

STATE BROADBAND PROFILE: FLORIDA

JULY 2020

1. Introduction & Essential Context

For years, Florida has led the way in forging policies and supporting approaches that encourage the deployment and use of broadband in each of its communities and sectors of its economy. As discussed in this Profile, the results of these efforts are clear: broadband is thriving across much of Florida. Certain well-defined challenges remain, but, overall, the state remains a leader in facilitating the provision of high-speed Internet access and encouraging the use of this technology by residents, businesses, and government. Favorable conditions for investment, competition, and innovation across Florida augur well for continued success in realizing the transformative potential of broadband.

These dynamics have increased importance in light of the ongoing coronavirus pandemic and the resulting economic fallout. Florida has been hit hard by COVID-19: by the middle of July 2020, the state is reported to have among the highest total number of cases, deaths, and cases per capita in the country.¹ Broadband has proven to be a lifeline for millions across the state as nearly every in-person activity – work, school, healthcare, etc. – now takes place virtually. As such, the consequences of remaining offline have become even starker in the shadow of COVID. Plugging any gaps in broadband availability and adoption quickly is thus critically important.

Fortunately, Florida has created a business climate that is favorable to continued investment by Internet

service providers (ISPs). Private investment is key at a time when the state of Florida and its political subdivisions are facing profound financial uncertainty as tax collections plummet,² unemployment rolls swell,³ consumer confidence weakens,⁴ and tourism slows to a crawl.⁵ This Profile identifies viable opportunities for expeditiously closing any gaps in broadband connectivity that remain.

2. Legislative & Regulatory Environment

Broadband has blossomed in Florida because the state has not meddled (too much) in the marketplace. Consumer demand, and efforts by ISPs to meet those demands, have guided the evolution of broadband service in the state. In response, Florida has long been a leader in forging forward-looking yet minimalist policies to support the organic development of its advanced communications marketplace. The results, as discussed more fully in the next section, have been, and continue to be, impressive. Some discrete challenges remain, but, overall, the state's broadband market is thriving due in large measure to a supportive legislative and regulatory environment. Florida's approach is comprised of three interrelated prongs.

Deregulatory. Since the turn of the century, Florida has focused on fostering a regulatory environment conducive to private investment in the deployment of broadband and other advanced services. In 2003, for example, Florida became the first state to explicitly deregulate VoIP, finding that a minimalist regulatory approach for this dynamic service was in the public

TAKEAWAYS AT-A-GLANCE

- Broadband in Florida is robust thanks to a regulatory and legislative environment that supports sustained private investment in and competition among networks of all kinds.
- Nearly 97% of the population has access to broadband connections of 25/3 Mbps, and over 99% have multiple options for 4G mobile broadband service.
- Well-defined challenges remain, however: 20% of the state's rural population remains unserved, and 19% of the overall population has yet to adopt broadband.
- Guiding principles for addressing these issues include:
 - Prioritize unserved areas;
 - Embrace technological neutrality;
 - Preserve regulatory parity;
 - Avoid overbuilding;
 - Address the “nuts and bolts” of network deployment; and
 - Focus more resources on broadband adoption and digital literacy.

interest.⁶ State policymakers also acted in the 2000s to free broadband service of unnecessary state and local regulation, aligning Florida's policy with the federal light-touch "information service" model that prevailed at the time.⁷ The result has been consistent investment by ISPs, which in turn has led to steady increases in broadband availability, competition, speeds, and adoption.

Responsive. Florida has also been among the most active states vis-à-vis adjusting and recalibrating its legislative and regulatory approach in response to new market developments. For example, after several failed municipal broadband projects in the early 2000s (see section 3 for examples), Florida in 2005 became one of the first states to adopt a law focused on guiding the process by which public entities evaluate the extremely risky undertakings that are government-owned broadband networks (GONs).⁸ The law detailed a straightforward vetting process for GON proposals, requiring public hearings, the preparation and discussion of detailed business plans, and close scrutiny of financing details.⁹ Rather than impede investment and deployment, this law, coupled with the deregulatory approach to advanced communications services described above, succeeded in spurring private deployment throughout the state.

