

**THE FINAL REPORT OF THE
GEORGIA HOUSE AND SENATE STUDY COMMITTEE ON
HIGH SPEED BROADBAND COMMUNICATIONS ACCESS
FOR ALL GEORGIANS**

COMMITTEE MEMBERS

**Honorable Don Parsons, Co-chair
Representative, District 160**

**Honorable Steve Gooch, Co-chair
Senator, District 51**

**Honorable Susan Holmes
Representative, District 129**

**Honorable Tyler Harper
Senator, District 7**

**Honorable Robert Dickey
Representative, District 140**

**Honorable John Wilkinson
Senator, District 50**

**Honorable Kevin Tanner
Representative, District 9**

**Honorable David Lucas
Senator, District 26**

**Honorable Bill Werkheiser
Representative, District 157**

**Honorable Rick Jeffares
Senator, District 17**

INTRODUCTION

The Georgia Senate and House of Representatives created the Joint Study Committee on High Speed Broadband Communications Access for all Georgians in 2016 through the passage of Senate Resolution 876. The committee was formed to evaluate the issues relating to broadband access in rural Georgia and publish its findings with recommendations.

The committee was chaired by Representative Don Parsons (160th) and Senator Steve Gooch (51st) including eight additional members of the House and Senate: Representative Susan Holmes (129th); Representative Robert Dickey (140th); Representative Kevin Tanner (9th); Representative Bill Werkheiser (157th); Senator Tyler Harper (7th); Senator John Wilkinson (50th); Senator David Lucas (26th); and Senator Rick Jeffares (17th). The House and Senate Research Office staff assigned to facilitate the committee were Mr. Leonel Chancey and Mr. Donovan Eason. The Legislative Counsel staff member assigned to the committee was Ms. Shawn Marie Story.

The committee held six public meetings across Georgia to hear from the *Carl Vinson Institute of Government (University of Georgia)*, *Georgia Technology Authority*, *Public Service Commission*, *Three Rivers Regional Commission*, *Georgia Public Policy Foundation*, *Jenkins County Development Authority*, *University System of Georgia*, *Governor's Office of Student Achievement*, *Georgia Department of Education*, *Georgia Chamber of Commerce*, *Stephens County Development Authority*, *Franklin County Schools*, *Mercer University School of Medicine*, *Southeast Health District*, *Global Partnership For Telehealth*, *Toombs County Commission*, *City of Glennville*, *DISH Network*, *Mobilitie*, *Windstream*, *North Georgia Network (NGN)*, *Dawson County Development Authority*, *Georgia Hospital Association*, *Georgia Department of Public Health*, *Georgia Emergency Management & Homeland Security Agency*, *ComSouth*, *Basecamp Networks*, *Georgia EMC*, *U.S. Department of Agriculture Rural Development*, *Verizon*, *Google*, *AT&T*, *Georgia Cable Association*, *Technology Association of Georgia*, together with testimony from concerned citizens, local officials and small businesses to discuss the emerging demand for broadband access.

The following individuals presented testimony to the committee:

August 31, 2016 — Georgia State Capitol

Bill Price (Digital Georgia Coordinator, Georgia Technology Authority); Carl Vinson Institute of Government (University of Georgia); Chuck Eaton (Chairman, Public Service Commission), Lanier Boatwright (Three Rivers Regional Commission, West Georgia Broadband Joint Development Authority), Kelly McCutchen (Georgia Public Policy Foundation); and Mandy Underwood (Jenkins County Development Authority).

September 15, 2016 — North Georgia Technical College Conference Center

Tim Martin (Executive Director, Stephens County Development Authority); Wayne Randall (Superintendent, Franklin County Schools); Bobby Laurine (Vice Chancellor and Chief Information Officer University System of Georgia); Sam Rauschenberg (Deputy Director—Research, Policy, and Accountability, Governor's Office of Student Achievement); Bob Swiggum (Deputy Superintendent—Technology Services, Department of Education); and David Raynor (Senior Vice President—Public Affairs, Georgia Chamber of Commerce).

