Before the Federal Communications Commission Washington, D.C. 20554

In the Matter of)	
)	
Inquiry Concerning Deployment of Advanced)	GN Docket No. 18-238
Telecommunications Capability to All Americans)	
in a Reasonable and Timely Fashion)	

2019 BROADBAND DEPLOYMENT REPORT

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By the Commission: Commissioners O'Rielly and Carr issuing separate statements; Commissioners Rosenworcel and Starks dissenting and issuing separate statements.

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I. INTRODUCTION

- 1. The Federal Communications Commission is charged with "encourag[ing] the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans," by removing barriers to infrastructure investment and by promoting competition in the telecommunications market.¹ For the past two years, the Commission has taken up the mantle; it has made closing the digital divide between Americans with, and without, access to modern broadband networks its top priority. Modern society is an increasingly digital one, and accessing advanced services is essential to ensuring that all Americans can participate and thrive. We remain committed to ensuring that all Americans, including those in rural areas, Tribal lands, and disaster-affected areas, have the benefits of a high-speed broadband connection.
- As a result of those efforts, the digital divide has narrowed substantially, and more Americans than ever before have access to high-speed broadband. In the time since the Commission's last *Broadband Deployment Report*, the number of Americans lacking a connection of at least 25 Mbps/3 Mbps (the Commission's current benchmark) has dropped from 26.1 million Americans at the end of 2016 to 21.3 million Americans at the end of 2017, a decrease of more than 18%. Moreover, the majority of those gaining access to such connections, approximately 4.3 million, are located in rural America. Higher-speed services are being deployed at a rapid rate as well. For example, the number of Americans with access to at least 250 Mbps/25 Mbps broadband grew in 2017 by more than 36%, to 191.5 million. And the number of rural Americans with access to such broadband increased by 85.1% in 2017.
- 3. Other data beyond the data underlying the *Broadband Data Report* illustrates industry's response to the Commission's actions promoting broadband deployment. During 2018, for example, broadband providers, both small and large, deployed fiber networks to 5.9 million new homes, the largest number ever recorded.² Also, capital expenditures by broadband providers increased in 2017, reversing declines that occurred in both 2015 and 2016.³
- 4. With this compelling evidence before us, we find, for a second consecutive year, that advanced telecommunications capability is being deployed on a reasonable and timely basis. With this report, the Commission fulfills the Congressional directive to report each year on the progress made in deploying broadband to all Americans.⁴

II. BACKGROUND

5. Section 706(b) of the Telecommunications Act of 1996 requires the Commission to annually "initiate a notice of inquiry concerning the availability of advanced telecommunications capability to all Americans (including, in particular, elementary and secondary schools and classrooms)." In conducting this inquiry, the Commission must "determine whether advanced telecommunications

¹ 47 U.S.C. § 1302(a). Congress also entrusted this responsibility to state commissions.

² Fiber Broadband Association, North American 2018 Advanced Broadband Report (2018).

³ See Patrick Brogan, Vice President for Industry Analysis, USTelecom, U.S. Broadband Investment Rebounded in 2017 (2018), https://www.ustelecom.org/ustelecom-broadband-capital-expenditures-once-again-on-upward-trajectory.

⁴ 47 U.S.C. § 1302(b).

⁵ *Id*.

capability is being deployed to all Americans in a reasonable and timely fashion."⁶ If that determination is negative, the Commission "shall take immediate action to accelerate deployment of such capability by removing barriers to infrastructure investment and by promoting competition in the telecommunications market."⁷

- 6. On February 2, 2018, the Commission released the 2018 Broadband Deployment Report (2018 Report) in which it found that advanced telecommunications capability was being deployed to all Americans in a reasonable and timely fashion. Consistent with the statute, the Commission focused its analysis in the 2018 Report on the progress made in the deployment of fixed and mobile services. Since the 2018 Report, the Commission has continued to aggressively facilitate broadband deployment by reducing regulatory barriers to the deployment of wireline and wireless infrastructure and by taking a number of other measures to improve the regulatory environment and promote broadband deployment.
- 7. On August 8, 2018, the Commission released the *Fourteenth Section 706 Report Notice* of *Inquiry (Notice)*, seeking comment on how a range of factors may affect the deployment and availability of advanced telecommunications capability, and on whether and how to incorporate those factors into our section 706(b) analysis for both fixed and mobile services.¹¹

III. EVALUATING DEPLOYMENT OF ADVANCED TELECOMMUNICATIONS CAPABILITY TO ALL AMERICANS IN A REASONABLE AND TIMELY FASHION

8. As proposed in the *Notice*, this Report will holistically evaluate the availability of fixed and mobile services over a 5-year time period (2013-2017) using the same four methods for determining the proportion of Americans with access to broadband presented in the *2018 Report*: (1) those with access to fixed services; (2) those with access to mobile LTE services; (3) those with access to both fixed *and* mobile LTE services; and (4) those with access to at least one of either fixed *or* mobile LTE services.¹² The record provides substantial support for continuing our use of a progress-based approach to analyze deployment of both fixed and mobile broadband services—an approach commenters agree is most consistent with the language of section 706—and enables the Commission to determine whether

⁶ *Id.* We note that the annual inquiry and determination continues to be required by section 706(b) despite Congress's enactment of the RAY BAUM'S Act of 2018, which requires an assessment on the state of deployment of communications capability, including advanced telecommunications capability, as that term is used in section 706(b), in the biennial Communications Marketplace Report (CMR) now required by section 13 of the Communications Act. *See* Consolidated Appropriations Act, 2018, Pub. L. No. 115-141, Div. P—RAY BAUM'S Act of 2018, §§ 401-402, 132 Stat. 348, 1087-90 (2018) (RAY BAUM'S Act of 2018); 47 U.S.C. § 163(b)(2) (added 2018); *see also Communications Marketplace Report et al.*, GN Docket No. 18-231 et al., Report, FCC 18-181, paras. 236-264 (Dec. 26, 2018) (*Communications Marketplace Report*).

⁷ 47 U.S.C. § 1302(b).

⁸ Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, GN Docket No. 17-199, 2018 Broadband Deployment Report, 33 FCC Rcd 1660, 1662, 1708, paras. 6, 94 (2018) (2018 Report).

⁹ 2018 Report, 33 FCC Rcd at 1663-64, paras. 10-13.

¹⁰ 2018 Report, 33 FCC Rcd at 1708, para. 96; Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, Fourteenth Broadband Deployment Report Notice of Inquiry, GN Docket No. 18-238, 33 FCC Rcd 8386, 8395-97, paras. 23-26 (2018) (Notice); see infra Section V.

¹¹ See generally Notice, 33 FCC Rcd 8386.

¹² The Commission's holistic approach in the *2018 Report* considered improvements to deployment over time; however, the data for 2012 and 2013 are not directly comparable to the data collected by the Commission since 2014. *2018 Report*, 33 FCC Rcd at 1678, paras. 45-46. *See infra*, Section IV (discussing broadband deployment estimates and data sources for fixed and mobile services).

advanced telecommunications capability "is being deployed" in the manner that section 706 requires.¹³ As explained in the *2018 Report*, Congress intended that the Commission evaluate the current state of deployment to all Americans; it did not ask us to determine whether each and every American is served at this moment.¹⁴

9. We agree with commenters that we must continue to take concrete steps toward closing the digital divide for all Americans.¹⁵ Section 706(a) mandates that we promote the deployment of advanced telecommunications capability in general,¹⁶ and we believe that continued forward progress toward universal deployment is imperative if all Americans are to enjoy the full promise of our economy.¹⁷ We agree with WISPA that "the Commission should continue to take affirmative steps toward . . . closing the 'digital divide' that separates rural and other typically unserved or underserved areas from areas with substantially greater connectivity service and service options."¹⁸ We also agree with CWA that "an accurate assessment of the deployment and adoption of advanced telecommunications capability is essential to craft policies to close the digital divide and promote digital equity for all Americans."¹⁹ To that end, we agree with the Free State Foundation that "it should be a Commission goal to proactively identify and remove . . . regulatory barriers to broadband infrastructure investment."²⁰ We remain committed to ensuring that all Americans can share in the benefits of access to advanced telecommunications capability, and we will continue to monitor progress in the availability of such services.

A. Defining Advanced Telecommunications Capability

10. This Report continues the Commission's practice of examining both fixed and mobile broadband deployment.²¹ Consistent with our conclusion in the *2018 Report*, we consider both fixed and mobile services to be capable of meeting the definition of "advanced telecommunications capability" under section 706.²² This finding is consistent with the language of the statute, which defines advanced

¹³ ACA Comments at 7; ADTRAN Comments at 3; AT&T Comments at 1-2; CTIA Comments at 4; Fiber Broadband Comments at 1-3 (suggesting the FCC also examine the deployment of all-fiber networks); INCOMPAS Comments at 7; ITTA Comments at 11; MDTC Comments at 3 (supporting the Commission's four categories for evaluation of fixed and mobile services); NCTA Comments at 1; Verizon Comments at 3; WISPA Comments at 5; Comcast Reply at 1.

¹⁴ 2018 Report, 33 FCC Rcd at 1663-64, paras. 10-13; see also Comcast Reply at 3-4 (explaining that the section 706 inquiry "is clearly a question of progress over time").

¹⁵ ACA Comments at 6; ADTRAN Comments at 14-16; AT&T Comments at 7; CTIA Comments at 22-27; Free Press Comments at 6; FSF Comments at 11-12; INCOMPAS Comments at 4-5; MDTC Comments Attach. at 6; Microsoft Comments at 6; NRECA Comments at 3; NDIA Comments at 4-6; OTI Comments at 35; R Street Comments at 3-4; SES Comments at 5; USTelecom Comments at 2, 6-7; Verizon Comments at 2-3; Viasat Comments at 2-3; WISPA Comments at 6; Letter from The Leadership Conference on Civil and Human Rights, *et al.*, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 18-238, at 1 (filed Feb. 4, 2019) (Leadership Conference Feb. 4, 2019 *Ex Parte* Letter).

¹⁶ 47 U.S.C. § 1302(a).

¹⁷ 2018 Report, 33 FCC Rcd at 1664, para. 13.

¹⁸ WISPA Comments at 6; *see also* Verizon Comments at 2 ("[t]he Commission should continue – as it is already doing in multiple proceedings – to advance policies that will drive deployment of broadband to areas that currently lack adequate broadband service through a framework that encourages maximum broadband investment").

¹⁹ CWA Comments at 6.

²⁰ FSF Comments at 11.

telecommunications capability "without regard to any transmission media or technology."23

- In the 2018 Report, the Commission concluded that mobile services are not "currently full substitutes for fixed service," while determining that both fixed and mobile service "clearly provide[] capabilities that satisfy the statutory definition of advanced telecommunications capability, and are important services that provide different functionalities, tailored to serve different consumer needs."24 While some commenters submit that consumer preferences and demands for mobile services have expanded since the 2018 Report, 25 others contend that consumers are continuing to rely on access to both fixed and mobile networks, often using both in distinct ways, and as such, they urge the Commission to find that fixed and mobile services are not close substitutes for all uses and customer groups at this point in time.²⁶ We recognize that Americans have never been more reliant on mobile broadband for accessing and sharing information, and in response to the growing demand for data, mobile wireless providers continue to expand and improve their networks.²⁷ And we anticipate that, in the future, mobile services will continue to expand and become more versatile, with technological advances such as 5G potentially allowing mobile services to provide performance characteristics such as speed and service quality that are similar to fixed services.²⁸ However, we find it is not necessary in this Report to specify, among a wide range of use cases, the circumstances in which fixed and mobile services are or are not close substitutes. As with the 2018 Report, we conclude that both fixed and mobile services provide capabilities that satisfy the statutory definition of advanced telecommunications capability and, as before, that despite the increasing ubiquity and capabilities of mobile services, there is insufficient evidence in the record to conclude that mobile and fixed broadband services are full substitutes in all cases.²⁹ Thus, for the purposes of this Report, we will continue to examine the deployment of fixed and mobile services, both individually and in conjunction with one another.
- 12. Performance Benchmarks for Fixed Service. We conclude that the current speed benchmark of 25 Mbps/3 Mbps remains an appropriate measure by which to assess whether a fixed service is providing advanced telecommunications capability. This finding follows the proposal in the

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21 See 2018 Report, 33 FCC Rcd at 1680-86, paras. 49-56; Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act, GN Docket No. 15-191, 2016 Broadband Progress Report, 31 FCC Rcd 699, 734-35, paras. 82-84 (2016 Report).

²⁶ WTA Comments at 2-3; OTI Comments at 22-23; INCOMPAS Comments at 4; MDTC Comments at 2-4; NRECA Comments at 4; CWA Comments at 3; ITTA Comments at 7; NTCA Comments at 2; PK & CC Comments at 11-12; WISPA Comments at 3; Anthony Sellers Comments at 1; National Associations Reply at 3-4; NTCA Reply at 1; UTC Reply at 3; WISPA Reply at 3; Letter from Yosef Getachew, Counsel, Common Cause, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 18-238, at 3-4 (filed Nov. 15, 2018) (CC, PK & NHMC Nov. 15, 2018 Ex Parte Letter); see also, e.g., Teresa Hamm Reply at 1 ("Significant limitations of mobile service, including prohibitive cost, unreliable service, data caps and limited accessibility, should disqualify mobile service as a substitute for fixed home broadband."); Mayor W. Jeff Williams Reply at 1 (same); OTI Reply at 3 ("Data caps, limited bandwidth capacity, the inconsistency of signal strength, and complex pricing models limit mobile [broadband] from being a substitute for fixed [broadband]."); Leadership Conference Feb. 4, 2019 Ex Parte Letter at 3 ("[D]espite advances in mobile technology, mobile LTE service remains below broadband speed, . . . and wireless broadband is more expensive with more restrictions than wireline broadband. These serious drawbacks, along with consumer usage patterns, reaffirm the conclusion that mobile and fixed broadband services are complimentary [sic] rather than substitutions for each other.").

²² 2018 Report, 33 FCC Rcd at 1664, para. 14.

²³ 47 U.S.C. § 1302(d)(1).

²⁴ 2018 Report, 33 FCC Rcd at 1666-67, para. 18; 2016 Report, 31 FCC Rcd at 710, para. 24.

²⁵ ADTRAN Comments at 7-8; AT&T Comments at 7; CTIA Comments at 13-14; FSF Comments at 10-11; IIA Comments at 1-2; NCTA Comments at 5-6; R Street Comments at 4.

Notice, and there is significant support in the record for maintaining the current fixed 25 Mbps/3 Mbps speed benchmark.³⁰ In maintaining the benchmark of 25 Mbps/3 Mbps, we emphasize the benefit in maintaining a consistent approach to the section 706 inquiry from report to report. Given that the record lacks a compelling justification for raising the benchmark, we are especially cognizant of the value presented by a consistent benchmark, which better enables the Commission and the public to track deployment progress over time.

- Mbps/3 Mbps,³¹ we conclude that fixed services with speeds of 25 Mbps/3 Mbps continue to meet the statutory definition of advanced telecommunications capability; that is, such services "enable[] users to originate and receive high-quality voice, data, graphics, and video telecommunications."³² Record evidence indicates that our 25 Mbps/3 Mbps benchmark reflects current consumer demand for high-speed broadband services.³³ ADTRAN, for example, submits that the Commission's benchmark is "on the upper end of reasonableness, given the statute's definition of 'advanced telecommunications capabilities,' the Commission's interpretation of that term, consumer adoption rates for high speed services, and consumer demand for services such as 4K TV."³⁴ Moreover, we agree with WISPA that because a significant number of "current fixed broadband users are subscribing to service at speeds below the 25 Mbps/3 Mbps benchmark, the adoption rate for service at higher speeds does not yet support an increase in the threshold."³⁵ Indeed, the most recent Internet Access Service Report finds that 33% of residential fixed connections are below that speed.³⁶ As ITTA explains, in the future, "more audacious benchmarks, such as 100 Mbps downstream" may someday reflect consumer demand, but "the current market is not there yet."³⁷
- 14. Although we agree with INCOMPAS and NCTA that our fixed speed benchmark must continue to keep pace with consumer usage, demand, and technology,³⁸ the definition of advanced telecommunications capability in section 706 nowhere suggests that "advanced" necessarily means the

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27 See Communications Marketplace Report at paras. 5-46; see also CTIA Comments at 14 (reporting that "a staggering 95% of Americans now own a mobile device of some kind, and smartphone adoption is up across demographics" and that "wireless carriers are also already beginning to deploy the next generation of wireless connectivity . . . as part of the evolution of 4G LTE towards Gigabit LTE and 5G"); IIA Comments at 2 (explaining that "mobile devices are now ubiquitous" and are used for activities that include "bandwidth and data intensive applications like streaming multimedia content" and "completing homework assignments and applying for jobs"); AT&T Comments at 6 (explaining that "mobile broadband connections among consumers in the U.S. have exploded . . . soaring from 27 million connections in 2008 to about 291 million connections in 2018, as compared to 112 million fixed broadband connections").