Inclusive. Florida has also focused resources on ensuring that as many people as possible are using and benefiting from broadband. A 2015 law, for example, kickstarted the state's focus on enhancing broadband adoption.¹⁰ The law charged a state agency with "work[ing] collaboratively with Enterprise Florida [a public-private organization focused on economic development], state agencies, local governments, private businesses and community organizations" to "develop a strategic plan to address non-adoption."¹¹ In 2020, Florida updated its approach by creating a dedicated broadband office to, among other things, "develop[], market[], and promot[e]" broadband in the state.¹²

Bottom Line. The legislative and regulatory environment in Florida has led to the realization of impressive gains in broadband connectivity over the last two decades. According to BroadbandNow, Florida ranks fifth in the nation in terms of overall broadband availability.¹³ Adhering to this approach will be essential to helping the state navigate the connectivity issues highlighted by the coronavirus pandemic.

3. The State of Broadband in Florida

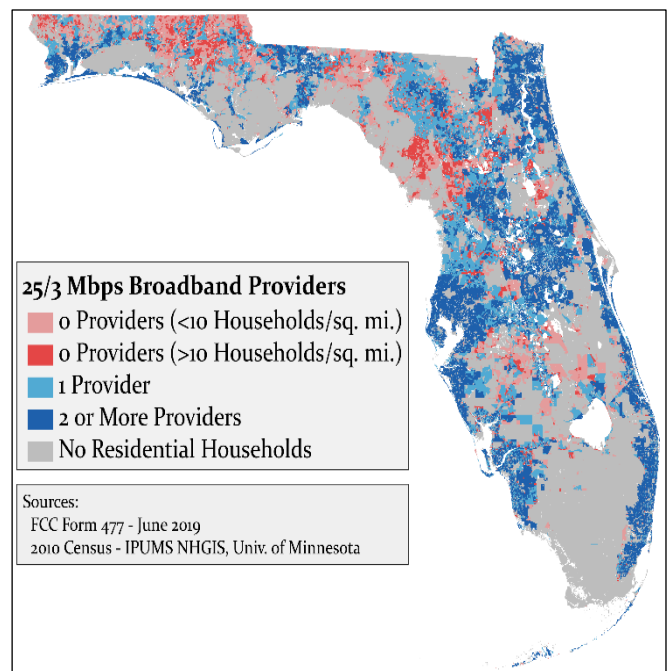
Broadband in Florida is robust when measured in terms of the number and kind of connections available; the speeds on offer to customers; pricing and service variety; and competition among providers in the wireline and wireless spaces. Indeed, the market for these services is among the most competitive in the country. Broadband

is being used by a significant portion of the state's population, providing millions with the opportunity to enhance their lives by tapping into this technology's transformative power.

Availability. Broadband delivered via a wire (e.g., cable, fiber) and wirelessly is widely available across the state (see Figure 1, below).

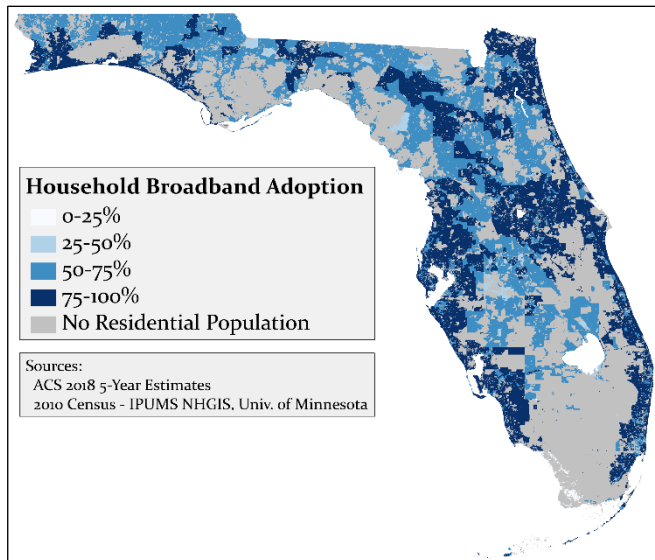
- Wireline broadband connections of at least 25 Mbps downstream and 3 Mbps upstream, the FCC's current benchmark for broadband, are available to 96.7% of Florida's population.¹⁴
- The most popular Internet access platform in the state is mobile: 20 million of the state's 27.8 million high-speed Internet connections – 72% – are mobile.¹⁵ Well over 99% of Floridians can choose from among four options for 4G LTE mobile broadband service.¹⁶
- Households across the state have numerous choices for going online. Nearly three-quarters of residents – 73.4% – can choose from at least two providers of wireline broadband service.¹⁷ For the 26% of households with access to only one wireline broadband provider, they can choose from numerous non-wireline options, like mobile broadband and fixed wireless.
- According to BroadbandNow, the average broadband connection speed across the state is 88.6 Mbps.¹⁸