September 29, 2016 — The Glennville Garden Club

Jean Sumner, M.D. (Dean for Rural Health, Mercer University School of Medicine); Rosemarie D. Parks, MD, MPH (District Health Director, Southeast Health District); Sherry Williams (Chief Operating Officer—

Global Partnership for Telehealth); John M. Jones (Toombs County Manger); and Chris Roessler (Mayor of Glennville).

October 13, 2016 — University of North Georgia - Dahlonega Campus

Roger Simpson (Director Government Relations, Mobilitie); Steve Hill (Chief Operating Officer, Satellite and Broadcast Communications Association); Bettye Willis (Regional Vice President for State Government Affairs, Windstream); Paul Belk (Chief Executive Officer, North Georgia Network); Charlie Auvermann (Executive Director, Dawson County Development Authority); Bruce Abraham (Senior Broadband Consultant, ECC Technologies); Amy Booker (President, Dahlonega-Lumpkin Chamber and Visitors Bureau).

October 20, 2016 — Georgia Farm Bureau Headquarters

Shea Ross (Director of Public Policy, Georgia Hospital Association); Suleima Salgado (Telehealth Director, Georgia Department of Public Health); Warren Shepard (FirstNet Georgia Coordinator, Georgia Emergency Management and Homeland Security Agency); Mike McClain (Chief Strategy Officer, ComSouth); and Craig Ganssle (Founder and CEO, Basecamp Networks)

November 10, 2016 — Georgia State Capitol

Dennis Chastain (President/CEO, Georgia EMC); Larry Hanson (City Manager, City of Valdosta); Don Atkinson (Assistant City Manager, City of Thomasville); Lanier Dunn (City Manager, City of Elberton); Jill Stuckey (State Director of Georgia, U.S. Department of Agriculture Rural Development Georgia); Bob Davis (Executive Director of Public Policy, Verizon Wireless); Amol Naik (External Affairs , Google); Stephen Loftin (Executive Director, Georgia Cable Association); Kevin Curtin (Regional Vice President for Legislative Affairs, AT&T); Tino Mantella (President, Technology Association of Georgia); and Eric Parker (Co-founder of theClubhou.se)

BACKGROUND

The National Challenge of Rural Broadband Deployment

In December 2014, the United States Congressional Research Service (CRS) published a report detailing specifics of the United States Department of Agriculture's Rural Utility Service in addressing the "digital divide" between urban and rural America.¹ For purposes of this report, CRS summarizes the terminology and issues surrounding the debate and serves as a fitting primer.

"Broadband" refers to high-speed Internet access and advanced telecommunications service for private homes, commercial establishments, schools, and public institutions. Currently in the United States, residential broadband is primarily provided via mobile wireless (e.g., smartphones), cable modem (from the local provider of cable television service), or over the telephone line (digital subscriber line or "DSL"). Other broadband technologies include fiber optic cable, fixed wireless, satellite, and broadband over power lines (BPL).

Broadband access enables a number of beneficial applications to individual users and to communities. These include e-commerce, telecommuting, voice service (voice over the Internet protocol or "VOIP"), distance learning, telemedicine, public safety, and others...

Access to affordable broadband is viewed as particularly important for the economic development of rural areas because it enables individuals and businesses to participate fully in the online economy regardless of geographical location. For example, aside from enabling existing businesses to remain in their rural locations, broadband access could attract new business enterprises drawn by lower costs and a more desirable lifestyle. Essentially, broadband potentially allows businesses and individuals in rural America to live locally while competing globally in an online environment. Given the large potential impact broadband may have on the economic development of rural America, concern has been raised over a "digital divide" between rural and urban or suburban areas with respect to broadband deployment. While there are many examples of rural communities with state of the art telecommunications facilities, recent surveys and studies have indicated that, in general, rural areas tend to lag behind urban and suburban areas in broadband deployment

The comparatively lower population density of rural areas is likely the major reason why broadband is less deployed than in more highly populated suburban and urban areas. Particularly for wirelines broadband technologies—such as cable modem, fiber, and DSL—the greater the geographical distances among customers, the larger the cost to serve those customers. Thus, there is often less incentive for companies to invest in broadband in rural areas than, for example, in an urban area where there is more demand (more customers with perhaps higher incomes) and less cost to wire the market area.

