



Southern Georgia Regional Commission

Final Digital Economy Plan

December 2014





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Executive Summary

The purpose of the Digital Economy Plan for the Southern Georgia Regional Commission area is to document the resources and unmet needs of our region's digital assets, broadband infrastructure, services and related technology utilization and to develop on-going strategies to fill identified gaps and needs.

Stakeholder Involvement

Several workshop sessions were held throughout the development process involving representatives from local government, business and industry including the digital industry, agriculture, education, health, public safety and citizens. The initial round of workshops was held to introduce the project. The second set of workshops was to conduct the assessment in the form of a strengths, weaknesses, opportunities and threats analysis. The third and last round of workshops was to present the SWOT analysis and develop strategies to address identified gaps and needs.

Assessment

The first part of the plan's assessment phase included an inventory of the digital infrastructure, resources and assets in the region to determine any physical/hardware barriers or boosters to the growth of digital development, the digital economy, digital education and awareness. The second part consisted of a detailed analysis of the demographic and socio-economic data for the region.

SWOT Analysis

A detailed SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis was conducted with the stakeholders. The Southern Georgia Region has been historically underserved in terms of technology and access to broadband. Many of the area's residents and businesses, especially outside of the urban areas have only limited, if any, access to the wide variety of opportunities offered by a high-speed internet connection. This has wide-ranging impacts on level and quality of education, job readiness, business retention and attraction, public health and safety and communication.

Strategies

The key to providing opportunities for the unserved and underserved communities is digital empowerment through digital education. The most pressing strategies identified to be implemented included targeted workforce training with skills actually needed in the digital industry as well as providing more reliable, faster and complete broadband coverage in the unserved and underserved areas. This can be accomplished with a strong coalition of educational institutions, the region's economic development agencies and local government support.



Introduction

Digital Economy Planning

What is the Digital Economy?

The Digital Economy consists of business conducted through computers and computer networks. Farmers use wireless moisture sensors on farms to increase yield and use the Internet to advertise and sell their crops. Doctors see patients using telemedicine, detectives use social media to investigate crime and lawyers search and find legal precedents through online search rather than through paralegals and clerks. It is difficult to find a business or institution in Georgia that does not rely on the Internet and digital technology to improve service, lower cost, automate work, or expand into new markets.

The Digital Economy is not a replacement of our economy but an evolution of using technology to adapt business to global innovation. The Digital Economy is enabled by access to information technology infrastructure, skilled workforce and funding to incorporate these technologies and services into business operations. Computers, mobile phones, tablets, sensors, software applications and broadband networks are basic ingredients. Education, a skilled workforce, adult learning, and the financial resources to incorporate new technologies are critical enablers.

As business adoption of the Internet reaches critical mass, competition will intensify for companies and workers alike. It can produce benefits that include wider access to resources, more effective health-care and education systems, and a workforce with greater skills. Georgia's ability to incorporate and use them directly affects its competitiveness.

Why is a Digital Economy Strategy Important to Georgia?

Georgia's economy will increasingly be impacted by the Digital Economy, therefore, a long term strategy and planning is critical in providing stability and opportunity for future generations.

The Digital Economy is creating new industry and new business opportunities such as one Georgia startup company, AirWatch, which sold in 2014 for over \$1.5B. New technologies have lowered the costs and opened access to markets anywhere in the world by anyone in Georgia who has access to the technology, knowledge, skills and the drive to pursue them.

The Digital Economy disrupts businesses and institutions that took decades to build. Jobs are being lost to offshoring of manufacturing enabled by the technologies and networks of the Digital Economy. Many video and record stores, bookstores, and even shopping malls were other early victims. This trend will accelerate. One study done by Oxford Professors indicates 47 percent of current professions could be at risk for automation by 2025¹. The Pew Research Center's Internet Project has been analyzing the impact of the Internet for over

a decade. Its most recent study in August 2014 analyzes how daily life will be changed by 2025 through the Internet, artificial intelligence and robotics after speaking with almost 2,000 widely quoted technologists and analysts. The conclusions directly quoted below emphasize how large a role the Digital Economy will play in the future²:

Key themes: Reasons to be Concerned

- 1) Impacts from automation have thus far impacted mostly blue-collar employment; the coming wave of innovation threatens to upend white-collar work as well.
- 2) Certain highly-skilled workers will succeed wildly in this new environment—but far more may be displaced into lower paying service industry jobs at best, or permanent unemployment at worst.
- 3) Our educational system is not adequately preparing us for work of the future, and our political and economic institutions are poorly equipped to handle these hard choices.

Key themes: Reasons to be Hopeful

- 1) Advances in technology may displace certain types of work, but historically they have been a net creator of jobs.
- 2) We will adapt to these changes by inventing entirely new types of work, and by taking advantage of uniquely human capabilities.
- 3) Technology will free us from day-to-day drudgery, and allow us to define our relationship with “work” in a more positive and socially beneficial way.
- 4) Ultimately, we as a society control our own destiny through the choices we make.

What does the Regional Digital Economy Plan accomplish?

The Regional Digital Economy Plan examines local and regional abilities to participate in the Digital Economy and identifies important resources, organizations, leaders, programs and investments that already exist, that can be leveraged in the future. The plans also identify each region’s gaps in infrastructure, workforce and access to capital and align, prioritize and convert these gaps into actionable projects with goals that can be measured.

The planning process analyzes the Digital Economy capacity of each region in at least three distinct areas:

1. Workforce capabilities and needs
2. Supporting infrastructure and services for Internet connectivity
3. Access to capital to invest in each region’s plans to increase participation in the Digital Economy

² Pew Internet, *AI, Robotics, and the Future of Jobs*, Aaron Smith and Janna Anderson, August 2014, <http://www.pewinternet.org/2014/08/06/future-of-jobs/>

The most important value of these plans is to raise awareness, develop community and regional collaboration, prioritize objectives and establish plans to use our assets and strengths to be competitive.

The key to success for any region in the future will be cooperatively working together to leverage opportunities and mitigate threats brought about by the ever-growing Digital Economy.

Section I - Regional Identification

The SGRC is a multi-jurisdictional planning agency whose membership includes public officials, private individuals, post-secondary education representatives, workforce development representatives, economic development professionals, and other stakeholders throughout the region. The SGRC provides technical, planning, community and economic development assistance, and aging and workforce development services to the Southern Georgia region. The governing authority, or “Council,” of the Regional Commission functions as the District Council in administering the Region’s EDA, DCA, FEMA and other federal and State programs.

The membership of the SGRC Council includes representatives from all 18 counties as well as 17 of the 45 municipalities in the region. The membership includes: (1) “County Official” - The chief elected official of each county’s governing body; (2) “Municipal Official” - Mayor of the county seat; (3) “Private Official” - One private-sector official from each county representing any for-profit enterprise, management official, or executive holding a key decision making position (or designee); (4) Three At-Large Appointments by the Governor of Georgia, (5) One At-Large Appointment by the Lieutenant Governor of Georgia; and, (6) One At-Large Appointment by the Speaker of the House.

The Southern Georgia Regional Commission (SGRC) is the economic development planning agency for Southern Georgia. The vast region covers South Central to Southeast Georgia. Agriculture, commercial timber production, and other rural development initiatives are all cornerstones of the Southern Georgia economy. However, the evidence of manufacturing is seen throughout the region and has helped to raise the per capita income, jobs creation and retention, and capital investments within the region. Valdosta, the major city and county seat of Lowndes, County, is the only designated Metropolitan Statistical Area (MSA) located in the Region. The counties of Lowndes, Brooks, Echols, and Lanier are associated with the MSA. Valdosta has a growing manufacturing, warehouse, and distribution base. It is also home to Moody Air-force Base and Valdosta State University. The City of Fitzgerald (including Ben Hill County and Irwin County), City of Douglas (including Atkinson County and Coffee County) and City of Waycross (including Pierce County and Ware County) are defined as Micropolitan Statistical Areas. Micropolitan cities do not have the economic or political importance of large cities, but are nevertheless significant centers of population and production, drawing workers and shoppers from a wide local area. One county, Brantley, is associated with the Brunswick MSA, located outside the SGRC Region. The Region has three additional retail trade centers other than Valdosta, including Tifton, Douglas, and Waycross. Southern Georgia has several

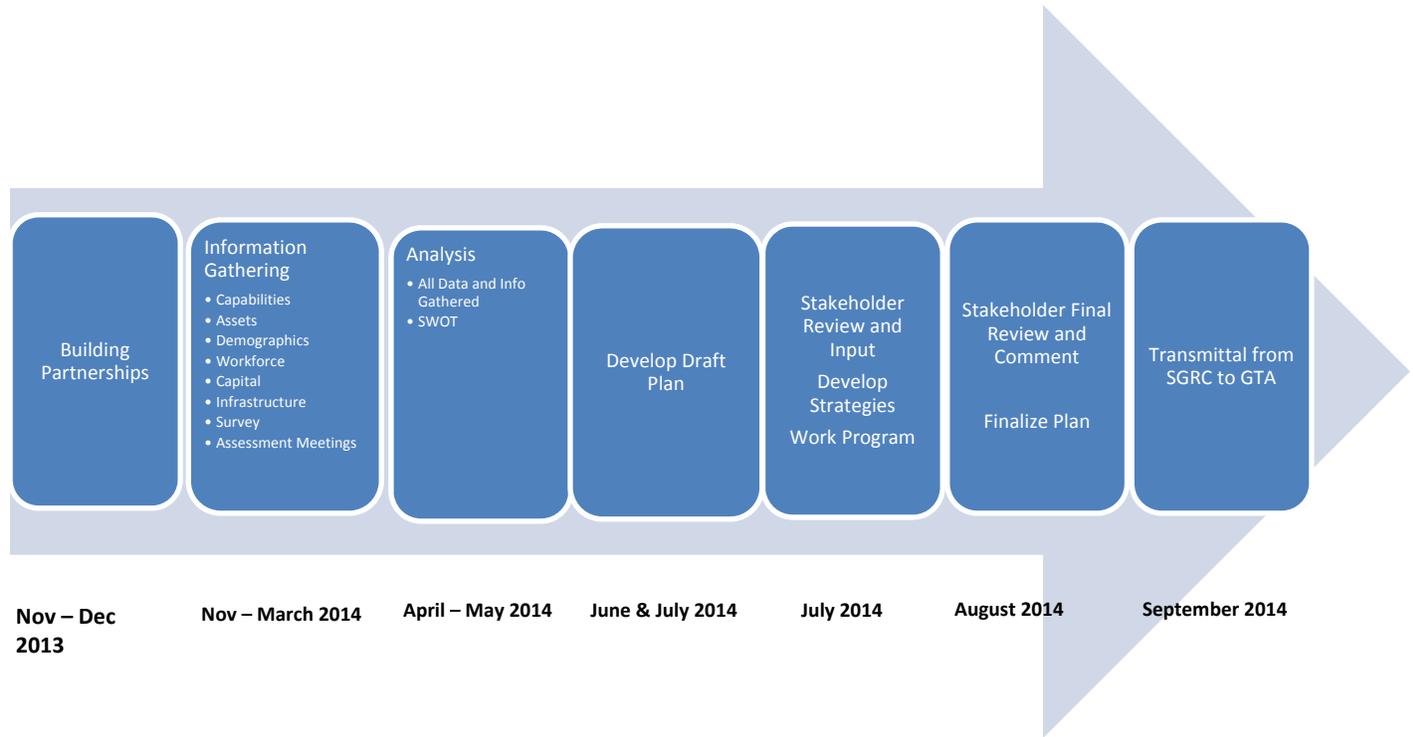
four-lane transportation arteries and is connected directly to one interstate highway system (I-75) on the western side of the region.

The economies of the SGRC region have become more diversified over the past twenty years; however, this diversity did not make the region immune to the national recession. The Region has suffered from the ill-effects of numerous industry and business closures over the past five years, resulting in continual high unemployment. These trends also reflect structural changes in the region's economy that suggest decreased economic competitiveness.

The majority of the eighteen counties in the SGRC area have experienced persistent economic distress and unemployment. Southern Georgia must find ways to reverse negative trends and move the region forward through regional initiatives aimed at fostering sustainable economic development. Goals for economic development need to be integrated with land use and transportation goals and coordinated with the concerns related to natural resources, preservation of water quality, agriculture, and connectivity in the region.

The vision and mission of the SGRC is to combine its multipurpose functionality as a land planning, environmental planning, transportation planning, economic development planning, and workforce investment agency into providing direction, guidance, assistance and training to its member governments to evolve into and maintain a prosperous and sustainable economy.

Section 1 – Project Timeline



Section 2 - Regional Stakeholders

Internet Service Providers	State/ Local Governments	Education
Plant Telecommunications	City of Barwick	Coastal Pines Technical College
AT & T	Southern Georgia Regional Commission	Georgia Institute of Technology
Windstream	Lowndes County	South Georgia Regional Library
Vyve Broad Band	Charlton County	Lowndes County School Board
Rocketcomm	Tift County Commission & IT	Berrien County School Board
Tower Cloud	City of Waycross	Tift County School Board
Hughes Net	City of Remerton	Brooks County Library
Brantley Telephone	City of Lake Park	Valdosta City Schools
	City of Valdosta	Charlton County Schools
	City of Waycross	NESPAL
	City of Fitzgerald	University of Georgia
	Department of Community Affairs	
	Ben Hill County	
	City of Folkston	
	Lanier County	

Health Care	State/ Local Governments	Economic Development
Altamaha Home Care	City of Ty Ty	Cook County Economic Development Council
Southern Georgia Area on Aging	City of Omega	Lake Park Outlets
Tift Regional Medical Center	City of Nashville	Lanier County Economic Development Authority
Waycross Telehealth	City of Quitman	Southern Financial Services
	City of Willacoochee	Berrien County Development Authority
	Brooks County	Clinch Development Authority
	Berrien County	Private Citizens
	Clinch County	Berrien Chamber of Commerce
	City of Tifton	Waycross Chamber of Commerce
	City of Alma	Okra Paradise Farm
	Coffee County	Valdosta Lowndes County Industrial Authority
	City of Sycamore	Thomasville Development Authority
	City of Ashburn	Georgia ECD
	City of Lenox	Turner County Chamber of Commerce
	City of Dasher	Affinity Building Systems
	City of Hahira	Elixir Industries
	City of Fargo	I2o Technologies
	Pierce County	Ohio Mulch
		Auto-Quest, Tifton
		Valdosta Lowndes Chamber of Commerce

Section 2

Regional Stakeholders - Methods of Engagement

The eighteen counties in this region include rural counties, urban areas, internationally renowned wildlife refuges, small unincorporated and incorporated municipalities, bigger cities, interstates, dirt roads, a nationally important military base, along with the diverse population living in and around these areas; all united by a down home love for South Georgia, and the desire to be the best it can be for its residents, businesses and visitors alike.

The Digital Economy Plan has set out to capture this spirit and the diverse values through its stakeholder involvement program which consisted of two elements:

- 1) The identification of the various stakeholders; and
- 2) The identification of participation techniques.

In order to be able to paint a true picture of this region for the Digital Economy Plan, a variety of outreach efforts have to be employed including face to face conversations, visits, workshops, e-mail campaigns, website updates, face book updates and newspaper updates for public meetings.

SGRC employed the following participation techniques to involve the stakeholders in the development of the Digital Economy plan, to create awareness of the plan, and to gather a broad range of input into the plan. Some of the participation techniques are more intended to disseminate information, others to solicit input and active participation.

Informational Techniques:

Update Webpage

This webpage was part of the Regional Commission website where all the information regarding the Digital Economy Plan Update has been displayed. The webpage will provide information on all meetings, PDF draft documents and will also include contact information for staff to provide more information, clarifications or details upon request.

Facebook Information Sharing Page

The Facebook page “Southern Georgia Regional Commission Information Center” continues to serve as an information clearinghouse to distribute information on meetings, progress, and

provide opportunity for comments, especially for those stakeholders that are not able to attend meetings.

E-mail

E-mails have been utilized extensively to notify and invite stakeholders to workshops, meetings and other events as well as to distribute draft copies of the plan and solicit feedback, suggestions and comments.

Participation Techniques:

Steering Committee

During the development of the Digital Economy plan, a Steering Committee was established consisting of the Southern Georgia Regional Commission members. This same Steering Committee continued to serve during any implementation phases of the Plan.

Workshops

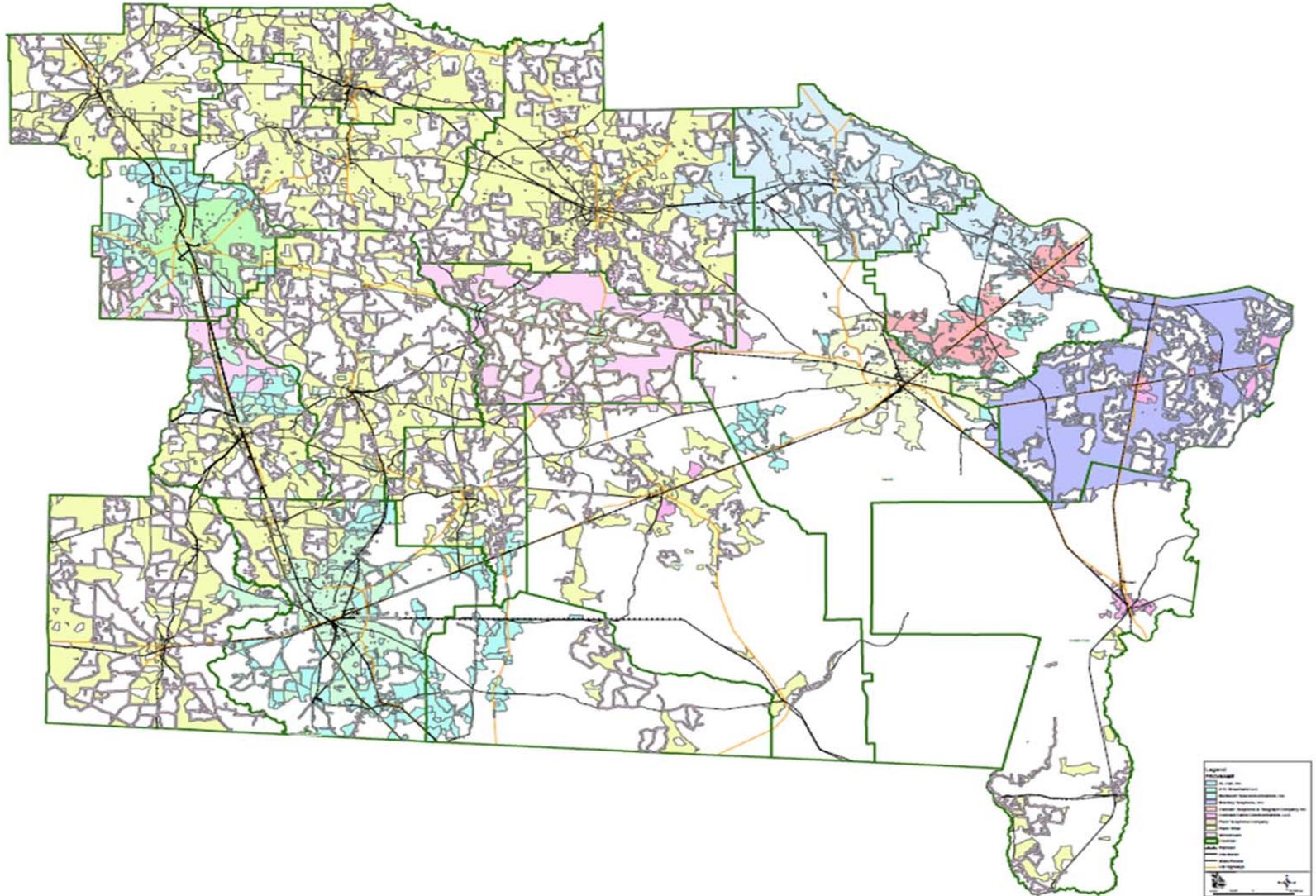
Workshops with stakeholders were utilized extensively to provide input and feedback on the formulation of a SWOT analysis, regional issues and opportunities, as well as in the development of strategies. The workshops were supplemented with individual stakeholder interviews. Participation and interest was active and high during the stakeholder workshops especially utilizing guided interactive discussion techniques.

Surveys

Business and residential surveys were distributed through survey monkey and the Chambers of Commerce to solicit input from Stakeholders on issues and opportunities and performance standards. The survey link was also available for download on the web page and Facebook page.

Webpage and Facebook Page

Both the web and Facebook pages not only provided information but were also geared towards soliciting and receiving comments, engaging in discussion and contacting staff.



Map of Service Provider Areas in SGRC region

Section 3 - Regional Overview and Data

Infrastructure

1.) Nearly all communities in SGRC region DO have a connection option. Local governments across the region do have at least one option for connection.