FIGURE 1 – BROADBAND AVAILABILITY IN FLORIDA



Adoption. Overall broadband adoption in Florida is robust. According to recent Census data, nearly 81% of households in the state have a broadband connection.¹⁹ However, as with broadband availability, adoption rates in the state are not evenly distributed. Indeed, there are numerous pockets of under-adoption across the state, and these pockets are evident in both urban and rural areas (see Figure 2, below).²⁰ To successfully close these divides, it is essential for decision-makers to know where these pockets exist and the factors impacting adoption decisions (see section 4 for discussion).

FIGURE 2 – BROADBAND ADOPTION IN FLORIDA



Failed Approaches to Improving Connectivity. Despite robust availability and above-average adoption rates, some municipalities in the state have sought to build their own networks and compete against private providers in an effort to address perceived shortcomings in connectivity. Most of these GONs, however, failed. As a result, the state developed a statutory framework to guide consideration of these risky projects. Illustrative examples of failed GONs in the state include:

- A municipal Wi-Fi network deployed in **Orlando** failed in spectacular fashion in the early 2000s due to lack of interest by residents: despite being built to support 200 users, the system was only used by an average of 27 people per day.²¹ The network was eventually shut down.²²
- In 2003, **Quincy** issued \$3.3 million in revenue bonds to build a fiber-optic network known as NetQuincy.²³ Despite much enthusiasm and optimism about its potential to help the city “tak[e] charge of its [own] future,”²⁴ the network quickly faltered as expenses far outpaced revenues.²⁵

- In 2011, **Dunnellon** made a “big bet on the Internet worthy of a riverboat gambler.”²⁶ It took out loans totaling \$7.35 million to build its own broadband network in an effort to jumpstart economic development, provide services to some unserved residents, and otherwise attempt to make the city more attractive to businesses and residents.²⁷ By 2012, the city had deployed over “100 miles of fiber” and began offering Internet access, telephone, and video service to residents.²⁸ A year later, though, the system had proven to be a failure: it “only attracted 500 customers, not the 1,700 needed for profitability,” and in October 2013 “the City Council voted to sell [the system] for \$1 million” to a private company, leaving the city to pay back “\$7 million in debt, a monumental task for a city of 1,700 people with an annual municipal operating budget [that] year of \$3.1 million.”²⁹

- Also in 2011, the **North Florida Broadband Authority** (NFBA), a consortium of 14 communities in North Central Florida, was awarded a federal stimulus grant in excess of \$30 million to build an open-access middle-mile fiber network capable of linking a group of rural and underserved communities.³⁰ By mid-2013, however, the project had become financially unsustainable, with monthly revenues of \$11,000 and monthly expenses estimated at over \$250,000.³¹ As a result, the network quickly accumulated over \$750,000 in debt.³² A major reason for its underperformance was “a shortage of customers.”³³ Consequently, several of the original member cities eventually left the consortium; in October 2013, operation of the NFBA was turned over to a private entity.³⁴ But even then, the network faced significant challenges: the private entity “pulled out within a year after souring on the prospects of making a profit.”³⁵ As reported in November 2015: “With no one to maintain \$22 million worth of microwave radios and antennas, cables, servers, generators and other equipment, service [stemming from the NFBA] has reportedly become unreliable on the network and some customers have moved on to other sources for Internet service.”³⁶

Lingering Challenges. Florida, like many states, faces several well-defined broadband connectivity challenges.