The terrain of rural areas can also be a hindrance, in that it is more expensive to deploy broadband technologies in a mountainous or heavily forested area. An additional added cost factor for remote areas can be the expense of "backhaul" (e.g., the "middle mile")

¹ Lennard G. Kruger, CONG. RESEARCH SERV., RL33816, BROADBAND LOAN AND GRANT PROGRAMS IN THE USDA'S RURAL UTILITIES SERVICE (2014).

which refers to the installation of a dedicated line which transmits a signal to and from an Internet backbone which is typically located in or near an urban area.”

Rural Broadband in Georgia

A vast majority of Georgia’s counties—108 in total—classify as rural.² With some forms of fiber optic infrastructure deployment costing nearly \$40,000 per mile, low-population density and rugged terrain in regions such as North Georgia offer little incentive for private companies to extend service coverage. Yet, many rural communities argue the lack of expansion presents a classic “chicken or the egg” argument. Without fundamental services such as broadband internet, critical prerequisites for local growth are absent.

Several data rankings illustrate the consequences of the challenge. Georgia ranks 21st in the country in regards to a citizen’s access to 25+ megabit per second wired broadband; 13 percent of the state population is underserved with access to less than two wired internet service providers; and many portions of the state suffer from stifled economic growth that has compounded for decades.

In Jenkins County, for instance, the median household income hovers near \$30,000. Monthly payments, notwithstanding lack of adequate service, prove to be a challenge for many of its residents. Tough financial decisions by residents in areas like Jenkins County often result in lower than usual broadband adoption rates.³ With little resources to pay for broadband internet access, many of these same families entirely forgo ownership of a computer. In 2014 alone, the U.S. Census Bureau estimated that over 850,000 households in Georgia were without a computer. The combination of these factors presents a tremendous gamble for internet service providers, even with the influx of federal dollars through the Federal Communication Commission’s Universal Service Fund to ease the burden of infrastructure costs.

All the while, citizens of rural areas express increasing frustrations with service providers after paying for advertised high-speed service tiers that seem to perpetually underperform. Some of the frustration stems from a misunderstanding of the role of Georgia’s Public Service Commission (PSC), which has no role in broadband regulation.⁴ While the commission fields hundreds of complaints for slow internet connection or complete lack of service, these frustrated callers must settle for an equally maddening solution: a phone number to the Federal Communication Commission (FCC).

The consequences of this problem resonate across Georgia—rural and metropolitan. Entrepreneurs start a business in another county or state; struggling rural hospitals pay a premium to keep up with increasing electronic medical regulations; students lack access to the full complement of Georgia’s virtual education curriculum; and local economies stagnate ever further.

Other States’ Responses

All 50 states have created a task force, commission, or broadband project to provide input on the development of a statewide broadband framework and to promote public-private partnerships. Many states are launching grant programs through the state general treasury to lower the financial burdens of companies to deploy to rural areas. Although the amount needed to fundamentally tackle the matter may be staggering. A case study of a New York Broadband Program revealed that \$500 million would be needed to bring fixed broadband capable of 25-100 Mbps to unserved regions.

² Georgia defines rural as a county population of 35,000 people or less. This definition was adopted by the General Assembly in 1999 as part of the Rural Hospital Assistance Act, O.C.G.A § 31-7-94.1(c)(3).

³ In contrast to broadband availability, which refers to whether broadband service is offered, broadband adoption refers to the extent to which American households subscribe to and use broadband.

