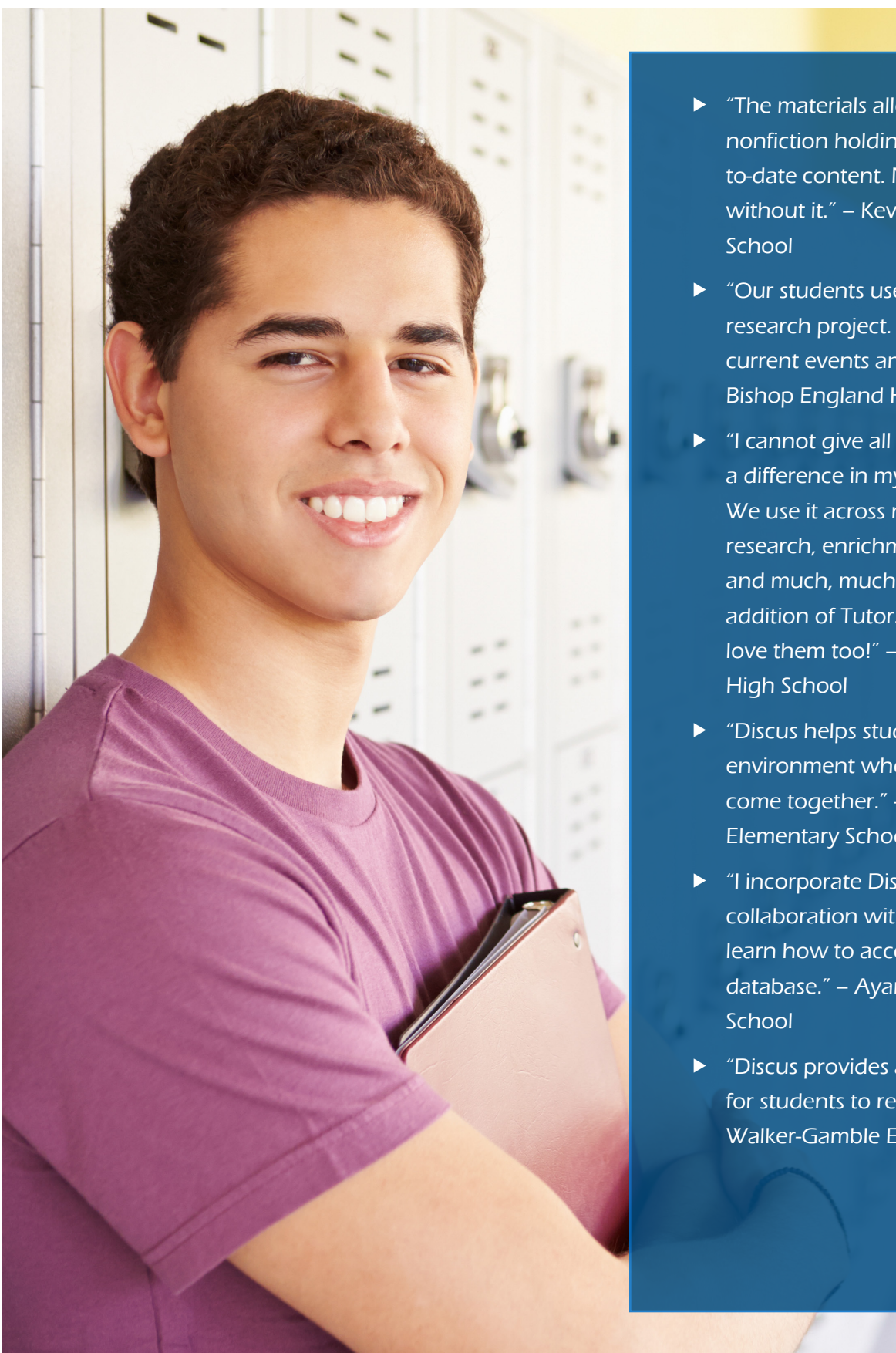


## Appendix D: What Others Are Saying

### Discus Resources

- ▶ “I use Discus daily with my students. It could be through showing them a video that goes well with a topic we are learning or for more extensive purposes such as research. My students love Discus!” – Audrey Thompson, Ware Shoals Primary School
- ▶ “I love having Discus resources for our students. Teachers appreciate having vetted databases where students will get quality information, and citations usually embedded!” – Alana Lewis, Sangaree Middle School
- ▶ “Discus databases offer students and teachers reliable sources, citations and we use them consistently.” – Caitlin Creagan, Andrew Jackson High School
- ▶ “Discus is helpful for providing research assistance with teachers and students.” – Rod McClendon, St. Joseph’s Catholic School
- ▶ “All students and teachers are introduced to the products and we find a way to use Discus throughout the year. The main benefit is the reliability and credibility of the sources.” – Cheryl Berry, Cooley Springs-Fingerville Elementary School
- ▶ “Discus helps our students use reliable sources for their research.” – Nicole Scott, Fairforest Middle School