Rural broadband availability remains a priority: per the FCC, about 20% of the state’s rural population lacks access to a wireline broadband connection of at least 25/3 Mbps.³⁷ Counties where less than 50% of the rural population can access a 25/3 Mbps wireline broadband connection include: Broward, Dixie, Gilchrist, Holmes, Jackson, Jefferson, Levy, Liberty, and Washington.³⁸ In

each of these counties, though, multiple options for 4G LTE mobile broadband are just about universally available.

As previously noted, lagging broadband adoption is evident in pockets across almost every part of the state. In general, broadband adoption tends to lag most in rural areas relative to urban areas, but even in denser cities, certain neighborhoods struggle with low rates of adoption.³⁹ Adoption generally correlates with certain demographic and socioeconomic factors,⁴⁰ so cities with high rates of poverty, for example, tend to have lower levels of broadband adoption. In Florida, this is true in places like Miami, where the poverty rate (24.3%) is significantly higher than the state's (13.6%), contributing to a very low broadband adoption rate (64.1%) vis-à-vis the state overall (80.8%).⁴¹

In short, areas that lack broadband and that are lagging in broadband adoption can be pinpointed with a good amount of accuracy. This allows for the development of precisely targeted policy interventions.

4. Looking Ahead

Florida finds itself in an enviable position when it comes to broadband connectivity. This is due in large part to a carefully cultivated regulatory and legislative environment that continues to encourage private investment in broadband networks across the state. Indeed, the state has made clear that it will not overreach; rather, it has proven ready, willing, and able to remove barriers and other impediments to private broadband deployment. To successfully address the broadband connectivity challenges facing Florida, it will be essential for policymakers to continue adhering to this approach.

The following guiding principles are offered to decision-makers as they consider how best to bridge remaining digital divides in the state and otherwise seek to unlock the full transformative power of broadband.

Prioritize Unserved Areas. Accurate data is essential to understanding precisely which parts of the state truly remain without any broadband options. Once those areas are identified, any and all available resources – federal subsidies, state grants, local budget allocations, etc. – should be focused on seeding partnerships with private ISPs in an effort to encourage new network deployment. But for those critical resources, these areas will remain unserved. The need to prioritize resources in this manner is especially crucial now as the state and its many cities navigate the profound economic turbulence caused by the pandemic. Ongoing efforts by the FCC to improve broadband mapping across all 50 states promise to equip state and local policymakers with the tools needed for these purposes.⁴²

Embrace Technological Neutrality. The goal of any meaningful broadband policy response should be to support continued competition among ISPs offering different kinds of access options – e.g., cable, fiber, mobile, fixed wireless. As such, Florida should continue to embrace the notion of technological neutrality when devising approaches to closing the digital divide. Technological neutrality means that policies and programs do not explicitly or implicitly favor one type of broadband platform (e.g., fiber) over another. In practice, this means avoiding unrealistic speed benchmarks and related criteria that have the effect of narrowing the field of qualifying platforms. It also means eschewing long-held biases in favor of wireline broadband and supporting the rollout of robust wireless services like 5G and next-generation fixed wireless platforms. Such an expansive view of broadband will help to ensure that the state deploys an “all of the above” approach to closing digital divides.

Preserve Regulatory Parity. In addition to technological neutrality, policymakers at the state and local levels must also preserve regulatory parity among different broadband platforms. Such parity ensures that all firms seeking to compete in a particular market have the same opportunity to benefit from any concessions or favorable terms extended to an ISP. For example, revisions to service obligations or access to expedited review and approval processes should be accessible to all providers in order to assure a level playing field. Adhering to this simple principle can greatly speed broadband deployment.

Avoid Overbuilding. State and local governments are tempted, at times, to solve broadband challenges on their own by building publicly-financed and -owned networks. Such state-led projects tend to revolve around the deployment of middle-mile networks that, in theory, will encourage last-mile build-out (i.e., connections to households) by ISPs. Local efforts encompass GON projects of various kinds (e.g., fiber-to-the-home via a municipal electric utility). In almost every instance, these projects result in the duplicative overbuilding of broadband networks. And as discussed in section 3, these projects have a terrible track-record in Florida. Numerous GONs have failed in the past, and middle-mile efforts led by the NFBA resulted in expensive failure. These struggles aren't unique to Florida – they are evident in states across the nation.⁴³

At a time when public resources are scarcer than ever before, limited taxpayer dollars should not be squandered on projects that overbuild private broadband networks.