²⁸ See ADTRAN Comments at 7-8; AT&T Comments at 7: FSF Comments at 3, 9-10; NCTA Comments at 5-6.

²⁹ See, e.g., WTA Comments at 2-3; NTCA Reply at 2; WISPA Reply at 4; Leadership Conference Feb. 4, 2019 Ex Parte Letter at 4-5.

³⁰ See ACA Comments at 7-8; ADTRAN Comments at ii, 6; AT&T Comments at 5; FSF Comments at 1; INCOMPAS Comments at 7; ITTA Comments at 3; NCTA Comments at 2-3; NTCA Comments at 6; SES Comments at 2-3; Verizon Comments at 1; WISPA Comments at 2; ACA Reply at 3-4; ADTRAN Reply at 1; Comcast Reply 4-5; WISPA Reply at 2.

³¹ See CCBC Comments at 2; CWA Comments at 3; INCOMPAS Comments at 3; OTI Comments at 31; PCCA Comments at 1-2; PK & CC Comments at 3; Richmond Garris Comments at 1; UTC Reply at 1; CC, PK & NHMC Nov. 15, 2018 Ex Parte Letter at 1-2; Leadership Conference Feb. 4, 2019 Ex Parte Letter at 3.

³² 47 U.S.C. § 1302(d)(1).

³³ 47 U.S.C. § 1302(d)(1); ACA Comments at 7-8; ADTRAN Comments at ii; ITTA Comments at 4-5; FSF Comments at 2, 4-6.

highest quality service possible.³⁹ Relatedly, while some commenters suggest that our fixed broadband benchmark should include gigabit speeds, we decline to set an advanced telecommunications capability benchmark that exceeds investment and deployment capabilities and far exceeds consumer demand.⁴⁰ The Commission's Form 477 data shows that in the areas where gigabit service is available, only 3.6% of Americans living in those areas are in fact subscribing to it.⁴¹ Notably, while 25 Mbps/3 Mbps remains our fixed speed benchmark for purposes of conducting our inquiry under section 706, we continue and expand upon our practice of showing progress of fixed services at multiple speed thresholds, including three speeds above the benchmark (50 Mbps/5 Mbps, 100 Mbps/10 Mbps, and 250 Mbps/25 Mbps), to enable the Commission and the public to monitor consumer usage trends and marketplace developments.

- 15. We agree with R Street that we should look at multiple speed tiers,⁴² but we continue to find, consistent with the *2018 Report* and longstanding Commission precedent, that a "single fixed speed benchmark provides a useful and administrable way of conducting our inquiry."⁴³ Indeed, use of a benchmark actually makes it easier to track progress over time. While we use a single benchmark for the purposes of defining advanced telecommunications capability under section 706, we also evaluate progress using a broad scope of speed tier data and different speed tiers across technologies.⁴⁴
- 16. Performance Benchmarks for Mobile Service. We also maintain our approach from the 2018 Report for evaluating advanced telecommunications capability deployment for mobile services. The inherent variability of mobile services, as well as certain data limitations, continue to make the use of a single benchmark unworkable.⁴⁵ Consequently, as was the case with the 2018 Report, we find that use of various data points is still the best method to assess the extent to which American consumers have access to mobile advanced telecommunications capability.⁴⁶ In addition, this approach allows us to better make comparisons over time in a consistent manner. We use 4G LTE as our starting point and present 4G LTE coverage data based on the Form 477 minimum advertised speeds of 5 Mbps/1 Mbps. Consistent with the findings of the previous report, we again find 4G LTE to be the best proxy for what is "advanced" in

³⁵ WISPA Comments at 2.

³⁶ See FCC, Internet Access Services: Status as of June 30, 2017 at Fig. 10 (WCB 2018), https://docs.fcc.gov/public/attachments/DOC-355166A1.pdf; see also FSF Comments at 2, 4-6 (discussing an overview of market data that reflects progress in broadband deployment).

³⁷ ITTA Comments at 6-7; *see also* FSF Comments at 7 ("[Section 706] does not direct the Commission to be 'audacious' or to shoot for the moon.").

³⁸ INCOMPAS Comments at 3-4; NCTA Comments at 4.

³⁹ 47 U.S.C. § 1302(d)(1); *see also* ADTRAN Reply at 4-5 ("ADTRAN's products support the much higher speeds-100 Mbps, 1 Gbps and even 10 Gbps -- that are now being deployed due to competition. But ADTRAN still believes that 25/3 Mbps is currently an appropriate benchmark consistent with the Congressional directives in Section 706.").

⁴⁰ AT&T Comments at 7; CTIA Comments at 9; INCOMPAS Comments at 3-4; NCTA Comments at 4. *But see* Free State Foundation Comments at 1 (stating that "[t]he Commission should not change benchmarks based on aspirations that do not reflect widespread consumer demand and that are not grounded in the text of Section 706"); ACA Reply at 4-5 ("[R]aising the benchmark is unwarranted.").

⁴¹ See FCC, Fixed Broadband Deployment Data from FCC Form 477, Data as of December 31, 2017.

⁴² R Street Comments at 2.

⁴³ See 2018 Report, 33 FCC Rcd at 1669, para. 25; see also 2016 Report, 31 FCC Rcd at 707, para. 19; Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the

today's market consistent with the requirements of 47 U.S.C. § 1302 in the mobile context.⁴⁷ But like any mobile technology, its performance can be highly variable, including the manner in which the mobile network in an area is configured, such as the type of backhaul connected to the cell or available spectrum in an area.⁴⁸ We therefore assess only the 4G LTE coverage in Form 477 where the mobile service provider claims that the 4G LTE service is capable of a minimum of 5 Mbps/1 Mbps.⁴⁹ We are not asserting, however, that 5 Mbps/1 Mbps is a mobile advanced telecommunications capability benchmark, and we supplement these results with Ookla's actual speed test data at a median speed of 10 Mbps/3 Mbps or higher.⁵⁰ This approach accounts for certain limitations of the current Form 477 mobile data, while helping us better understand the extent to which American consumers today are receiving speeds higher than 5 Mbps/1 Mbps. Overall, retaining this methodology allows consistent metrics by which we can evaluate whether mobile advanced telecommunications capability is improving for American consumers.⁵¹

17. The record supports retaining the current approach.⁵² CTIA expressed concern, however, that the 5 Mbps/1 Mbps and 10 Mbps/3 Mbps speed assessments may be unnecessarily rigid and suggested the Commission focus on "available data that demonstrates increasing consumer demand and use of mobile wireless services."⁵³ While we agree with CTIA that evaluating mobile advanced telecommunications capability poses additional challenges, as shown from this and the last Report, we note that the use of these two speed criteria is sufficiently administratively workable and provides an advantage for determining whether the LTE available in an area is adequate to be considered advanced telecommunications capability for mobile services.⁵⁴ The current criteria allow us to eliminate those areas where LTE may be less resilient, while providing a way of measuring improvement in those areas over time. We see no reason to deviate from our current methodology at this point in time. No other commenters argued that the method we use to analyze mobile advanced telecommunications capability, specifically, raises a concern.

⁴⁴ See infra Section IV.

⁴⁵ 2018 Report, 33 FCC Rcd at 1672, para. 30 (discussing inherent performance variation in a mobile environment due to weather, terrain, movement, and cell-loading, among many other factors); *id.* at 1672, para. 31, n.92 (discussing how the Form 477 deployment data, while an improvement over the data previously available, is currently subject to a Further Notice of Proposed Rulemaking to seek comment on how the Commission can improve its collections); *id.* at 1673-74, para. 33-34, n.97 (discussing how the combination of Form 477 data with on-the-ground data allows for the most accurate assessment of whether consumers have access to mobile advanced telecommunications capability, consistent with the requirements of 47 U.S.C. § 1302).

⁴⁶ *Id.* at 1673-74, para. 34.

⁴⁷ *Id.* at 1670-73, paras. 27-32.

⁴⁸ Id. at 1672, n.91.

⁴⁹ *Id.* at 1670, 1672-73, paras. 31-32 (assessing LTE at 5 Mbps/1 Mbps as a starting point for the analysis after analyzing the record and finding that LTE enables use consistent with the requirements of 47 U.S.C. § 1302, and speeds of 5 Mbps/1 Mbps or higher "are accepted by industry as consistent with an LTE network").

⁵⁰ *Id.* at 1670, para. 27. Many commenters argued that 10 Mbps was an appropriate download speed for mobile consistent with the requirements of the statute. *See id.* at 1671, n.82.

⁵¹ See infra Section IV.B.2; see also 2018 Report, 33 FCC Rcd at 1673-74, para. 34 ("By using the Form 477 data, and supplementing with Ookla data, however, we can show that, in those geographical areas (counties) where most consumers live, speeds appear to be well above 5 Mbps/1 Mbps, with a median of 10 Mbps/3 Mbps or higher."); 2018 Report, 33 FCC Rcd at 1674, n.97 ("We believe that by reporting these two metrics, we are able to evaluate the extent to which, in the context of the mobile environment, mobile services are providing consumers with 'high-

- 18. *Updating benchmarks*. The *Notice* sought comment on a methodology the Commission could use to update the benchmarks, noting that "[t]he Commission has in the past sought public input on finding 'a consistent, objective framework using predictable, reliable, and regularly-released public data' to establish an objective benchmark." In most cases, however, commenters advocating for an alternative approach fail to provide a methodology or reliable data sources to implement their general ideas. As was the case with the *2018 Report*, the only data-based approach in the record would use Form 477 subscription data to determine the fixed speed benchmark. We continue to believe this framework could have merit in the future, but it is still unclear how it would be applied to mobile services given that our Form 477 mobile subscription data collection currently is not sufficiently granular to make a meaningful evaluation of mobile service subscribership. To the extent that we adopt a methodology for updating our benchmarks, we believe it should be applicable to all services evaluated in this Report.
- benchmarks. Several commenters suggest adoption of a latency benchmark.⁵⁹ We continue to lack a reliable and sufficiently comprehensive data source for such analysis,⁶⁰ and commenters advocating a latency benchmark did not offer any workable options. In addition, as the Commission found in the *2018 Report*, "[a]pplying a latency benchmark for all broadband services, whether fixed terrestrial, satellite, or mobile broadband, that would exclude from our section 706 analysis any consideration of broadband services that, on their face, would appear to provide consumers with the relevant capabilities articulated in section 706(d)(1), would prevent a reliable or complete assessment of the deployment of advanced telecommunications capability."⁶¹ We also disagree with NTCA's assertion that "a measure of the *true* performance of certain broadband technologies [should include] the latency, data usage limits, and other technical capabilities of various offerings."⁶² We believe that such metrics fall outside of the scope of our section 706 inquiry.⁶³ As the Commission found in the *2018 Report*, "[w]hile factors such as data allowances or pricing may affect consumers' use of advanced telecommunications capabilities or influence decisions concerning the purchase of these services in the first instance, such considerations do

⁵² See AT&T Comments at 5; CTIA Comments at 17; Free State Foundation Comments at 6-7.

⁵³ CTIA Comments at 18.

⁵⁴ 2018 Report, 33 FCC Rcd at 1673-74, paras. 32-34.

⁵⁵ *Notice*, 33 FCC Rcd at 8390, para. 10.

⁵⁶ See ADTRAN Comments at 6 (suggesting that the Commission conduct detailed reassessments of benchmarks every three years and "look at both the services/applications that customers are accessing"); Fiber Broadband Comments at 2 (submitting that the Commission should examine progress on both a national and more granular basis and include all-fiber networks); CTIA Comments at 18 (suggesting "rigid benchmarks are not well-suited" for mobile deployment and the Commission should focus on data reflecting consumer demand and use of mobile services); OTI Comments at 30-32 (recommending an increase of the 25 Mbps/3 Mbps benchmark to reflect consumer needs and growing markets); NTCA Comments at 6-7 (suggesting a measure of latency, data usage limits and other technical capabilities); R Street Comments at 2-4 (suggesting that the "Commission should gather deployment data at [various] benchmarks, analyze the data holistically[,] keep those benchmarks consistent" and report on "latency, price and usage restrictions"); Speedchecker Comments at 1 (suggesting a benchmark that includes speed and a "Quality of Service requirement"); PK & CC Comments at 3, 4-5 (explaining that maintaining the current benchmark without considering future benchmarks "runs contrary to the Commission's congressional mandate"); Leadership Conference Feb. 4, 2019 Ex Parte Letter at 3 ("The Commission should take a forward-looking approach and raise the benchmark speed to recognize demand for gigabit networks capable of delivering more data and video-intensive services and applications over the Internet.").

⁵⁷ FSF Comments at 6, 7-8 (suggesting that "adoption of broadband speed benchmarks should be based on capabilities needed to support online services and applications that enjoy relatively wide everyday use by consumers"); *see also 2018 Report*, 33 FCC Rcd at 1669-70, para. 26.

not affect the underlying determination of whether advanced telecommunications capability has been deployed and made available to customers in a given area."⁶⁴ Furthermore, commenters in support of including non-performance metrics fail to cite reliable, comprehensive data sources that we could use, or sound methodologies for incorporating these metrics into the section 706 inquiry.⁶⁵

B. Demographic Information

20. Section 706(c) directs the Commission to compile a list of geographical areas that are not served by any provider of advanced telecommunications capability and, to the extent that data from the Census Bureau are available, to determine, for each unserved area, the population, the population density, and the average per capita income.⁶⁶ We include a demographic data analysis below in Section IV.C.⁶⁷ and show the availability of advanced telecommunications capability on a county-by county basis with demographic information in Appendix 5.⁶⁸

C. Schools and Classrooms

21. Section 706(b) also specifies that our annual inquiry concerning the availability of advanced telecommunications capability to all Americans must include "elementary and secondary schools and classrooms." As in the *2018 Report*, we continue to assess the current state of deployment in elementary and secondary schools in Section IV.F. below, using a short-term and long-term goal for broadband connectivity to schools of 100 Mbps per 1,000 students and staff, and 1 Gbps per 1,000 students and staff, respectively. To

D. Tribal Lands

22. We continue to recognize the need to promote and encourage access to broadband on Tribal lands that do not have sufficient access today.⁷¹ Because the *2018 Report* showed deployment of advanced telecommunications capability on certain Tribal lands lags deployment in other geographic

(Continued from previous page) —	
⁵⁸ 2018 Report, 33 FCC Rcd at 1669-70, para. 26.	

⁵⁹ Fiber Broadband Comments at 3; NTCA Comments at 6-7; R Street Comments at 2, 4; UTC Reply at 2-3.

⁶⁰ 2018 Report, 33 FCC Rcd at 1674-75, para. 36.

⁶¹ *Id.* at 1675, para. 37; *see also* Hughes Reply at 5-6 (arguing that Common Cause and NTCA fail to refute the Commission's finding in the *2018 Report* that "many consumers choose relatively higher latency fixed satellite broadband services that meet the 25 Mbps/3 Mbps speed benchmark and consume services such as Skype, Netflix, and YouTube that fall within the statutory definition of 'advanced telecommunications capability'").

⁶² NTCA Comments at 6-7.