As the illustration above shows, citizens, businesses and governments in nearly every community in our region have the ability to connect to the internet and to participate at the most basic level. For private users, this participation is typically in the capacity as a consumer. Most commercial websites are optimized to deliver quick responses over the slowest/smallest bandwidth connections. Smaller local governments in our region seem to fall more into the role of consumer than publishers or providers due to the lack of investment/vision in: community websites, public participation, and online bill payments to name a few. So, any limited bandwidth/speed issues that do exist have gone mostly undiscovered by many smaller local governments. Larger local governments/more urban areas have drawn more providers and therefore competition, lower connection costs and higher up/down speeds. These governments and their citizen users, just as is the case with other facets of a “community”, have matured past the issues that smaller governments still experience.

2.) Larger population centers within counties typically do have more than one option for connectivity and speeds. Speed, bandwidth and stability are sufficient for typical commercial business and local government operations.

According to information delivered by providers and spatial analysis of that data, most mid-sized and every large size community across the SGRC region DO have connection options. These options even extend beyond the traditional wired experience and into the cell and satellite-based opportunities. At least one of these communities has demonstrated that this wireless alternative can produce some dazzling results. See “Fighting Crime through mobile connectivity” project highlight for more details on just what can be done with a wireless option. The successes of all of these mid-largest sized communities in the regional counties have all been results of the combination of at least one connection option and of course, a substantial investment in the utilization of one of these options. In the largest communities across the region, much leverage has been applied to these options to create attractants for industry and business that are web-centric and have shown that the promises of providers are sustainable and therefore, so are the businesses and industry that rely upon that connection.

3.) Users such as school systems and industry have demonstrated that, even with limited provider options, impressive results can be achieved. This has taken an investment in infrastructure by local governments and authorities.

Where this is a will, there is a way, or at least, in most cases. Some communities in our region have demonstrated their will by making investments alongside the investments of providers. This investment along with coordination with providers to provide high-end access is what has made several industrial, education and commercial centers across the region attractive and sustainable. Clearly, investment of the local communities in some form or fashion is what has been key to the success experienced.

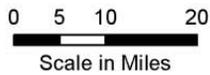
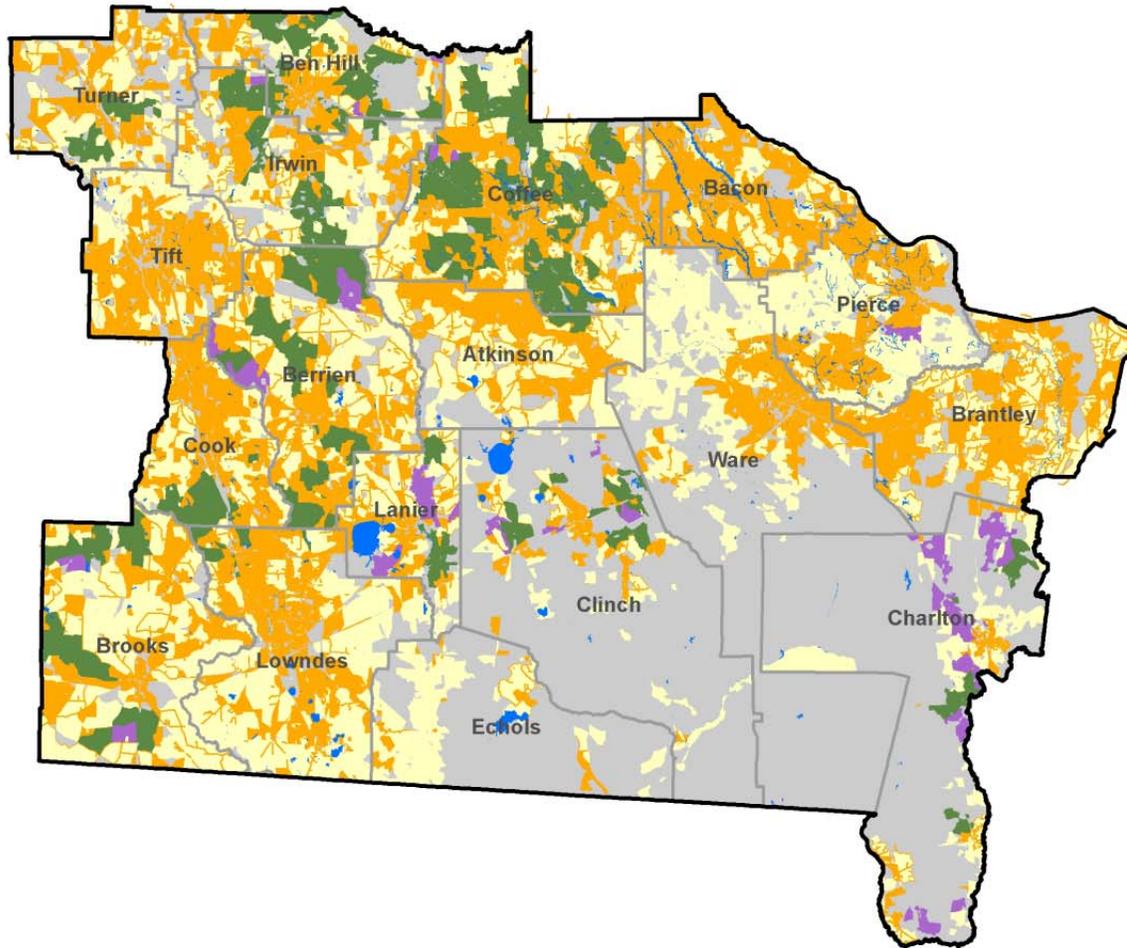
4.) Very little provider competition in smaller communities and delivered speeds (up/down) cannot support development of businesses that are web-centric.

As the illustration on the previous page shows, the smallest of communities are bound to experience a bottle-neck beyond their control when trying to participate in a digital economy beyond the consumer role. As you see, the maximum download speeds are relatively low and although this map does not indicate upload speeds, our analysis of data shared by providers and our own research shows that upload speeds are often half, at best of the download speeds. So, all in all, bandwidth and speeds are simply not sufficient for a web-centric industry or business to be sustainable regardless of most investments made in infrastructure by a local government or authority. A bottle-neck will exist until more than one connection option exists and competition spurs advancement or until a sole provider is able to increase capacities in these communities.

5.) Mid-size to smaller local governments in SGRC region are often not leveraging the connection opportunities they DO have due to budget priorities. Lack of managed connectivity between offices/departments creates inefficiency.

As an IT provider for many local governments across the SGRC region, we are well aware of budget constraints that present severe operational consequences within local governments. Everyday SGRC encounters obstacles to success that are strictly a matter of budget priorities. Connectivity between two local government offices as an example can be achieved in a number of ways. Radio, fiber, wireless, traditional CAT wiring or through the internet via VPN are among those methods. When wireless and traditional wired connectivity is not an option because of distance, more creative solutions are necessary. However, these solutions are among the most expensive options. Often times, our advice is to make an investment in one of these solutions is met with a response of “we cannot afford it”. Then, as a result, business continues as it did before we arrived. While budgets have limits, the prioritization of a connection solution must be made a priority at some point. Otherwise, communities continue to experience more and more limitations on the toolsets they can take advantage of as technology marches on and as workloads and demands on these local governments increase, and their digital communications do not follow, they experience more and more inefficiency.

Southern Georgia Connect America Fund Phase I Analysis



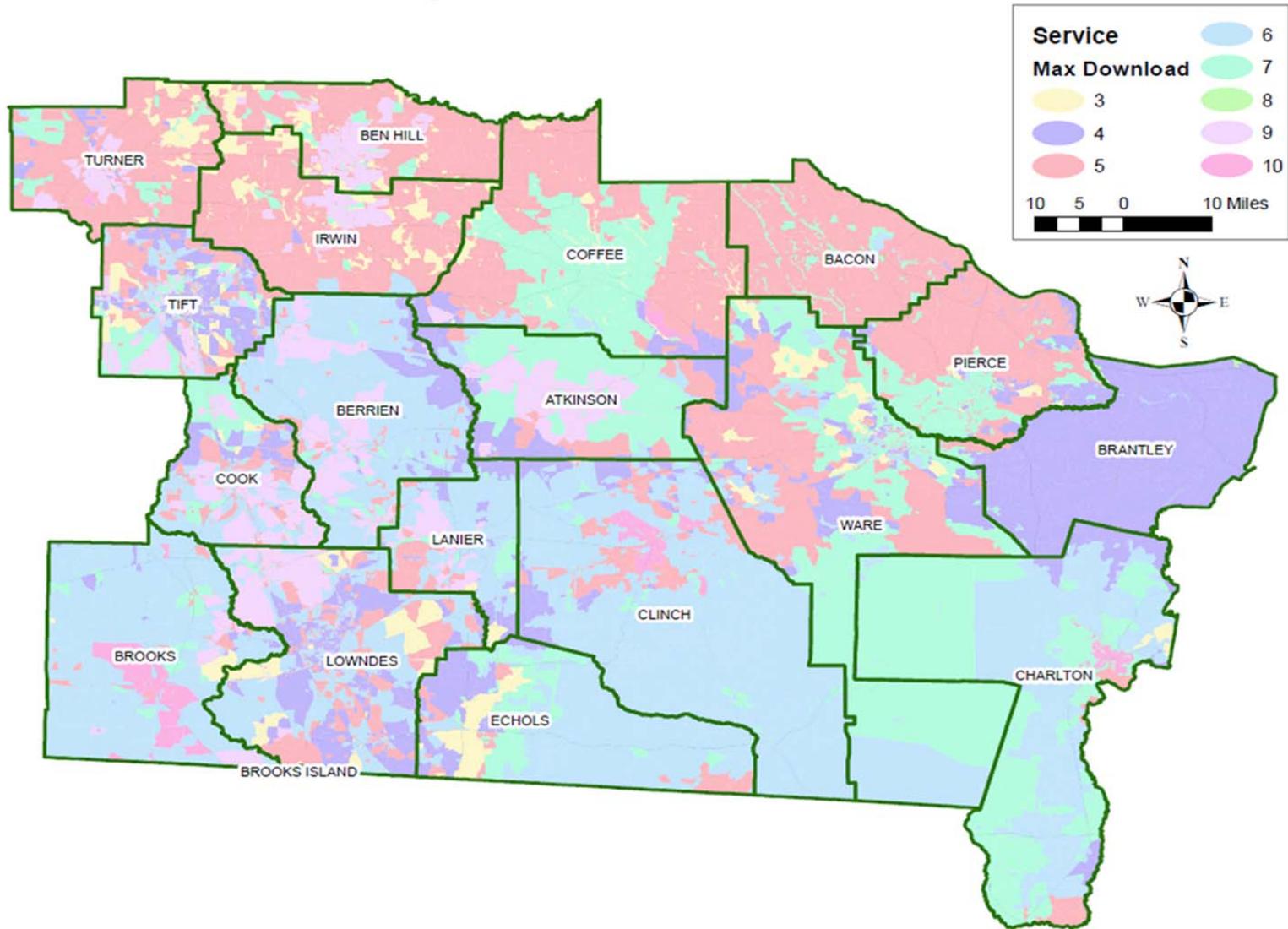
- County Boundaries
- Upgraded Coverage
- New Coverage
- Water Bodies
- Unpopulated Lands
- Areas Unserved by Wireline Broadband
- Areas Served by Wireline Broadband



Map Created: February 2014

County Name	Total Dollars per County	Newly Served Households per County	Faster Speed Households per County
Atkinson	\$4,400	0	8
Ben Hill	\$353,950	16	621
Berrien	\$450,100	84	700
Brooks	\$191,950	22	318
Charlton	\$364,250	294	248
Clinch	\$163,950	32	253
Coffee	\$1,527,825	7	2,768
Cook	\$145,750	0	265
Irwin	\$303,200	8	540
Lanier	\$266,000	180	230
Lowndes	\$66,000	0	120
Pierce	\$187,550	242	0
Turner	\$80,850	0	147
RC Totals	\$4,105,775	885	6,218

Download Speeds in SGRC region



6.) More middle/last mile providers entering the SGRC region to fill voids.

This is one area that we are definitely seeing the development of opportunities that can be seized by local governments, citizens and businesses. The introduction of a single middle-mile provider in one of our rural counties recently resulted in a partnership with one city governments that is now delivering a 17+mbps upload speed and as you might suspect, lightning-fast download speeds. This partnership was possible, in part, to the geography of this particular county and city. Coincidental geography aside, the fact remains that this gap has been bridged and as soon as it was, it began to impact the IT culture and digital economy participation of this community. No doubt, economic development opportunities are now seeming to be around the corner instead of a distant dream. As more middle-mile gaps are closed, the “middle” shifts and becomes shorter and shorter gaps and begins to reach deeper into rural communities. The challenge is continue the enticement of providers to close the gaps in shorter and shorter spans.

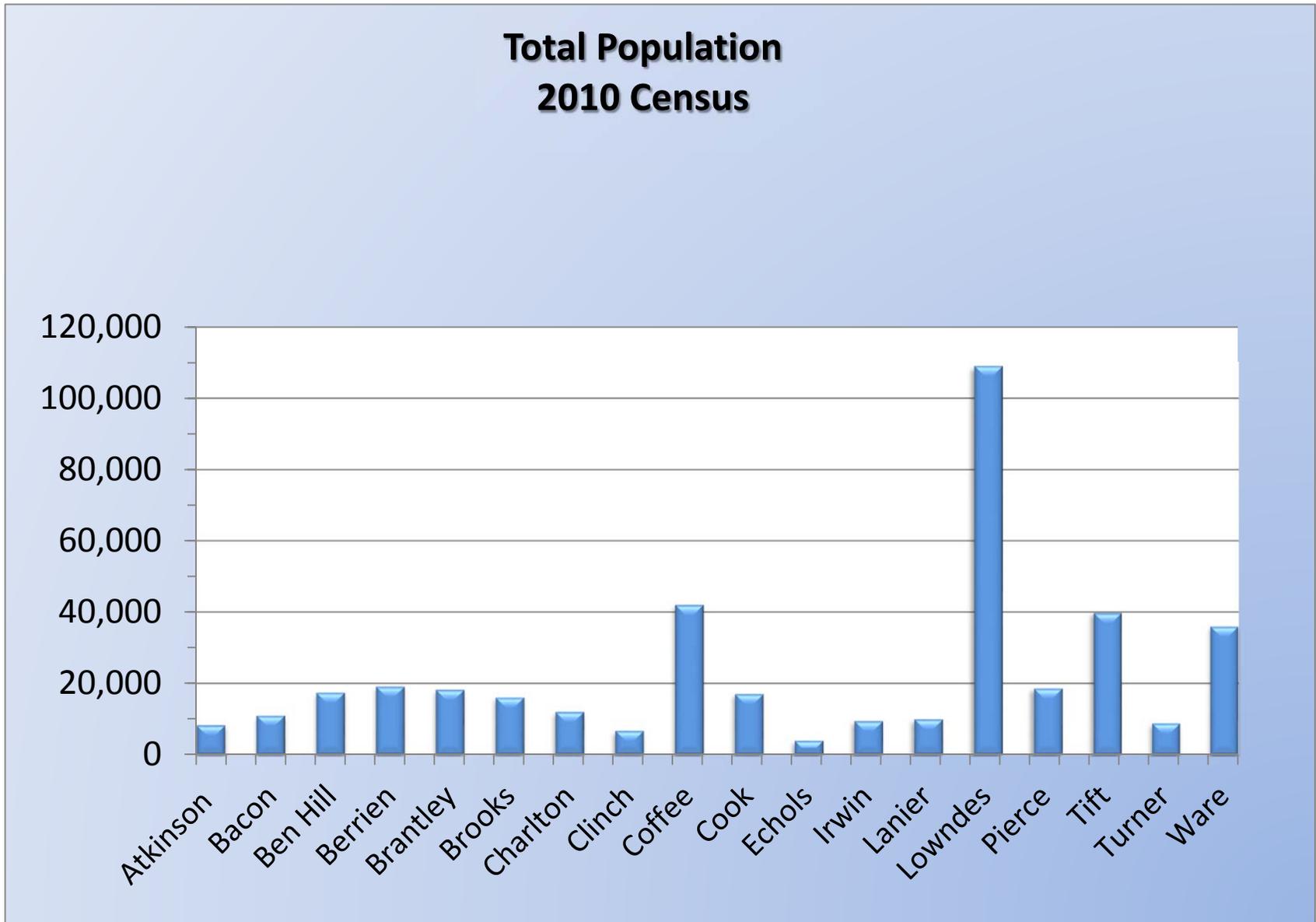
7.) More leverage can be applied (especially by smaller communities) to the resources that are in place today to get results.

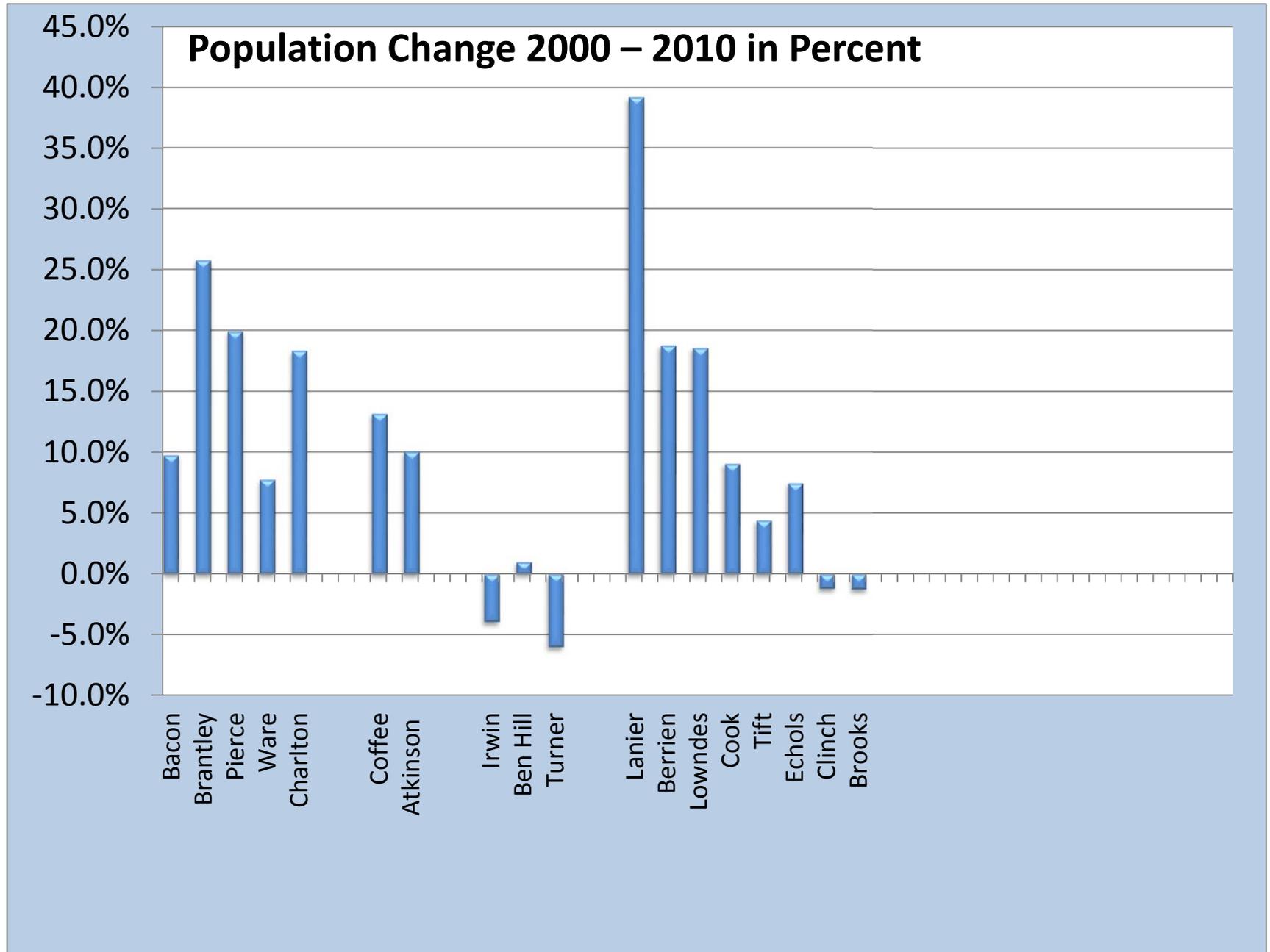
While up/down connection speeds are not optimal in the smallest communities, there are still opportunities for local governments to step up to the plate and made strides. Many of these communities have struck deals with providers for free or low-cost connections to the internet. However, an investment equivalent to two to three times what an average residential customer might pay each month could provide a community with the opportunity to tie their different offices together in a secure fashion. A one-time investment in managed connection hardware on each end would be necessary as well but well doable for less than the budget of a police car in the first year and much less than that for maintenance in future years. It is a matter of priorities. The challenge to seizing these opportunities is, of course, limited budgets and budget priorities. The priorities, our experience has revealed, are a product of the IT culture existing in each community.