Address the “Nuts and Bolts” of Network Deployment. Rather than pursue a GON, state and local government can act on numerous other fronts in support of broadband deployment. Foremost among the areas of

greatest need for government action is the modernization of policies impacting access to rights-of-way (ROW). ROW is of foundational importance to network construction as ISPs seek to thread broadband wiring across utility poles, street lamps, ducts, and other public and private structures. Too often, though, the terms and conditions for accessing these resources are onerous, leading to delays in network deployment and higher costs, which are inevitably passed onto consumers. Overdue reforms include continuing to rationalize the array of public and private ROW procedures to assure uniformity and consistency, and addressing variability in pricing and access criteria related to utility poles. These issues are of particular importance in rural areas, where already high broadband deployment costs can grow exponentially if a pole owner (e.g., a utility company) seeks to extract unreasonably high fees and related costs (e.g., for make-ready work or pole replacement).⁴⁴ States that are serious about unlocking additional private investment in rural broadband deployment should address these issues immediately.

Focus More Resource on Broadband Adoption and Digital Literacy. Effective broadband planning is incomplete unless it focuses on ensuring that residents and businesses are adopting and productively using available Internet connections. State and local policymakers should work to ensure that any discussion about broadband deployment is balanced by an equally robust inquiry into the nature of local demand. Doing so will ensure that a more diverse group of stakeholders, especially those with expertise in providing digital literacy training and other such services, have ample opportunities to play impactful roles.

Applying These Principles. Several recent and ongoing broadband-related projects in the state illustrate how these guiding principles might be effectively applied.

With regard to rural broadband, the state recently launched its **Multi-Use Corridors of Regional Economic Significance Program (MCORES)** to, among other things, leverage the construction of regional corridors in an effort to spur broadband deployment along the new roadways.⁴⁵ In particular, the corridors are being explored as potential routes for the deployment of state-funded open-access middle-mile fiber networks.⁴⁶ Pursuing these fiber deployments without exploring other, less costly and more efficient means could imperil taxpayer resources and lead to a delay in bringing broadband to areas that need it most. As noted above, similar middle-mile network projects have failed in Florida and elsewhere (e.g., Kentucky), and MCORES risks overbuilding existing private middle-mile networks. Moreover, the 10-year timeframe for MCORES means

that, if broadband is ultimately pursued, it will not reach unserved areas anytime soon.⁴⁷ A more expedient approach might include consulting with private ISPs to see whether and how construction of the corridors reveals opportunities for reducing rural broadband deployment costs. For example, the state could partner with ISPs to develop a plan for facilitating private network construction in tandem with the toll-roads – a version of the dig-once approach to broadband deployment that has worked elsewhere to speed build-out. Such collaboration could greatly lower the costs associated with building new networks in these areas.

Notwithstanding the long history of failed GONs in the state, several cities in Florida, including **Lakeland** and **Gainesville**, have explored whether to fund a municipal broadband network.⁴⁸ In both instances, the publicly-owned network would compete with several private ISPs, meaning the cities would be supporting overbuilding. Officials in Lakeland have taken a step back from their inquiry due to cost concerns and recognition that working with incumbent ISPs might be more fruitful and efficient.⁴⁹ Any future efforts in Gainesville ought to take a similar approach, especially given the high cost projections for a countywide GON (\$213 million) and a lack of compelling data about the need for such a network. Although small pockets of the county and city remain unserved, larger pockets of under-adoption are evident, providing the city with an opportunity to engage in more targeted and less risky interventions aimed at bringing more people online.⁵⁰