⁴ Competitive Emerging Communications Technologies Act of 2006, O.C.G.A. § 46-5-220 *et seq.*

Other steps include regulatory reform. Legislatures and public utilities commissions are revisiting franchising fees in an effort to incentivize even more dynamic broadband deployment. Legislatures are also working to increase the use of broadband in key sectors like education, energy, and healthcare in an effort to enhance the adoption of broadband. Taxes on equipment and related infrastructure inputs could also be simplified.

Wireless Spectrum Auction

Appreciating the nation's wireless infrastructure and ongoing progression is necessary as well. Across the country, it is essential for consumers and businesses owners to have access to wireless connectivity. About 70 percent of Americans use data-driven smartphones.⁵ This is a major challenge to guarantee America's wireless networks can support the critical economic, public safety, education, and health care activities that depend on them. The FCC has worked to free up spectrum for wireless broadband use.

The 2010 National Broadband Plan restructures the airwaves that carry television and wireless signals to consumers laying the groundwork for "fifth generation" (5G) wireless services and applications. It will maintain the broadcast industry while permitting stations to generate additional revenues that they can invest into the programming they provide. The broadcast incentive auction allows television broadcasters to sell their licensed airwaves to make room for wireless service providers while the FCC determines prices and organizes the transfers.

Eventually, all television broadcasting will be consolidated on the spectrum, freeing up room for wireless providers. The FCC will have established a reserve from a second auction once all broadcasters have made their bids or have decided to sit out. Then the FCC will receive proposals from companies interested in buying spectrum for wireless service. The new airwaves (spectrum space) that have been opened in markets around the country will then be distributed out based on the offers submitted.

Transitioning the television broadcasters will take some time as some local stations may go off the air entirely. Other stations will need to change openings on the airwaves. As for wireless service, the FCC expects the auction will position the country to meet mobile broadband demand so that fast data service on devices will be available well into the future.

⁵ Federal Communications Commission, Broadcast Incentive Auction (October 2016), available at <https://www.fcc.gov/about-fcc/fcc-initiatives/incentive-auctions>.

COMMITTEE FINDINGS

Public Safety

Georgia's law enforcement officers may be receiving a tremendous boost in broadband coverage if Georgia participates in the federal government's FirstNet program. FirstNet promises to be the first nationwide, high-speed wireless broadband network dedicated solely to public safety. Congress allotted 20MHz of radio spectrum and \$7 billion to establish, operate, and maintain the FirstNet program under the 'Middle Class Tax Relief and Job Creation Act of 2012.' The need for setting aside this spectrum became most apparent during September 11th when the volume of calls and data upon the nation's wireless network effectively crippled operability. First responders were unable to communicate with one another and failed to respond effectively.

Rather than competing directly with consumer bandwidth, FirstNet will allow public safety users to have unimpeded access to the information necessary to meet their missions on a dedicated radio spectrum. Dispatch could send high-definition video, photos, and maps to responders rather than simply an address. While en route, ambulances could transmit high volume, real-time patient information. Plans, perimeters, and other data could be transmitted real time.

States are not required to use the services offered by FirstNet. Nevertheless, Congress's appropriation seeks to build, operate, and maintain the network if states participate. Local users will still be required to pay a user fee if FirstNet services are used, but the option will be competitive with other service providers.

Presuming Georgia elects to participate in the FirstNet program, existing bandwidth could be relieved of some pressure by the public safety community. At the very least, the program offers an attractive solution at the state level to addressing the connectivity concerns of Georgia's first responders.

Health Care

Telehealth can increase access to healthcare across the state of Georgia. The Georgia Department of Public Health partners with healthcare providers, universities, public safety, government agencies and community resources to enhance Georgia's medical services to rural areas. Affordable broadband connectivity allows telehealth services to function independently with dedicated circuits. With federal financial support, the telehealth network has ample supply of bandwidth. Without this support, the majority of telehealth programs could not be afforded or sustained due to a lack of financial support and rebate reimbursement.