⁶³ FSF Comments at 10 (stating that the Commission "should not change benchmarks based on aspirations that do not reflect widespread consumer demand and that are not grounded in the text of [s]ection 706"); ITTA Comments at 4-5 (explaining that the 25 Mbps/3 Mbps benchmark is "the best vehicle for truly evaluating the progress of broadband deployment").

^{64 2018} Report, 33 FCC Red at 1675, para. 39.

⁶⁵ NTCA Comments at 6-7; OTI Comments at 10; PK & CC Comments at 9; UTC Reply at 2-3; Hughes Reply at 5-6 ("Common Cause and NTCA are unable to identify any data sources or methodologies that would allow the Commission to adopt such benchmarks for its Section 706 analysis.").

^{66 47} U.S.C. § 1302(c).

⁶⁷ See infra Section IV.C.

⁶⁸ See infra Appendix 5.

^{69 47} U.S.C. § 1302(b).

areas, the *Notice* sought comment on additional measures to track deployment on Tribal lands.⁷² Recognizing that Tribal lands are often rural, high-cost areas, presenting significant obstacles to broadband deployment, the *Notice* also sought comment on additional considerations, such as rights-of-way or interconnection, preventing deployment that would otherwise occur.⁷³ The record here provides limited information on additional ways we should track the progress of broadband deployment on Tribal lands.⁷⁴ NDIA suggests we provide greater detail regarding broadband deployment in rural, city, suburban, and *Tribal* localities while NRECA cautions that our Form 477 data overstate broadband deployment on Tribal Lands.⁷⁵ We recognize that broadband deployment on Tribal lands continues to lag behind and is less robust than in urban, and rural, areas. Because of the limited record, we find it even more critical for us to continue to monitor and analyze any relevant data to the extent they become available. Below, in Section IV.D., we present our measurement of deployment data on Tribal lands, acknowledging the challenges to increasing broadband services on Tribal lands.

E. Disaster-Affected Areas

23. We find that reporting separately on the progress of disaster-affected areas is the most viable approach to assess our efforts and those of service providers to improve and restore broadband networks in such areas. The *Notice* sought comment on how to address natural disasters in reporting on the progress of deploying broadband. In the wake of a natural disaster, various commenters contend that our section 706 report should include deployment data that address disaster-affected areas. ADTRAN contends that in response to natural disasters, broadband providers' critical goals include "service reliability and service restoration," and because networks are more resilient today, reporting on these areas would not negatively impact the Commission's assessment of whether deployment is "reasonable and timely." Public Knowledge and Common Cause and Free Press argue that including broadband deployment measurements for Puerto Rico and other U.S. territories "ensure[s] the disaster stricken areas are not left behind." While ACA recommends that we "exclude storm-damaged regions from [our] overall deployment findings" and "report[] separately on progress to restore broadband availability in such regions, other commenters suggest we collect more comprehensive data on these areas and study the impacts of natural disasters.

⁷¹ RAY BAUM'S Act of 2017 requires the Commission to evaluate and report on broadband coverage on Tribal lands in advance of conducting a proceeding to address unserved Tribal areas. RAY BAUM'S Act of 2018, § 508.

⁷² Notice, 33 FCC Rcd at 8391, para. 14; 2018 Report, 33 FCC Rcd at 1681-87, paras. 50-58.

⁷³ Connect America Fund et al., Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, 17818-19, para. 479 (2011) (*USF/ICC Transformation Order*), aff'd sub nom. In re: FCC 11-161, 753 F.3d 1015 (10th Cir. 2014); see also Connect America Fund et al., Report and Order, Order and Order on Reconsideration, and Further Notice of Proposed Rulemaking, 31 FCC Rcd 3087 (2016) (*Rate-of-Return Reform Order*).

⁷⁴ See NDIA Comments at 5; NRECA Comments at 7-8.

⁷⁵ NDIA Comments at 5; NRECA Comments at 7-8.

⁷⁶ *Notice*, 33 FCC Rcd at 8391, para. 15.

⁷⁷ Free Press Comments at 2-4; OTI Comments at 33-34; PK & CC Comments at 3.

⁷⁸ ADTRAN Comments at ii, 12.

⁷⁹ Free Press Comments at 3-4; PK & CC Comments at 3 (also suggesting "any area that no longer has infrastructure because of flooding or wildfire or other disaster should not be considered served until service is actually restored"); CC, PK & NHMC Nov. 15, 2018 *Ex Parte* Letter at 4-5.

⁸⁰ ACA Comments at 9-10 (suggesting the FCC "reasonably account" for disaster-affected areas).

⁸¹ PK & CC Comments at 19; OTI Comments at 34.

reporting the available data from disaster-affected areas but, in doing so, we will report the data separately so that such damage does not artificially deflate progress in deployment and that we can continue to track progress in rehabilitating such networks. We take this approach in reporting data from the U.S. Territories where infrastructure damage occurred in Puerto Rico and the U.S. Virgin Islands from the 2017 hurricanes. Although the current record in this proceeding is limited, we believe our data collection and analysis remain vital to help fund and restore wireless and wireline infrastructure networks in the face of natural disasters.⁸²

IV. BROADBAND DEPLOYMENT AND AVAILABILITY

A. Data Sources and Methodologies

- 24. We rely primarily upon the Commission's Form 477 deployment data to evaluate consumers' broadband options for fixed services.⁸³ We agree with ACA that the Form 477 data "provides a sound basis for the Commission's analyses and findings under Section 706 regarding the progress of fixed broadband deployment to all Americans."⁸⁴ We recognize that the Form 477 data collection is not perfect, and the Commission has an open proceeding considering ways to improve the accuracy and granularity of that data collection.⁸⁵ While many commenters offer criticism of the Form 477 data,⁸⁶ as well as recommendations for how to improve the Commission's data,⁸⁷ this Report is not an appropriate vehicle for the Commission to make such changes to the data collection.
- 25. Consistent with previous findings by the Commission,⁸⁸ the Form 477 data remain the most thorough and accurate data available to the Commission for this analysis. For deployment data prior to 2014, we rely on data from the State Broadband Initiative (SBI), which prior to the Commission's revision of the Form 477 data collection, were the most comprehensive and geographically granular deployment data publicly available.⁸⁹ We note that the Form 477 deployment data and the SBI data report service at the census block level.⁹⁰ For purposes of this report, a whole census block is classified as served if the Form 477 or the SBI data indicate that service can be provided anywhere in the census block.

⁸² PK & CC Comments at 19; OTI Comments at 34.

⁸³ Certain data for past years has been revised since the *2018 Report* in light of revised Form 477 data submitted by broadband providers.

⁸⁴ ACA Comments at 8; *see also* AT&T Comments at 5 ("AT&T agrees with the Commission's proposal to use the same methodologies used in the 2018 Report to assess mobile broadband deployment for the next Broadband Deployment Report."); ITTA Comments at 12 ("[C]ontinuing to utilize Form 477 data presents the analytical advantage of enabling longitudinal comparisons.").

⁸⁵ The Commission continues to analyze whether, and how, the Form 477 data collection might be revised to address concerns about accuracy. *See Modernizing the FCC Form 477 Data Program*, Further Notice of Proposed Rulemaking, 32 FCC Rcd 6329, 6337, paras. 26-27 (2017) (*Modernizing the FCC Form 477 Data Program*). In this report, we use the best data available while recognizing improvements to the data may be needed. We note that our analysis may understate or overstate consumers' options for services to the extent that broadband providers fail to report data or misreport data. *See* FCC, *Explanation of Broadband Deployment Data* (Nov. 20, 2017), https://www.fcc.gov/general/explanation-broadband-deployment-data (describing quality and consistency checks performed on providers' submitted data and explaining any adjustments made to the Form 477 data as filed).

⁸⁶ See, e.g., Microsoft Comments at ii; NRECA Comments at 7-8; OTI Comments at 6-7; PCCA Comments at 2; PK & CC Comments at 8; National Associations Reply at 2; CC, PK & NHMC Nov. 15, 2018 Ex Parte Letter at 2-3.

⁸⁷ See, e.g., CWA Comments at 5-6; CTIA Comments at 3; MDTC Comments at Attach. at 5; Free Press Comments at 4-5; Speedchecker Comments at 4.

^{88 2018} Report, 31 FCC Rcd at 1677, para. 43.

⁸⁹ See Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act, GN Docket No. 11-121,

Therefore, it is not necessarily the case that every household,⁹¹ housing unit, or person will have coverage of a given service in a census block that this Report indicates is served.⁹² Nonetheless, we find that using a consistent unit of measurement (the census block) is an effective tool in measuring progress over time.

- 26. Furthermore, although staff examine FCC Form 477 data for quality and consistency, the data may understate or overstate deployment of services to the extent that broadband providers misreport or fail to report data.⁹³ Staff evaluate deployment data for fixed terrestrial services using 2010 census block population data that the Commission staff has updated to account for population growth and economic development.⁹⁴ We present an analysis of deployment data for fixed terrestrial services and for mobile LTE. In general, we report data separately on the U.S. Territories because the data for 2017 may significantly overstate current deployment in Puerto Rico and the U.S. Virgin Islands, which account for over 92% of the total combined population of the U.S. Territories. We remain uncertain as to the current deployment of broadband services in these areas given the damage to infrastructure in Puerto Rico and the U.S. Virgin Islands from Hurricanes Maria and Irma in 2017.
- 27. Fixed Terrestrial Services. We find that our Form 477 deployment data for fixed terrestrial services remain the most reliable and comprehensive data to assess the availability of fixed terrestrial services to American consumers. Using the Form 477 data since 2014, we evaluate the deployment of fixed terrestrial services with a minimum advertised speed of 10 Mbps/1 Mbps, 25 Mbps/3 Mbps, 50 Mbps/5 Mbps, 100 Mbps/10 Mbps, and 250 Mbps/25 Mbps. For 2013, which pre-dates the current version of the Form 477 data collection, we evaluate the availability of fixed terrestrial services using SBI data. The SBI data collection compiled data on 25 Mbps/3 Mbps and 100 Mbps/10 Mbps, but not the other download and upload speed combinations presented in this report.⁹⁵ Therefore, where applicable, we use the most comparable speed combinations collected in the 2013 SBI data as reasonable proxies. For 10 Mbps/1 Mbps, we use SBI reported speed of 10 Mbps/768 kbps, and for 50 Mbps/5 Mbps, we use the SBI reported speed of 50 Mbps/6 Mbps. The SBI data does not include a reasonable proxy for 250 Mbps/25 Mbps, so we do not report estimates for that speed for 2013. We provide separate

- ⁹² We note that these coverage estimates represent deployment of networks to consumers and do not indicate the extent to which service providers affirmatively offer service to residents in the covered areas. Further, this analysis likely overstates the coverage experienced by some consumers, especially in large or irregularly shaped census blocks. We therefore acknowledge that this analysis may overstate or understate the deployment of fixed and mobile services. *See 2018 Report*, 33 FCC Rcd at 1677, para. 43.
- ⁹³ See Federal Communications Commission, Explanation of Broadband Deployment Data (Dec. 12, 2018), https://www.fcc.gov/general/explanation-broadband-deployment-data (describing quality and consistency checks performed on providers' submitted data and explaining any adjustments made to the Form 477 data as filed).

⁹⁰ For purposes of this form, fixed broadband connections are available in a census block if the provider does, or could, within a service interval that is typical for that type of connection—that is, without an extraordinary commitment of resources—provision two-way data transmission to and from the Internet with advertised speeds exceeding 200 kbps in at least one direction to end-user premises in the census block. FCC, FCC Form 477 Local Telephone Competition and Broadband Report Instructions at 17 (2016), https://transition.fcc.gov/form477/477inst.pdf.

⁹¹ A household consists of all the people who occupy a housing unit. A house, an apartment or other group of rooms, or a single room, is regarded as a housing unit when it is occupied or intended for occupancy as separate living quarters; that is, when the occupants do not live with any other persons in the structure and there is direct access from the outside or through a common hall. U.S. Census, Current Population Survey Subject Definitions (Aug. 25, 2015), https://www.census.gov/programs-surveys/cps/technical-documentation/subject-definitions.html#household.

deployment estimates for fixed services that include satellite services from 2014 to 2017. Finally, we use Form 477 subscribership data to calculate adoption rates for fixed terrestrial services.

- 28. Satellite Services. The Form 477 deployment data for satellite broadband indicate that satellite service offering 25 Mbps/3 Mbps speeds is available to nearly all of the population.⁹⁷ These data could overstate the deployment of these services.⁹⁸ In Appendix 9, we provide deployment estimates for all fixed services, including satellite, from 2014 to 2017.⁹⁹ Unless stated otherwise, we base the data presented on fixed terrestrial services, which do not include satellite.
- 29. *Mobile Services*. While recognizing certain limitations of the Form 477 data, we nonetheless elect to employ the Form 477 LTE technology coverage data in this Report, because they are the most reliable and comprehensive data that we have to assess the availability of mobile LTE to American consumers at a minimum advertised speed of 5 Mbps/1 Mbps. For 2013, we use SBI data, which only include a speed component for mobile services, ¹⁰¹ while for 2014 through 2017, we use the Form 477 LTE deployment shapefiles with a minimum advertised speed of 5 Mbps/1 Mbps. SBI data are not available for 5 Mbps/1 Mbps, so our analysis of the 2013 data uses maximum advertised speeds of 6 Mbps/768 kbps, which are the most comparable speeds collected in the SBI data in this time period. As the Commission has done in previous reports, we employ the centroid methodology in evaluating the Form 477 deployment data for LTE. ¹⁰² We apply the same methodology as we use for fixed services and consider a census block to be covered by LTE services if there is at least one service provider serving that census block that reports 5 Mbps/1 Mbps as the minimum advertised speed, based on their Form 477 submission. ¹⁰³
- 30. We recognize, however, that actual speeds tend to be much faster than the minimum advertised speed. Therefore, we also present estimates based on Ookla speed test data to evaluate the availability of LTE with a median actual speed of 10 Mbps/3 Mbps or higher. We rely on the Ookla data¹⁰⁴ to supplement our Form 477 analysis, primarily because it allows us to better evaluate the extent to

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⁹⁴ Commission Staff developed population estimates for 2011-2017 by updating the 2010 census block population
estimates. These estimates are based upon annual U.S. Census mid-year county (or county-equivalent) level
population and housing unit estimates for the fifty states, the District of Columbia, and Puerto Rico. These data are
used in conjunction with U.S. Census Bureau Tiger data to indicate new roads, i.e., new housing development, to
distribute population amongst the census blocks comprising each county (or county-equivalent). Federal
Communications Commission, Staff Block Estimates, https://www.fcc.gov/reports-research/data/staff-block-
estimates.

⁹⁵ The fixed terrestrial estimates using the SBI data are based upon deployment data for the following services: Asymmetric xDSL, Symmetric xDSL, Other Wireline (all copper-wire based technologies other than xDSL), Cable Modem—DOCSIS 3.0, Cable Modem—Other, optical carrier (fiber to the home or FTTH), Fixed Terrestrial Wireless (provisioned/equipped over licensed spectrum or over spectrum used on an unlicensed basis), Electric Power Line, and All Other. For 2013, we exclude the satellite deployment data from our analysis because the December 2013 SBI data for satellite show significant inconsistencies in the data. *2015 Report*, 30 FCC Rcd at 1416, para.76.

⁹⁶ See infra Appendix 9 (Deployment (Millions) of Fixed Services at Different Speed Tiers (2014-2017)).

⁹⁷ More specifically, the data indicate that satellite service offering 25 Mbps/3 Mbps speeds is available to all but 0.03% of the population.

⁹⁸ While satellite signal coverage may enable operators to offer services to wide swaths of the country, overall satellite capacity may limit the number of consumers that can actually subscribe to satellite service at any one time. *Notice*, 33 FCC Rcd at 8392, para. 17, n.46; *2018 Report*, 33 FCC Rcd at 1681, para. 51, n.148.

⁹⁹ See infra Appendix 9 (Deployment (Millions) of Fixed Services at Different Speed Tiers (2014-2017)).