When considering next steps for improving broadband connectivity, cities like Gainesville ought to avail themselves of an emerging trend in the state vis-à-vis **broadband adoption**: a growing number of cities are partnering with ISPs to make available low-cost options for internet access and computing devices. Illustrative examples include ongoing collaborations spearheaded by Comcast in several South Florida communities, including Miami;⁵¹ adoption-oriented discussions and convenings hosted by Charter in places like Lakeland;⁵² and community-based charity activities aimed at raising awareness of the value of broadband by Cox.⁵³

Finally, with regard to upholding the state's reputation for fostering a supportive regulatory and legislative environment for broadband ISPs and for embracing technological neutrality and regulatory parity, Florida has adopted laws aimed at **hastening the deployment of next-generation 5G mobile networks**. The laws, which recently survived legal challenge by localities, implement a more consistent framework for doling out public ROW access to entities seeking to build these new networks.⁵⁴

ENDNOTES

- ¹ DC COVID Data Tracker, <https://www.cdc.gov/covid-data-tracker/#cases>.
- ² Florida Office of Demographic and Economic Research, Monthly Revenue Report – May 2020, Vol 40, No. 11, <http://edr.state.fl.us/Content/revenues/reports/monthly-revenue-report/newsletters/nlmay20.pdf> (reporting that “sales Tax collections were down \$695.4 million or 31.7 percent of the estimate”).
- ³ Unemployment Rate in Florida – May 2020, Federal Reserve Bank of St. Louis, <https://fred.stlouisfed.org/series/FLUR>.
- ⁴ John Leer and Nick Laughlin, *Analysis: How COVID-19 Has Changed Consumer Confidence in All 50 States*, July 7, 2020, Morning Consult, <https://morningconsult.com/2020/07/07/consumer-confidence-50-states/> (“From June 16 through July 1, consumer confidence in Arizona, Florida, Georgia, Nevada, South Carolina and Texas remained flat or even decreased.”).
- ⁵ *COVID-19 Slashes Florida Tourism Numbers*, June 1, 2020, Tampa Bay Times, <https://www.tampabay.com/news/business/2020/06/01/covid-19-slashes-florida-tourism-numbers/> (noting a 10% decline in tourism in the state in the first quarter of 2020).
- ⁶ See Fla. Stat. § 364.01(3).
- ⁷ See, e.g., Fla. Stat. § 364.0361 (clarifying that local governments cannot regulate broadband providers).
- ⁸ Fla. Stat. § 350.81, <https://www.flsenate.gov/Laws/Statutes/2012/350.81>.
- ⁹ *Id.*
- ¹⁰ See §364.0135 Fla. Stat. (2015).
- ¹¹ *Id.*
- ¹² HB 969 (2020), <http://laws.flrules.org/2020/26>.
- ¹³ BroadbandNow.com, Florida, <https://broadbandnow.com/Florida>.
- ¹⁴ ACLP Analysis of FCC Form 477 Data from June 2019.
- ¹⁵ *Internet Access Services: Status as of December 31, 2017*, at Figure 34, FCC (Aug. 2019), <https://docs.fcc.gov/public/attachments/DOC-359342A1.pdf>.
- ¹⁶ ACLP Analysis of FCC Form 477 Data from June 2019.
- ¹⁷ ACLP Analysis of FCC Form 477 Data from June 2019.
- ¹⁸ BroadbandNow, Florida, <https://broadbandnow.com/Florida>.
- ¹⁹ U.S. Census QuickFacts, Florida, <https://www.census.gov/quickfacts/FL>.
- ²⁰ For additional discussion on the general dynamic of under-adoption in urban areas and examples in Florida, see Lara Fishbane and Adie Tomer, *Neighborhood Broadband Data Makes it Clear: We Need an Agenda to Fight Digital Poverty*, Feb. 6, 2020, The Avenue blog, Brookings, <https://www.brookings.edu/blog/the-avenue/2020/02/05/neighborhood-broadband-data-makes-it-clear-we-need-an-agenda-to-fight-digital-poverty/>.
- ²¹ See Mark Williams Pontin, *Golden Gate Lark*, Sept. 1, 2006, Technology Review, <https://www.technologyreview.com/s/406378/golden-gate-lark/>.
- ²² *Id.*
- ²³ *City of Quincy, Florida, Utility System Improvement and Refunding Revenue Bonds, Series 2003*, at 45, Electronic Municipal Market Access, Municipal Securities Rulemaking Board (Oct 1. 2003), <http://emma.msrb.org/MS216479-MS191787-MD372435.pdf>.
- ²⁴ *The Case for Municipal Broadband in Florida*, at 2, Florida Municipal Electric Association (2005), http://www.baller.com/wp-content/uploads/fmea_white_paper.pdf.
- ²⁵ See, e.g., Richard Swier, *Failing Government-Owned Networks Examined*, Dec. 3, 2013, Watchdog Wire, <http://watchdogwire.com/florida/2012/12/03/florida-failing-government-owned-networks-examined/>.
- ²⁶ Bill Thompson, *Dunnellon Dreams of a Connected Future*, Oct. 15, 2011, Ocala Star Banner, <http://www.ocala.com/article/20111015/ARTICLES/111019789?p=all&tc=pgall>.
- ²⁷ *Id.*
- ²⁸ Lisa Gonzalez, *Dunnellon, Florida's Fiber Dreams Now a Reality*, Aug. 8, 2012, MuniNetworks.org, <http://www.muninetworks.org/content/dunnellon-floridas-fiber-dreams-now-reality>.
- ²⁹ *Editorial: Dunnellon's Disastrous Deal*, Oct. 29, 2013, Ocala Star Banner, <http://www.ocala.com/article/2013131029665>.
- ³⁰ BroadbandUSA, Grantees: North Florida Broadband Authority, <http://www2.ntia.doc.gov/grantees/NorthFLA>.
- ³¹ See, e.g., Stew Lilker, *North Florida Broadband Authority: Stimulus Funded 800 lb. Gorilla Puts Squeeze on Financially Strapped Bradford County Schools*, May 13, 2013, Columbia County Observer, http://columbiacountyobserver.com/master_files/Florida_News_2013/13_0516_nfba_stimulus-funded-800-lb-gorilla-puts-squeeze-on-financially-strapped-school-district.html.
- ³² Samantha Bookman, *Report: Bradford County Withdraws from North Florida Broadband Authority*, April 3, 2013, Fierce Telecom, <http://www.fiercetelecom.com/story/report-bradford-county-withdraws-north-florida-broadband-authority/2012-04-03#ixzz2fkT8rbos>.
- ³³ Anthony Clark, *Rural Counties Struggle Getting 'Last Mile' of Internet*, Nov. 28, 2015, Gainesville Sun,