Telehealth serves large and small hospitals, private physician offices, skilled nursing facilities, mental health centers, correctional institutes, colleges/universities, and ambulances. With increased access to quality care, enhanced support to patients and families, access to information, access to training, and cost savings, faster medical support is now available with the applications of live video, remote patient monitoring, and mobile health.

The benefit of telehealth is that it can be installed anywhere. It has a reliable connection not shared with other internet-dependent resources. The Universal Service Administrative Company (USAC) is an independent, not-for-profit corporation designated by the Federal Communications Commission as the administrator of universal service. USAC works to protect the integrity of universal service through education, collecting and distributing contributions, and promoting program consensus. With an annual cap of \$400 million in total support, telecommunications and broadband funding is available through the Telecommunications and Healthcare Connect Fund (HCF) programs. In 2013, the average cost of an ER

visit was 40 percent higher than the average American's monthly rent.⁶ Georgia patients could see costs as low as \$5.42/month with a telehealth system that can sustain unlimited medical calls.

The telehealth goals for Georgia are to: (1) increase access to care (2) address the state's most pressing health challenges, including infant mortality, oral health, obesity and associated diseases and (3) connect Georgians with the specialized care they need that may not exist in every community. Georgia now has telehealth capability in all 159 counties. The system is USDA funded for the network and infrastructure including Universal Service Funds for broadband rebates. On average, approximately 300 patients per month via telemedicine are currently being served statewide.

Education

The information age presents significant possibilities to expand learning beyond the classroom. With access to global information, Georgia students can maximize communication, creation and research. Current Internet connections in schools and libraries are becoming increasingly insufficient to support personalized individual technology for all students. Educational use of computers, tablets, mobile devices and other online applications have increased the demand for faster broadband performance. In 1997, the federal **E-rate** program was launched to provide a basic level of broadband connectivity to America's schools and libraries. These funds provide discounted rates for school internet access and telecommunication needs which the Federal Communications Commission is currently in the process of reforming and expanding.

The bandwidth required for today's classrooms to upload interactive media, participate in online learning sessions, and develop electronic files is escalating beyond what was the required connections needed a few years ago. Access to high-speed Internet in schools is especially important for rural and low-income communities. Students are being left behind when they miss the benefits of educational technologies due to very slow connections in schools and no access to adequate broadband at home. Furthermore, the learning that takes place in and out of a school is changing. Many students are now able to learn at any time, location, and speed. Georgia and other states are looking to implement digital upgrades to move schools, community centers and libraries to full broadband abilities so that all students will be able to use digital devices to learn from multiple locations.

To be eligible for the **E-rate** program, Local Education Agencies (LEAs) must meet the following two criteria:

- (1.) **High Need** - LEAs located in one of 71 Tier 1 counties using the Georgia Department of Community Affairs' annual job tax credit tiers. These counties represent the counties with the highest unemployment rate, lowest per capita income, and highest percentage of residents whose incomes are below the poverty level in the state.
- (2.) **Rural** - LEAs serving less than 25 students per square mile.

State charter schools that are located in a Tier 1 County and have an attendance zone in which all LEAs are eligible for the grant are also eligible. Each LEA is eligible to apply for up to \$75/student based upon the March full-time equivalency count.

This amount was only used to determine the cap for eligible funding. It does not mean that an LEA has to spend \$75 per device. These funds are for the purpose of maintaining broadband-intensive trends such as personalized learning, online adaptive assessments, blending of digital and conventional

⁶ Sarah Kliff, *An average ER visit costs more than an average month's rent*, THE WASHINGTON POST, Mar. 2, 2013, available at https://www.washingtonpost.com/news/wonk/wp/2013/03/02/an-average-er-visit-costs-more-than-an-average-months-rent/?utm_term=.03f4cf589520.

content, and adoptions of digital textbooks. None of this will be successful unless students have better out-of-school Broadband access. The State Educational Technology Directors Association recommends: 100 megabits per second for every 1,000 students and staff members.