¹⁰⁰ For fixed services, the Commission has been able to rely upon FCC Form 477 reported maximum advertised speeds to track actual speeds. However, we note that the relationship between actual speeds and the advertised speed reported in the FCC Form 477 for mobile services is more complex because minimum advertised speed is

which the typical consumer receives speeds of 10 Mbps/3 Mbps or higher, and these data provide us with the greatest number of observations of actual speeds that customers receive. As the Commission has done previously, our analysis of the availability of mobile LTE services with a median speed of 10 Mbps/1 Mbps, includes actual speed test data in counties with at least 300 test observations in each time frame. The more densely populated counties have a higher likelihood of being included in this analysis because there generally are more observations in those geographical areas with a higher population density. Although we do not have reliable on-the-ground speed data for every county in the United States, the Ookla data cover approximately 93% of the population of the United States, and as such, can reasonably be used to show progress over time.

31. Schools. For purposes of this Report, we assess deployment in elementary and secondary schools based upon the best publicly available data, specifically that analyzed in EducationSuperHighway's 2018 State of the States Report and the Consortium for School Networking (CoSN) 2018-2019 Annual Infrastructure Report. The 2018 State of the States Report tracks public schools' progress toward the Commission's goals for K-12 connectivity using the Commission's FCC Form 471 data and additional outreach efforts to E-Rate applicants for clarifications on their broadband purchases. The 2018 State of the States Report provides an analysis of schools meeting the connectivity goals using fiber and other scalable broadband connections, using a sample of public school districts in each state. CoSN's report summarizes the results of its survey of a much smaller number of school districts regarding the current state of broadband and technology infrastructure in U.S. school systems.

B. Broadband Deployment Estimates

32. In Figures 1 through 3 below, we present our measurement of deployment, evaluating progress by comparing deployment in the present year to deployment in the previous four years. For purposes of this Report, we aggregate federally recognized Tribal lands into 4 Tribal Lands categories, the Lower 48 States; Tribal Statistical Areas, Alaskan Villages, Alaskan Villages, Alaskan Homelands.

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reported by the mobile providers, and different mobile providers estimate their minimum advertised speed based on
various points of their actual speed distribution. 2018 Report, 33 FCC Rcd at 1678, para. 46 & n.133. By contrast,
the Ookla data provide us with the actual speeds that consumers experience.

¹⁰¹ The SBI data for mobile services are not directly comparable to the Form 477 data. First, we are unable to limit the SBI data to LTE technology because the SBI data do not identify mobile services by technology. Second, the SBI data include mobile coverage area boundaries by *maximum* advertised download/upload speeds whereas the Form 477 collects data for mobile services by *minimum* advertised speeds. *2018 Report*, 33 FCC Rcd at 1678-79, paras. 46-47.

¹⁰² See, e.g., 2018 Report, 33 FCC Rcd at 1678, para. 46.

previously available on a national scale, the Commission has initiated a rulemaking to consider further improvements in the Form 477 data collection process, as noted above. *See generally Modernizing the FCC Form 477 Data Program*, 32 FCC Rcd 6329. Also, we note that questions have arisen in various contexts regarding the bases for certain filings. For example, in the context of the Mobility Fund Phase II (MF-II) proceeding, the Commission determined that a separate, one-time data collection was necessary to ensure that all mobile LTE providers were using a consistent standard when generating maps of their deployment of 5 Mbps downstream 4G LTE coverage. *Connect America Fund, Universal Service Reform—Mobility Fund*, Order on Reconsideration and Second Report and Order, 32 FCC Rcd 6282, 6287, 6298, paras. 7, 10, 34 (2017). No final conclusions regarding those data and MF-II eligibility have yet been drawn since, in December 2018, the Commission launched an investigation into potential violations of MF-II mapping rules by service providers in submitting the data and the MF-II challenge process has not yet concluded. *See* News Release, FCC, FCC Launches Investigation Into Potential Violations of Mobility Fund Phase II Mapping Rules (Dec. 7, 2018), https://docs.fcc.gov/public/attachments/DOC-355447A1.pdf.

report on deployment for each combination of fixed and mobile deployment.¹¹⁷

1. Deployment of Fixed Advanced Telecommunications Capability

33. Figure 1 shows the deployment of fixed terrestrial broadband at speeds of 25 Mbps/3 Mbps, the Commission's current benchmark for fixed advanced telecommunications capability. As of year-end 2017, 93.5% of the overall population had coverage of such services, up from 91.9% in 2016. Nonetheless, the gap in rural and Tribal America remains notable: over 26% of Americans in rural areas and 32% of Americans in Tribal lands lack coverage from fixed terrestrial 25 Mbps/3 Mbps broadband, as compared to only 1.7% of Americans in urban areas. The data demonstrate, however, that the gap between urban and rural or Tribal areas has narrowed each year over the last five years.

		`	,							
	2013		2014		2015		2016		2017	
	Pop.	%								
United States	263.971	83.6%	284.246	89.4%	287.853	89.9%	296.373	91.9%	304.405	93.5%
Rural Areas	29.077	47.6%	37.174	60.3%	38.271	61.5%	42.677	67.8%	46.960	73.6%
Urban Areas	234.893	92.3%	247.072	96.4%	249.582	96.7%	253.695	97.7%	257.446	98.3%
Tribal Lands	1.449	37.1%	2.245	57.1%	2.290	57.8%	2.520	63.1%	2.727	67.9%
Pop. Evaluated	315.596		317.954		320.289		322.518		325.716	

Fig. 1
Deployment (Millions) of Fixed Terrestrial 25 Mbps/3 Mbps Services

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¹⁰⁴ We note that generally, crowd-sourced data can provide the benefit of generating a large volume of data at a very low cost and of measuring actual consumer experience on a network in a wide variety of locations, indoor and outdoor. Crowd-sourced data, however, are often not collected pursuant to statistical sampling techniques, and may require adjustments to construct a representative sample from the raw data. For instance, crowd-sourced mobile data come from a self-selected group of users, and there often is little control for most tests regarding such parameters as when people implement the test, whether the test is performed indoors or outdoors, the geographic location of the tester, and the vintage of the consumer's device. *2018 Report*, 33 FCC Rcd at 1679, para. 47, n.139.

¹⁰⁵ The data collected by the Ookla Speedtest mobile app include test results for download speed, upload speed, and latency, as well as other information, such as the location of the test and operating system of the handset. The results presented in this Report are based on tests that were executed in the second half of the year for 2014, 2015, 2016 and 2017 on the smartphone's cellular connection, and using LTE technology. Test data was excluded if it had missing GPS location data or if the reported download or upload speed was less than zero or greater than 100 Mbps. Multiple tests by a single phone in the same locality and in the same day were averaged (using the median).

¹⁰⁶ 2018 Report, 32 FCC Rcd at 1679, para. 47. This sample size threshold applies to each county for each time frame (2H2014, 2H2015, 2H2016, and 2H2017): if a county does not have at least 300 observations during any of these time frames, it is not included in the actual speed analysis. The 300 observations threshold is a conservative threshold, and is based on a general mean and median sample size analysis. We consider a county to have a sufficient sample size if there are at least 300 total observations in each of the four years after the cleaning and trimming rules have been applied. County geography is assigned using the latitude and longitude coordinates that are collected during each Ookla speed test, via the device's GPS. This allows us to evaluate actual median upload and download speeds at the county level, in each year of the four-year time period, for counties in which approximately 93% of the U.S. population live (not including the U.S. Territories). If a census block has LTE coverage of at least 5 Mbps/1 Mbps based on the Form 477 minimum advertised speeds, it is assigned the median upload and download speeds that are calculated for the county in which it is located, which allows us to evaluate the mobile broadband speeds for each census block within the United States.

34. In 2016, 25 Mbps/3 Mbps satellite service was reported for the first time in the Form 477 data collection. If we include satellite service in our estimate, fixed 25 Mbps/3 Mbps service is deployed to nearly every American as of December 2017. In the service was reported for the first time in the Form 477 data collection. In the Form 477 data collection data collection. In the Form 477 data collection data collection. In the Form 477 data collection data collection data collection data collection. In the Form 477 data collection data colle

2. Deployment of Mobile LTE

35. Figure 2a shows that as of year-end 2017, approximately 99.8% of the American population lives in geographical areas covered by mobile LTE with a minimum advertised speed of 5 Mbps/1 Mbps, 120 while approximately 98% had such coverage in 2013. Further, between 2013 and 2017, the percentage of Americans living in rural areas with coverage of LTE at 5 Mbps/1 Mbps increased from approximately 90% to approximately 99%. 121 The percentage of Americans living in Tribal lands with coverage of mobile LTE rose from approximately 87% in 2013, to 97% in 2017. Figure 2b also shows some improvement since 2016 in the deployment of mobile LTE services at median speeds of 10 Mbps/3 Mbps for the United States and urban areas.

Fig. 2a Deployment (Millions) of Mobile LTE with a Minimum Advertised Speed of 5 Mbps/1 Mbps

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⁰⁷ The percentage of the population in our analysis is based on the total U.S. population, not including the U.S.
Territories, for which we separately report our results. The Ookla speed data population in Figure 2b is a subset of
he total U.S. population evaluated in Figure 2a, and refers to the population in the counties for which we believe
here are a statistically significant number of on-the-ground speed test observations. We do not have Ookla speed
data for the U.S. Territories. In 2017, for example, the U.S. population, not including the U.S. territories, was
325.716 million, whereas in Figure 2b, we use 302.940 million as the basis for our 2017 calculations. The
population evaluated figure, 302.940 million, is the population for the U.S., excluding the U.S. Territories and the
population in the counties without a sufficient number of reliable on-the-ground speed test data observations.

¹⁰⁸ See EducationSuperHighway, 2018 State of the States Report (Oct. 2018) https://s3-us-west-1.amazonaws.com/esh-sots-pdfs/2018%20State%20of%20the%20States.pdf; Consortium for School Networking, CoSN's 2018-2019 Annual Infrastructure Report (Jan. 2019)
https://www.cosn.org/sites/default/files/CoSNs%202018%202019%20Annual%20Infrastructure%20Survey%20Report%20final_0.pdf.

¹⁰⁹ See EducationSuperHighway, 2018 State of the States Report: About the Data, at 28 (Oct. 2018); see also EducationSuperHighway: Methodology (Oct. 2018) https://s3-us-west-1.amazonaws.com/esh-sots-pdfs/methodology_2018_state_of_the_states.pdf. EducationSuperHighway uses a sample of public school districts receiving broadband services including, but not limited to, fiber services in funding year 2018 in its dataset. See id.

¹¹⁰ See ADTRAN Comments at 11. See EducationSuperHighway Methodology at 4.

¹¹¹ CoSN's 2018-2019 Annual Infrastructure Survey Report at 3.

¹¹² Unless otherwise noted, the deployment percentage estimate for fixed terrestrial services and/or mobile services is the population in the census blocks with coverage for the service divided by the total population in the area being considered (e.g., United States, all rural areas, all urban areas). We present additional deployment data for each state, the District of Columbia, and the U.S. Territories in the Appendices. *See infra* Appendices 1, 2 and 3 (reporting figures for each state and the District of Columbia) and Appendix 4 (reporting figures for each U.S. Territory). We present additional deployment data for each Tribal lands and state in Appendix 7.

¹¹³ These areas include: (1) Joint Use Areas; (2) legal, federally-recognized American Indian area consisting of reservation and associated off-reservation trust land; (3) legal, federally-recognized American Indian area consisting (continued....)

	2013		2014		2015		2016		2017	
	Pop.	%	Pop.	%	Pop.	%	Pop.	%	Pop.	%
United States	308.527	97.8%	315.506	99.2%	318.923	99.6%	321.347	99.6%	325.117	99.8%
Rural Areas	55.044	90.2%	59.463	96.5%	60.969	97.9%	61.802	98.2%	63.204	99.1%
Urban Areas	253.483	99.6%	256.043	99.9%	257.954	100.0%	259.545	100.0%	261.912	100.0%
Tribal Lands	3.386	86.7%	3.626	92.2%	3.722	93.9%	3.788	94.9%	3.896	97.0%
Pop. Evaluated	315.596		317.954		320.289		322.518		325.716	

Fig. 2b
Deployment (Millions) of Mobile LTE with a Median Speed of 10 Mbps/3 Mbps¹²²

	2014	201	5	2	016	2017		
	Pop.		Pop.	%	Pop.	%	Pop.	%
United States	237.210	80.1%	245.843	82.5%	261.898	87.3%	269.494	89.0%
Rural Areas	32.638	70.3%	32.193	69.3%	32.962	70.1%	32.966	69.3%
Urban Areas	204.573	81.9%	213.650	85.0%	228.936	90.5%	236.528	92.6%
Pop. Evaluated	296.204	93.2%	297.899	93.0%	300.036	93.0%	302.940	93.0%

¹¹⁴ Tribal statistical areas are statistical American Indian areas. These are defined for a federally recognized Tribe that does not have reservation or off-reservation trust land, specifically a Tribal designated statistical area (TDSA) or Oklahoma Tribal statistical area (OTSA).

¹¹⁵ Alaskan Native village statistical area.

¹¹⁶ Hawaiian Home Lands established by the Hawaiian Homes Commission Act of 1921.

¹¹⁷ Data reported in this Report differs from data reported in the Broadband Deployment section of the December 2018 Communications Marketplace Report in two minor respects. See Communications Marketplace Report at paras. 247-64. First, data reported at speeds of 10 Mbps/1 Mbps or greater in this Report are slightly different because of corrected Form 477 providers' data that were recently submitted and thus not included in the Communications Marketplace Report. Second, the demographic data presented in this Report relies upon recently released income and poverty measures from the American Community Survey (ACS) Five-Year Estimates for 2013-2017 whereas the Communications Marketplace Report relied upon the ACS Five-Year Estimates for 2012-2016.

¹¹⁸ 2018 Report, 32 FCC Rcd at 1681, para. 51.

¹¹⁹ *Id.* at 1681, para. 51, n.148; *see infra* Appendix 9 (Deployment (Millions) of Fixed Services at Different Speed Tiers (2014-2017)). These data could overstate the deployment of these services. The data indicate that fixed 25 Mbps/3 Mbps services are deployed to 93% of Americans residing in the U.S. Territories.

¹²⁰ We present additional deployment data for Mobile LTE services for each state, the District of Columbia, the U.S. Territories in the Appendices and each category of Tribal land in the appendix. *See infra* Appendices 1, 2 and 3 (reporting figures for each state and the District of Columbia), Appendix 4 (reporting figures for each U.S. Territory), and Appendix 7 (reporting figures for Tribal lands and states).

3. Deployment of Fixed Services and Mobile LTE

36. Figure 3a shows deployment across all geographic areas for both fixed terrestrial 25 Mbps/3 Mbps services *and* 5 Mbps/1 Mbps mobile LTE.¹²³ Overall, as of year-end 2017, approximately 304 million Americans, or 93.4% of the population, are covered by both 25 Mbps/3 Mbps fixed terrestrial service and mobile LTE with a minimum advertised speed of 5 Mbps/1 Mbps, an increase from 91.7% in 2016.¹²⁴ In rural areas, 73.2% of Americans are covered by both services, as opposed to 98.3% of Americans in urban areas, up from 67.1% and 97.7%, respectively, in 2016. On Tribal lands, 67.6% of Americans have coverage for both services up from 62.4% in 2016. Figure 3b shows deployment of fixed terrestrial speeds of 25 Mbps/3 Mbps and mobile LTE with median speed of 10 Mbps/3 Mbps. As of December 31, 2017, approximately 260 million Americans live in geographic areas covered by both services, an increase of 10.1 million Americans since 2016.

Fig. 3a
Deployment (Millions) of Fixed Terrestrial 25 Mbps/3 Mbps Services and Mobile LTE Based on a
Minimum Advertised Speed of 5 Mbps/1 Mbps

	2013		2014		2015		2016		2017	
	Pop.	%								
United States	261.977	83.0%	283.386	89.1%	287.387	89.7%	295.905	91.7%	304.149	93.4%
Rural Areas	27.776	45.5%	36.489	59.2%	37.840	60.8%	42.231	67.1%	46.709	73.2%
Urban Areas	234.200	92.0%	246.897	96.3%	249.547	96.7%	253.674	97.7%	257.440	98.3%
Tribal Lands	1.385	35.5%	2.206	56.1%	2.258	57.0%	2.491	62.4%	2.716	67.6%
Pop. Evaluated	315.596		317.954		320.289		322.518		325.716	

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¹²¹ The results reported in Figure 2a for 2013 are based upon SBI data for mobile services at *maximum* advertised speeds of 6 Mbps/768 kbps as compared to the Form 477 data for mobile services which are based on *minimum* advertised speeds of 5 Mbps/1 Mbps.