<http://www.gainesville.com/article/20151128/ARTICLES/151129720> (“Rural Counties Struggle”).

³⁴ Karl Burkhardt, *Private Company Takes Over North Florida Broadband Authority to Resume Project to Provide Internet*, Oct. 16, 2013, Lake City Journal, <http://lakecityjournal.com/main.asp?SectionID=13&SubSectionID=73&ArticleID=10457>.

³⁵ *Rural Counties Struggle*.

³⁶ *Id.*

³⁷ *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, 2020 Broadband Deployment Report, Appendix 1, GN Docket 19-285 FCC (April 24, 2020), <https://docs.fcc.gov/public/attachments/FCC-20-50A2.pdf>.

³⁸ *Id.* at Appendix 5.

³⁹ Regarding the general dynamic of rural v. urban broadband adoption, see Andrew Perrin, *Digital Gap Between Rural and Nonrural Americans Persists*, May 31, 2019, Pew Research Center, <https://www.pewresearch.org/fact-tank/2019/05/31/digital-gap-between-rural-and-nonrural-america-persists/>.

⁴⁰ See, e.g., Charles M. Davidson, Michael J. Santorelli, and Tom Kamber, *Broadband Adoption: Why it Matters & How it Works*, 19 Media L. & Pol’y 14-56 (2009), http://www.nyls.edu/advanced-communications-law-and-policy-institute/wp-content/uploads/sites/169/2013/08/Davidson_Santorelli_Kamber-BB-Adoption-Article-MLP-19.1.pdf.

⁴¹ Census Quick Facts, Miami city, FL, and Florida state, as of July 1, 2019, <https://www.census.gov/quickfacts/fact/table/miamicityflorida,FL/PST045219>.