In the first round of the Connections for Classrooms grant program in 2014, 146 LEAs in Georgia applied for more than \$198 million in network infrastructure needs. Only \$37 million was awarded to 104 LEAs by the grant program. Governor Nathan Deal proposed and the General Assembly approved a budget that included an additional \$30 million to the One Georgia Authority as a result of the significant remaining infrastructure needs. These funds were used for two additional rounds of the grant program awards in 2015.

These funds were dedicated to confirming that school districts maximize the Federal Communication Commission's **E-rate** Program. As such, the goal is to enable 21st century learning by providing Georgia LEAs with sufficient network infrastructure to maximize the use of state-funded 100 MB per school broadband service. For example, \$77 million has been awarded to 159 LEAs that enable them to receive \$129 million in federal **E-rate** funds for school network infrastructure. The total school district network infrastructure investment will be \$206 million with a collaborative effort from the Governor's Office of Student Achievement, Georgia Department of Education, and the Georgia Department of Community Affairs (OneGeorgia Authority).

Timeline of Grants Awarded

- **December 2013** (Digital Learning Task Force recommends increased bandwidth and investment in school network infrastructure to support increased bandwidth.)
- **Spring 2014** (AFY14 and FY15 budgets included \$37 million for district and school networks.)
- **October 2014** (Round 1 CFC Awards)
 - Requested: \$198 million from 146 LEAs
 - Funded: \$37 million to 104 LEAs
 - All Tier 1 requests fully funded to ensure LEAs could receive 100 Mbps
 - Tier 2 and 3 requests partially funded based upon application scores
- **Fall 2014** (Federal **E-rate** \$2 billion expansion for school network infrastructure)
 - All LEAs now eligible for \$150 per student for school network infrastructure to access funding, LEAs had to commit to a local match percentage of anywhere from 15 percent to 60 percent based on poverty rate.
- **Spring 2015** (AFY15 budget included \$30 million for additional grants)
- **May 2015** (Round 2 CFC Awards)
 - \$25.3 million to 136 LEAs, enabled \$90.9 million in **E-rate** funds
 - Fully funded **E-rate** match for all remaining eligible Round 1 requests
- **June 2015** (Round 3 Application Opens to all LEAs with remaining **E-rate** local match eligibility)
- **January 2016** (Round 3 Awards)
 - \$8.1 million to 48 LEAs, enabled \$16.8 million in **E-rate** funds
- **Spring 2016** (AFY16 budget included \$9.4 million for additional grants)
- **May 2016** (Amended Round 3 Awards to fully fund **E-rate** match for all Round 3 applicants)
 - \$6.9 million to 53 LEAs, enabled \$20 million in **E-rate** funds

LEAs have consistently lacked digital devices and this is a primary barrier to digital learning, especially in rural areas. In June of 2016, the Digital Learning Device Rural Grant Program was announced. Nearly \$5.5 million is available to purchase laptops and tablets in 72 LEAs identified as rural and high need. Districts that are eligible will be allocated for up to \$75/student. Funding will be prioritized by need and well-defined digital learning plans to make a progressive change on student success. The award announcements for digital learning devices will be in January 2017.

Once funding is completed, Georgia schools will have a statewide network providing efficient, reliable, high-speed Internet. The grant programs serve as the groundwork for the University System of Georgia and K-12 which will offer access to modern services that include online learning, business applications, digital library resources, and live video streaming. Additionally, private cloud services will be included to supported online storage, virtual servers and data backup. Contract renewals have been completed to maintain the University System of Georgia's strategic asset through 2029 to ensure services have the funds for encouraging improvement and supporting the growth of ongoing educational needs and future initiatives; however, it is still vital to Georgia for enhanced cybersecurity capabilities to protect personal and financial data to prevent service disruptions and reduce organizational risk.