¹²² The analyses in Figures 2a, 3a and 3c include all areas of the United States and are based on Form 477 data. In contrast, the analyses in Figures 2b, 3b and 3d are based on Ookla data and exclude any county (and its associated census blocks) for which there is insufficient Ookla data. In addition, we do not report results for Tribal lands in Figures 2b, 3b, and 3d because we have concerns with the representativeness of the Ookla data for these areas. Tribal areas not only typically have fewer speed tests, but there are also fewer of these areas relative to urban and rural areas. Thus, deployment estimates for tribal areas are more sensitive to sample variance. The population figure reported in the bottom row of these figures is the population evaluated for the reported time period and the percentage is the percentage of the U.S. population evaluated. Accordingly, the 302.94 population evaluated figure for 2017 in Figure 2b represents 93% of the overall population in the 50 U.S. states (i.e., 302.94/325.716=0.93). Regardless of our deployment estimates for mobile LTE with a median speed of 10 Mbps/3 Mbps, Americans residing in the counties without sufficient Ookla data to create a statistically significant county sample to be included in Figures 2b, 3b, and 3d, receive minimum advertised or expected speeds of 5 Mbps/1 Mbps, and likely receive mobile services with speeds higher than 5 Mbps/1 Mbps.

¹²³ We present additional deployment data for terrestrial fixed 25 Mbps/3 Mbps and/or Mobile LTE services in an appendix. *See infra* Appendices 1, 2 and 3 (reporting figures for each state and the District of Columbia), Appendix 4 (reporting figures for each U.S. Territory), Appendix 5 (reporting figures for each state, the District of Columbia, and each county), Appendix 6 (reporting figures by urban and rural areas within each state, the District of Columbia and each county), and Appendix 7 (reporting figures for each U.S. Tribal lands).

¹²⁴ The results reported for 2013 are based upon SBI data for mobile services at *maximum* advertised speeds of 6 Mbps/768 kbps as compared to the Form 477 data which are based on *minimum* advertised speeds of 5 Mbps/1 Mbps.

Fig. 3b
Deployment (Millions) of Fixed Terrestrial 25 Mbps/3 Mbps Services and Mobile LTE with a Median Speed of 10 Mbps/3 Mbps

	2014		2015		2016		2017	
	Pop.	%	Pop.	%	Pop.	%	Pop.	%
United States	221.249	74.7%	230.561	77.4%	249.817	83.3%	259.926	85.8%
Rural Areas	22.634	48.8%	22.554	48.5%	24.961	53.1%	26.728	56.2%
Urban Areas	198.615	79.5%	208.007	82.7%	224.856	88.9%	233.198	91.3%
Pop. Evaluated	296.204	93.2%	297.899	93.0%	300.036	93.0%	302.940	93.0%

37. Figure 3c reports deployment of fixed terrestrial 25 Mbps/3 Mbps service *or* mobile LTE with a minimum advertised speed of 5 Mbps/1 Mbps and shows that services are deployed to approximately 100% of the American population as of year-end 2017. Figure 3d shows that approximately 298 million Americans, or approximately 98.4% of the population in the evaluated areas, are covered by either 25 Mbps/3 Mbps fixed terrestrial service or Mobile LTE with a median speed of 10 Mbps/3 Mbps.

Fig. 3c

Deployment (Millions) of Fixed Terrestrial 25 Mbps/3 Mbps Services or Mobile LTE Based on a

Minimum Advertised Speed of 5 Mbps/ 1 Mbps

	2013		2014		2015		2016		2017	
Area	Pop.	%	Pop.	%	Pop.	%	Pop.	%	Pop.	%
United States	310.521	98.4%	316.366	99.5%	319.389	99.7%	321.815	99.8%	325.373	99.9%
Rural Areas	56.345	92.3%	60.148	97.6%	61.400	98.6%	62.249	98.9%	63.455	99.5%
Urban Areas	254.176	99.9%	256.218	100.0%	257.989	100.0%	259.567	100.0%	261.919	100.0%
Tribal Lands	3.449	88.3%	3.664	93.2%	3.753	94.7%	3.817	95.6%	3.907	97.3%
Pop. Evaluated	315.596		317.954		320.289		322.518		325.716	

Fig. 3d
Deployment (Millions) of Fixed Terrestrial 25 Mbps/3 Mbps Services or Mobile LTE with a Median Speed of 10 Mbps/3 Mbps

	2014		2015		2016		2017	
	Pop.	%	Pop.	%	Pop.	%	Pop.	%
United States	288.119	97.3%	290.355	97.5%	293.862	97.9%	297.955	98.4%
Rural Areas	40.331	86.9%	40.660	87.5%	41.895	89.1%	43.192	90.8%
Urban Areas	247.787	99.2%	249.695	99.3%	251.968	99.6%	254.763	99.8%
Pop. Evaluated	296.204	93.2%	297.899	93.0%	300.036	93.0%	302.940	93.0%

4. Additional Deployment Estimates

38. Figure 4 shows deployment of fixed terrestrial services at various speed tiers since

2013.¹²⁵ As of December 2017, fixed terrestrial service of 10 Mbps/1 Mbps is deployed to 96.9% of all Americans, up from 95.8% in 2016, and deployment of fixed terrestrial 50 Mbps/5 Mbps service is deployed to 91.6% of the population, up from 90.3% in 2016. From 2016 to 2017, the deployment of 100 Mbps/10 Mbps increased from 75.7% to 88.5% of the population, and the deployment of 250 Mbps/25 Mbps increased from 43.7% to 58.8% of the population. Deployment in rural areas and on Tribal lands lags behind deployment in urban areas at all five speed tiers, but the data show year-over-year improvements for all speeds in these areas.

Fig. 4
Deployment (Millions) of Fixed Terrestrial Services at Different Speed Tiers

	20	13	20	14	20	15	20	16	20	17	
Area	Pop.	%	Pop.	%	Pop.	%	Pop.	%	Pop.	%	
				10 Mbps	s/1 Mbps						
United States	294.244	93.2%	297.873	93.7%	302.138	94.3%	309.129	95.8%	315.620	96.9%	
Rural Areas	42.573	69.7%	46.263	75.1%	48.361	77.7%	52.456	83.4%	56.166	88.1%	
Urban Areas	251.671	98.9%	251.609	98.2%	253.777	98.4%	256.673	98.9%	259.454	99.1%	
Tribal Lands	2.622	67.1%	2.701	68.7%	2.886	72.8%	3.201	80.2%	3.353	83.5%	
25 Mbps/3 Mbps											
United States	263.971	83.6%	284.246	89.4%	287.853	89.9%	296.373	91.9%	304.405	93.5%	
Rural Areas	29.077	47.6%	37.174	60.3%	38.271	61.5%	42.677	67.8%	46.960	73.6%	
Urban Areas	234.893	92.3%	247.072	96.4%	249.582	96.7%	253.695	97.7%	257.446	98.3%	
Tribal Lands	1.449	37.1%	2.245	57.1%	2.290	57.8%	2.520	63.1%	2.727	67.9%	
				50 Mbps	s/5 Mbps						
United States	187.416	59.4%	270.740	85.2%	283.329	88.5%	291.380	90.3%	298.219	91.6%	
Rural Areas	15.571	25.5%	32.100	52.1%	35.316	56.7%	39.260	62.4%	42.428	66.5%	
Urban Areas	171.844	67.5%	238.640	93.1%	248.013	96.1%	252.119	97.1%	255.792	97.7%	
Tribal Lands	1.161	29.7%	1.913	48.6%	2.116	53.4%	2.269	56.9%	2.462	61.3%	
			:	100 Mbps	s/10 Mbps	s					
United States	165.184	52.3%	201.894	63.5%	215.582	67.3%	244.297	75.7%	288.378	88.5%	
Rural Areas	12.568	20.6%	16.472	26.7%	20.481	32.9%	25.925	41.2%	37.395	58.6%	
Urban Areas	152.616	60.0%	185.423	72.3%	195.101	75.6%	218.372	84.1%	250.983	95.8%	
Tribal Lands	1.058	27.1%	1.315	33.4%	1.669	42.1%	1.875	47.0%	2.198	54.7%	
				250 Mbps	s/25 Mbps	s					
United States	0.000	0.0%	15.692	4.9%	67.912	21.2%	140.795	43.7%	191.505	58.8%	
Rural Areas	0.000	0.0%	2.031	3.3%	5.460	8.8%	10.029	15.9%	18.564	29.1%	

¹²⁵ We present deployment estimates for all fixed services including satellite broadband in an appendix. *See infra* Appendix 9 (Deployment (Millions) of Fixed Services at Different Speed Tiers (2014-2017)).

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	20	13	2014		2015		2016		2017	
Area	Pop.	%	Pop.	%	Pop.	%	Pop.	%	Pop.	%
Urban Areas	0.000	0.0%	13.662	5.3%	62.452	24.2%	130.766	50.4%	172.941	66.0%
Tribal Lands	0.000	0.0%	0.048	1.2%	0.276	7.0%	1.330	33.3%	1.604	39.9%
Pop. Evaluated	315.596		317.954		320.289		322.518		325.716	

39. Figure 5 presents deployment data for fixed terrestrial 25 Mbps/3 Mbps service and mobile LTE service with a speed of at least 5 Mbps/1 Mbps from 2013 through 2017 for the U.S. Territories. ¹²⁶ As of 2017, Puerto Rico and the U.S. Virgin Islands accounted for over 92% of the population in the U.S. Territories. The data suggest that as of December 2017, 85.8% of Americans in the U.S. Territories were covered by 25 Mbps/3 Mbps fixed terrestrial service and 5 Mbps/1 Mbps mobile LTE, which represented an increase of approximately 21 percentage points since 2013. The 2017 data may significantly overstate current deployment in the U.S. Territories, however, given that the deployment data submitted by providers do not appear to reflect infrastructure damage caused by Hurricanes Maria and Irma in 2017 even though the December 2017 data postdates the hurricanes and should reflect such damage. Aside from the potential impact of the hurricanes, there appear to be anomalies in the underlying data presented in Figure 5. ¹²⁷ Thus, the changes in reported deployment in the Form 477 data may not reflect actual changes in deployment.

Fig. 5
Deployment (Millions) in U.S. Territories of Terrestrial Fixed 25 Mbps/3 Mbps Services and Mobile
LTE Based on a Minimum Advertised Speed of 5 Mbps/1 Mbps

	20	13	20	14	20	15	20	16	20	17
	Pop.	%	Pop.	%	Pop.	%	Pop.	%	Pop.	%
Fixed Terrestrial 25 Mbps/3 Mbps Fixed										
U.S. Territories	2.627	66.2%	3.217	82.4%	2.368	61.5%	3.151	83.2%	3.192	85.9%
Rural Areas	0.218	85.5%	0.135	53.5%	0.095	38.1%	0.143	57.9%	0.151	61.6%
Urban Areas	2.409	64.9%	3.082	84.4%	2.273	63.1%	3.008	85.0%	3.040	87.6%
		Mol	bile LTE	with a Sp	eed of 5	Mbps/1 M	Ibps			
U.S. Territories	3.866	97.5%	3.762	96.3%	3.701	96.1%	3.717	98.2%	3.658	98.4%
Rural Areas	0.228	89.5%	0.226	89.4%	0.224	89.5%	0.230	93.0%	0.233	94.8%
Urban Areas	3.638	98.1%	3.537	96.8%	3.477	96.5%	3.487	98.6%	3.425	98.7%
Fixed	l Terrestr	rial 25 Mb	pps/3 Mbj	ps and M	obile LTI	E with a S	speed of 5	Mbps/1	Mbps	
U.S. Territories	2.576	65.0%	3.214	82.3%	2.365	61.4%	3.147	83.1%	3.188	85.8%
Rural Areas	0.199	78.0%	0.132	52.3%	0.093	37.0%	0.139	56.2%	0.148	60.3%
Urban Areas	2.377	64.1%	3.082	84.3%	2.272	63.1%	3.008	85.0%	3.040	87.6%

¹²⁶ We present additional deployment data on the territories in the Appendix. *See infra* Appendix 4 (Deployment of Fixed Terrestrial 25 Mbps/3 Mbps Services and Mobile LTE 5 Mbps/1 Mbps by U.S. Territory).

¹²⁷ For instance, the data in 2015 appears to show a significant drop in deployment for fixed and mobile services that is not continued in 2016.

	2013		2014		2015		2016		2017	
	Pop.	%								
Fixed Terrestrial 25 Mbps/3 Mbps or Mobile LTE with a Speed of 5 Mbps/1 Mbps										
U.S. Territories	3.917	98.8%	3.766	96.4%	3.704	96.1%	3.722	98.3%	3.661	98.5%
Rural Areas	0.247	97.0%	0.229	90.5%	0.227	90.5%	0.234	94.6%	0.236	96.2%
Urban Areas	3.669	98.9%	3.537	96.8%	3.477	96.5%	3.488	98.6%	3.425	98.7%
Pop. Evaluated	3.965		3.906		3.853		3.786		3.716	

C. Demographic Data

40. Figures 6 and 7 compare the available demographic data for Americans with and without coverage to fixed terrestrial 25 Mbps/3 Mbps service and mobile LTE. ¹²⁸ Figure 6 presents this analysis for the United States as a whole, urban areas, rural areas, and Tribal lands for fixed terrestrial 25 Mbps/3 Mbps service and mobile LTE with a minimum advertised speed of 5 Mbps/1 Mbps in 2017. ¹²⁹ The data show that generally Americans in areas where these services are deployed typically live in census block groups with a lower percentage of households living in poverty, and with higher average populations, population densities, per capita incomes, and median household incomes than Americans living in areas without coverage by these services.

Fig. 6
Comparison of Demographic Data Between Areas Where Fixed Terrestrial 25 Mbps/3 Mbps
Services and Mobile LTE with a Minimum Advertised Speed of 5 Mbps/1 Mbps Have Been
Deployed and Where These Services Have Not Been Deployed (As of December 31, 2017)

	Average Population	Average Population Density	Average Per Capita Income (\$2017)	Average Median Household Income (\$2017)	Average Poverty Rate				
United States (All Areas)									
With Deployment	1,512.1***	7,570.7***	\$32,060.91***	\$65,497.86***	14.7%***				
Without Deployment	1,419.6	1,071.1	\$26,532.76	\$52,876.25	15.4%				
U.S. Rural Areas									

¹²⁸ To compare the demographic data between areas where these services are and are not deployed, we aggregate the census block data up to the census block group level, the lowest aggregation level for which demographic information is available. This aggregation can result in census blocks being grouped together that may not be uniformly deployed or be uniformly categorized as urban, rural, or on Tribal lands. We designate a census block group as without deployment if more than 5% of the population in the census block group is without services; we designate a census block group as rural if more than 50% of the population in the census block group resides in census blocks designated as rural, and we designate a census block group as Tribal lands if more than 50% of the land area in the census block group is designated as Tribal lands. Population Density is the total population residing in the census block group divided by the square miles of land in the census block group. The estimate of land area is based upon the 2010 Census. We use the ACS Five-Year Estimates 2013–2017 for income and poverty measures. Per capita income and median household income in the past twelve months are measured in 2017 Inflation-Adjusted Dollars. The poverty rate is the proportion of households living below the poverty level.

¹²⁹ We provide more granular state-by-state and county-by-county deployment information in an Appendix. *See infra* Appendices 5 and 6.