Section 3 – Demographics - Population

As shown in the tables on the following pages, twelve of the eighteen counties in the region experienced a loss in population between 2011 and 2013, whereas between 2000 and 2010 only 5 counties experienced a population decrease. Turner County experienced the highest loss with -3.5 %, followed by Brooks County with a 2.51 % population decrease. However, the decrease in population stayed below 1% in nine of the counties, indicating more of a stagnant population rather than decline. Of the four counties with population increases, Lowndes County benefits from its proximity to the I-75 corridor, Lanier County from its proximity to Moody Air Force Base, and Pierce and Brantley County from the population growth westward from the coast and northward from Jacksonville, Florida. The four centers with the highest populations, Coffee, Lowndes, Tift and Ware Counties, are all located at the intersection of two or more state and/or federal highways indicating the significance to date of a location near a physical transportation node.

The loss in population stems from a lack of jobs in a tepid economy and this lack of job opportunities not only fails to retain existing residents but also to attract new residents to the area. Lack of higher paying jobs outside of the transportation and service industry, especially in the digital economy, is forcing people to move or stay outside the region to find those jobs. This lack of higher paying jobs and respectively qualified workforce consequently also provides a barrier to attracting businesses and industry with such higher paying jobs to the region.





Population Ranking – Georgia Trend April 2014								
County	Rank in Region 2012	Year 2012 Population	Rank in Region 2013	Year 2013 Population	Rank State 2011	Rank State 2012	Rank State 2013	% Average Annual Growth 2011 - 2013
Lowndes	1	114,372	1	116,668	20	20	20	2.16
Coffee	2	43,189	2	43,357	47	47	47	0.41
Tift	3	41,835	3	41,234	49	48	48	-0.10
Ware	4	36,525	4	35,629	51	51	51	-0.78
Berrien	5	19,628	5	19,016	91	91	91	-0.82
Pierce	6	18,952	6	18,936	92	92	92	0.56
Brantley	7	18,638	7	18,775	93	93	93	0.48
Ben Hill	8	17,631	8	17,440	99	99	99	-0.47
Cook	9	17,165	9	16,825	100	100	101	-0.56
Brooks	10	15,753	10	15,091	105	107	108	-2.51
Charlton	11	13,763	11	13,425	118	115	115	0.15
Bacon	12	11,243	12	11,210	121	122	121	-0.01
Lanier	13	10,765	13	10,582	126	124	123	0.61
Irwin	14	9,709	14	9,515	130	129	129	-0.87
Atkinson	16	8,415	15	8,234	140	139	139	-0.86
Turner	15	8,802	16	8,232	137	136	140	-3.55
Clinch	17	6,750	17	6,639	147	147	146	-0.77
Echols	18	4,171	18	3,982	153	153	153	-1.75
State Total		9,812,460			<i>na</i>	<i>na</i>	<i>na</i>	0.92

Section 3 – Demographics - Age Distribution

The next table shows that across all counties in the Southern Georgia Region about 60% of the population is between the ages of 25 and 64.

Similarities in all counties also exist in the under 18 year old population group (school age), which averages 24.4% of the population and the age group between 18 and 24 only averages 10% of the population with the exception to Lowndes County, which has 17.4% of its population in this age bracket due to the presence of Valdosta State University.

These percentages highlight one of the major issues confronting the region: that there is a lack of local, better paying jobs to encourage the younger, digitally literate population to stay in the area after they have graduated high school or college. The majority of the local youth leaves the area to pursue a college education and/or careers in their chosen fields. Therefore, the population of the post high school age group drops significantly. The population numbers for the older age groups only starts to increase at about age 45, reflecting a trend for those populations to return to retire or care for aging parents.

Age Distribution 2010 <small>2010 Census QT-P1;</small>							
County	% <i>Under 5</i>	% <i>5-17</i>	% <i>18-24</i>	% <i>25-44</i>	% <i>45-64</i>	% <i>65-84</i>	% <i>85 and over</i>
Atkinson	8.5	20.5	9.6	27.2	23.5	9.8	0.8
Bacon	7.4	18.1	8.5	26.9	25.7	10.7	0.8
Ben Hill	7.9	18.6	8.6	24.6	26.3	12.4	1.6
Berrien	6.9	18.7	8.7	25.4	26.5	12.5	1.3
Brantley	7.2	19.4	8.4	25.4	27.3	11.4	0.9
Brooks	6.7	17.0	8.6	23.5	28.4	14.2	1.6
Charlton	6.0	15.7	9.5	29.4	26.8	11.6	1.1
Clinch	7.7	19.4	9.1	24.1	26.9	11.8	1.0
Coffee	7.3	18.9	10.4	27.7	24.7	9.9	1.2
Cook	7.6	19.6	8.9	25.3	25.1	12.0	1.5
Echols	8.9	20.4	10.0	29.4	21.4	9.2	0.7
Irwin	6.3	18.0	8.6	25.9	25.7	13.7	1.9
Lanier	6.9	20.6	9.6	28.4	23.7	10.2	0.8
Lowndes	7.6	17.1	17.4	26.4	21.7	8.8	1.0
Pierce	7.0	19.1	7.6	25.5	26.8	12.6	1.4
Tift	7.4	18.4	12.0	25.0	24.4	11.2	1.6
Turner	6.7	18.0	9.4	24.2	26.1	13.6	2.1
Ware	6.9	16.7	9.5	25.4	26.3	13.0	2.2

Section 3 – Demographics - Income

Regional Income Figures:

Eight counties in the region show a per capita income above \$30,000 and only one county in the region, Brooks County, has a per capita income which is higher than the State average. Nine counties show a per capita income in the \$25,000 range, and one county, Charlton County shows a per capita income which is even below \$20,000. The majorities of the jobs in the region are in the service and retail sectors, which traditionally have lower salaries and little or no benefits. Jobs in the information technology sector, typically higher paying jobs, only show up at 1 – 2% of all jobs in the Region.

Regional Poverty Figures:

In ten of the Region's eighteen counties more than eighteen percent of families live below the poverty level. Areas of persistent poverty are those where more than 20% of a county's population lives below the poverty threshold. Much of the population in these counties does not have the discretionary income to be able to subscribe to broadband/internet access at home at an average rate of \$60 per month. This lack of access to internet by a large portion of the population creates a digital divide by limiting access and opportunities to pursue education, skills and employment opportunities on-line.

Regional Unemployment Figures:

The average unemployment rate lies at 10.1% for the Region. Eleven of the eighteen counties show an unemployment rate which is higher than the regional average. Service and retail sector jobs typically also feature higher unemployment due to the low skill level required and seasonal characteristic of many of those jobs.

Per Capita Income Comparison – Georgia Trend April 2014

County	Rank in Region 2012	Year 2012 Per Capita Income \$	Rank in Region 2013	Year 2013 Per Capita Income \$	Rank State 2011	Rank State 2012	Rank State 2013	% Average Annual Growth 2011-2013
Brooks	1	32,439	1	39,007	52	40	26	7.63
Turner	3	30,184	2	36,278	89	63	34	11.24
Irwin	5	28,952	3	36,042	98	85	35	11.0
Tift	4	29,990	4	34,190	59	65	47	4.33
Lowndes	2	31,115	5	32,960	57	49	60	1.24
Berrien	7	28,476	6	31,609	108	91	78	6.05
Pierce	6	28,657	7	31,326	100	87	82	3.51
Ben Hill	9	27,026	8	30,685	110	112	91	4.72
Ware	8	27,331	9	29,257	94	105	112	3.25
Cook	12	25,362	10	28,172	129	133	125	5.01
Bacon	14	25,138	11	27,861	135	138	129	4.7
Clinch	10	26,711	12	27,856	127	118	130	2.87
Lanier	11	25,570	13	27,209	148	130	133	3.77
Coffee	12	25,362	14	26,817	132	134	139	3.58
Echols	15	23,460	15	26,047	141	145	144	2.33
Atkinson	17	22,399	16	25,609	152	150	146	8.38
Brantley	16	23,092	17	24,371	151	147	151	2.71
Charlton	18	18,419	18	19,676	155	157	157	2.63
State Average				38,313				2.68

Income Characteristics 2010 Census 2006-2010 ACS B17010; S1701; B19301; B19113; Dept. Of Labor Profile 2012

County	Median Household Income \$	Families Below Poverty Level	Families Below Poverty Level Percent	Unemployment Rate 2012 %
Atkinson	33,834	401	19.8	13.4
Bacon	31,429	311	11.6	9.8
Ben Hill	30,134	1012	22.7	12.9
Berrien	32,202	929	18.2	10.2
Brantley	37,343	895	18.2	11.1
Brooks	41,309	682	14.7	8.6
Charlton	40,850	454	18.1	11.4
Clinch	31,963	324	19.1	10.9
Coffee	35,202	1957	18.3	13.1
Cook	31,390	939	21.3	11.2
Echols	32,390	227	21.4	7.1
Irwin	38,376	369	14.9	11.9
Lanier	37,522	488	17.9	7.7
Lowndes	39,096	3905	15.3	8.7
Pierce	37,062	669	13.6	9.2
Tift	36,847	1758	16.9	10.2
Turner	30,763	509	22.7	9.6
Ware	35,517	1453	16.7	11.1
Southern Georgia				10.1

Section 3 – Demographics - Business/Industry

The next graph and table, Industry Mix, show that the vast majority of businesses in the region fall into the retail and service sectors. Government jobs are also well represented due to a large presence of the Department of Corrections in South Georgia. When compared to the DOL Labor Profile for 2010, the overall number of businesses and most of the entire manufacturing sector, however, has steadily decreased in the region reflecting a continuing weak economy in the region.

The region shows very few health care related businesses (outside of areas with major hospitals such as Lowndes, Tift, Coffee and Ware Counties) and information technology businesses. Given the globalization of the economy through digital technologies and connectivity, immediate focus should be given to the Information Technology Sector which is attractive to college graduates and encourages home-based start-up businesses that do not require a significant amount of capital, but significantly increases the skill level and marketability of the workforce while increasing income levels and reducing unemployment. Lowndes County, Tift County and Ware County have higher than average levels of information related employment which results from higher than average technologically advanced school system in those counties and of course, Georgia Telehealth.

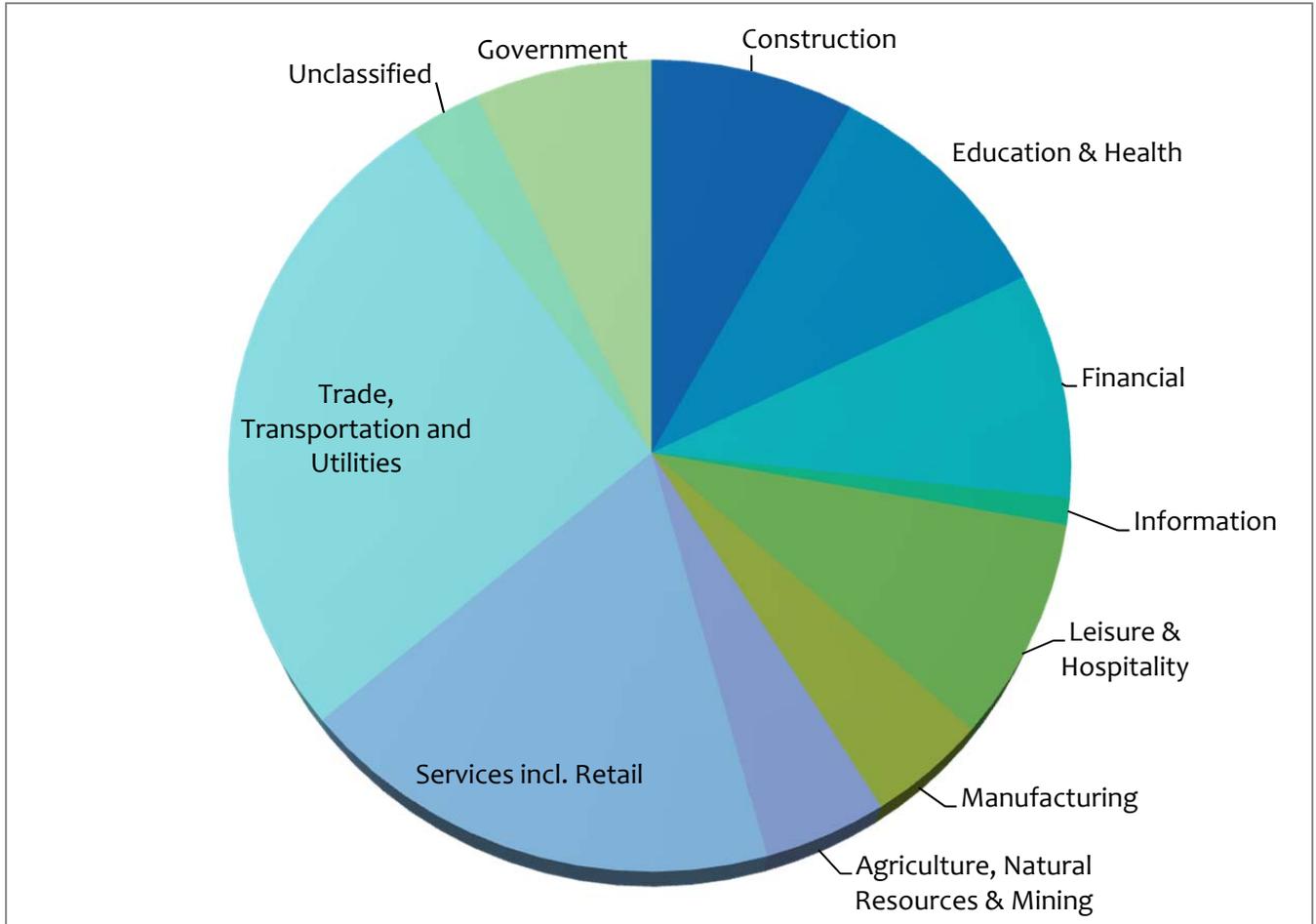
According to Department of Labor profiles, major employers in the region in late 2012 include: Coffee County Regional Medical Center (Health Care), Convergys Customer Management (Call Center), Data Software Services (Call Center), Georgia Department of Corrections (Government), Harvey's Supermarkets (Retail), Lowes Home Centers (Retail), McDonalds (Retail/Service), Mayo Clinic Health System (Health Care), Valdosta State University (Education), and Walmart (Retail). Other than the health care facilities and university, the majority of employment opportunities through these facilities are lower paying jobs which require a fairly low skill level. Other, more local, major employers include agricultural processing businesses, United Parcel Service, Wild Adventures (Recreation), as well as several employee leasing services.

Of specific interest to this area is the application of internet technology to agricultural businesses through precision farming for vegetables, livestock, or equipment location. NESPAL (National Environmentally Sound Production Agriculture Laboratory), a unit of the University of Georgia's Agricultural College, is leading the effort for utilization of internet technology in agriculture. NESPAL, located in Tifton, GA, is doing some on-farm work in rural Southern Georgia. According to researchers with NESPAL, the implementation of wireless (cellular and

other wireless technologies) data transfer technologies is being implemented, however, the use of broadband technology was not successful due to the rural nature of the area. As a test project, however, the UGA Tifton Campus has established a Wi-Fi cloud over the campus and adjoining farms and many internet applications are successfully implemented in this limited geographical area.

The majority of Venture Capital Investments, while not many, are in the Agricultural Sector, which reflects the predominant industry in the region. An increase in number of skilled labor, graduates in innovation based career fields and incentives to stay in the region may work to significantly increase venture capital investment in the Region.

2014 Industry Mix for the SGRC Region



2010 Industry Mix for the Region by County 2010 GDOL, Area Labor Profiles 2012

	Total # Businesses	Agriculture & Mining	Construction	Manufacturing	Retail Trade	Information	Health care	Other Service	Govt	Other
Atkinson	130	9	3	22	30	0	6	46	22	2
Bacon	268	31	12	16	41	3	19	117	24	5
Ben Hill	374	13	20	30	74	6	28	165	25	13
Berrien	302	18	18	23	59	4	18	115	25	21
Brantley	222	16	41	12	33	2	10	73	28	6
Brooks	271	43	20	5	38	2	18	108	27	10
Charlton	167	14	13	11	32	1	11	61	21	3
Clinch	180	37	7	8	24	3	8	65	28	0
Coffee	942	35	66	47	193	9	82	430	56	24
Cook	364	25	28	31	52	3	31	147	38	13
Echols	45	16	4	0	2	0	2	9	19	1
Irwin	162	11	13	7	30	3	15	56	24	3
Lanier	131	9	14	7	23	1	9	43	21	4
Lowndes	2,957	30	256	107	486	34	348	1,492	112	90
Pierce	345	20	56	12	59	3	23	140	21	11
Tift	1195	47	87	36	222	12	99	590	71	31
Turner	186	13	8	10	30	1	10	89	24	1
Ware	956	28	71	41	186	10	116	414	66	24

Venture Capital Investments

CBIInsights 2014

Company	Location	Sector/ Industry	Investors	Amount \$	Date
Tifton Quality Peanuts	Tifton, Ga	Agriculture	Undisclosed	1.27 Mio	2/27/2013
Osceola Cotton Company	Ocilla, GA	Agriculture	Undisclosed	1.22 Mio	3/8/2011
Design Space	Douglas, GA	Industrial: Design & Construction	Stewart Capital Mgt Merit Capital Partners Pegasus Capital Grp	0.00 Mio	12/8/2006
IVEST	Douglas, GA	Financial	Sunset Brands	0.00 Mio	6/5/2013

Section 3 – Demographics - Employment

Twelve of the eighteen counties experienced a gain of employment for the period 2011 to 2013.

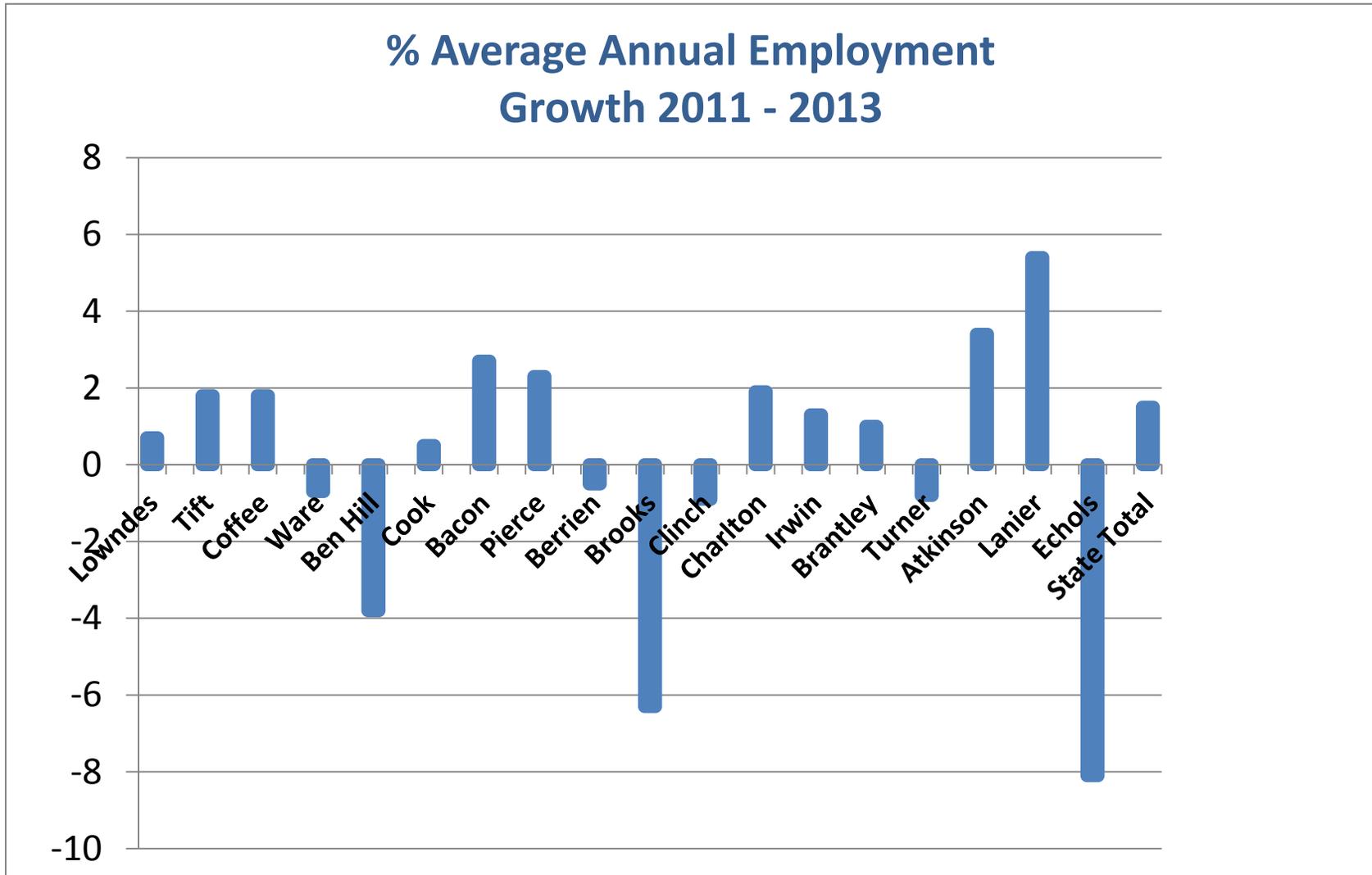
Six counties lost employment: Ware County, Ben Hill County, Berrien County, Brooks County, Clinch County, Echols County and Turner County. Some of the job loss is due to companies closing, downsizing or relocating to a more urban area. The majority of job gains were in the service/retail sectors.