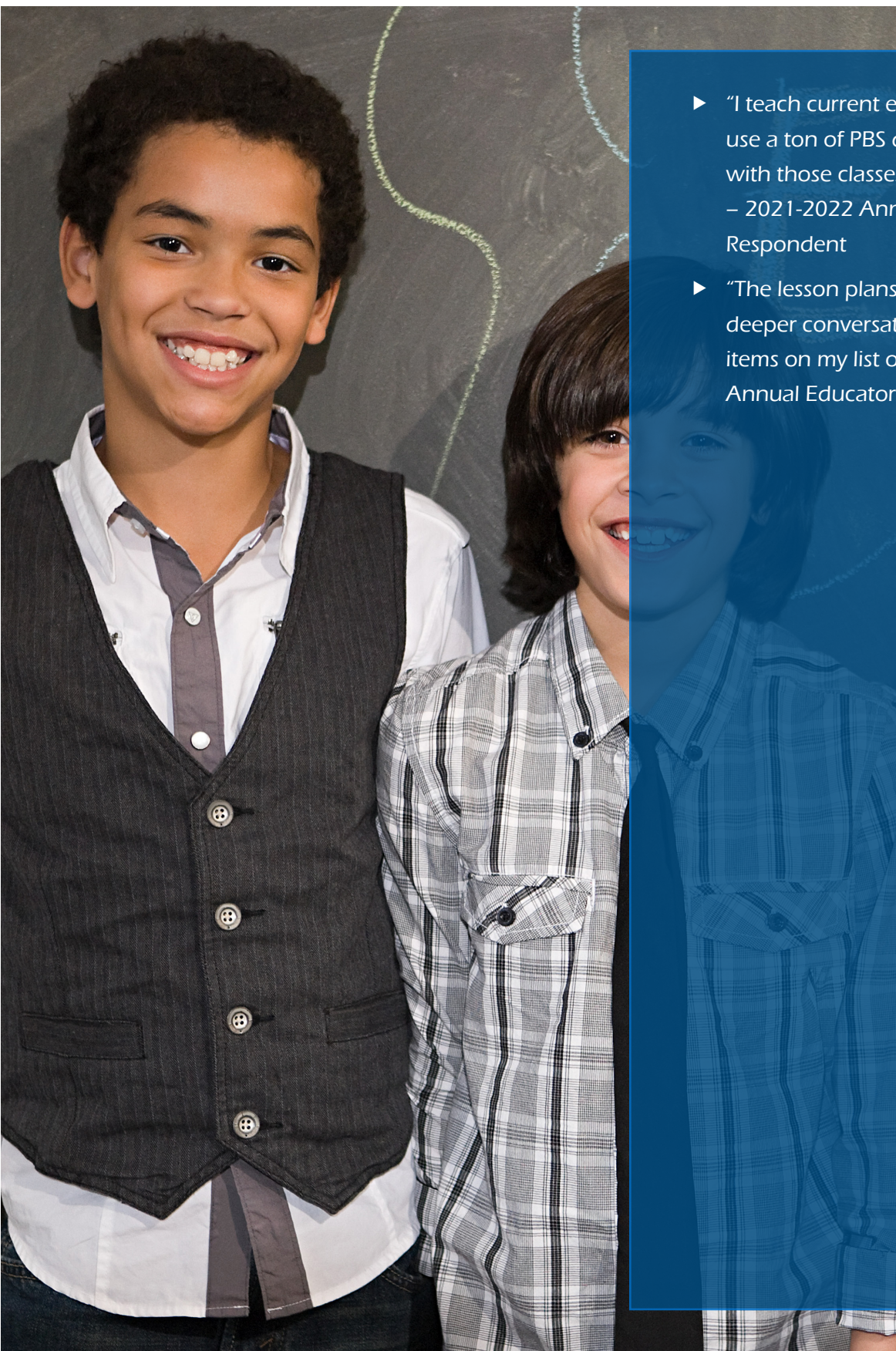
- ▶ “The materials allow us to supplement our nonfiction holdings and have much more up-to-date content. Not sure what we would do without it.” – Kevin Boozer, Reuben Elementary School
- ▶ “Our students use Discus for almost every research project. It’s great for literary research, current events and history.” – Michelle Bing, Bishop England High School
- ▶ “I cannot give all of the ways that Discus makes a difference in my school in a short response! We use it across many subject areas daily for research, enrichment, college and career prep and much, much more. Thank you for the addition of Tutor.com and TeenBookCloud. We love them too!” – Amy Whitfield, Blythewood High School
- ▶ “Discus helps students research in a safe environment where many different sources come together.” – Candice Godfrey, Edwards Elementary School
- ▶ “I incorporate Discus in almost every collaboration with teachers. All of my students learn how to access Discus and how to use a database.” – Ayanna Mayes, Columbia High School
- ▶ “Discus provides a safe and reliable resource for students to research.” – Michelle Weaver, Walker-Gamble Elementary School



## SCETV TECHNOLOGY INITIATIVES

- ▶ “We really appreciate you and your team offering this valuable opportunity for our students. All the activities go together well with our daily broadcasting and journalism instruction.” – Ashley Murray, Edisto Elementary School
- ▶ “The Simple.Digital resources on KnowItAll are awesome. They are full of helpful information, quick to read and share with other parents. I have a graduating senior and a first grader and have to stay on top of technology for both of them. Please keep putting out more information.” – Ayanna McKellar, parent, Dillon School District Four
- ▶ “Honestly, I did not know that SCETV had such a vast wealth of resources for teachers until I started taking these recertification courses. If I had known when I was in the classroom, I could have saved a lot of hours searching for engaging, quality, resources and quite honestly, I can say that my instruction would have been enhanced greatly. I appreciate the wealth of resources that are provided for us educators.” – Rita Davis, Assistant Principal, Success Academy at Palmetto Education Center
- ▶ “I enjoy using these videos with my class. I incorporate them into EdPuzzle and Formative. Keep updating the content with the latest information. We need it!” – 2021-2022 Annual Educator Survey Respondent





- ▶ “I teach current events and Psychology and use a ton of PBS documentaries and resources with those classes. It is a tremendous resource.”  
– 2021-2022 Annual Educator Survey Respondent
- ▶ “The lesson plans freed up time to explore deeper conversations and take care of other items on my list of responsibilities.” – 2021-2022 Annual Educator Survey Respondent





South Carolina K-12 School Technology Initiative  
4430 Broad River Road  
Columbia, S.C. 29210  
Website: [sck12techinit.sc.gov](http://sck12techinit.sc.gov)