	Average Population	Average Population Density	Average Per Capita Income (\$2017)	Average Median Household Income (\$2017)	Average Poverty Rate		
With Deployment	1,441.8***	206.6***	\$31,108.09***	\$63,207.69***	11.2%***		
Without Deployment	1,327.8	77.1	\$26,423.34	\$52,690.47	14.1%		
U.S. Urban Areas							
With Deployment	1,519.6***	8,354.0***	\$32,162.26***	\$65,744.56***	15.1%***		
Without Deployment	1,635.2	3,404.9	\$26,792.18	\$53,328.64	18.4%		
Tribal Lands							
With Deployment	1,358.2	2,186.8***	\$26,362.86***	\$51,260.27***	17.0%***		
Without Deployment	1,353.1	243.5	\$21,829.21	\$45,105.49	20.9%		
Tribal Rural Areas							
With Deployment	1,370.2	183.3***	\$25,633.00***	\$51,612.76***	16.3%***		
Without Deployment	1,336.8	76.8	\$22,133.74	\$45,575.36	20.4%		
Tribal Urban Areas							
With Deployment	1,355.4	2,643.4***	\$26,527.19***	\$51,181.42***	17.1%***		
Without Deployment	1,417.4	904.7	\$20,626.90	\$43,237.53	22.6%		

We test for a statistical difference in the reported means between areas with and without deployment of these services. The level of statistical significance is indicated by a superscript: The absence of a star indicates no statistical difference between the reported figures. * signifies statistical significance at a 90% level of confidence, ** signifies statistical significance at a 95% level of confidence, and *** signifies statistical significance at a 99% level of confidence.

41. Figure 7 compares the available demographic data across urban and rural areas for Americans with and without coverage by both fixed terrestrial 25 Mbps/3 Mbps service and mobile LTE service with a median speed of 10 Mbps/3 Mbps in 2017.¹³⁰ Like Figure 6, Figure 7 shows that Americans living in areas where these services are deployed typically live in census block groups where there is a lower percentage of households living in poverty, and where there are higher average populations, population densities, per capita incomes, and median household incomes.

Fig. 7
Comparison of Demographic Data Between Areas Where Fixed Terrestrial 25 Mbps/3 Mbps
Services and Mobile LTE with a Median Speed of 10 Mbps/3 Mbps Has Been Deployed and Where
These Services Have Not Been Deployed (As of December 31, 2017)

	Average Population	Average Population Density	Average Per Capita Income (\$2017)	Average Median Household Income (\$2017)	Average Poverty Rate				
United States (All Areas)									

¹³⁰ As is the case with other 10 Mbps/3 Mbps Ookla data for Tribal lands, we do not report results because of concerns with the representativeness of the Ookla data for these areas. *See supra* Sections IV.B.2 and IV.B.3.

	Average Population	Average Population Density	Average Per Capita Income (\$2017)	Average Median Household Income (\$2017)	Average Poverty Rate			
With Deployment	1,531.6***	8,404.8***	\$33,082.96***	\$67,851.75***	14.3%***			
Without Deployment	1,432.0	1,659.6	\$26,811.40	\$53,785.02	15.8%			
U.S. Rural Areas								
With Deployment	1,436.7***	198.7***	\$33,143.34***	\$68,438.01***	9.9%***			
Without Deployment	1,301.1	99.0	\$27,616.76	\$55,614.17	13.1%			
U.S. Urban Areas								
With Deployment	1,538.7***	9,015.9***	\$33,078.47***	\$67,807.68***	14.6%***			
Without Deployment	1,565.6	3,253.1	\$25,986.07	\$51,867.00	18.5%			

We test for a statistical difference in the reported means between areas with and without deployment of these services. The level of statistical significance is indicated by a superscript: The absence of a star indicates no statistical difference between the reported figures. A * signifies statistical significance at a 90% level of confidence, ** signifies statistical significance at a 95% level of confidence, and *** signifies statistical significance at a 99% level of confidence.

42. Figure 8 shows, for 2017, how the average proportion of the population with coverage by fixed terrestrial 25 Mbps/3 Mbps service and mobile LTE service with a minimum advertised speed of 5 Mbps/1 Mbps varies with census block group-level median household income, census block group-level population density, and census block group-level poverty rate.¹³¹ On average, deployment is highest in census block groups with the highest median household income, the highest population density and the lowest poverty rate.

Fig. 8
Average Percentage of Population with Fixed Terrestrial 25 Mbps/3 Mbps and Mobile LTE 5
Mbps/1 Mbps with a Minimum Advertised Speed of 5 Mbps/1 Mbps by Census Block Group Level
Demographic Variable (As of December 31, 2017)

	Fixed	Mobile LTE	Both Fixed and Mobile LTE						
Median Household Income (\$2017)									
First Quartile (Lowest Median Household Income)	91.4%	99.5%	91.1%						
Second Quartile	89.3%	99.7%	89.2%						
Third Quartile	92.5%	99.8%	92.4%						
Fourth Quartile (Highest Median Household Income)	97.6%	100%	97.6%						
Population Density									
First Quartile (Lowest Pop. Density)	74.8%	98.9%	74.4%						

¹³¹ We present these results at the census block group, the smallest geographic areas for which income data is available, to accurately examine how the deployment rate varies with income measures in the geographic area.

	Fixed	Mobile LTE	Both Fixed and Mobile LTE
Second Quartile	97.5%	100%	97.5%
Third Quartile	98.9%	100%	98.9%
Fourth Quartile (Highest Pop. Density)	99.1%	100%	99.1%
Household	l Poverty Rate		
First Quartile (Lowest Poverty Rate)	95.7%	99.9%	95.7%
Second Quartile	92.3%	99.8%	92.2%
Third Quartile	90.3%	99.7%	90.2%
Fourth Quartile (Highest Poverty Rate)	92.5%	99.5%	92.3%

43. Figure 9 depicts how the average proportion of the population with coverage of fixed terrestrial services by speed tier varies with census block-level median household income, census block-level population density, and census block-level poverty rate. On average, deployment is highest in census block groups with the highest median household income, the highest population density and the lowest poverty rate.

Fig. 9
Average Percentage of Population with Fixed Terrestrial Services by Census Block Group Level
Demographic Variable (As of December 31, 2017)

	10 Mbps/ 1 Mbps	25 Mbps/ 3 Mbps	50 Mbps/ 5 Mbps	100 Mbps/ 10 Mbps	250 Mbps/ 25 Mbps				
Median Housel	old Incom	e (\$2017)							
First Quartile (Lowest Median Household Income)	95.9%	91.4%	89.6%	85.4%	50.4%				
Second Quartile	95.2%	89.3%	86.8%	82.5%	49.8%				
Third Quartile	96.7%	92.5%	89.9%	86.8%	56.7%				
Fourth Quartile (Highest Median Household Income)	98.8%	97.6%	96.7%	95.5%	73.2%				
Population Density									
First Quartile (Lowest Pop. Density)	88.6%	74.8%	68.6%	60.8%	30.0%				
Second Quartile	98.8%	97.5%	96.4%	93.2%	57.7%				
Third Quartile	99.4%	98.9%	98.5%	97.3%	67.4%				
Fourth Quartile (Highest Pop. Density)	99.4%	99.1%	98.9%	98.4%	74.8%				
Pove	erty Rate								
First Quartile (Lowest Poverty Rate)	98.0%	95.7%	94.3%	92.3%	66.4%				
Second Quartile	96.6%	92.3%	90.0%	86.9%	57.3%				
Third Quartile	95.6%	90.3%	87.9%	83.9%	52.7%				
Fourth Quartile (Highest Poverty Rate)	96.3%	92.5%	90.8%	87.1%	53.8%				

D. Tribal Lands Data

- 44. In Figures 10 and 11 we present additional deployment estimates for Americans living on Tribal lands by Tribal lands category. The Commission's data indicate that deployment in rural Tribal lands continue to lag deployment in urban Tribal lands.
- 45. Figure 10 presents deployment on Tribal lands from 2013 to 2017 of both fixed terrestrial 25 Mbps/3 Mbps services and mobile LTE service with a speed of at least 5 Mbps/1 Mbps. Overall, in 2017, 67.6% of Tribal lands are covered by fixed terrestrial 25 Mbps/3 Mbps services and mobile LTE with a speed of 5 Mbps/1 Mbps based on Form 477 data. Rural Tribal lands continue to lag behind urban Tribal lands, with only 45.4% of all Tribal lands in rural areas having deployment of both services, as compared to 91.6% of Tribal lands in urban areas.

Fig. 10
Deployment (Millions) on Tribal Lands of Fixed 25 Mbps/3 Mbps Fixed Terrestrial Services and Mobile LTE Services with a Minimum Advertised Speed of 5 Mbps/1 Mbps

	2013		201	4	201	5	201	6	2017	
	Pop.	%								
Tribal Lands	1.385	35.5%	2.206	56.1%	2.258	57.0%	2.491	62.4%	2.716	67.6%
Rural Areas	0.283	14.1%	0.592	29.3%	0.614	30.1%	0.780	37.8%	0.948	45.4%
Urban Areas	1.102	57.9%	1.614	84.5%	1.644	85.6%	1.711	88.8%	1.768	91.6%
Alaskan Villages	0.071	28.2%	0.110	42.9%	0.110	42.7%	0.135	51.5%	0.151	57.0%
Rural Areas	0.021	13.1%	0.039	23.7%	0.039	23.7%	0.061	36.2%	0.073	42.4%
Urban Areas	0.050	54.9%	0.071	77.0%	0.071	76.7%	0.074	79.0%	0.079	83.3%
Hawaiian Homelands	0.029	90.6%	0.032	96.9%	0.030	88.9%	0.030	88.6%	0.030	89.4%
Rural Areas	0.002	45.0%	0.005	83.0%	0.002	43.9%	0.002	43.5%	0.003	47.7%
Urban Areas	0.027	99.4%	0.027	99.8%	0.027	98.0%	0.027	98.0%	0.027	98.2%
Lower 48 States	0.321	30.0%	0.417	38.7%	0.452	41.5%	0.508	46.1%	0.595	53.3%
Rural Areas	0.134	18.9%	0.184	25.6%	0.207	28.4%	0.239	32.3%	0.311	41.3%
Urban Areas	0.187	51.9%	0.233	64.6%	0.245	67.8%	0.270	74.1%	0.284	78.1%
Tribal Statistical Areas	0.964	37.8%	1.648	64.2%	1.666	64.5%	1.818	70.2%	1.939	74.5%

¹³² We group tribal lands as designated by their 2010 census block delineations. Alaskan Villages include census blocks that are designated as Alaskan Native village statistical areas. Hawaiian Home Lands include census blocks that were established by the Hawaiian Homes Commission Act of 1921. Tribal statistical areas are statistical American Indian areas. These are defined for a federally-recognized Tribe that does not have reservation or off-reservation trust land; specifically, a Tribal designated statistical area (TDSA) or Oklahoma Tribal statistical area (OTSA). The Lower 48 States category includes census blocks designated as: (1) Joint Use Areas; (2) legal,

federally-recognized American Indian area consisting of reservation and associated off-reservation trust land;

⁽³⁾ legal, federally-recognized American Indian area consisting of reservation only; and (4) legal, federally-recognized American Indian area consisting of off-reservation trust land only. We present more granular state-by-state Tribal lands data in an appendix. *See infra* Appendix 7 (Deployment of Fixed Terrestrial 25 Mbps/3 Mbps Services and/or Mobile LTE with a Minimum Advertised Speed of 5 Mbps/1 Mbps by Tribal Lands and State).

	2013		2014		2015		2016		2017	
	Pop.	%								
Rural Areas	0.126	11.2%	0.365	32.1%	0.365	32.0%	0.478	41.5%	0.561	48.5%
Urban Areas	0.838	58.8%	1.283	89.7%	1.301	90.3%	1.341	93.0%	1.378	95.4%
Pop. Evaluated	3.905		3.933		3.964		3.991		4.017	

46. In Figure 11 we present deployment estimates for fixed terrestrial 25 Mbps/3 Mbps service and mobile LTE service with a speed of at least 5 Mbps/1 Mbps on Tribal lands. As of December 31, 2017, fixed terrestrial 25 Mbps/3 Mbps services is deployed to 67.9% of Americans on Tribal Lands, 97% are covered by mobile LTE 5 Mbps/1 Mbps, and 67.6% of Americans on Tribal lands are covered by both services. The figures show variability in deployment across the Tribal lands categories, with the least deployment occurring in Alaskan Villages and the Lower 48 states.

Fig. 11

Deployment (Millions) of Fixed Terrestrial 25 Mbps/3 Mbps Services and/or Mobile LTE with a Minimum Advertised Speed of 5 Mbps/1 Mbps on Tribal Lands (As of December 31, 2017)

	Total Pop.	Fixed 25 3 Mb	-	Mobile Mbps/1		_	Mbps/3 d Mobile ps/1 Mbps	Mbps o	5 Mbps/3 or Mobile ops/1 Mbps
		Pop.	%	Pop.	%	Pop.	%	Pop.	%
Tribal Lands	4.017	2.727	67.9%	3.896	97.0%	2.716	67.6%	3.907	97.3%
Alaskan Villages	0.265	0.154	58.0%	0.197	74.3%	0.151	57.0%	0.200	75.4%
Hawaiian Homelands	0.034	0.030	89.4%	0.034	99.9%	0.030	89.4%	0.034	99.9%
Lower 48 States	1.117	0.604	54.1%	1.069	95.7%	0.595	53.3%	1.078	96.5%
Tribal Statistical Areas	2.601	1.939	74.6%	2.596	99.8%	1.939	74.5%	2.596	99.8%

E. Adoption Data

47. We also include an assessment of adoption because adoption of services is necessarily a lower bound on fixed deployment.¹³³ We report adoption rates based upon data as of December 2013 to December 2017. The reported adoption rates are the ratio of residential Form 477 data subscriptions to fixed terrestrial services at the designated speed divided by the total number of households in the area where our Form 477 deployment data indicated that fixed terrestrial services are deployed.¹³⁴

¹³³ We present adoption data for each state and the District of Columbia in an Appendix. *See infra* Appendix 8 (Adoption Rate for Fixed Terrestrial Services in the United States and District of Columbia (Data as of December 2017)).

¹³⁴ The subscriber data is reported for the census tract, not census block. Thus, we aggregate the deployment data up to the census tract. We calculate adoption rates for the following geographic areas: the U.S. as a whole, all urban core census tracts, all non-urban core census tracts, the county (or county equivalent), and for each state and the District of Columbia. A census tract is designated as "Urban Core" if it has a land area less than three square miles and a population density of at least 1,000 people per square mile. A census tract is designated as "Non-Urban Core" if we have not designated the census tract as Urban Core. A census tract is designated Tribal lands if more than 50% of the land area is Tribal land.

48. Figure 12 shows the overall adoption rates, ¹³⁵ using Form 477 subscribership data, from 2013 through 2017 for fixed terrestrial services for the U.S. as a whole, urban and non-urban core areas, and Tribal lands. The data show year-to-year increases across the vast majority of areas, including Tribal lands, for adoption of 10 Mbps/3 Mbps, 25 Mbps/3 Mbps, 50 Mbps/3 Mbps, 100 Mbps/10 Mbps, and 250 Mbps/25 Mbps fixed terrestrial services. ¹³⁶

Fig. 12 Adoption Rates for Fixed Terrestrial Services

	2013	2014	2015	2016	2017					
10 Mbps/1 Mbps										
United States	53.4%	56.0%	62.2%	66.3%	69.7%					
Non-Urban Core Areas	48.9%	49.7%	55.8%	60.2%	63.4%					
Urban Core Areas	56.7%	60.7%	67.0%	71.0%	74.7%					
Tribal Lands	33.0%	35.5%	42.4%	43.1%	46.2%					
Non-Urban Core Areas	49.2%	50.0%	56.1%	60.6%	63.8%					
Urban Core Areas	28.9%	30.6%	36.1%	36.9%	40.4%					
25 Mbps/3 Mbps										
United States	29.7%	38.5%	48.1%	53.5%	60.2%					
Non-Urban Core Areas	28.5%	34.4%	43.2%	48.9%	55.1%					
Urban Core Areas	30.4%	41.3%	51.5%	56.9%	64.0%					
Tribal Lands	31.9%	27.3%	31.7%	33.4%	38.0%					
Non-Urban Core Areas	28.5%	34.5%	43.4%	49.2%	55.4%					
Urban Core Areas	27.8%	23.3%	28.5%	30.3%	34.6%					
	50 Mbp	os/ 5 Mbps								
United States	NA	24.8%	33.9%	44.4%	54.8%					
Non-Urban Core Areas	NA	19.9%	27.8%	41.1%	50.7%					
Urban Core Areas	NA	28.0%	38.0%	46.7%	57.8%					
Tribal Lands	NA	22.7%	25.0%	28.9%	34.2%					
Non-Urban Core Areas	NA	20.0%	27.9%	41.3%	51.0%					

¹³⁵ We have insufficient information to determine the proportion of the population for which 50 Mbps/5 Mbps service is deployed prior to December 31, 2014. *See 2015 Report*, 30 FCC Rcd at 1413, para. 69, n.278. The reported adoption rates for 2014 to 2017 are based upon the Form 477 deployment data and subscriber data as of December 31, 2014, December 31, 2015, December 31, 2016, and December 31, 2017. The reported adoption rates for 2013 are based upon the SBI Deployment data as of December 31, 2013, and the Form 477 subscriber data as of December 31, 2013. For the 2013 data, a 768 kbps upload speed is used as a proxy for a 1 Mbps upload speed because this is the speed closest to 1 Mbps that was collected in the SBI data collection and the FCC's Form 477

data collection during this time period. See id. at 1413.