⁴² *In the Matter of Establishing the Digital Opportunity Data Collection*, Second Report and Order and Third Notice of Proposed Rulemaking, WC Docket No. 19-195 (July 17, 2020), <https://docs.fcc.gov/public/attachments/FCC-20-94A1.pdf>.

⁴³ See Charles M. Davidson & Michael J. Santorelli, *Understanding the Debate over Government-Owned Broadband Networks: Context, Lessons Learned, and a Way Forward for Policy Makers*, ACLP at New York Law School (2014), <http://www.nyls.edu/advanced-communications-law-and-policy-institute/wp-content/uploads/sites/169/2013/08/ACLP-Government-Owned-Broadband-Networks-FINAL-June-2014.pdf>.

⁴⁴ For an overview of these costs, see *Final Report of the Ad Hoc Committee on Rates and Fees*, FCC Broadband Deployment Advisory Committee (July 2018), <https://www.fcc.gov/sites/default/files/bdac-07-2627-2018-rates-fees-wg-report-07242018.pdf>. For additional

perspective, see *The Cost of Replacing Old Wooden Poles is Slowing Down Broadband Deployment in Unserved Areas*, July 17, 2020, NCTA, <https://www.ncta.com/whats-new/the-cost-of-replacing-old-wooden-poles-is-slowing-down-broadband-deployment-in-unserved-areas>.

⁴⁵ Florida MCORES, About, <https://floridamcores.com/>.

⁴⁶ See, e.g., *Suncoast Corridor Virtual Meeting #4 – Presentation*, June 23, 2020, file:///C:/Users/micha/AppData/Local/Temp/SCC_VM_4-PPT-Presentation-Final-6.23.20.pdf.

⁴⁷ See, e.g., Jeffrey Schweers, *Broadband Expansion Needed Sooner Than Later, Suncoast Toll-Road Task Force Members Say*, June 16, 2020, The Walton Sun, <https://www.waltonsun.com/news/20200616/broadband-expansion-needed-sooner-than-later-suncoast-toll-road-task-force-members-say>.

⁴⁸ Sara-Megan Walsh, *Lakeland Could be the Exception to Florida’s Broadband Laws*, Aug. 12, 2019, The Ledger, <https://www.theledger.com/news/20190810/lakeland-could-be-exception-to-floridas-broadband-laws>; Andrew Caplan, *City Seeks More Information on Broadband Expansion*, June 20, 2019, The Gainesville Sun, <https://www.gainesville.com/news/20190620/city-seeks-more-information-on-broadband-expansion> (“City Seeks More Information”).

⁴⁹ Allison Guinn, *On Broadband, Lakeland to Request Buffet of Choices*, Feb. 1, 2020, LKLDNow, <https://www.lkldnow.com/on-broadband-lakeland-to-request-buffet-of-choices/>.

⁵⁰ *City Seeks More Information*.

⁵¹ See, e.g., *Comcast Announces Major Expansion to Internet Essentials Program in Miami*, Aug. 8, 2019, Kendall Gazette, <https://communitynewspapers.com/kendallgazette/comcast-announces-major-expansion-to-internet-essentials-program-in-miami-5/>.

⁵² See, e.g., Christopher Guinn, *Lakeland, Cable Company Charter Communications Sponsor Discussion on Internet Access*, June 22, 2017, The Florida Times-Union, <https://www.jacksonville.com/news/20170622/lakeland-cable-company-charter-communications-sponsor-discussion-on-internet-access>.

⁵³ See, e.g., Dylan Lyons, *Cox Communications Surprise a Group of Students*, Oct. 29, 2019, WCJB.com, <https://www.wcjb.com/content/news/Cox-Communications-surprise-a-group-of-students-564021951.html>.

⁵⁴ Jim Saunders, *Judge Dismisses Challenge to Law Allowing 5G Technology in Public Rights of Way*, April 1, 2020, Pensacola News Journal, <https://www.pnj.com/story/news/2020/04/01/judge-dismisses-challenge-law-allowing-5-g-technology-public-rights-way/5104167002/>.