Of the twelve counties that gained employment, nine counties had a larger gain percentage than that of the State of Georgia.

High tech clusters or headquarter locations are rare in Southern Georgia, along with high tech venture capital investments, indicating lack of capital infusion into the area, thereby creating barriers to new job growth. Exceptions are the Health Sector and Moody Air Force Base, as well as the university and education sector.

The presence of E-government and websites for Counties and Cities was compared with job growth, and while only four of the counties had no web presence, they were still represented through Chambers of Commerce or their Cities and it appeared to have no bearing on job growth or decline.

Employment Growth



Employment Comparison– Georgia Trend April 2014								
County	Rank in Region 2012	Year 2012 Employment	Rank in Region 2013	Year 2013 Employment	Rank State 2011	Rank State 2012	Rank State 2013	% Average Annual Growth 2011-2013
Lowndes	1	46,625	1	46,291	17	17	18	0.7
Tift	2	18,192	2	18,542	37	38	37	1.8
Coffee	3	14,548	3	15,015	44	43	41	1.8
Ware	4	14,344	4	14,327	42	44	43	-0.7
Ben Hill	5	5,612	5	5,395	78	83	86	-3.8
Cook	8	3,737	6	3,941	97	100	98	0.5
Bacon	7	3,754	7	3,893	100	99	99	2.7
Pierce	9	3,690	8	3,773	102	101	101	2.3
Berrien	6	3,936	9	3,716	98	97	102	-0.5
Brooks	10	3,279	10	2,784	109	107	114	-6.3
Clinch	11	2,500	11	2,602	118	118	117	-0.9
Charlton	12	2,146	12	2,217	124	123	123	1.9
Irwin	15	2,027	13	2,104	125	127	124	1.3
Brantley	14	2,033	14	2,095	126	126	126	1.0
Turner	13	2,092	15	2,066	128	124	128	-0.8
Atkinson	16	1,510	16	1,641	136	135	133	3.4
Lanier	17	1,406	17	1,509	139	138	137	5.4
Echols	18	1,068	18	982	153	150	150	-8.1
State Total		3,887,706			na	na	na	1.5

Section 3 – Demographics - Education/Work Force Skills

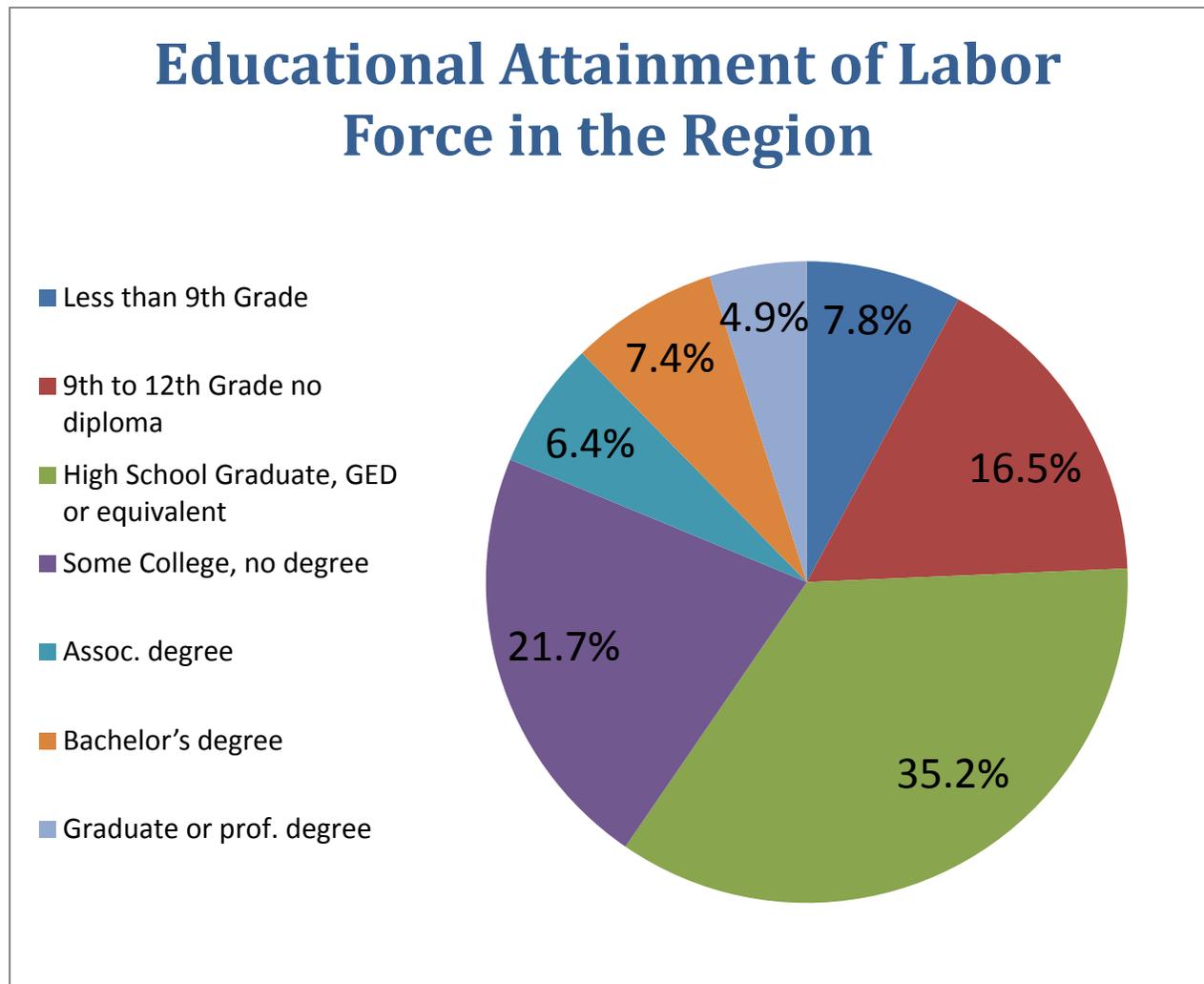
About 25% of the labor force in the region (Georgia 15.7%) has no high school diploma or equivalent and another approximately 33% of the labor force (Georgia 29.3%) has completed their education with a high school diploma or equivalent. Another 25% has some continuing college courses (Georgia 20.8%), but has no college degree. The remaining 25% of the labor force has a college degree, the majority of which are associates and bachelor degrees (Georgia 34.2%). An educated workforce is critical to productivity and innovation, and the small size of a highly skilled and technologically educated workforce in South Georgia is expected to provide a barrier to a sustainable and growing economy in the long term. The State of Georgia's numbers were taken from the 2010 US Census, 2010 American Community Survey. The region is lagging behind the state in educational attainment, specifically college degrees.

A look at the educational attainment of the workforce by gender shows that men represent the vast majority of the labor force without a high school diploma, possibly reflecting early recruitment into the workforce. It also reflects that the majority of regional job openings such as truck drivers, nursing, retail and service, do not require a college degree but can be entered with certificates, apprentice ships and licenses. Of those obtaining a high school diploma only, the number of men and women is fairly even. However, women represent a large majority of the population that obtains some college education and graduates from college with a degree.

The data in the following tables shows a definite increase in the education level within 45-64 age group with a Bachelor's Degree or Graduate or Professional Degree, especially among women. This seems to indicate that more people, women, are going back to school later in life after raising their families or retiring from work. This desire for higher educational attainment could be leveraged by targeting women to enter information technology careers at that time.

A Sample of Technical College Graduates in the Southern Georgia Region (DOL 2012): It is interesting to note that the graph and tables show that career fields such as automotive technician, child care provider and heating/air conditioning have tripled in graduates, while graduations in fields such as computer programming, computer systems networking/telecommunications, data entry/microcomputer applications are very small and

are even declining. This trend indicates that the Southern Georgia Region is falling behind in developing a digital economy due to lack of qualified labor force now and in the near future. Surveys and interview with business leaders in the industry confirm the lack of people with digital economy skills in the area. The main reason seems to be that area Technical Colleges do not seem to offer curricula or programs teaching the digital skills needed by this emerging industry, but are still trying to accommodate perceived labor needs for more established industries like transportation and healthcare. Some notable exceptions are the Mechatronics Course at Tift High School and the Moultrie Tech Computer Information Systems Networking Specialist Associate of Applied Science Degree program.

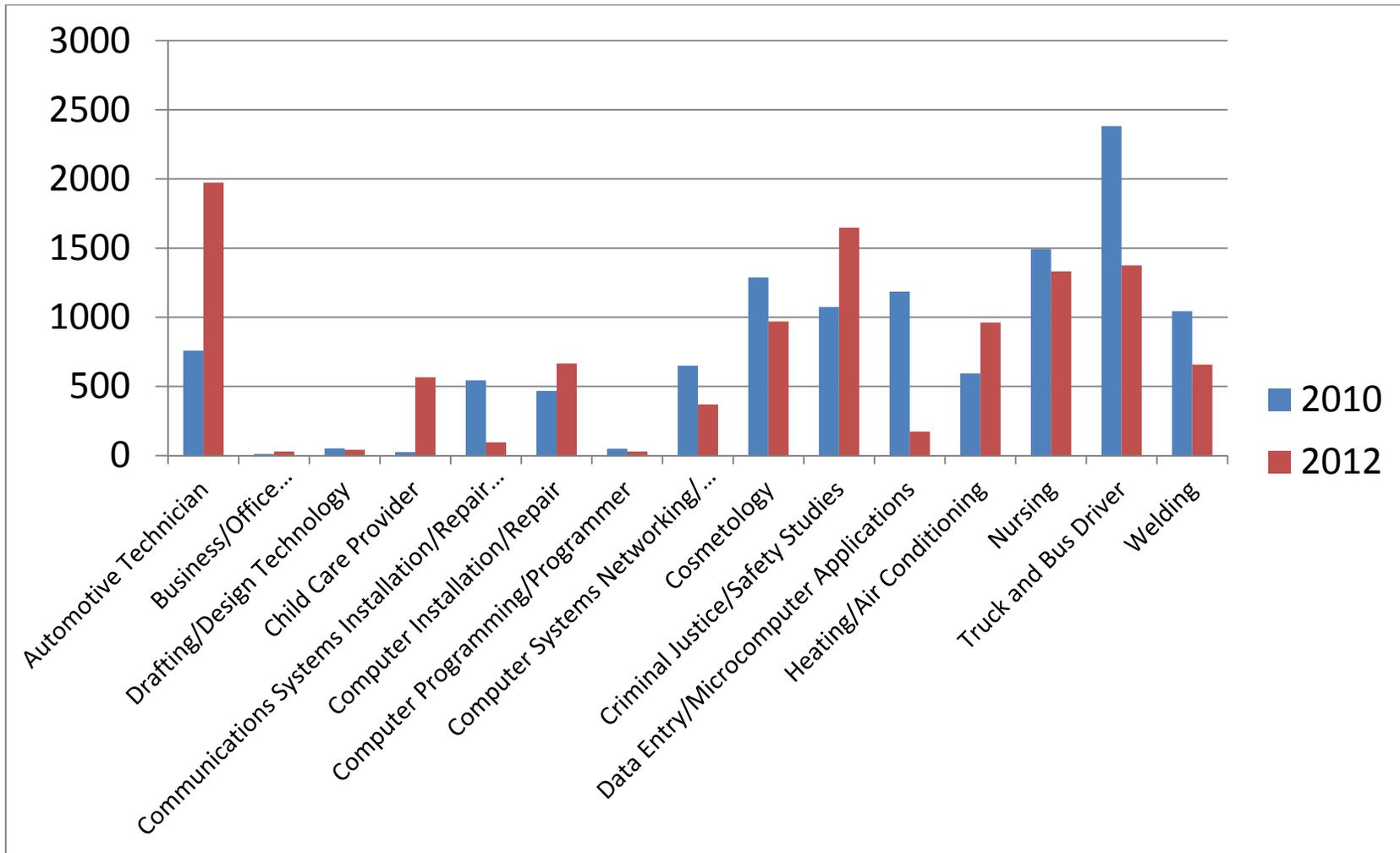


Education of the Labor Force SGRC Region by Age <small>B15008 2006-2010 ACS 5 year estimates</small>												
	Total	%	18-24	%	25 – 34	%	35-44	%	45-64	%	65+	%
Less than 9 th Grade	22790	7.8	1336		2645		3829		6148		8832	
9 th to 12 th Grade no diploma	48033	16.5	9528		8137		7022		14681		8665	
High School Graduate, GED or equivalent	102626	35.2	17115		16685		20528		31338		16960	
Some College, no degree	63101	21.7	14986		12271		11451		17759		6634	
Assoc. degree	18673	6.4	1956		4533		4255		6368		1561	
Bachelor's degree	21706	7.4	1659		5122		4548		7822		2555	
Graduate or prof. degree	14256	4.9	96		2308		2922		6636		2294	
	291,185											

2014 Digital Economy Plan – Southern Georgia

Education of the Labor Force by County over 18 male and female 2010 2010 Census B15001															
County	Less than 9 th Grade		9 th to 12 th grade, no diploma		High School Graduate, GED		Some College, no degree		Associate's Degree		Bachelor's Degree		Graduate or professional Degree		
	Total	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Atkinson	5815	575	350	585	455	1136	1235	316	438	162	144	84	169	50	116
Bacon	8087	364	557	840	622	1856	1735	478	798	92	180	87	163	136	144
Ben Hill	12923	672	436	1184	1509	2546	2661	1034	1181	116	348	383	433	242	339
Berrien	13871	659	774	1278	1455	2449	2338	1113	1334	561	570	409	493	232	206
Brantley	12920	434	352	1264	994	3119	3147	1123	1189	241	496	147	156	61	195
Brooks	12458	524	402	1193	759	2365	2153	924	1696	227	375	448	762	321	304
Charlton	9455	289	258	1280	572	2461	1788	638	1126	237	164	229	138	85	155
Clinch	5040	265	184	550	474	1045	997	350	216	40	151	178	275	151	164
Coffee	30528	1342	1132	2639	2970	6414	5234	2420	2991	923	1677	1082	735	500	737
Cook	12329	534	481	1379	920	1990	2640	1213	1417	222	410	413	331	118	214
Echols	2691	225	208	258	171	693	525	204	161	28	60	18	71	18	48
Irwin	7234	445	261	934	651	1345	1241	499	818	176	277	153	107	108	224
Lanier	6803	360	136	759	502	1241	1320	550	778	142	408	209	149	129	99
Lowndes	78952	1918	1761	7084	4398	11896	12411	10226	11661	2734	2877	4376	5184	2402	2665
Pierce	13408	694	595	977	823	2774	2629	1244	1831	262	449	384	256	174	287
Tift	29357	1297	1183	2241	2964	4627	4816	2846	3628	991	1153	1076	1187	810	954
Turner	6574	257	300	963	537	1088	1202	479	539	74	361	130	298	111	223
Ware	27281	969	867	2492	1746	5655	5497	2368	3249	616	851	606	846	670	838

Sample of Technical College Graduates in Southern Georgia Region 2010 and 2012



Sample of Technical College Graduates in Southern Georgia Area

	2010	2012
Automotive Technician	758	1974
Business/Office Automation/Technology/Data Entry	12	30
Drafting/Design Technology	52	42
Child Care Provider	26	566
Communications Systems Installation/Repair Technology	544	96
Computer Installation/Repair	468	666
Computer Programming/Programmer	50	30
Computer Systems Networking/ Telecommunications	650	370
Cosmetology	1288	970
Criminal Justice/Safety Studies	1074	1648
Data Entry/Microcomputer Applications	1186	174
Heating/Air Conditioning	594	962
Nursing	1494	1332
Truck and Bus Driver	2382	1376
Welding	1044	658

Section 3 – Demographics

Residential Survey Analysis On Internet Usage and Applications

ESRI 2014

The complete ESRI (Economic and Social Research Institute) survey results can be found in Appendix “A”. The following table shows a snap shot of the data contained in the table.

On average 63% of all Southern Georgia households own a computer. Therefore, one out of three residents does not own a computer and has to rely on third party access for computer use. This poses a significant inconvenience and hurdle towards utilizing the internet to its fullest potential.

Access to internet is slightly higher than computer ownership due to smart phones, tablets and other mobile devices, with an average of 75.7 % in the Southern Georgia region. Most of the internet is accessed from home for recreational purposes rather than for work/business related purposes. The survey responses indicate that currently computers are mostly used for e-mail, personal purchases or playing games on-line.

There does not seem to be a material difference in whether a county is rural or urban in regard to internet utilization. If the access is there, as in Echols County (rural) or Lowndes County (urban), internet utilization is equally high and type of utilization is similar and also tends to also include increasingly non-recreational use, an indicator of higher awareness and familiarity with the potential of broadband use. Anecdotal evidence provided by Verizon indicates that since the company went 4G in the Southern Georgia region, computer usage has increased significantly and tower traffic and utilization now even eclipses tower traffic in metro areas, all of which points to the fact that the area is vastly underserved and people and businesses would use the internet/broadband if it were available with speed and reliability.

Excerpt of Residential Survey

ESRI 2014

	SGRC	Atkinson	Bacon	Ben Hill	Berrien	Brantley	Brooks	Charlton	Clinch	Coffee	Cook	Echols	Irwin	Lanier	Lowndes	Pierce	Tift	Turner	Ware
	%																		
owns computer	63	58.2	55.3	60.6	59.4	64.6	58.9	54.9	52.8	64.5	60.1	75.2	52.5	67	70.7	54.1	62.9	55.2	58.2
purchased in last 12 months	13.1	12.8	12.3	12.3	12.5	13.4	13.9	13.3	11.8	13.3	12.3	14.1	52.5	13.4	14.4	11.1	13.5	10.4	11.9
purchased 1-2 years ago	18.9	16.9	14.8	17	16.8	19.3	15.1	13.4	13.9	19.7	18.3	25.5	11.2	21.3	22.8	14.8	19.3	14.7	16.6
purchased 3-4 years ago	16.6	15.5	14.8	16.2	16.1	16.7	16.1	15.7	13.8	16.4	15.1	18.1	14.5	16.4	18.9	15.2	16.3	13.2	15.3
spent less than \$500	8.6	8.4	7.5	8.1	8.1	8.5	7.8	7.6	7	8.7	7.9	5.4	7.3	8.6	10.1	7.4	8.6	7.1	8.3
spent \$500 - \$999	17.9	17.2	16.1	17.1	17.2	18.6	17.5	17.1	15	18.4	16.6	9.5	14.8	18.4	17.7	15.3	16.2	14.4	7.7
spent \$1,000 - \$1,499	8.9	7.2	6.9	8	7.7	7.9	7.4	6.6	6.2	8.1	7.7	20.9	6.7	8.6	11.5	7.4	9.6	6.5	15.5
spent \$1,500 - 1,999	5.2	5	4.6	5	4.7	4.4	4.9	4.6	4.3	4.4	4.4	9.3	4.5	4.5	6.4	4.6	5.7	4.5	8.3
spent \$2,000 or more	4.4	4.2	3.2	4.1	3.8	4.2	3.4	3.1	3.3	4.3	4	4	3.3	4.5	5.4	3.5	5	3.7	4.9
owns desktop PC	50.3	47.7	46.6	49.4	49.4	51	48.9	46.6	44.3	50.7	48.7	55.9	45.2	52.3	53.7	46.5	51.2	45.5	48.3
owns laptop	22.1	18.4	16.3	20.1	17.6	21.6	19.6	15.8	15.5	22	19.3	28	13.4	24.1	29.7	13.8	22.1	17.3	18.3
child under 18 uses home PC	19.7	20.8	20.5	20.4	20	20.6	21	21.2	19	20.4	19.8	20.7	19.1	20.7	19.6	18.8	19.3	15.9	18.1