¹³⁶ Prior to the Commission's revision of the Form 477 data collection, which is reflected for the first time in the 2014 data, Form 477 filers did not report subscribers specifically at the 50 Mbps/5 Mbps or the 250 Mbps/25 Mbps service tiers. This does not indicate there were no subscribers to these services in 2013.

	2013	2014	2015	2016	2017					
Urban Core Areas	NA	18.0%	20.4%	25.3%	30.9%					
100 Mbps/10 Mbps										
United States	0.9%	11.2%	16.7%	19.2%	29.6%					
Non-Urban Core Areas	0.8%	11.7%	16.4%	17.8%	27.0%					
Urban Core Areas	0.9%	11.0%	16.9%	20.0%	31.4%					
Tribal Lands	0.3%	7.1%	7.4%	10.5%	18.3%					
Non-Urban Core Areas	0.8%	11.8%	16.6%	17.9%	27.1%					
Urban Core Areas	0.3%	7.4%	6.4%	9.8%	17.0%					
	250 Mbp	os/25 Mbps								
United States	NA	2.5%	4.2%	1.8%	4.1%					
Non-Urban Core Areas	NA	3.0%	6.7%	2.3%	4.0%					
Urban Core Areas	NA	2.3%	3.1%	1.6%	4.1%					
Tribal Lands	NA	0.1%	1.4%	1.8%	4.4%					
Non-Urban Core Areas	NA	3.0%	6.7%	2.3%	4.0%					
Urban Core Areas	NA	0.2%	1.7%	2.1%	4.5%					

49. Figure 13 reports average county level overall adoption rates for fixed terrestrial services by speed tier against the quartile ranking for median household income, population density, the poverty rate, and the proportion of the population that resides in a rural area. These data suggest that the average household adoption rate increases with median household income and population density, although the adoption rate decreases as the poverty rate and rural population rate increase.

Fig. 13
Average County Overall Adoption Rate for Fixed Terrestrial Services by County Level Demographic Variable (As of December 31, 2017)

	10 Mbps/ 1 Mbps	25 Mbps/ 3 Mbps	50 Mbps/ 5 Mbps	100 Mbps/ 10 Mbps	250 Mbps/ 25 Mbps
County Median Ho	usehold In	come (\$201	17)		
First Quartile (Lowest Median Household Income)	33.8%	24.5%	20.5%	15.6%	1.9%
Second Quartile	42.3%	39.6%	30.6%	15.0%	3.8%
Third Quartile	49.0%	37.9%	33.3%	16.4%	5.1%
Fourth Quartile (Highest Median Household Income)	63.1%	53.7%	47.8%	23.3%	4.5%

	10 Mbps/ 1 Mbps	25 Mbps/ 3 Mbps	50 Mbps/ 5 Mbps	100 Mbps/ 10 Mbps	250 Mbps/ 25 Mbps				
County Population Density									
First Quartile (Lowest Population Density)	40.1%	25.8%	21.7%	9.5%	5.0%				
Second Quartile	34.6%	34.1%	23.6%	11.4%	2.6%				
Third Quartile	44.7%	37.2%	33.8%	21.3%	3.6%				
Fourth Quartile (Highest Population Density)	68.6%	58.0%	52.1%	26.9%	4.6%				
County Poverty Rate									
Fourth Quartile (Lowest Poverty Rate)	58.4%	48.6%	42.8%	21.0%	4.8%				
Third Quartile	48.9%	39.3%	34.1%	17.7%	4.6%				
Second Quartile	44.4%	41.6%	33.0%	20.7%	3.8%				
First Quartile (Highest Poverty Rate)	36.3%	26.0%	22.2%	10.9%	2.2%				
County Rura	l Populatio	n Rate							
Fourth Quartile (Lowest Rural Population Rate)	67.3%	57.7%	51.7%	25.3%	5.4%				
Third Quartile	48.3%	39.1%	35.0%	16.4%	3.3%				
Second Quartile	36.7%	35.3%	24.8%	17.8%	2.9%				
First Quartile (Highest Rural Population Rate)	35.6%	23.1%	20.0%	9.9%	3.6%				

F. Schools and Classrooms Data

- 50. We continue to measure availability of advanced telecommunications capability in "elementary and secondary schools and classrooms" using a short-term and long-term goal for broadband connectivity to schools of 100 Mbps per 1,000 students and staff and 1 Gbps per 1,000 students and staff, respectively. According to the 2018 State of the States Report, 98% of school districts or 44.7 million students, now meet the Commission's short-term connectivity goal of 100 Mbps per 1,000 users, up from 39.2 million students in 2017. However, this means that 2.3 million students are not receiving broadband service that meets the short-term connectivity goal.
- 51. Regarding the long-term connectivity goal for schools of 1 Gbps per 1,000 users, the 2018 State of the States Report estimates that, based on the most recent data, 28% of school districts currently meet the goal, which is up from 22% in 2017 and just 9% in 2015. Similarly, CoSN's report notes that 36% of school districts were meeting the long-term connectivity goal, more than double the number of districts reporting progress toward that goal in 2017. The 2018 State of the States Report

¹³⁷ 47 U.S.C. § 1302(b).

¹³⁸ See Modernizing the E-rate Program for Schools and Libraries, WC Docket No. 13-184, Report and Order and Further Notice of Proposed Rulemaking, 29 FCC Rcd 8870, 8885, para. 34 (2014) (2014 E-rate Order).

¹³⁹ See 2018 State of the States Report at 7. EducationSuperHighway reports the Commission's short-term goal in terms of 100 kbps per user rather than 100 Mbps per 1,000 users. 2014 E-rate Order, 29 FCC Rcd at 8885, para. 34.

¹⁴⁰ 2018 State of the States Report at 12.

¹⁴¹ *Id.* at 20.

¹⁴² CoSN's 2018-2019 Annual Infrastructure Survey Report at 3.

also finds that nearly half of the smallest school districts in the United States, averaging just 200 students and in rural areas, are already meeting the long-term goal. Education SuperHighway estimates that 1,356 schools still need access to fiber in order to meet the short- and long-term connectivity goals, down 34% from the 2,049 schools without access to fiber in 2017, and 86% from the 9,500 schools in 2015. 144

V. COMMISSION EFFORTS TO CLOSE THE DIGITAL DIVIDE

52. The 2018 Report described the many actions the Commission has taken to encourage deployment of advanced telecommunications capability and close the digital divide. Here, we discuss the Commission's actions to spur broadband deployment and close the digital divide since issuing the 2018 Report.

A. Reducing Barriers to Investment

- 53. To close the digital divide, it is essential to remove regulatory barriers to investment. Regulatory barriers unnecessarily delay broadband buildouts, slow transitions from legacy networks and services to next-generation networks, and impede wireless infrastructure projects to deploy advanced networks.
- 54. Wireless Infrastructure. In March 2018, the Commission adopted the Wireless Infrastructure Second Report and Order, which: (1) excluded from National Historic Preservation Act (NHPA) and the National Environmental Policy Act (NEPA) review certain small wireless facilities; ¹⁴⁶ (2) clarified procedures for engaging Tribal Nations and Native Hawaiian Organizations (NHOs) in historic preservation review; ¹⁴⁷ and (3) exempted from NEPA review requirements certain structures placed on flood plains. ¹⁴⁸ The decisions in that Order are intended to expedite the deployment of wireless infrastructure. And according to an Accenture analysis, the Order will reduce small cell deployment costs by about \$1.6 billion over the next 8 years. ¹⁴⁹
- 55. In September 2018, the Commission adopted the *Wireless Infrastructure Declaratory Ruling and Third Report and Order*, addressing state and local barriers to deployment.¹⁵⁰ State and local zoning rules for erecting towers and other structures or attaching equipment to pre-existing towers and structures (*e.g.*, rooftops, water tanks, power lines, and utility poles) can affect the timing and cost of deploying mobile wireless networks. Regulatory delay can slow entry, and local regulatory fees can represent sunk costs that can deter or diminish entry. Thus, regulatory fees and regulatory delays can be a significant barrier to entry.¹⁵¹ Siting fees such as excessive one-time application fees, annual recurring

¹⁴³ 2018 State of the States Report at 20.

¹⁴⁴ *Id.* at 12.

¹⁴⁵ See 2018 Report, 33 FCC Rcd at 1703-08, paras. 80-93.

¹⁴⁶ Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Deployment, Second Report and Order, FCC 18-30, 3, para. 4. (Mar. 30, 2018).

¹⁴⁷ *Id.* at 3, para. 6.

¹⁴⁸ *Id.* at 4, para. 8.

¹⁴⁹ Accenture Strategy, "Impact of Federal Regulatory Reviews on Small Cell Deployment," March 12, 2018, https://api.ctia.org/docs/default-source/default-document-library/small-cell-deployment-regulatory-review-costs_3-12-2018.pdf.

¹⁵⁰ See generally Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment, WT Docket No. 17-79, Declaratory Ruling and Third Report and Order, 33 FCC Rcd 9088, 9098-99, para. 27 (2018) (Wireless Infrastructure Third Report and Order).

¹⁵¹ Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services, Sixteenth Report, 28 FCC Rcd 3700, 3765, para.76 (2013).

fees, unreasonable or discriminatory gross revenue fees, and franchise or use fees may be especially burdensome to smaller providers and may prevent or discourage investment. In addition, review processes designed for large macro cells may be applied to small cell deployments in some localities. These review processes could pose significant barriers to entry or expansion because of the large number of small cells that need to be deployed relative to large towers. The review processes may be less important for small cells because their deployment causes less disruption to an area than the deployment of large towers. In addition, state and local zoning requirements may prevent or delay entry and expansion by requiring that all facilities along rights-of-way be underground, or by imposing burdensome and/or unpublished aesthetic restrictions.

- 56. In the *Declaratory Ruling*, the Commission reaffirmed that a state or local legal requirement constitutes an effective prohibition if it "materially limits or inhibits the ability of any competitor or potential competitor to compete in a fair and balanced legal and regulatory environment." The *Declaratory Ruling* also applied that standard in the context of certain fees charged in connection with the deployment of small wireless facilities, noting, for instance, that such fees may not exceed a reasonable approximation of the local government's costs. ¹⁵⁷ The *Third Report and Order* established two new "shot clocks" for small wireless facilities, codified existing shot clocks for other wireless facilities, and clarified that failure to act within the shot clock period presumptively has the effect of prohibiting personal wireless services, in violation of section 332(c) of the Communications Act. ¹⁵⁸
- 57. Wireline Infrastructure. To further expand next-generation networks and services, in June 2018, the Commission adopted a Second Report and Order eliminating unnecessary impediments and costs to timely network upgrades, while maintaining protections for consumers and enabling providers to invest in next-generation networks. Through these reforms, the Commission continued to build on the work begun in 2017 to reform our copper retirement, network change disclosure, and discontinuance processes and remove regulatory barriers causing unnecessary costs or delay to deployment of next-generation networks. 160
- 58. Also in June 2018, the Commission set aside enforcement of rules that were unfairly driving up the cost of broadband service for the customers of some rural providers. ¹⁶¹ Unlike all other

¹⁵² Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Deployment, Notice of Proposed Rulemaking and Notice of Inquiry, 32 FCC Rcd 3330, 3343, paras. 32-34 (2017).

¹⁵³ An estimated 100,000 to 150,000 small cells will be constructed by the end of 2018, and these numbers are projected to reach 455,000 by 2020, and 800,000 by 2026. *Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, WC Docket No. 17-84, Third Report and Order and Declaratory Ruling, 33 FCC Rcd 7705, 7706, para. 1 (2018) (*Wireline Infrastructure Third Report and Order*).

¹⁵⁴ Wireless Infrastructure Third Report and Order, 33 FCC Rcd at 9089, para. 3.

¹⁵⁵ *Id.* at 9130-34, paras. 84-91.

¹⁵⁶ *Id.* at 9102-03, para. 35.

¹⁵⁷ *Id.* at 9100-01, para. 32.

¹⁵⁸ *Id.* at 9142-47, paras. 104-112.

¹⁵⁹ Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment, WC Docket No. 17-84, Second Report and Order, 33 FCC Rcd 5660 (2018).

¹⁶⁰ Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment, WC Docket No. 17-84, Report and Order, Declaratory Ruling, and Further Notice of Proposed Rulemaking, 32 FCC Rcd 11128, 11187-94, paras. 156-79 (2017) (Wireline Infrastructure Order and FNPRM).

¹⁶¹ Petition of NTCA—The Rural Broadband Association and the United States Telecom Association for Forbearance Pursuant to 47 U.S.C. § 160(c) from Application of Contribution Obligations on Broadband Internet Access Transmission Services, Order, WC Docket No. 17-206, Order, 33 FCC 18-75 (June 8, Rcd 5712 (2018) (NTCA Contribution Obligations Forbearance Order).

ISPs, our rules require certain small, rural providers to pay into the USF fees on the revenues they earn from broadband Internet access transmission service. These fees ultimately get passed on to their customers. To level the playing field and reduce the cost of broadband in many rural areas, the Commission granted a petition for forbearance, declining to apply that requirement for these rural carriers. The commission granted a petition for forbearance, declining to apply that requirement for these rural carriers.

In August 2018, the Commission adopted the Third Report and Order and Declaratory Ruling designed to speed the process and reduce the costs of attaching new network facilities to utility poles. 164 Consistent with the recommendations of the Broadband Deployment Advisory Committee (BDAC), 165 the Order establishes a new pole attachment process that includes OTMR, in which the new attacher performs all make-ready work. 166 Under OTMR, the new attacher moves existing attachments and performs all other work required to make the pole ready for a new attachment.¹⁶⁷ This process allows the party with the strongest incentive—the new attacher—to prepare the pole quickly, rather than spreading the work across multiple parties. 168 The process will not apply to more complicated attachments, or those attachments above the "communications space" of a pole, where safety and reliability risks are greater, but the Order improves current processes for attachments in these spaces. 169 The Commission also codified and refined existing precedent requiring utilities to allow "overlashing," which helps maximize the usable space on the pole, and clarified that new attachers are not responsible for the costs of repairing preexisting violations of safety codes or construction standards discovered during the pole attachment process. 170 Finally, the Commission addressed two forms of state and local regulatory barriers to deployment, clarifying that (1) it will preempt, on a case-by-case basis, state and local laws that inhibit the rebuilding or restoration of broadband infrastructure after a disaster; and (2) state and local moratoria on the deployment of telecommunications services and facilities are barred by section 253(a) by the Communications Act because they "prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service."171

B. Universal Service Funding

60. Universal service also played an essential role in deployment of broadband networks and encouraging competition. The Commission's Universal Service Fund (USF) provides funding to increase the availability of fixed and mobile broadband services in unserved and rural areas. The Fund targets

https://ecfsapi.fcc.gov/file/107030255502405/Competitive%20Access%20to%20Broadband%20Infrastructure%20Report.pdf.