Economic Development

Entrepreneurs launch businesses in the states and communities providing the most attractive business climate such as: easy access to major transportation routes, minimal regulatory burdens, favorable tax codes, and a willingness of local governments to partner with startup businesses. Although for several decades now, rural leaders have struggled mightily with the high costs needed to create or update the needs of today's increasingly global economy. Today's economy no longer requires basic amenities, such as power and sewer, but also demands the ability to transmit data and communications at dependable, economical, high rates of speed.

Charlie Auvermann, Executive Director of the Dawson County Development Authority, channeled a frustration of local governments in applying for broadband grants with the Department of Community Affairs. While funding sources are available for water, sewer, and others, Auvermann argued the department shared no comparable level of desire to support broadband projects.

Lanier Boatwright, Executive Director of the Three Rivers Regional Commission, provided an example when he shared testimony of a local effort to support an agriculture business with broadband. Funding sources with the federal Department of Agriculture had already been exhausted.⁷ Other sources proved difficult without an explicit grant goal for broadband. With no immediate progress, the company moved on to another location where the service could be reached.

Amy Booker, President of the Dahlonega-Lumpkin Chamber & Visitors Bureau, echoed the evolving view of broadband as a critical service, reading from a long list of business owners expressing a number of exasperations aimed at internet providers that overpromised and underperformed.

Larry Hanson, City Manager of Valdosta added, "Private investment will follow public investment. Often times, it takes the government to provide the backbone."

⁷ There are two ongoing federal vehicles which direct federal money to fund broadband infrastructure: the broadband and telecommunications programs at the Rural Utility Service (RUS) of the U.S. Department of Agriculture (USDA) and the Universal Service Fund (USF) programs under the Federal Communications Commission (FCC). The FCC houses four programs within the Universal Service Fund: (1) Connect America Fund (formally known as High-Cost Support) for rural areas (2) Lifeline (for low-income consumers) (3) E-Rate (schools and libraries) and (4) Rural health care.

Some local governments took matters into their own hands. Lanier Dunn, City Manager for Elberton, discussed the advent of ElbertonNet.⁸ After securing startup funding from a bank, the local government started its own broadband service. Fifteen years later, the profitable service contributes to the local budget and boasts tremendous public feedback through its effort to provide exceptional customer service. Don Atkinson, City Manager of Thomasville, shared a similar success story in south Georgia with the creation of Community Network Services (CNS).⁹ Like ElbertonNet, CNS secured initial financing through a bank loan but now supplies over \$2 million into the local general fund.¹⁰

Rural leaders consistently urged the committee to consider adoption of legislative goals that will prioritize and dedicate broadband infrastructure funding through organizations such as the Department of Community Affairs or the Georgia Environmental Finance Authority. Some local governments experienced success in securing state grant funding while others never gained any traction.

⁸ ElbertonNET, <http://www.elberton.net/>.

⁹ CNS-Thomasville, <http://www.cns-internet.com/Content/Default/7/7/0/cns/thomasville.html>.

¹⁰ Despite the success of these localities, legislation was introduced in 2013 to restrict local provision of broadband services. HB 282, available at <http://www.legis.ga.gov/Legislation/en-US/display/20132014/HB/282>.

COMMITTEE RECOMMENDATIONS

National and local broadband adoption supports the country's conversion to a digital economy. Private subscribership rates at the national level continue to grow each year while connecting millions of more Americans to digital information networks. Ensuring every Georgian has reliable online access is a clear 21st century statement to maintain Georgia's global economic standing.

Targeted income assistance programs for low-income areas are a substantial priority. Some of these policies will be set at the federal level, including efforts already underway. A reformed Lifeline program and the newly-announced "**ConnectHome**" will both improve broadband availability and affordability for low-income households. Also, the need exists for enhanced cooperation and communication across all levels of government alongside private Internet service providers, some of whom have demonstrated a commitment to community investment already.