2014 Digital Economy Plan – Southern Georgia

	SGRC	Atkinson	Bacon	Ben Hill	Berrien	Brantley	Brooks	Charlton	Clinch	Coffee	Cook	Echols	Irwin	Lanier	Lowndes	Pierce	Tift	Turner	Ware
access to internet	75.7	69.4	67.1	73.8	71.9	75.6	69.1	65.9	65.9	75.9	72.9	86.2	66.1	78.3	83.5	67.5	77.5	70.1	72.5
access at home	56.8	50	48.2	54.6	53.5	57.1	49.9	47.4	45.8	56.3	53.5	67.8	47.2	59.4	65.7	49.2	57.4	49.3	53.2
access at work	27.6	22.5	22.5	26.1	23.3	24.7	26.2	21.7	21.5	25.2	23.5	26.6	20	26.7	35.1	21.4	29.1	23.9	25.1
access at school/library	23.4	19.1	19	22.3	20.4	21.4	19.3	18.1	19.5	22.2	21.5	25.2	19	22.8	29.2	19.1	23.5	21.9	21.7
access to internet other location	17.7	16.4	15	15.5	16.6	18	15.1	14.7	14.5	17.6	17.2	21.9	15.3	18.8	20.4	15.7	18.3	14.4	16
dial-up modem	10.4	10.6	11.8	9.9	12.3	11.1	11.3	11.8	10.6	9.9	11	10.1	12.2	11.2	8.2	14	9.6	12.4	12.1
cable modem	17.8	13.8	10.2	16.5	13.3	18	12	9.8	10.4	18.4	14.8	27.1	9.2	18.8	25.4	9.3	18.7	12.1	14.1
DSL	20.4	17.9	19	20.3	20.7	20.3	18.7	19	18	20.1	20.2	22.2	19.4	20.9	21.7	19.5	20.7	18	19.7
wireless	9	8.4	5.7	7.9	6.1	8.2	7.4	5.2	6.3	8.4	7.3	11.1	4.8	9	13.4	4.7	9.2	7.4	7
any broadband	43.8	36.7	33.9	42	38.4	43.6	36.6	33.2	32.7	43.9	39.8	55.2	32	45.6	55	32.1	44.7	34.1	38.1
use internet less than once/week	4.9	5	5.3	5.4	5.5	4.9	5.2	5.8	5.3	4.9	4.9	4.2	5.7	4.4	4.2	5.8	4.8	5.1	5
use internet 1 - 2 times/week	6.5	6.7	6.7	6.3	6.6	7.1	7.2	6.6	6.7	7	6.7	7.4	6.4	7.1	6	6.6	6.4	6.8	6.5
use internet 3-6 times/week	7.9	7.9	6.8	7.7	7.7	9.1	7.3	6.6	6.6	9.1	8.2	11.9	6.5	9.5	8	6.7	8	7	7.4
use internet once a day	9.6	9	8.1	8.8	9	10.4	8.4	7.6	7.5	10	9.4	13.2	7.6	11	10.9	8.1	9.7	8.4	9
use internet 2-4 times/day	13.5	11.5	11	12.7	11.4	13.3	12.5	10.5	10.4	13.1	11.8	15.7	9.3	14.1	17	9.8	13.4	11.5	12.1
use internet 5 or more /day	17.4	13.5	12.6	16.5	14.1	15.7	14.1	12.3	12.3	16.2	14.6	19.2	11.7	16.6	24	11.9	17.6	13.4	14.4

2014 Digital Economy Plan – Southern Georgia

	SGRC	Atkinson	Bacon	Ben Hill	Berrien	Brantley	Brooks	Charlton	Clinch	Coffee	Cook	Echols	Irwin	Lanier	Lowndes	Pierce	Tift	Turner	Ware
in the last 30 days:																			
use internet at home	48.6	51.6	39.3	45.8	44.2	48.9	41.6	38.4	37.4	48.1	44.8	60.3	37.8	51.2	58.7	39.6	48.9	40.7	44.1
use internet at work	22.3	41.4	17.2	21.3	18.8	20.2	20.2	16.8	15.9	20.6	18.5	23.2	15.3	21.7	29.2	16.5	23.8	18	19.4
use internet at school/library	7.2	6	4.9	6	4.6	6.7	6.5	4.4	5	6.9	5.5	8.6	3.2	7.2	11.5	3.3	5.6	5.7	4.9
use internet other location	7.4	6.5	5.9	6.6	5.9	6.6	6	5.1	6	6.9	6.9	8.2	5.4	7.6	9.7	5.2	7.9	6.2	6.5
used e-mail	49.2	41.5	39.7	46.2	44	49.1	42.3	38.3	37.8	48.5	45	60.2	37.5	51.7	60.2	39.4	49.3	41.5	44.5
used IM	20.9	19	16.1	19.3	17.4	21.2	17.1	15	16.3	21.1	19.1	27.5	14.8	22.3	26.8	14.9	19.9	18.5	17.9
paid bills online	24.9	20.6	18.2	23.2	20.7	25.5	20.9	17.5	17.3	25.4	21.9	33.8	15.9	26.9	32.6	16.5	24.8	18.9	20.2
read on-line blog	6.6	6	4.4	5.8	5	6.3	5	4	4.3	6.3	5.5	8.6	3.8	6.9	9.5	4	6.6	5	5.3
wrote on-line blog	2.8	2.5	1.9	2.5	2	2.4	2.2	1.8	2.1	2.5	2.3	3.1	1.8	2.6	4	1.8	2.9	2.6	2.4
visited chat room	3.7	3.6	3.7	3.7	3.2	3.2	3.2	3.2	3.8	3.4	3.7	3.2	3.6	3.7	4.2	3.5	3.9	3.9	3.9
looked for employment	10.6	8.1	6.3	9.1	8.1	10.9	6.5	5.7	7.4	11.3	10	16.9	6.8	11.7	14.3	6.5	10.9	8.4	8.6
played games on-line	20.9	19.1	17.3	20.1	19	22.9	18.6	16.8	17.5	22.7	20.2	29.4	15.9	23.3	24	15.8	20	19.1	18.2
tracked investments	6.6	5.4	4.2	6.2	5	4.6	4.7	4.3	4.6	5	5.1	5	4.9	4.9	9.2	5.2	8	5.5	6.3
downloaded music	14.9	12.3	10.2	13	11.2	15.3	11.7	9.2	11.2	15.3	13.4	21.4	9.1	16.3	20.2	8.9	14.5	13.4	12.3
phone call	2.8	2.6	1.9	2.6	2	2.7	2.5	1.8	2.2	2.7	2.3	3.3	1.6	2.8	3.9	1.5	2.7	2.7	2.2
made personal purchase	20.8	15.9	15.9	19.9	17.6	19.4	17.4	15.2	14.9	19.4	18	23.6	14.5	20.9	27.6	15.3	20.8	16.7	18.7
made business purchase	6.7	6.7	5.7	6.9	5.6	6.1	7	5.6	5.5	6.4	5.7	6.2	4.7	6.4	8.1	4.7	7	5.8	6

2014 Digital Economy Plan – Southern Georgia

	SGRC	Atkinson	Bacon	Ben Hill	Berrien	Brantley	Brooks	Charlton	Clinch	Coffee	Cook	Echols	Irwin	Lanier	Lowndes	Pierce	Tift	Turner	Ware
airline ticket	8.8	8.2	4.2	7.3	5.6	8.8	6.1	3.6	4.1	8.7	6.9	14	3	9.9	13.2	3.4	10.9	4.8	6.9
music	3.2	2.9	2.1	2.9	2.7	3.4	2.5	2	2.1	3.4	3	4.9	2	3.7	4.1	2.1	3.3	2.9	2.9
clothing	9.3	8.4	6.5	8.3	7.3	8.3	8.2	6	6.1	8.5	7.7	10.5	5.4	9.4	12.5	6	10.9	7.2	8.4
computer	2.4	2.3	1.8	2.3	2	2.3	2.1	1.7	1.9	2.3	2.1	2.8	1.7	2.5	3	1.7	2.6	2.2	2.2
software	3.8	3.5	2.8	3.5	2.9	3.3	3.1	2.6	2.8	3.3	3.2	4	2.6	3.6	5.2	2.7	4.1	3.2	3.5
tickets	6.2	5.6	3.6	5.7	4.4	6.1	4.5	3.2	3.8	6.1	5.2	8.9	3.2	6.6	8.7	3.3	6.9	4.9	5.2
toys	3.1	3	2.5	3.2	2.5	2.6	3.1	2.3	2.6	2.8	2.7	2.7	2.1	2.9	3.9	2.1	3.8	3.1	3
made travel plans	9.5	8.2	5.9	8.8	7.1	7.2	6.2	5.7	5.7	7.5	7.1	8.9	6.2	7.9	14.4	6.8	10.5	7.2	8.5
watched on-line movie/show	14.8	12.8	11.4	13.5	11.9	14.8	12.8	10.8	11.4	14.8	13	18.7	9.9	15.5	19.6	9.9	14.2	12.3	12.3
got new/used car info	6.8	6.9	6.2	7	6.1	6.3	6.5	6.2	6	6.4	6	6.4	5.7	6.3	8.2	5.7	6.8	5.9	6
got financial info	15	13.7	9.7	13.9	12	12.5	10.4	9.3	9	13.1	12.1	16.3	9.8	13.9	21.5	10.3	16.7	10.3	12.7
got medical info	12.9	10.9	10.9	11.5	11.9	12.5	11.2	10.9	10.1	12.2	11.9	14.5	10.8	13	15.7	11.3	13.2	9.4	11.5
got latest news	29	23.7	23.8	27.1	25	27.4	26.6	23.6	22.7	27.2	25.2	30.9	21.8	28.4	37.2	22.7	28.4	23.1	25.2
got real estate info	6.4	6.3	4.9	6.3	5	5.5	5.5	4.8	4.9	5.6	5.1	6	4.4	5.6	8.6	4.5	6.7	5.1	5.5
got sports news	16.9	13.1	13.6	15.6	13.7	15.3	15	12.7	12.9	15.5	14.7	17.8	11.8	16.8	22.8	11.9	16.9	13	14.6

Section 3 – Demographics

Business Survey Analysis

The actual business survey and the survey results can be found in Appendix “B”.

While the sample size of the survey is not large, the responses received as part of the business survey confirm the responses and discussions received in the workshops with a large number of stakeholders in the region.

Issues or barriers to broadband cited are low speed, unreliability of service, as well as spotty connectivity, and most importantly high monthly cost of service, which makes internet service and access unaffordable for a large portion of residents and business alike. Reasons for the high cost include the lack of competition among internet service providers in the region, lack of infrastructure and low density of end users. While several ISPs are present in the region, only four are of any consequential size: 1. Windstream; 2. Mediacom; 3. ATC BroadBand; and 4. AT&T Mobility. While the more rural character of Southern Georgia is not as attractive to ISP’s due to seemingly higher cost of service and lower revenue, this also severely limits the access for residents and businesses and contributes to the cost. As indicated by the anecdotal Verizon experience however, the need and desire to use the internet are there and appear to provide higher revenue than previously expected.

The majority of responses in the survey rate internet downloads & upload speeds as “adequate” or “less than adequate”. This rating may act as a significant barrier to attracting new businesses or retain existing businesses where broadband technology has a large impact on business growth and revenue, until this issue has been addressed and sufficient reliability and speed are available. Roughly one-third of the survey respondents experience download speeds of 3mbps or less, which is considered “unserved” by GTA, while paying between \$50 and \$200 per month for less than adequate service.

The majority of business respondents also estimate that they will likely or very likely require a faster internet connection for their business in the near future in order for their business to stay viable. This points to the possibility that the Southern Georgia region would not be able to retain existing businesses if faster and more reliable internet speed is not available soon. During individual interviews, several business owners stated that they would have relocated the business if they hadn’t received a faster internet connection, or are actively contemplating relocating to an area with faster internet service. It is likely that the region will fall further behind in connectivity and ability to compete with other, more advanced regions in Georgia. Almost 100% of the respondents agree or strongly agree that this is critical to

maintaining their company’s viability or the ability to expand. This leads to the assumption that businesses will leave the region if their viability or capability cannot be guaranteed.

In interviews with businesses, especially those involved in the digital/broadband industry, it was stated that the lack of qualified employees in the area presented a barrier to expansion or new location of digitally oriented businesses in the area. While these businesses are paying a higher than average salary, many have to provide additional training to new employees. Lack of targeted education / skills training in the area was cited as another barrier. The businesses interviewed expressed the desire to hire interns and train from the bottom up, but also cited lack of interns and local applied training programs. A couple businesses stated very clearly that even the existing internet degree programs/training did not teach students what was actually needed in the “real world”. All businesses expressed interest in working with area colleges to create a sustainable, applicable training/education program.

The four industry sectors with the highest utilization of broadband technology in the Southern Georgia region are:

- 1. Education, reflecting the concerted effort of the school systems to furnish each student with broadband access and equip their students and teachers with the knowledge and awareness to utilize broadband to its fullest. Examples are BYOD, Bring Your Own Device to School;**
- 2. Manufacturing, reflecting increasingly automated processes; reflecting the desire to improve their efficiency, response time and cost/revenue ratio.**
- 3. Public Administration/Government, reflecting the trend to E-Government (unemployment, bill-pay on-line, posting minutes and agendas); and**
- 4. Finance and Insurance.**

The first three of these industry sectors are typically not home to individual, smaller entrepreneurs or solo-preneurs, which represent the backbone of the digital economy. Among businesses, the primary use currently is communication such as e-mail, along with video conferencing, on-line banking, web browsing and web research. On-line ordering and social media also rank fairly high, indicating the trend to an increased blending of personal usage in business settings.

Section 3 – Demographics

EMSI Data Analysis

The complete EMSI (Economic Modeling Specialist Intl.) data set is attached in Appendix C.

The top seven major industries in the Southern Georgia Region are ranked by size and shown below. Out of 190,250 jobs in 2012, the following are provided by:

<u>Industry</u>	<u>Jobs</u>	<u>includes per 2013 Dept. of Labor data:</u>
1. Government	40,159	GA Dept. of Corrections, Moody AFB
2. Retail Trade	21,385	Walmart, Harvey's, Lowes
3. Health Care & Related	16,623	Coffee Regional Medical Center
4. Manufacturing	15,079	Freedom Trailers
5. Accommodation & Food	14,350	McDonalds
6. Agriculture, Forestry & Fishing	11,541	Southern Grace Farms, Pilgrims
7. Administrative & Support	11,240	Data Software Services

The top seven major industries by average earnings are ranked by size and listed below:

1. Utilities	\$71,471
2. Management of Companies	\$52,209
3. Transportation & Warehousing	\$48,990
4. Government	\$46,886
5. Manufacturing	\$46,190
6. Mining, Quarrying and Oil & Gas	\$46,135
7. Wholesale Trade	\$41,703

The only industries present in both Top 7 listings are Government (\$46,886 #3) and Manufacturing (\$46,190 #7). Health Care is in eight place in the earnings table with \$40,734. All other industries' salaries all fall well below these three industries by more than 50%. This indicating that the majority of the workforce has a relatively low skill level, as confirmed by the education level attainment information earlier in the report. It is also noteworthy that the average earnings in the Southern Georgia Region are at 65% of the Nation's average with \$33,629.87, and at 91% of the State of Georgia's average earnings at \$36,869.00.

The Gross Regional Product (GRP) is led by the Government Sector with 22%, followed by Manufacturing with 10%, Retail Trade with 8% and Health Care with 8%. All other industries show around 2 – 3% of GRP.

Not surprisingly, as a government/services dominated region, imports are larger than exports and only 27% of the local demand comes from locally produced goods and services. The local economy cannot be considered sustainable unless more goods/services are produced that can be exported and a larger portion of the goods consumed locally. Such an expansion will not be feasible without a large investment into a digital economy in order to enable the region to become competitive on a state or even national level, let alone global level.

An investment will also have to be made into education and skill levels of the workforce. EMSI analyzed the education level of the population here, whereas before this report looked at the education level of the workforce. The numbers for the population in the Southern Georgia Region are even more pronounced. According to EMSI, 41% of the population has no college degree, 15% have an Associate's Degree, 42% have a bachelor's degree and only 2% have a Master's Degree. These results reflect the educational attainment numbers for this Region from the 2010 Census and the high number of graduates from careers that involve no college education.

Computer and Information jobs in 2014 numbered only 66 with an estimated 3 job openings annually. It is safe to assume that the lack of degree and job opportunities in this field does not generate the interest to pursue education and a career in these fields, thereby creating a large hurdle to a genuine digital economy in the Region.

The unemployment by sector shows 1% for Information Technologies, and 12 % respectively for Retail and Manufacturing and 10% for Government. This data shows that there is an oversupply of low skilled workforce for the lower paying industry sectors, and an insufficient supply for any available jobs in higher paying high skilled sectors. Supply and demand for higher paying high skilled sector jobs has to be increased if a change to a digital economy is to be successful. As shown in other socio-economic data, higher skilled and educated people are more likely to be well versed in internet usage and therefore more likely to use this field to further their careers and business.

Section 4 - Current Project Highlights

VALDOSTA POLICE DEPARTMENT FIGHTING CRIME THROUGH MOBILE CONNECTIVITY

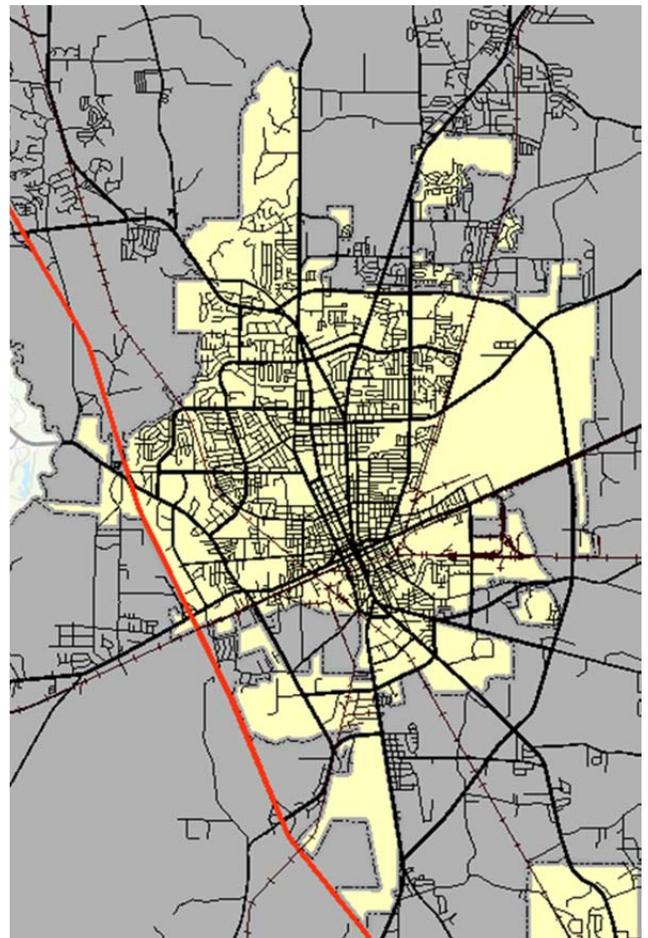


Valdosta Police Department

- Serves daytime population of 65,000+
- 10 patrol beats totaling approximately 35 sq.mi.
- Just over 150 sworn officers
- Up to 30 patrol units on duty at one time

VPD utilizes SGRC IT & GIS services

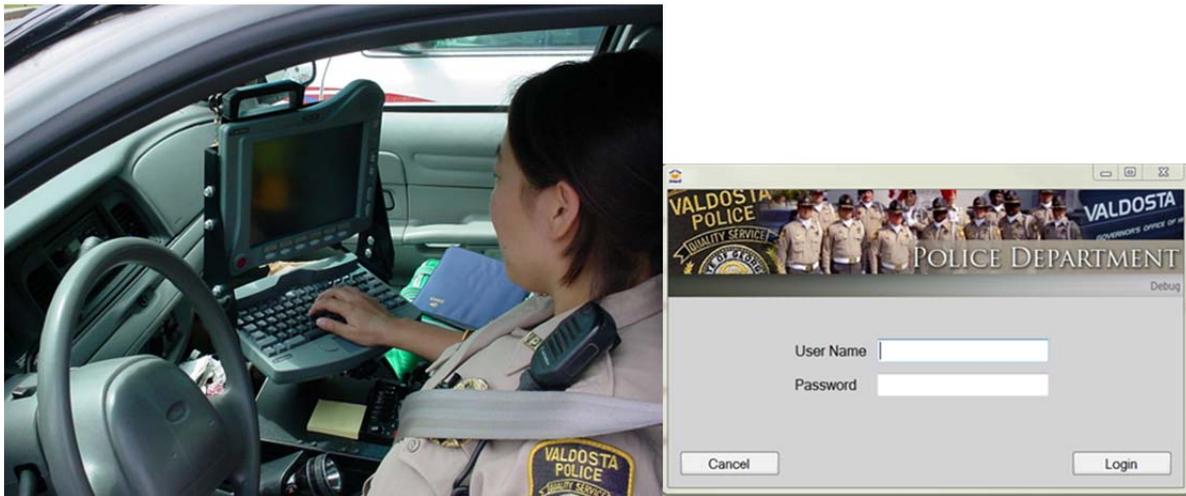
- in-car IT support
- Incident reporting system
- Spatial analysis and mapping
- Statistical reporting



What's going on inside that car?

1. CoPRS incident reporting system (Comprehensive Police Reporting System)
2. AVL (Automated Vehicle Locations)
3. Real-time mapping and analysis of incidents
4. Real-time statistical reporting
5. Voiceless communications with dispatch
6. GCIC person/vehicle checks
7. Local warrant checks

2 in-car camera systems with streaming capability

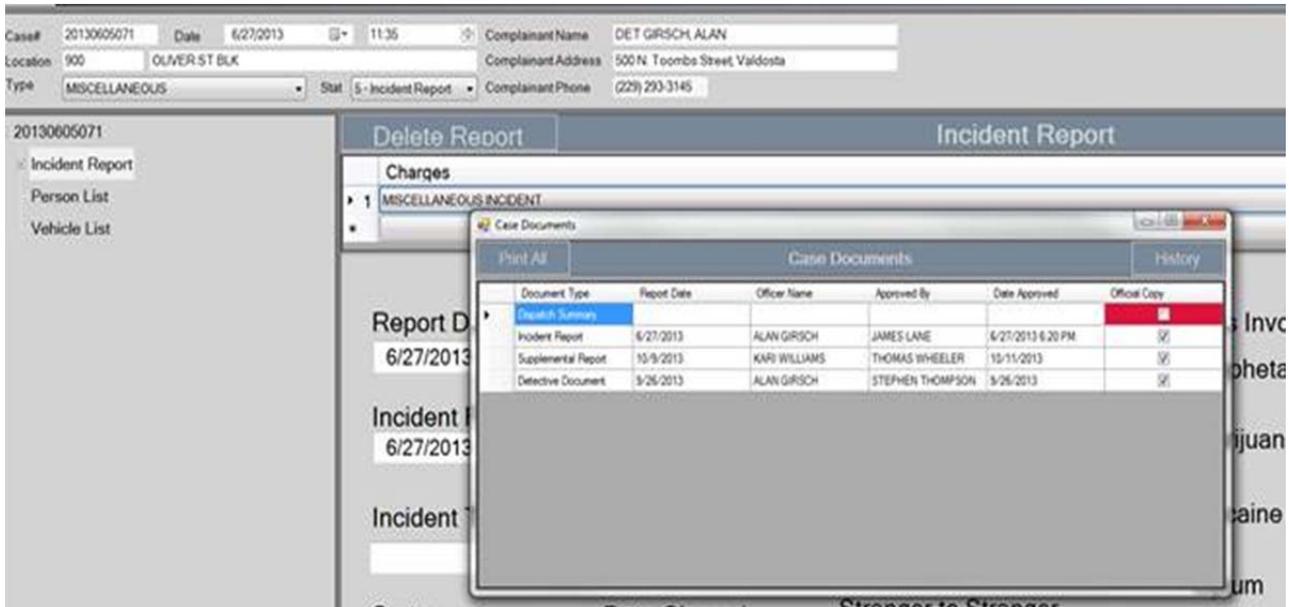


Everything going on IN the car has to “get out”!

- There are only three options:
 - Public/municipal WIFI
 - Cell-based WIFI
 - Radio-based, digital data communications

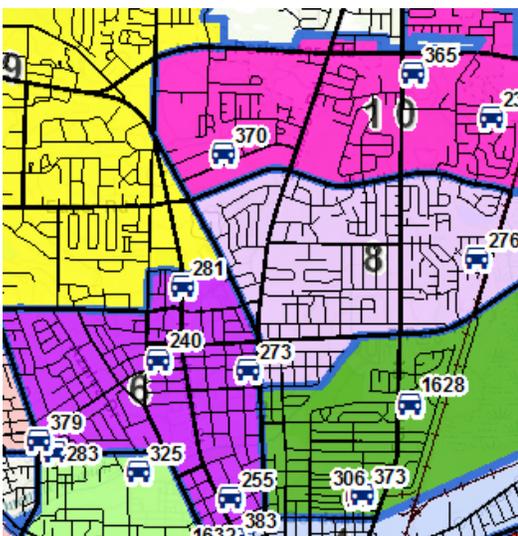
Comprehensive Police Reporting System (CoPRS)

- Developed by SGRC ITS program
- Visual studio, .net application
- Application is installed locally but relies upon VPD network connectivity for:
 - Software updates
 - Report submission/sharing/approvals/error returns
 - Import/retrieval of dispatch information/vehicle/person information from GCIC and 911
- Available from car or office desktop !

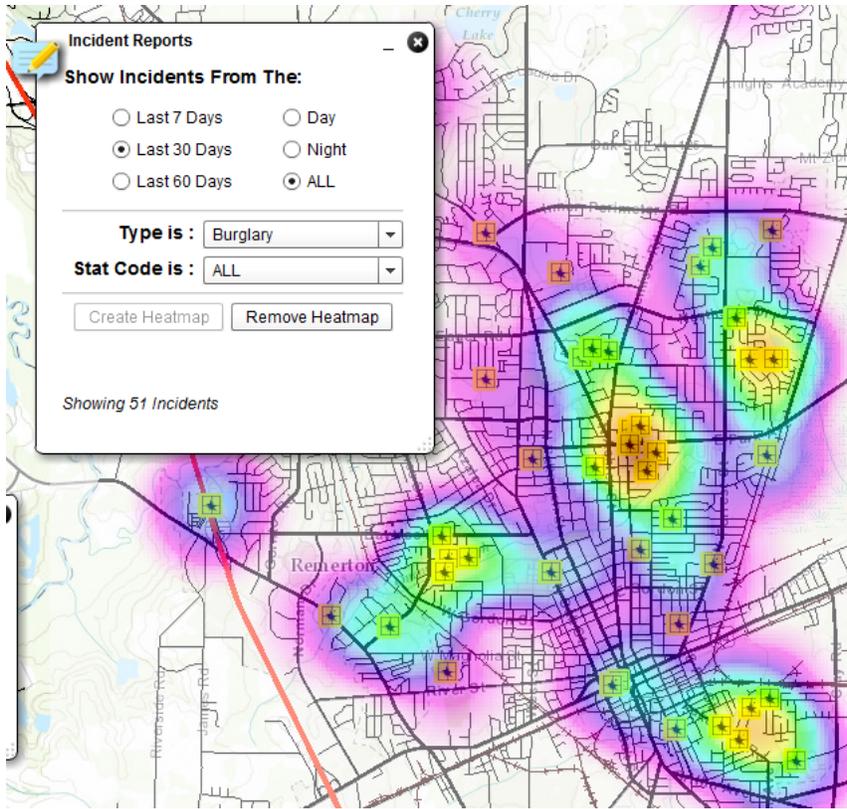


Real-time incident mapping and analysis

- Developed by SGRC GIS program
- ArcGIS Server based, application hosted by SGRC
- Funnels information from many resources into a single operational picture
 - AVL car locations (3 second updates)
 - Incident locations from CoPRS reporting system
 - Access and control of pole-mounted cameras throughout city
- Available from car and desktop!



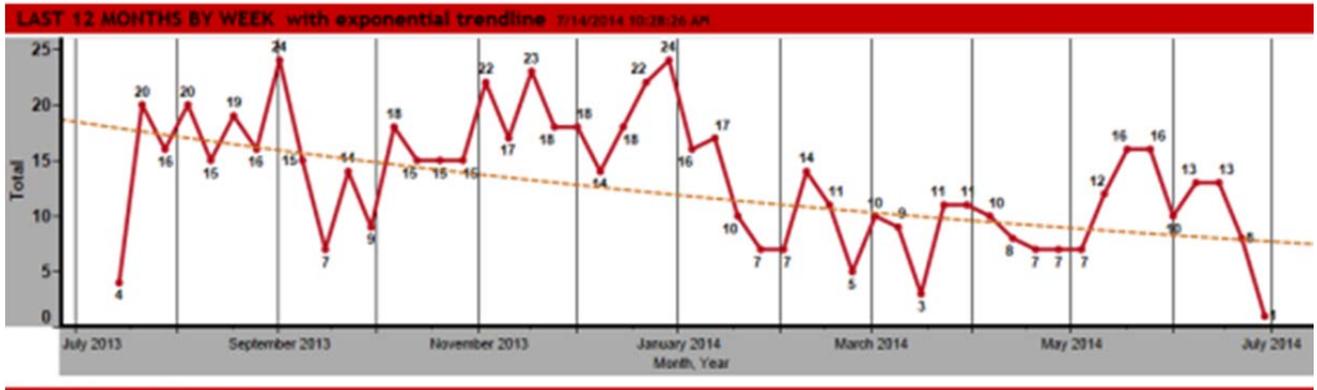
2014 Digital Economy Plan – Southern Georgia



Real-time incident mapping and analysis

- Tableau software application
- Connects to CoPRS reporting system database
- Presents up-to-the-minute statistics of selected crimes and incidents across the City.
- Example: Burglaries
 - Last 24 hours by hour
 - Last 14 days by date
 - Last 14 days by beat
 - Last 30 days by day of week
 - Last 30 days M.O. entry route
 - Last 30 days M.O. way of entry
 - Last 30 days of stolen property
 - Last 12 months by week with trendline (see below)
 - Last 3 years by month comparison
 - Last 3 year total comparison





And the rest !

- Georgia Crime Information Center access (state database)
- Local warrant checks (Lowndes County courts database)
- Voiceless communication with dispatch
- Streaming in-car video to/from cars
- Streaming pole-mounted video controlled/viewed from any car
- General Internet access

Remember - Everything going on IN the car has to “get out”!

- There are only three options:
 - Public/municipal WIFI
 - Cell-based WIFI
 - Radio-based, digital data communications
 - All computer-based communication to from cars is funneled through RadioIP software
- Radio IP software installed in car and on server handles security, connection priorities, reestablishes connection and ensures continuity as the car travels through the city.
- The primary, preferred connection is...
 - A single usb powered Verizon 4g air card
 - Typical 17+mbps connection
 - Cell coverage over the city is vital



TIFT HIGH SCHOOL AND NORTH-EAST 9TH GRADE CAMPUS WIFI

This summer the Tift County Board of Education took on a project to add an 802.11AC wireless access point to every classroom at Tift County High School and Tift County High School, Northeast Campus. The project extends WIFI coverage to every student in Tift County Schools from grades 9-12, with enough radius to allow 2100 students to bring their own devices to school to advance digital and personal learning opportunities. The total cost of the project was approximately \$400,000 after also re-switching and re-fibering TCHS to accommodate the increase in network traffic. The district made the upgrades with the continued emphasis being placed on online learning, online testing, and delivering content internally via the districts fiber WAN. Tift County High School is the largest school in the district both from a geographical footprint, as well as enrollment and employment wise. The start for a wireless WAN/LAN upgrade had to start at the schools where the district was seeing the most increase in wireless device usage. Last year the district estimated approximately 3000 unique devices hit the wireless network that were not district owned. With that growth set to triple or quadruple with the districts BYOD policy it was important to make these upgrades before the network was put to a test it could not handle.

Today TCHS and TCHS Northeast Campus are two of, if not the, first school in the state to provide 802.11AC wireless in every classroom. The district feels this is an upgrade that sets the students of TCHS and TCHS Northeast Campus to be able to have access to content and learning opportunities not afforded before. The Tift County Board of Education will use this upgrade as a launching pad into digital and blended learning, allowing for more personalized learning opportunities for students who may not have internet access at home.

- * **Timeframe: 2014**
- * **Stakeholders: Tift County Board of Education, teachers, students, parents**
- * **investment : \$400,000 in Splost Funding, computer acquisition another \$500,000 Splost Funds**
- * **maps of the project impact area from Jonathan**
- * **Jonathan Judy, Chief Technology and Information Officer, Tift County Schools
207 N. Ridge Ave (PO Box 389), Tifton, GA 31793
O: 229.387.2400 | C: 229.402.8805 | F:
229.386.1020 | jonathan.judy@tiftschools.com**



Georgia Partnership for Telehealth

The Georgia Partnership for TeleHealth, Inc. www.gatelehealth.org is Georgia's non-profit, statewide, telehealth network that was formed in 2004 as the Georgia Telemedicine Program with the sponsorship of the Insurance Commissioner of the State of Georgia. The goal of this program is to promote improvements in healthcare and healthcare facilities in rural and underserved communities throughout the state by assisting in the establishment of telemedicine programs.

GPT Leadership

Georgia Partnership for Telehealth, Inc. (GPT) is led by Paula Guy. She has surrounded herself with a leadership team and an operations staff that are second to none in the field of telehealth.

Mrs. Guy is a Registered Nurse with over 15 years of leadership experience in building telemedicine networks in the state of Georgia. She currently serves as CEO for Global Partnership for TeleHealth. Under her direction, Georgia, Alabama and Florida Partnerships for TeleHealth have become the most robust, comprehensive telehealth networks in the nation.

Mrs. Guy serves on the board of the Georgia Health Information Exchange, Georgia Technology Authority and has been a frequent telemedicine expert speaker and consultant. In 2012, she was awarded the Metro Atlanta Chamber "Phoenix Award" as Community Leader of the Year and was also awarded by the Association of Telecommunications Professionals the 2012 Leadership Impact Award. Before coming to the Georgia Telemedicine Program in 2004, she served 18 years at the Southeast Health Unit, Georgia Department of Human Resources, Division of Public Health Waycross District in the capacities of Telehealth Director, Coordinator for the Georgia State Cancer Registry, and Director of the Community Care Services Program. Paula is a Registered Professional Nurse and graduate of Georgia Southwestern University. She is married to Teddy Guy. They have one son, Blake.

GPT has continued to grow a global vision to expanded operations on an international level with several medical mission organizations. GPT Missions is partnering with various organizations to implement telehealth services in orphanages, clinics, and hospitals in Guatemala, China, Haiti, Macedonia and Honduras.

GPT History

Georgia's telemedicine program began operations in 2004 with funding provided by WellPoint, Inc. as a result of negotiations between (then) Insurance Commissioner John Oxendine and WellPoint during the acquisition of Anthem Health Insurance Company & BCBS of Georgia. The initial funding was 11.5 million dollars along with a 3 year commitment to establish the Georgia Telemedicine Program. During this period; a network and infrastructure to support a state-wide network was established. Approximately 40 specialty and rural telehealth sites were equipped and trained to provide or receive services. Clinical telemedicine began in 2006 with 8 consultations successfully executed by the end of the year. Following the 3 year commitment period by WellPoint, the Georgia Telemedicine Program was transitioned into Georgia Partnership for Telehealth Inc. (GPT), a 501(c) 3 non-profit. GPT now operates Georgia's successful, state-wide telehealth network independent of WellPoint / BCBS.

The mission of GPT is:

- To improve and promote the availability and provisioning of specialized healthcare services in rural and underserved areas of Georgia.
- To educate and provide training to hospitals and healthcare facilities that furnishes, administers and finance Telemedicine programs and facilities.
- To reduce the service barriers that exist for patients who live in rural areas of Georgia at a distance from hospitals and other medical facilities.



GPT is unique as a telehealth network as it operates as an independent corporation under the oversight of a board of directors and is not owned by a state agency or a hospital authority. The GPT Board of Directors consist of physicians and business leaders who champion telehealth and are dedicated to harnessing the power of technology so that all Georgians have access to primary and specialty care; no matter if they are in urban or rural communities. James Story, MD of Thomasville, GA is Chairman of the Board. For a list of board members: <http://www.gatelehealth.org/index.php/about/board-of-directors/>

The hallmark of GPT is the Open Access Network that connects operational statewide telemedicine provider programs with telemedicine patient clinic locations. This network

maximizes opportunities for rural Georgians to obtain specialty and primary care close to home. GPT growth over the past 8 years has been dramatic and impressive. There were 8 patient encounters in January 2006. In 2013, the GPT network provided more than 130,000 patient encounters with 185+ specialists representing 40 different specialties.

GPT partners include a multiplicity of organizations and providers:

- Rural Medical Centers, Hospitals and Clinics
- Urban Medical Centers
- Rural Primary Care Offices
- Specialty Clinics and Practices
- Child Advocacy Centers
- Organ Transplant Clinics
- Behavioral Health Centers
- Community Behavioral Health Service Boards
- State Agencies
- Skilled Nursing Facilities
- School Based Health Clinics
- Jails & Correction Facilities

GPT has the privilege to work alongside many of Georgia's State Agencies as telehealth is being utilized as one solution to meet the healthcare needs of underserved citizens. State agencies currently involved include:

- Georgia Department of Education
- Georgia Department of Human Services
- Georgia Department of Behavioral Health & Developmental Disability
- Georgia Department of Family & Children Services
- Georgia Department of Public Health
- Georgia Department of Corrections
- Georgia Department of Community Health
- Georgia State Office of Rural Health

GPT (www.gatelehealth.org) is a credible and nationally recognized telehealth network that provides expertise and services to national and international organizations and officials seeking to implement telehealth services. Because of GPT's incredible success in Georgia, opportunities beyond the state line and the U.S. border have presented themselves and GPT has expanded to include the following organizations:

- Global Partnership for Telehealth, Inc.
- Alabama Partnership for Telehealth, Inc.
- Florida Partnership for Telehealth, Inc.
- GPT: Missions
- Telehealth International Partnership, Inc.

- The Southeastern Telehealth Resource Center
- The National School of Applied Telehealth

GPT NETWORK CAPABILITIES

The GPT Network is a HIPAA compliant, private internet, intranet system, with unlimited bandwidth available through Universal Service funding, with IP video conferencing, multi-point video conferencing and various hardware/software configurations to manage the integrative Health IT ecosystems of today.

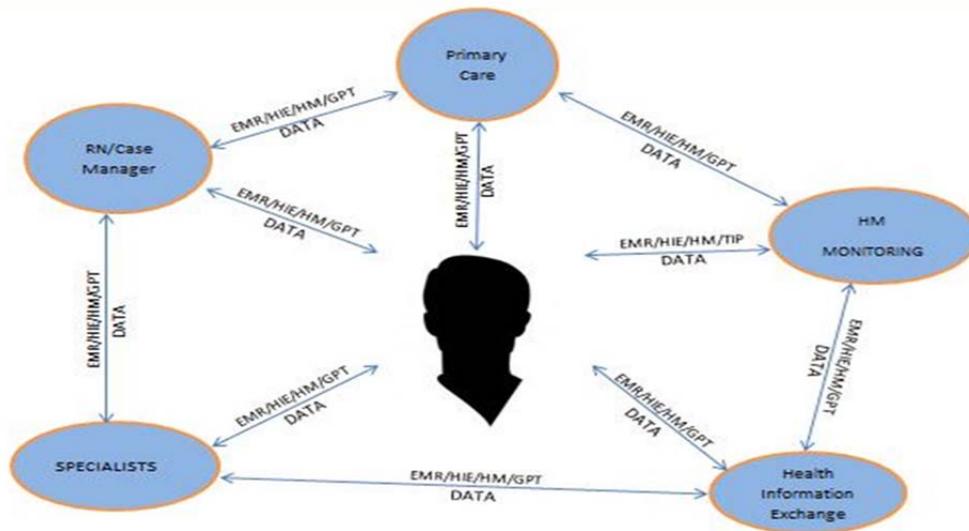
GPT's headquarters is located just outside of Waycross, GA in rural Blackshear. Field based liaison staff provide regionalized coverage of specific areas with responsibilities including building relationships with healthcare providers, customizable telehealth configurations, demonstrating telemedicine equipment, training, collecting utilization data (monthly report of telemedicine encounters), providing support for technical presentations, credentialing and scheduling.

OPEN CONNECTIVITY MODEL

The network provides an open web of access points established throughout the state, connecting rural areas, where barriers to specialty care typically exist, with advanced tertiary care centers in the larger cities. The open access network offers unprecedented access to specialty care while delivering an integrated system of care network infrastructure that can provide the high level clinical encounters needed to exceed quality standards in Georgia for remote patient care.

- Connects each presentation site directly to any one of the specialty centers for diagnosis, consultations and reviews, dramatically enhancing access to specialty care for the rural patient.
- Enables presentation sites to connect to each other — PCP to PCP for peer review, collaboration and educational opportunities.
- Enables the addition of new locations as the need or opportunity arises.
- Provides an eClinical platform for integration of various software/hardware configurations.

Patient Centered Integrated System of Care Model



DEDICATED COLLABORATION AND SCHEDULING WEBSITE

GPT infrastructure includes the development of an internal Program Collaboration Website to centralize scheduling of specialist consultations. By tracking open appointment times for panel specialists anywhere in the state, specialist consults via Telemedicine can now be requested 24 hours a day, and scheduled statewide in a matter of days or even hours, instead of weeks or months.