Expanding digital and technological education courses are equally important to all metro and rural areas. Digital literacy training classes and programs can help prepare young students for their digital future and offer opportunities for adults to improve their skills for today's working environment. Community assets like libraries are especially important by providing public Internet access and representing centers for training. The recently-expanded federal **E-rate** program will help communities build capacity at their schools and libraries.

Finally, continuing growth of the federal and local policy strategies will also involve continued research into broadband adoption. Public and private sector employers should also continue to incentivize telecommuting for broadband benefits. Many of the largest metro areas have the highest broadband adoption rates and telecommuting could help get more households online and better maximize the internet capacity being built. As demonstrated by the wide range in metropolitan adoption rates, it's especially important to understand the local and rural areas that drive high or low economic performance, and how other factors may impact neighborhood-scale adoption.

Solutions

- Codify definition of broadband to track the Federal Communications Commission definition
- Strengthen broadband project priority with OneGeorgia funding
- Consider the establishment of a dedicated broadband fund within the Department of Community Affairs
- Permit the Georgia Environmental Finance Authority to offer funding programs for broadband projects
- Develop "Gigabit Ready" community designation by providing a list of goals that could be attained at the local level to create a more attractive business environment for companies to deploy and enhance broadband access
- Encourage SPLOST funding initiatives to include broadband deployment
- Amend the purpose of the Georgia Technology Authority to include the responsibility of monitoring broadband deployment and adoption in tandem with other state partners, such as the Carl Vinson Institute of Government at the University of Georgia; to provide information to the legislature and other government stakeholders regarding policy changes from the federal government and how it affects Georgia; and to serve as the state partner to the Federal Communications Commission

- Explore how the Georgia Department of Transportation and other state agencies can lease excess fiber to providers for better broadband services
- Catalogue available resources—*e.g.*, excess conduit, fiber optic routes, potential antenna sites—and market these assets at fair market price
- Require the Georgia Department of Transportation to open the right-of-way for conduits and fiber on rural roads
- Repurpose Georgia Universal Access Fund eligibility to include broadband expansion
- Expand Georgia Universal Access Fund fees from landlines to all telephone numbers
- Convene with experts within the Department of Education and Georgia Technology Authority, local boards of education, and stakeholders of the Georgia Public Web Service to determine whether and how the state could broadcast unused bandwidth (*e.g.*, after school hours) to citizens or anchor institutions within a local community in need of broadband
- Explore how public-private partnerships could be better facilitated between local government, real estate professionals, local development authorities, and others
- Encourage the Department of Community Affairs or Georgia Technology Authority, in concert with Regional Development Centers, to educate citizens on the benefits of broadband in local communities, field questions, and compile data on the costs of deploying broadband to areas without service or enhancing existing service
- Collect information from Regional Commissions, the Georgia Farm Bureau, the Georgia Chamber of Commerce, and others, to assess what geographies seem to be underserved
- Hire a consulting firm to conduct a statewide feasibility study to understand current conditions and formulate a statewide broadband plan
- Amend existing law to provide Georgia's Electric Membership Corporations statutory clarity to provide telecommunication and broadband services
- Eliminate taxes or fees on telecommunications equipment that is purchased with the goal of deploying to or enhancing a rural area
- Provide tax credits for individuals or businesses that invest in broadband infrastructure in rural areas
- Create tax incentives for individuals or businesses deploying broadband in rural areas to recruit and hire local labor force
- Address local government issues that inhibit future broadband expansion
- Develop a uniform, streamlined permitting process at the local level
- Craft incentives to encourage partnerships between large and small telecommunications providers, thereby eliminating duplicative efforts and leveraging combined resources to assess and address broadband disparities
- Reaffirm the state's approval of competitive telecommunication markets by continuing to permit locally-owned and operated government broadband services
- Request information from state agencies on how adequate broadband service affects their regulated parties and how it fuels economic development