Southeastern Telehealth Resource Center

In JULY 2010, GPT was recognized as an organization with telehealth expertise and was awarded the prestigious privilege to become the Southeastern TeleHealth Resource Center (SETRC). Telehealth Resource Centers are funded by the U.S. Department of Health and Human Services' Health Resources and Services Administration (HRSA) Office for the Advancement of Telehealth (OAT), which is part of the Office of Rural Health Policy. SETRC is one of 14 TRCs which include 12 Regional Centers, all with different strengths and regional expertise, and 2 National Centers which focus on areas of technology assessment and telehealth policy

HRSA identified the need to establish the TeleHealth Resource Center (TRC) Program because the telehealth field has an urgently increasing demand for the ability to duplicate telehealth services and applications rapidly and efficiently because of the economic downturn in our nation, and also due to the exodus of physicians from the healthcare field due to the increasing regulations from CMS and decreasing reimbursement. The TRC program is designed for entities with a successful track record in helping to develop sustainable telehealth programs and Georgia Partnership for TeleHealth, Inc. was awarded the designation as the Southeastern Telehealth Resource Center (SETRC). Grant number: (# G22RH20212-04-00)

SETRC's mission is to provide an applied approach to telehealth education and technical assistance services to health care providers, individuals, and organizations in GA, AL, SC, and FL. SETRC serves as a resource to anyone interested in TeleHealth; from developing a new telehealth program to expanding an existing program. www.setrc.us

SETRC has proven itself to be a productive and results oriented TeleHealth Resource Center; in AUG 2013 GPT was once again awarded the HRSA grant to serve as the SETRC for another 3 year period.



The National School of Applied TeleHealth

(NSAT) is the education arm of the Southeastern TeleHealth Resource Center (SETRC) and delivers standardized, accredited, and affordable telehealth instruction. www.nationalschoolofappliedtelehealth.org

The online NSAT Telemedicine / Telehealth Certification courses instruct on the essentials of telehealth and prepare individuals to become valuable members of their telehealth team. A completion certificate with 0.3 CEU/3 credit hours for this course will be awarded when all Learning Outcomes Conditions have been met.

- Certified TeleMedicine Clinical Presenter
- Certified TeleHealth Coordinator
- Certified TeleHealth Liaison

NSAT certifications are designed to include the fundamental requirements to be followed in providing remote medical services, interactive patient encounters, and any other electronic communication between patients and practitioners for the purposes of health care delivery.

- The Certified Telemedicine Presenter Course is designed so that its graduates will gain insights and skills in order to correctly and confidently present patients during virtual encounters with healthcare providers and a variety of specialists.
- The Certified Telehealth Coordinator Course is designed so that its graduates will gain insights and skills to successfully implement, coordinate, and manage a telehealth program.
- The Certified Telehealth Liaison Course is designed so that its graduates will gain insights and confidence to successfully serve as a leader, promoter, and marketer in the telehealth industry.

These courses are the result of a collaborative effort between the following organizations: The Southeastern TeleHealth Resource Center (SETRC; www.setrc.us), the CA Telehealth Resource Center (CTRC; www.caltrc.org) formerly the California Telemedicine and eHealth Center, HomeTown Health, LLC (HTH; www.hometownhealthonline.com), and Georgia Partnership for TeleHealth (GPT; www.gatelehealth.org).

As an IACET Authorized Provider, HomeTown Health, LLC offers continuing education units (CEUs) for its programs that qualify under IACET guidelines (www.iacet.org).



GLOBAL PARTNERSHIP FOR
TELEHEALTH

Missions

Global Partnership for Telehealth: Missions

On July 18, 2013, Georgia Partnership for Telehealth, Louisiana State University Health Science Center and an orphanage in Guatemala, Casa Para Ninos Aleluya (CASA) launched GPT's first international telehealth program. This partnership was formed through an ongoing relationship with former Louisiana Senator and Family Medicine Practitioner, Dr. Donald Hines and GPT's CEO, Paula Guy.

The mission for this project was clear: the orphanage was in need of pediatric specialties and primary care for over 400 abused, orphaned, and mistreated children located on the campus just outside of Guatemala City. The campus also known as Ciudad de Los Ninos (City of Children) was started in 1988 by Christian missionaries, Mike and Dottie Clark. Their vision for CASA is for the children they serve to have a chance in life and by bringing pediatric care to

their clinic, it will change the futures of countless young lives. There are an estimated 200,000 orphaned children in Guatemala and the healthcare needs are tremendous.

GPT's mission division, Global Partnership for Telehealth: Missions, is setting the stage to assist other missionaries and mission organizations with their efforts to minister to the physical and spiritual needs of the needy around the world.

Besides Guatemala, GPT: Missions is involved with missionary work in China, Haiti, and Honduras. It is the vision of Paula Guy and her team to support mission work around the globe. Their prayer is that God will continue to use this small, nonprofit, South Georgia company to honor Him and positively impact access to health care in our community, our state, our country, and our world.



TELEHEALTH
INTERNATIONAL PARTNERSHIP

Telehealth International Partnership, Inc.

In January 2014 TeleHealth International Partnership (TIP) was launched to take GPT's model, service lines and intellectual property to a global market. TIP has assembled a world renowned Telehealth team of experts to connect our health care systems on a global scale. TIP's mission is to create an integrated worldwide system of care infrastructure to meet our national and international healthcare challenges of the 21st Century and beyond. TIP incorporates a clinically dynamic protocol system that assists in workflow and deployment of each individual Telehealth platform it configures for healthcare systems, providers and consumers. TIP's hybrid IT ecosystem of solutions incorporates evaluating, planning, piloting, beta testing, SaaS hosting, clinical research, implementing, training and supporting with each client in order to provide a holistic Telehealth experience. For more information visit www.tipinc.com

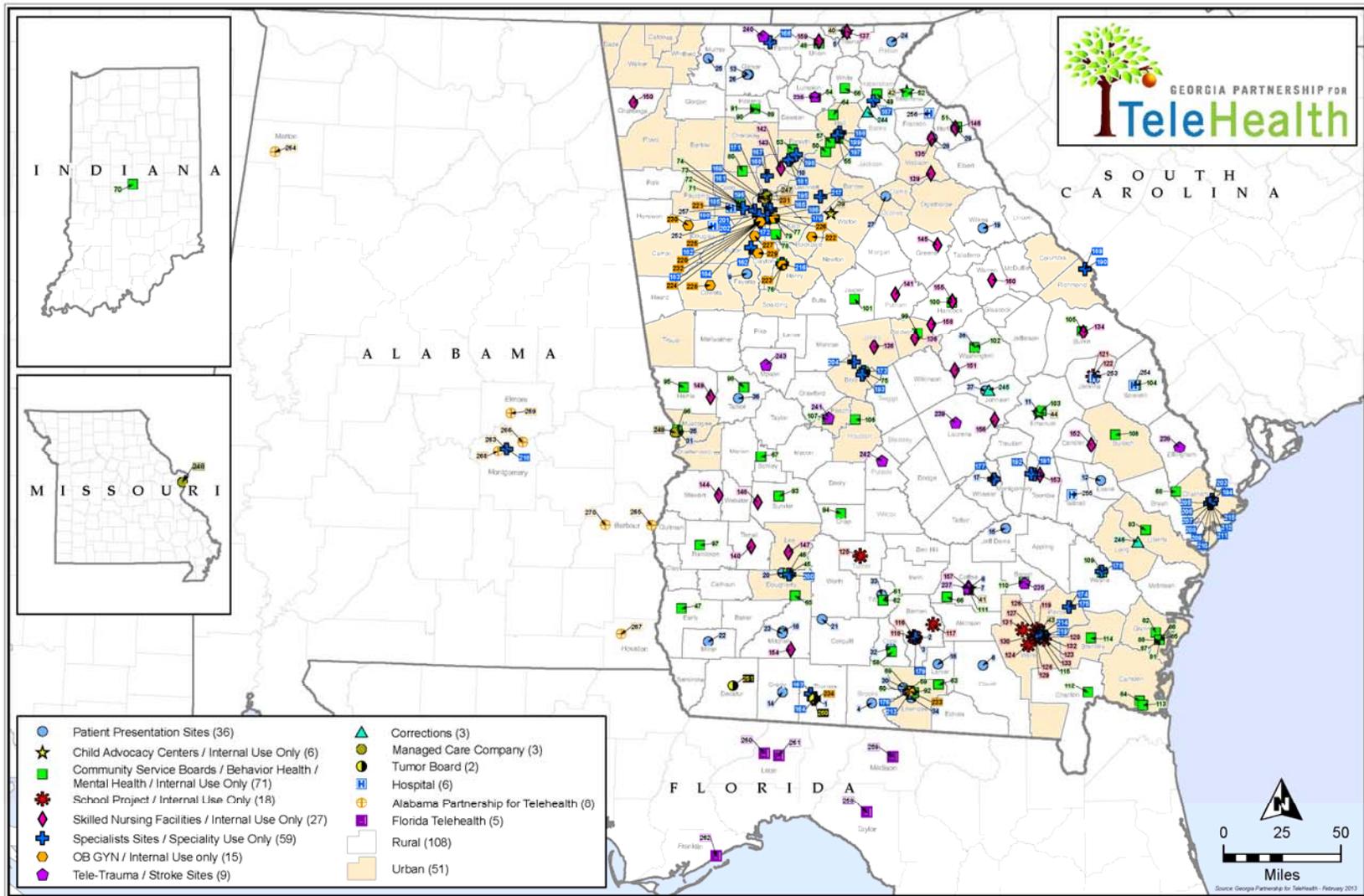
Conclusion

Georgia Partnership for Telehealth, Inc. located in the swamps of South Georgia seems like an unlikely leader in the exploding new frontier called telehealth; but GPT is renown in the telehealth world and this tiny nonprofit organization is leading the way around the world.

GPT was built on advances in the continually evolving telecommunications and computer industries, and because of the hard work of a dedicated group of people determined to find success in the fertile telehealth landscape in Georgia, our state has the most successful state-wide telehealth network in the country. Paula Guy and her team have been masters at

developing relationships and partnerships with key individuals, agencies, and organizations across the state. These relationships and partnerships have resulted in a reputable, state telehealth network that has found favor from the gold-domed state capital in Atlanta to the tin-roofed rural physician’s office in South Georgia and an array of healthcare settings in between.

GPT has done well establishing Georgia as a leader in the field of telehealth and even though much has been accomplished; the surface has only been scratched. The potential for growth is staggering and if the past is an indicator of the future; the forecast for Georgia Partnership for Telehealth, Inc. is as hot and bright as the noon day sun in South Georgia.



AUTO QUEST INVESTMENT CARS INC.



Auto Quest is a family business located in Tifton, Georgia. The owner, Mr. Bob Kennon, buys and sells all types of investment, exotic and high performance vehicles on an international scale. The 10,000-sq. ft. building was extensively remodeled in 1992 to better accommodate the inventory. Approximately 40 vehicles can be displayed inside the building, with many more on the grounds. In 1999, Bob's wife Ann, remodeled the old parts department inside Auto Quest™ and opened the Cabin Shop. It specializes in high end clothing for men and women at outlet prices, accessories for the country home and office as well as unique gift items.

Both businesses, Auto Quest and The Cabin Shop, today utilize the internet extensively to conduct their business. Auto Quest has been on the internet with web sites since 1993. Because advertising through US and international magazines was too expensive with slow lead times and responses, Auto Quest was an early adopter of the internet starting out with punch cards and dial-up modems and has continuously evolved with the technology. At first, the business website consisted of a simple listing of inventory for sale. Today more than 90 % of the vehicle sales are a result of the internet. Most months, more than 60% of the sales are for export and vehicles are shipped all over the world. Auto Quest not only uses broadband technology for sales, but also for operations (inventory, parts contracts, banking) and continuous communications with clients and customers globally.



[Click here to see the inventory page updated every business day!](#)

Vintage Cars	Antique Cars	Classic Cars
Luxury Cars	Classic Trucks	Motorcycles
Sports Cars	Muscle Cars	Exotic Cars
High Performance Cars and Boats		

Auto Quest not only has its own website, but is also globally connected through eight more international car/automotive sites through which inquiries or searches for specific vehicles will directly link to Auto Quest’s home website thereby generating more traffic and linking customers directly to the store. Connections such as these are essential to maintain and expand exposure and reach for a small business with a very select customer base and market that could not be accommodated on a local level. Only a fraction of sales originate from walk-ins at the physical location. But even here, the business has adopted QR codes which are prominently displayed in the window so that potential customers who stop by the store after hours are directly linked to the store’s website via their smart phone and can view information on any desired displayed vehicle on their phone, instantly.



Auto Quest credits the internet technologies minimizes costly service and staff to handle the just the physical internet for its ability to remain competitive in a global market from a location in South Georgia.



utilization of broadband and the other with keeping business cost down as it business travel, enhances customer communications and enables a smaller business at hand from any location, not location. Auto Quest also credits the

Auto Quest invests approximately \$5,000 to \$6,000 per month in broadband related costs and buys the fastest internet speed/capacity which is available to the business. The website is maintained in house and the owners keep involved in all technology and purchase necessary equipment as needed. Future plans include video and streaming to give the

customer not only visual, but also audio experience as if they were present in the physical location.



Section 5 – Stakeholder Meetings

Strengths, Weaknesses, Opportunities, Challenges/Threats

Southern Georgia Regional Commission held five introductory meetings and seven stakeholder workshops from December 2013 to March 2014, involving the following sectors: Internet Service Providers, Economic Development, Agriculture, Health Care, Education, Government, and private Citizens. Input was solicited in regard to the SWOC/T analysis and Project Highlights in the Region. All results from these meetings and workshops were presented to the steering committee, which is comprised of the SGRC members.

Each area of the SWOC/T analysis, Strengths, Weaknesses, Opportunities, Challenges/Threats, has been divided into three major categories:

1. Workforce, Education/Training
2. Capital, Funding, Resources
3. Infrastructure, Assets, Facilities

Organizations, agencies and businesses use the Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis to determine the internal and external factors that directly influence their operations. If an organization or business does not analyze its operations using SWOT analysis, it risks launching a program that is not successful. Another term for SWOT is SWOC, which stand for Strengths, Weaknesses, Opportunities and Challenges. SWOT and SWOC are the same thing, with "challenges" and "threats" being essentially the same thing.

Strengths

The strengths portion of the SWOT analysis is used to determine what an organization does best. If you know an organization's strengths an emphasis can be placed on them when the time comes to implement a new program. Strengths are based on internal and external performance.

Weaknesses

Knowing an organization's weaknesses is critical to SWOT analysis. Anything that an organization struggles with or lacks is considered a weakness. For instance, limited production capacity is a weakness. If an organization's weaknesses are known, one can avoid centering a strategy around those weaknesses.

Opportunities

Opportunities are emerging scenarios whereby your organization can grow and succeed with a new or existing program. An opportunity might be an underserved market, a newly emerging technology or anything that can add to your organization. For instance, if there is a technology business that installs high-speed Internet infrastructure, a developing country might offer many opportunities for that business to expand and grow, eventually becoming the leader in technology services. If the opportunities facing an organization are known, strategy and resources can be focused to achieve specific goals.

Challenges & Threats

The threats, or challenges, facing an organization when implementing a program are perhaps the most important factors of a SWOT analysis. There might be a plan catered to a clear and specific set of strengths, weaknesses and opportunities, but if the challenges in a specific industry are not considered, the plan could be useless. Knowing the challenges an organization faces helps to make informed and strategic decisions regarding programs.

Section 5 - SWOT – Strengths

1. Workforce/Education/Training

- Broadband technology will fuel the growth of future economic development through increased market access, in-time delivery, increased customer service, reduced cost of business and therefore revenue growth; resulting in bringing jobs to the area.
- Internet technology helps with research and education through on-line access, enabling increase in awareness and more competitive skill sets of the labor force.
- The Region's local governments are very open to new technology and open to utilize broadband to attract businesses.

2. Capital/Funding/ Resource

- Increased internet capacity and increase in the number of users will decrease cost for users.
- The broadband industry is not as susceptible to economic downturns as are other more traditional industries.

3. Infrastructure /Assets/ Facilities

- Universities, technical colleges, medical centers, Moody AFB are all strong hubs of internet technology and are well positioned to take the lead in developing the digital economy for the region.
- AT&T and Windstream both have Switching Stations in the area which might attract other such installations.
- Potential for the location of a Windstream Data Center to be central to the region which would encourage stronger utilization of digital resources.
- Wireless for Police, Fire and EMS, where accessible, enables First Responders to have mobile offices and provides an increase in response speed.
- Internet technology steps in with Tele-Health as rural hospitals are closing through pre-treatment and remote guidance by a doctor to staff in the ambulance, GPS tracking of the ambulance and increased readiness at the treatment center.

- **Broadband has become a necessary and required utility along with electricity, water, sewer, gas. Availability of service, capacity, speed, and reliability will attract businesses to the area.**

Section 5 - SWOT – Weaknesses

1. Workforce/Education/Training

- Lack of understanding of needs – more communication needed from the business community to the ISPs and from the ISPs to the business community.
- Access to internet outside of hubs such as schools or libraries is limited for students in rural areas or low income residents – digital divide. Even with a new program that allows high school devices to go home, there is still lack of access outside the hubs.
- Elected officials need to be educated better in the use and in the potential of the internet for local businesses and government.
- Broadband related companies in the area cannot find employees locally with the required internet technology skill set, and have to recruit from hubs such as Atlanta or Orlando.
- Local area Technical Colleges do not offer education programs that teach the skillsets necessary in a digital economy.
- Generational digital divide. Bigger percentage of older residents or businesses run by older owners do not embrace the internet/computers to the extent that would be beneficial for them or the economy as a whole.
- Retention of tech educated students is difficult due to lack of service speed, reliability and accessibility issues.
- Coordination of IT personnel in the region is more on-line than in person.
- Lack of Wi-Fi coverage to operate professional I-Pads by mobile Nursing staff for telemedicine severely limits the capabilities and outreach of telemedicine in the area.
- The older generation is experiencing an “age-handicap” with regard to knowledge of internet PR and marketing.
- Poverty in the region results in inadequate opportunities for access to internet. Many people in the lower income brackets do not have computers at home and have to go to the library or school to access computers.
- Many job related functions such unemployment filings and reports, job application and hiring procedures have been moved on-line. This is proving to be a challenge for

many unemployed or job applicants who do not have the experience with internet technology to use the internet to their advantage in this area.

- Schools typically at a minimum double or triple the E-Rate funded bandwidth. If the cost for 100 mb bandwidth is covered through E-Rate funds, schools usually buy at least an additional supplemental 150 mb at its own cost through a service provider.
- As educational programs roll out such as “bring your own device” even more bandwidth is needed than currently provided.
- Arbitrary boundaries for service areas for providers.
- Professional advice to schools not easy to find, schools feel like they are left on their own figuring out problems.
- No funds available for staff training.
- Staff training has to occur after hours, limited participation or time available, due to lack of staff to cover day-time hours.
- Schools’ dependence on E-rate funds to provide internet service.
- Schools are concerned with adequate provision of hardware, updates of technology, and maintenance. Even if funds are given to school for internet service, the distribution inside the buildings and hardware are still a challenge.
- The ideal of 1:1 coverage for BYOD has been found to be unattainable with a more realistic coverage of 50%, which leaves the schools to furnish the remaining 50%.
- The increase in the existence of e-government services has revealed the need for additional assistance to users, the need for training of people to provide the assistance. Staff at such agencies is tied up to assist with simple things such as logging on.
- E-government services. Need to know how to access services on-line (job hunting, unemployment, medical insurance etc.).
- Increase in touchscreen technology applications provides much opportunities for people with physical limitations.

2. Capital/Funding/ Resource

- Lack of funding to put in needed infrastructure. Governments don't have the resources and private/public partnerships are not common at this point.
- Franchise fees present a substantial barrier to expansion of infrastructure and services.
- No funds available for train-the-trainer training i.e. in schools, businesses or for internship programs.
- Many potential/future locations/customers are not near fiber, which makes it too expensive for the customer or not cost-effective for the provider to offer service.
- Every county, community and business has its own diverse needs for connectivity and internet service. No "one size fits all". The challenge is to design a program or incentive that can be utilized by a wide diversity of recipients/participants.
- Lack of competition of broadband providers. Service/prices in rural or lower density areas is not as competitive as in areas that have more than one or two providers.
- Internet too expensive for lower income residents and geographical areas with lower densities. The cost lies at \$50 – 70/ month for standard DSL service.
- Cost of services, even discounted, is still too high for schools to provide effective internet connection outside of its campus.
- Cost of service is also too high to outfit all First Responders with reliable access to internet. In rural areas, air cards are a possibility, but the use of the air cards is limited due to the high cost for each and availability of access. Radios and cell phones act as stand-ins for communication.
- Small number of service providers (=competition) keeps cost high and service low in low density areas. Institutions in those areas are dependent on that one provider with service quality.
- ISO ratings are affected by response time of emergency services.

3. Infrastructure/Assets/ Facilities

- Lack of follow-through on project ideas. The area has no leadership to champion digital economy in the region.
- Fiber is present in many geographical areas, but no means of access due to a variety of reasons i.e. expense of hook-up.

- Lack of connectivity in rural areas and unincorporated areas outside municipal boundaries.
- Insufficient reliability and speed of internet in rural areas outside of municipal boundaries.
- Keeping up with current technology represents a challenge to most industries, including the broadband industry itself. Efficient and cost-effective reuse of outdated inventory and continuing education are necessary to stay competitive.
- Disconnect between mapping data available and actual services, speeds etc. on the ground.
- Duplication of facilities services by different providers, school boards, and private industry. Pooling resources and collaboration is not done at sufficient levels.
- Capacity, buffering (waiting time, download delay, time out), waiting lists for service.
- Keeping up with technology is time consuming and expensive.
- Distribution problem, not technology problem.
- Low density of population provides a good quality of life, but makes connectivity a challenge in terms of cost effectiveness.
- Most incentives/funding packages are geared towards larger 500+ job companies in urban areas; more funding needs to be made available to smaller companies and rural areas to bridge the gap in connectivity.
- Reliability, speed and coverage are all together important to attract and maintain businesses. 3G and wireless should be standard.
- Many retail businesses are not or not sufficiently connected due to owner's unfamiliarity with technology, resulting anxiety/fear of technology, and lack of sense of return of investment.
- Difficulty to assess data use.
- Difficulty to find clear information on existing and future internet services in an area.
- Maps with digital information are not accurate if information is available at all.
- Internet is now as important as roads & bridges and utilities.

- **Technology/broadband is a great marketing tool to attract/retain businesses.**
- **Intergovernmental coordination and private/public (business) initiatives since broadband issues and challenges cross municipal/government boundaries.**

Section 5 - SWOT – Opportunities

1. Workforce/Education/Training

- Increase comfort level so that people will use the internet if it is available to them.
- Provide more education on the potential of the internet to move a business from the local level to a regional or even national level with regard to exposure and customers.
- Provide more education to businesses on the potential of market expansion and business income through the internet.
- Establish lines of communications between Internet Service Providers and local governments/businesses to achieve more of a team work and understanding of needs on both sides.
- Increase the number of retail businesses that have an active web presence through education, training and awareness programs.
- Many internet applications have come on the market in recent years specifically geared towards small businesses such as the iPad and Square Register, which simply and at reasonable cost will provide small business opportunity to expand their web presence and business applications, for example, accepting credit cards.
- Provide more opportunities for access to the internet for people who do not have a computer at home, especially at non-profit agencies or organizations, or housing authorities.
- Dedicate professional in-service IT learning days for some educators who then need to redeliver to the remainder of the staff.
- Introduction of education geared towards broadband skills would increase the labor force and skills desired by the broadband industry and would attract more such industries.
- Broadband industries are willing to do a lot of in-house training, accept interns and work with the local Technical Colleges to develop a curriculum specific for the industry.

2. Capital/Funding/ Resources

- Increase availability of broadband to emergency services to increase response time and thereby lowering ISO ratings, which brings costs down for everyone.

- Educational and other SPLOST funds are available to fund broadband projects.
- Opening up of Connect America Funds to all ISPs which increases competitiveness, reach and effectiveness of funding.
- Financing through Bond Issues – public/private partnerships should be encouraged.
- Alternative funding sources are available and should be explored such as WellPoint Foundation (Georgia Telehealth).
- Federal Communication Commission adopted a \$100 million budget for rural broadband experiments on July 11, 2014.
- Cooperation and joint projects with Universities. NESPAL provided funding to develop an iCloud over its Tift County Campus and included adjoining farms.

3. Infrastructure/Assets/ Facilities

- Valdosta and the Southern Georgia Region is a gateway to the north towards Atlanta, south towards Orlando, east towards Jacksonville and west towards Tallahassee for expansion of business into those areas.
- The more extensive the internet service is, the less expensive it will be to expand coverage and service.
- Farming/Agriculture is a huge part of the economy in the region and is becoming increasingly connected. Farmers need connectivity for a lot of their farm equipment, crop and animal maintenance and business operations.
- Document best practices and share them with other businesses.
- Identify locations for trunk lines which should be prioritized and implemented through public/private partnerships in exchange for bandwidth. These could then be the accelerator for lateral connections to paying customers.
- If more than one service providers services any given geographical area, Community Anchor Institutions or other critical facilities could cross over from one provider to the other in emergency situations.
- Strengthen mobile health provider coverage by equipping nurses with I-Pads for telehealth and remote counseling with physicians. Requires reliable coverage.

Requires education (in senior centers) of end users to communicate with nurses via Skype or facetime as well for remote initial assessments.

- Provide community hubs for IT related education and Business Development – Hackerspaces (community operated physical places), Maker’s Spaces (community centers with tools), and business incubators.
- Develop a Masterplan for coverage development. What do we have, what do we want, how to we get there?
- Develop a Plan for filling in service after basic coverage is achieved.
- Offer up empty towers on public properties to ISPs to increase coverage.
- Expansion of the local broadband industry would demolish barriers to the development of a digital economy, and would encourage customer service improvements, market expansion, revenue growth for clients and providers alike.
- Opportunities to lay fiber at no cost to the communities present themselves during any road construction, bridge construction, and utility installation.
- Opportunities for local governments or agencies to acquire bandwidth present themselves when broadband industries are permitted to utilize construction to lay fiber in exchange for a certain percentage of bandwidth. The value of this trade would by far outweigh any franchise fees.

Section 5 - SWOT – Challenges/Threats

1. Workforce/Education/Training

- * **Generational Divide:** Businesses run by younger generation are utilizing the internet and web presence at a much greater rate. The older generation left behind.
- * The internet is being personalized for each businesses/individual's use through individualized service, Skype, google hangout, social media.
- * **Knowledge/Educational Divide:** More and more functions such as job opportunities, employment applications, unemployment, and healthcare applications are being moved onto the internet. Internet skills are needed to apply for new jobs, to obtain healthcare and to file unemployment. Those without sufficient internet knowledge or access are left behind.
- * Too much reliance on internet service, if there is a multi-day loss of service for example in a school or hospital, many areas cease to function.
- * **Public Safety Issues** in case of loss of service.

2. Capital/Resource/Funding

- * **End of Net Neutrality** and resulting unequal treatment of internet traffic – Payment for guaranteed bandwidth will jeopardize small businesses who rely on fast internet access for customer traffic and sales and who financially cannot compete with the likes of Netflix, Verizon and AT&T.
- * **Lack of venture capital/financing** in rural/non-metropolitan areas drives most funding towards areas that are already wired, increasing digital divide even more.

3. Infrastructure/Assets/Facilities

- * **International Cyberspace Crime (Hacking, Terrorism).** Most small businesses do not have the expertise on-hand quickly enough to counter attacks from organizations such as the Bangladesh Cyber Army. This can lead to crippling outages for internet businesses resulting in downtime and considerable expense for repair of damage.

Summary of Southern Georgia Digital Economy - Strengths, Weaknesses, Opportunities and Challenges/Threats

	Strength	Weakness	Opportunity	Challenge/Threat
Workforce	<ul style="list-style-type: none"> • adding jobs • increase awareness • increase skills 	<ul style="list-style-type: none"> • Lack of communication between IT and Business Communities • Rural Digital Divide • Insufficient training for users • Lack of skilled employees • Generational Digital Divide • Income Digital Divide • Lack of training for trainers • Lack of awareness 	<ul style="list-style-type: none"> • Touchscreen technology increases opportunities for people w/physical limitations • Increase training availability and scope • Coordination of businesses and colleges to develop curriculum • Expansion of businesses through expansion of internet skills • Increase web presence of businesses • Increase web learning by work force • Increase web presence of businesses • Develop Wi-Fi/internet hotspots • IT learning days 	<ul style="list-style-type: none"> • Generational Divide jeopardizes portion of population • Personalization of Internet • Keeping up with Technology • Too much reliance on internet • Insufficient workforce skills detrimental to business attraction
Capital	<ul style="list-style-type: none"> • decrease cost for consumers • Less susceptibility to economic changes 	<ul style="list-style-type: none"> • E-splot, E-Rate funds insufficient to cover school IT needs and not guaranteed • Lack of funding for implementation • Franchise fees • Lack of funds for training • Costs too high for residential users or single users. • Lack of density in 	<ul style="list-style-type: none"> • Private – Public Partnerships • Bond Financing • Increase eligibility for Connect America Funds • CDBG – add fiber in addition to water, sewer, electric and natural gas • Develop a Masterplan to invite investors • Offer incentives for 	<ul style="list-style-type: none"> • End of Net Neutrality • Lack of venture capital • Competition with metropolitan areas

		<p>rural areas for cost effectiveness</p> <ul style="list-style-type: none"> • Lack of competition • Lack of coordination 	<p>investors to lay fiber (e.g. during public construction etc)</p> <ul style="list-style-type: none"> • Barter bandwidth for ROW 	
<p>Infrastructure</p>	<ul style="list-style-type: none"> • MAFB • Universities • Medical Centers • Tech Colleges • Existing Switching Stations • Centrality of Region • Increased Public Safety & Health through increased speed & reliability • 	<ul style="list-style-type: none"> • Lack of Service Speed, Reliability and accessibility • Wi-Fi not sufficient • Lack of Bandwidth • Arbitrary, archaic service boundaries • Distribution inside buildings is a challenge • Lack of connectivity • Insufficient speed, reliability • Duplication of facilities, services • Keeping Up with Technology • Distribution problem • Larger companies in metropolitan areas favored • 	<ul style="list-style-type: none"> • Central location of South Georgia to Orlando, Jacksonville, Atlanta • Identify and prioritize geographic trunk lines (Master Plan) • Develop Phase 2 Master Plan for filling in gaps • Identify unused or underused infrastructure • Include Farms/Agriculture into estimates for demand • Document Best Practices and utilize • Provide public/private community hubs for training, construction, use 	<ul style="list-style-type: none"> • International Cyber Crime

Section 6 – Strategic Focus Areas

Strategic Focus Area 1 – Workforce/ Education/ Training

1. Provide continuing training to the older generation to bridge the digital age divide. Develop teams with students from the high school/vocational college system to provide one-on-one coaching/mentoring of practical knowledge on a regular basis. The coaching /mentoring could be set up as part of a technology curriculum and count as community service for the students.

Funding would be provided through the school system.

Costs would be variable depending on the number of participants.

2. Develop a Southern Georgia IT Alliance.

The members of this alliance will collaborate to provide funding to create a pipeline of students with the IT skills and knowledge that employers in today's market require. The goal is to increase the number of students who obtain a certificate or diploma in the technology field.

Develop degree/certificate programs with local educational institutions in cooperation with local industry. Develop opportunities for experiential learning (97%) and teaching about entrepreneurship (89%). Revise introductory computer courses to minimize theoretical learning and include increased practical applications.

Faced with industry's concerns that college graduates are ill-prepared to enter the workforce, our institutions of higher education need to embrace industry partnerships, while companies should invest in education as a direct action they can take to prepare future employees. A core curriculum could be developed to address common industry needs with diversification for specific industry sectors.

Funding could be provided from those organizations including ISPs, EDA and DOL.

3. Develop curriculums for those programs to match industry/business needs with graduate skills in continuing education programs to minimize school expenses and time to graduation. Internships can be provided by private industry as public/private partnership.

Tie into the quick start program from Department of Labor and to the Transition Task For Veterans.

Funding can be provided through DOL, educational institutions, businesses, chambers of commerce.

Strategic Focus Area 2 – Capital - Promote Entrepreneurship, access to funding, financing, assets

1. Conduct a base needs analysis of each industry sector with regard to internet needs and requirements for growth, operations, and workforce.

In coordination with the Chambers of Commerce and Industrial Authorities, SGRC could undertake a region wide specific needs analysis of diverse businesses and industries in the region. Once the specific needs have been determined, all agencies involved can take specific steps to procure funding. A basic needs analysis is estimated to cost approximately \$200,000.

Funding could come from GTA, EDA, Splost, DCA.

2. Install two Technology Development Centers in coordination with the educational sector to help start up entrepreneurs launch and grow tech companies.

In the spirit of past business centers where small businesses shared administrative staff, this could be done now with IT technical staff and IT marketing staff where several businesses shared the cost of IT staff and their expertise. Internet technology and applications on the web require a constant presence and education that not every business can provide on its own. Shared staff would spread the cost while still providing access to internet skills otherwise not available to small businesses such as website design and upkeep, Facebook marketing, Etsy, Pinterest etc.

Funding could be provided from the businesses with small stipends from SBA and DOL.

3. Hold an IT job fair in the region to match up local businesses/ industry and job seekers and raise awareness of the qualifications needed to offer or obtain an IT related job. This could be continued as a Clearing House to match IT job seekers with IT skills along the lines of a bulletin board. It would take some thought to maintain confidentiality of people who had a job but were looking to upgrade their employment, but it could be done and would go a long way to encouraging people to get IT skills. It would also be possible to draw people into the region that had the skills needed for the posted job opportunities.

It might be possible to generate some funding to support the effort by charging a nominal fee for companies to list their job on the Clearing house sight.

4. Provide continuous training to small businesses to bridge the broadband knowledge divide. Develop teams with students from the high school/vocational college system to provide one-on-one coaching/mentoring of practical knowledge on a regular basis. Seminars on success stories as a continuing education series would be a start.

The coaching /mentoring could be set up as part of a technology curriculum and count as community service for the students.

Funding would be provided through the school system.
Costs would be variable depending on the number of participants.

5. Develop a listing of resources and Digital Economy Taskforce to assist with requests for assistance.

A list serve/chat group dedicated to discussion and requests for assistance should be set up and administered.

This could be done in cooperation with Chambers, Cities, Development Authorities and SGRC. Funding could be provided through DCA funds, EDA funds, and local government participation.

Strategic Focus Area 3 – Infrastructure (Service Availability: connectivity, speed, reliability, affordability)

1. Local Government Initiatives

- Amend zoning ordinances to require developers to install fiber the same time as water, sewer, gas and electricity. Consider broadband the fifth utility.

Funding will be provided by private developers concurrently with constructing all other infrastructure.

- Concurrent with other public construction projects (roads, water, sewer) install conduits according to priority node/line list.

Funding could be provided through SPLOST, CDBG, EDA.

- Work with the FCC and other federal government agencies to establish mandatory minimum broadband connection standards for public safety services such as fire and police.

Funding could be provided through FCC service fees on all user connections, Connect America Funds.

2. Create a Digital Economy Authority with the powers to collect assessment and fees and invest in broadband technology and infrastructure in the Region.

Funding could be provided through member dues and potential future franchise fees.

3. Create a priority list of major nodes or corridors requiring broadband technology with regard to public safety, potential of future development, jobs, and comprehensive plan implementation.

4. Create private public partnerships to construct the last mile to prioritized nodes and corridors. Partners would include private industry, Chambers of Commerce, Digital Economy Authority, Funding sources would include EDA, CDBG, Splost and other State or Federal Initiatives with matching local funds.

5. Develop an initiative for a series of meetings between service providers and local communities to assess internet capacity, needs and issues and examine ways to improve deficiencies. Partners would include SGRC, ISPs, and local governments. Funding would be available through EDA, GTA, DCA and other State and Federal initiatives.

Section 6 – Project List

The following is a list of specific projects that are desired to be undertaken in the next five fiscal years to address weaknesses, challenges and to take advantage of opportunities presenting themselves.

The list provides a short description of the project, anticipated timeframe, the lead/responsible party for the project, estimated project cost, potential type of funding and funding sources.

Workforce

Strategies	Key Implementation Strategy	Target Year to complete	Responsible Parties	Cost Estimate	Possible Funding Source
1. Provide continuing training to the older generation to bridge the digital age divide.	Provide coaches or mentors from the educational system	continuous	Educational Institutions, Chambers of Commerce	varies by number of participants	DOE, Private Funds, E-Rate, State Grants
2. Develop a Southern Georgia IT Alliance.	Create a Committee of Representatives of communities and IT to work on broadband issues and solutions	continuous	SGRC, communities, ED community, education sector, industry sectors	\$20,000/year	State Funding, Member Fees
3. Develop curriculums for those programs to match industry/business needs with graduate skills in continuing education programs.	Tift County BOE – High School – Computer Acquisition	2015	Tift County Board of Education	\$500,000	E-Rate
	Fix Bottle Necks in Valdosta School System to connect classrooms	2015	Valdosta City Schools	\$400,000	Connections Grant FCC
	Valdosta City Schools – increase Bandwidth to schools, maintain and improve a fiber wide area network (WAN) upgrading all campus LANS and system offices	2015	Valdosta City Schools - DOE	\$488,850.00	DOE - CONNECTIONS FOR CLASSROOMS GRANT E-Rate
	Echols County – library expansion to provide a wifi hotspot for residents/ students	2016	Echols County	\$20,000.00	Splost, DOE
	Echols County – provide Wi-Fi for Education Facility for GED students	2017	Echols County, Board of Education	\$15,000.00	E-Rate, DOE
	Conduct meetings between industry and educational sector to develop/update courses meeting the need of the industry	2015	Industry, ED Community, Education Sector	TBA	TBA

Capital

Strategies	Key Implementation Strategy	Target Year to complete	Responsible Parties	Cost Estimate	Possible Funding Source
1. Conduct a base needs analysis of each industry sector with regard to internet needs and requirements for growth, operations, and workforce.	Needs Analysis	2016	SGRC, ED community	\$150,000	State Grant
2. Install two Technology Development Centers in coordination with the educational sector to help start up entrepreneurs launch and grow tech companies.	Lowndes County – develop a Carrier Neutral Data Center for Business/Industry	2016	Lowndes County	TBA	EDA
3. Hold an IT job fair in the region to match up local businesses/ industry and job seekers.	Regular Interaction to match up demand and supply in the workforce and industry	2016	ED Community	\$20,000/fair	Private Industry
4. Provide continuous training to small businesses to bridge the broadband knowledge divide.	Continuing Education classes by Chambers of Commerce in cooperation with Colleges	continuous	Chambers of Commerce, Colleges and Universities	TBA	Private Industry Local Governments State Grants
5. Develop a listing of resources and Digital Economy Taskforce.	Brooks County – Digitize Library	2016	Brooks County		Splost, General Fund

Infrastructure

Strategies	Key Implementation Strategy	Target Year to complete	Responsible Parties	Cost Estimate	Possible Funding Source
1. Local Government Initiatives - Amend zoning ordinances.	Provide Fiber to Folkston Industrial Park	2015	Folkston	TBD	EDA, Splost
	Increase cell tower coverage	2015	Charlton County/Folkston	TBD	FCC, EDA, Splost, Fire, Police
	Charlton Courthouse Campus Ph. 1 – upgrade DSL	2015	Charlton County		SPLOST
	Charlton County Courthouse Campus Ph. 2 – fiber optic cable loop	2016	Charlton County		SPLOST
	Charlton County – Winokur Area (North) – improve DSL for Fire Services	2015	Charlton County		Fire Grant
	Charlton County - GA Bend Area (South) – improve/create internet access for Public Safety Services	2015	Charlton County		Fire Grant
	Brooks County - Upgrade County building networks & provide interconnectivity between each location for telecommunications	2018	Brooks	\$100,000	SPLOST 6 / GF
	Brooks County - Tax Commissioner Online Billing Website	2016	Brooks	\$34,000	General Fund
	Ben Hill County - Project Paperless, using modern technology to eliminate the sea of paper used by the county and its citizens in the daily business of governance.	2014	Ben Hill County	n/a	Splost
	Install City Owned fiber computer network to connect city buildings	2018	City of Tifton	450,000 est	SPLOST 4,5
	Security System Upgrades (Cameras, Alarms, Physical Security, etc.)	2019	City of Tifton	140,000 est	SPLOST 4,5, Police Tech Fund

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	Network System Refresh	2019	City of Tifton	160,000 est	SPLOST 4,5
	Servers and Hardware Refresh	2019	City of Tifton	140,000 est	SPLOST 4,5
	Desktop PC and Peripheral Replacements	2019	City of Tifton	230,000 est	SPLOST 4,5
	ERP Software and Document Mgmt. Upgrades and Additions	2019	City of Tifton	159,000 est	SPLOST 4,5
	Utility Billing System Reports and Upgrades	2015	City of Tifton	15,000 est	SPLOST 4
2. Create Digital Economy Authority	Assist and guide Digital Development in SGRC region	2015	SGRC	25,000	State
3. Create a priority list of major nodes or corridors requiring broadband	Continuously updated 5 year priority list of projects	2015	GTA	\$20,000	State Funds
4. Create private public partnerships to construct the last mile.	City of Lake Park – Install fiber optic from I-75 Exit 2 to Hwy 41 (Homedepot Distribution Center) piggybacked on 4 laning of Main Street	2017			GDOT, Splost
	Coffee County - Satilla Park Infrastructure: Connect New Industrial Park Located off Hwy 441 South, fiber	2016	Economic Development Authority	1,000,000	EDA, FCC, Splost
	Coffee County - extending fiber to main business corridors.	2016	Economic Development Authority	2,000,000	EDA, FCC, Splost
	Coffee County - Perimeter West Park II: -fiber connections	2017	Economic Development Authority	500,000	EDA, FCC, Splost
5. Develop an initiative for a series of assessment meetings between service providers and local communities.	Semi-Annual Assessment Meetings	2015	SGRC, Communities	TBA	GTA, State, GF



appendices