¹⁶⁹ *Id.* at 7706, para. 2.

¹⁶² See 47 U.S.C. § 254(d), 47 CFR § 54.706.

¹⁶³ NTCA Contribution Obligations Forbearance Order, 33 FCC Rcd at 5712, 5716-17, paras. 2, 15-18.

¹⁶⁴ Wireline Infrastructure Third Report and Order, 33 FCC Rcd at 7711-74, paras. 13-136.

¹⁶⁵ See Letter from Paul D'Ari, Designated Federal Officer, Broadband Deployment Advisory Committee, FCC, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-84 (filed July 3, 2018), at Attach. Broadband Deployment Advisory Committee, FCC, Report of the Competitive Access to Broadband Infrastructure Working Group, at 18-31 (2018) (BDAC January 2018 Recommendations),

¹⁶⁶ Wireline Infrastructure Third Report and Order, 33 FCC Rcd at 7706, para. 2.

¹⁶⁷ *Id.* at 7706, 7714-25, paras. 2, 16-35.

¹⁶⁸ *Id*

¹⁷⁰ *Id.* at 7706-07, 7761-66, paras. 3, 115-22.

¹⁷¹ *Id.* at 7707, 7774-75, paras. 4, 137-39.

¹⁷² Connect America Fund et al., Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, 17668-69, paras. 1-5 (2011) (*USF/ICC Transformation Order*), aff'd sub nom. In re: FCC 11-161, 753 F.3d 1015 (10th Cir. 2014).

support to these areas and, as part of its oversight responsibilities, the Commission routinely considers ways to maximize the impact of available USF funding to support broadband deployment.¹⁷³

- 61. *High-Cost Reforms*. Over the past two years, for example, the Commission has successfully conducted the Connect America Fund Phase II auction to award funding to service providers that commit to offer voice and broadband services to fixed locations in unserved high-cost areas. In February 2017, the Commission adopted a *Report and Order and Order on Reconsideration* finalizing bidding rules and establishing weights to compare bids in the auction. ¹⁷⁴ In August 2017, the Commission released a *Public Notice* proposing procedures to implement the Phase II auction. The Phase II auction, which offered up to nearly \$2 billion over the next decade to expand fixed, high-speed Internet service to unserved rural areas, ran from July 24, 2018 to August 21, 2018. ¹⁷⁵ At its conclusion, 103 bidders won \$1.49 billion over 10 years to provide fixed broadband and voice services to over 700,000 locations in 45 states. ¹⁷⁶ Separately, the Commission provided small, rural carriers with an infusion of over \$500 million to promote more high-speed broadband deployment in rural areas in March 2018. ¹⁷⁷
- 62. In December 2018, the Commission adopted revised model offers for rate-of-return carriers receiving model-based support and new model offers for rate-of-return carriers currently receiving legacy support; adopted a new budget for carriers remaining on legacy support based on uncapped 2018 claims (that will be increased by inflation annually); and adopted other measures to mitigate the regulatory burden on providers and encourage the efficient use of universal service support.¹⁷⁸
- 63. Rural Health Care Reforms. In December 2017, the Commission issued a Notice of Proposed Rulemaking to review the Rural Health Care program and sought comment on ways to improve connectivity for health care providers in rural areas including whether to lift the program's funding cap to make additional money available for broadband to rural health care providers. ¹⁷⁹ In an accompanying Order, the Commission granted relief to individual rural health care providers facing potential funding

¹⁷³ Connect America Fund, et al., Report and Order, Third Order on Reconsideration and Notice of Proposed Rulemaking, FCC 18-29, at 3, para. 4 (Mar. 23, 2018) (taking several steps to increase broadband deployment in rural areas through the High Cost program, including maximizing available funding for broadband networks); Promoting Telehealth in Rural America, WC Docket No. 17-310, Report and Order, 33 FCC Rcd 6574, para. 1 (2018) (Telehealth Report and Order) (increasing the funding cap for the Rural Healthcare program to \$571 million to prevent pro-rata funding reductions that could have disproportionally impacted rural health care providers, especially those in Alaska).

¹⁷⁴ Connect America Fund et al., WC Docket Nos. 10-90 et al., Report and Order and Order on Reconsideration, 32 FCC Rcd 1624 (2017).

¹⁷⁵ Connect America Fund Phase II Auction Scheduled for July 24, 2018 Notice and Filing Requirements and Other Procedures for Auction 903, AU Docket No. 17-182, WC Docket No. 10-90, Public Notice, 33 FCC Rcd 1428 (2018); 220 Applicants Qualified to Bid in the Connect America Fund Phase II Auction (Auction 903); Bidding to Begin on July 24, 2018, AU Docket No. 17-182, WC Docket No. 10-90, Public Notice, 33 FCC Rcd 6171 (2018) (announcing the qualified bidders for the auction and confirming timing); Connect America Fund Phase II Auction (Auction 903) Closes; Winning Bidders Announced, AU Docket No. 17-182, WC Docket No. 10-90, Public Notice, 33 FCC Rcd 8257 (2018).

¹⁷⁶ News Release, FCC, Connect America Fund Auction to Expand Broadband to Over 700,000 Rural Homes and Businesses (Aug. 28, 2018), https://docs.fcc.gov/public/attachments/DOC-353840A1.pdf.

¹⁷⁷ Connect America Fund, et al., WC Docket Nos. 10-90, 14-58, 07-135, CC Docket No. 01-92, Report and Order, Third Order on Reconsideration, and Notice of Proposed Rulemaking, FCC 18-29, at 3, para. 4 (Mar. 23, 2018).

¹⁷⁸ Connect America Fund, et al., WC Docket Nos. 10-90 et al., Report and Order, Further Notice of Proposed Rulemaking, and Order on Reconsideration, FCC 18-176 (Dec. 13, 2018).

cuts in funding year 2017. ¹⁸⁰ In June 2018, the Commission adopted rules to increase the funding cap for the Rural Health Care program from \$400 million to \$571 million for funding year 2017 to prevent prorata funding reductions that could have disproportionally impacted rural health care providers, especially those in Alaska. ¹⁸¹ The Commission also adopted rules to annually adjust the Rural Health Care program funding cap for inflation, beginning with funding year 2018, and to establish a process to carry-forward unused funds from past funding years for use in future funding years. ¹⁸²

- 64. *E-Rate*. To promote the deployment of high-speed networks to unserved and underserved schools and libraries, in January 2019, the Commission proposed to permanently eliminate the requirement that E-Rate applicants amortize over three years upfront, non-recurring category one charges of \$500,000 or more, including charges for special construction projects. The Commission also waived the amortization requirement while it considers its proposal. The amortization requirement previously had been suspended from funding years 2015 through 2018. The Commission found that suspending the requirement decreased administrative burdens associated with applying for E-Rate support; allowed applicants and service providers to receive disbursements for the full E-Rate supported portion of special construction projects sooner; and reduced uncertainty regarding the availability of funding. The commission and service providers to receive disbursements for the full E-Rate supported portion of special construction projects sooner; and reduced uncertainty regarding the availability of funding.
- 65. Connected Care Pilot Program. In August 2018, the Commission adopted a Notice of Inquiry exploring the creation of a pilot program to support the delivery of advanced telehealth services to low-income Americans. In that Notice of Inquiry, the Commission recognized that low-income consumers, especially those living in rural areas, lack access to affordable broadband and cannot benefit from connected care medical services. In Commission sought comment on the goals for a Connected Care pilot program, including increasing the deployment of broadband in unserved and underserved areas and how best to direct funds to efficiently encourage deployment. That proceeding remains open as the Commission deliberates on how best to proceed.
 - 66. *Disaster Recovery*. The Commission has also been at the forefront of supporting areas

¹⁸⁰ *Id.* at 10667-71, paras. 107-117.

¹⁸¹ Promoting Telehealth in Rural America, WC Docket No. 17-310, Report and Order, 33 FCC Rcd 6574, 6578-82, paras. 10-19 (2018).

¹⁸² *Id.* at 6582-85, paras. 20-28.

¹⁸³ See E-Rate Program Amortization Requirement, Modernizing the E-Rate Program for Schools and Libraries, WC Docket Nos. 19-2, 13-184, Notice of Proposed Rulemaking and Order, FCC 19-5 (Jan. 31, 2019) (Amortization NPRM and Order). The components of special construction costs eligible for E-Rate discounts include costs for design and engineering, project management, digging trenches, and laying fiber. See Modernizing the E-rate Program for Schools and Libraries, WC Docket No. 13-184, Order, 31 FCC Rcd 9767, 9775 (2016); Schools and Libraries Universal Service Support Mechanism, A National Broadband Plan for our Future, CC Docket No. 02-6, GN Docket No. 09-51, Order, 25 FCC Rcd 18762, 18773, n.54 (2010).

¹⁸⁴ See Amortization NPRM and Order at para. 12.

¹⁸⁵ See id. at para. 4.

¹⁸⁶ See *id.* at para. 6.

¹⁸⁷ Promoting Telehealth for Low-Income Consumers, WC Docket No. 18-213, Notice of Inquiry, 33 FCC Rcd 7825 (2018).

¹⁸⁸ *Id.* at 7830, para. 10.

¹⁸⁹ *Id.* at 7834, para. 25.

affected by natural disasters, in part through the use of USF funding. In October 2017, the Commission pledged to repair communications networks in Puerto Rico and the U.S. Virgin Islands damaged by Hurricane Maria¹⁹⁰ and in May 2018, the Commission approved additional funding to accelerate the restoration of communications networks in Puerto Rico and the U.S. Virgin Islands that were damaged and destroyed during the 2017 hurricane season.¹⁹¹ It also sought comment on providing almost \$900 million in medium- and long-term funding for the purpose of expanding and improving broadband access on the islands.¹⁹² The Order and Notice of Proposed Rulemaking includes an immediate infusion of approximately \$64 million in additional funding for short-term restoration efforts, and sought public comment on a proposal to allocate approximately \$444.5 million in funding for Puerto Rico and \$186.5 million for the U.S. Virgin Islands over the next decade for the expansion of fixed broadband connectivity.¹⁹³

C. Access to Spectrum

- 67. Since the release of the *2018 Report*, the Commission has continued its efforts to expand access to spectrum to support or supplement wireless and satellite broadband services. On August 3, 2018, the Commission announced the application and bidding procedures for the *Spectrum Frontiers* auctions of licenses in the 24 GHz and 28 GHz bands to speed the deployment of 5G services in these bands. ¹⁹⁴ The two auctions have separate application and bidding processes and concurrent application windows, and the first round of bidding commenced November 14, 2018. ¹⁹⁵ On September 26, 2018, the Commission streamlined, consolidated, and harmonized the rules governing earth stations used to provide satellite-based FSS services on ships, airplanes and vehicles. ¹⁹⁶ These actions simplify the regulatory approval process for this rapidly growing segment of the satellite communications market and expand the FSS frequency bands where these operations can be conducted. ¹⁹⁷ On November 15, 2018, the Commission adopted a Notice of Proposed Rulemaking proposing to further streamline the Commission's Part 25 rules governing satellite services, including through consolidated licensing and reporting proposals. ¹⁹⁸
- 68. In addition, the Commission has initiated several proceedings aimed at facilitating the efficient and effective use of spectrum, such as the 2.5 GHz rulemaking proceeding, or increasing the amount of spectrum that may be used to enhance bandwidth and capacity, such as the *Spectrum Frontiers*

¹⁹⁰ Connect America Fund, WC Docket No. 10-90, Order, 32 FCC Rcd 7981 (2017).

¹⁹¹ *The Uniendo a Puerto Rico Fund and the Connect USVI Fund*, Order and Notice of Proposed Rulemaking, WC Docket No. 18-143, 33 FCC Rcd 5404 (2018) (*Uniendo PR and Connect USVI Funds Order and NPRM*).

¹⁹² *Id.* at 5405, paras. 3-5. The Commission will make available up to \$750 million of funding to carriers in Puerto Rico through the Uniendo a Puerto Rico Fund, and up to \$204 million of funding to carriers in the U.S. Virgin Islands through the Connect USVI Fund. This funding includes both immediate infusions of funds for restoration efforts in 2018, and proposals to provide additional funding over the next ten years. *Id.*

¹⁹³ *Id.* at 5413, paras. 30-33.

¹⁹⁴ Auctions of Upper Microwave Flexible Use Licenses for Next-Generation Wireless Services, Public Notice, AU Docket No. 18-85, 33 FCC Rcd 7575 (2018).

¹⁹⁵ *Id*.

¹⁹⁶ Amendment of Parts 2 and 25 of the Commission's Rules to Facilitate the Use of Earth Stations in Motion Communicating with Geostationary Orbit Space Stations in Frequency Bands Allocated to the Fixed Satellite Service, IB Docket No. 17-95, Report and Order and Further Notice of Proposed Rulemaking, 33 FCC Rcd 9327 (2018).

¹⁹⁷ *Id*.

¹⁹⁸ Further Streamlining Part 25 Rules Governing Satellite Services, IB Docket No. 18-314, Notice of Proposed Rulemaking, FCC 18-165 (Nov. 15, 2018).

proceeding.¹⁹⁹ In another proceeding, the Commission is pursuing the joint goals of making more midband spectrum available between 3.7-4.2 GHz for new terrestrial wireless uses while balancing desired speed to the market, efficiency of use, and effectively accommodating incumbent Fixed Satellite Service (FSS) and Fixed Service (FS) operations in the band.²⁰⁰

- 69. With respect to satellite, the Commission approved the first U.S.-licensed satellite constellation to provide broadband services using a new generation of low-Earth orbit (LEO) satellite technologies in the *SpaceX Authorization Order*.²⁰¹ The Commission also granted O3b Limited's request to expand its grant of U.S. market access for its NGSO constellation in order to allow O3b to pursue its goal of expanding broadband Internet access to communities across the United States.²⁰² These actions promise to expand broadband to communities across the United States.
- 70. On November 15, 2018, the Commission adopted a number of Orders granting the applications of non-geostationary (NGSO) FSS LEO systems for authorization or market access to provide broadband services in the United States. Specifically, the Commission (1) granted Telesat Canada's request to access the U.S. market to provide broadband services using a proposed constellation of 117 NGSO LEO satellites, ²⁰³ and (2) granted LeoSat's request for U.S. market access to provide satellite broadband services in the United States using a proposed constellation of 78 NGSO LEO satellites, including high-speed connectivity for enterprises. ²⁰⁴ The Commission also granted SpaceX's application to construct, deploy and operate a proposed NGSO satellite system using frequencies in the V-band, which will provide SpaceX with additional flexibility to provide both diverse geographic coverage and the capacity to support a wide range of proposed broadband and communications services in the United States and globally. ²⁰⁵
- 71. By assessing our ongoing efforts toward closing the digital divide, as we do in this Report, we gain valuable insight from stakeholders and other interested parties as to whether our policies

¹⁹⁹ Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands; Transforming the 2.5 GHz Band, WT Docket No. 03-66 (Terminated) and WT Docket No. 18-120, Notice of Proposed Rulemaking, 33 FCC Rcd 4687 (2018); Use of Spectrum Bands Above 24 GHz for Mobile Radio Services, et al., GN Docket No. 14-177, Third Report and Order, Memorandum Opinion and Order, and Third Further Notice of Proposed Rulemaking, 33 FCC Rcd 5576 (2018).

²⁰⁰ Expanding Flexible Use of the 3.7 to 4.2 GHz Band; Expanding Flexible Use in Mid-Band Spectrum Between 3.7 and 24 GHz; Petition for Rulemaking to Amend and Modernize Parts 25 and 101 of the Commission's Rules to Authorize and Facilitate the Deployment of Licensed Point-to-Multipoint Fixed Wireless Broadband Service in the 3.7-4.2 GHz Band; Fixed Wireless Communications Coalition, Inc., Request for Modified Coordination Procedures in Band Shared Between the Fixed Service and the Fixed Satellite Service, GN Docket No. 18-122, GN Docket No. 17-183 (Terminated), RM 11791, RM-11778, Order and Notice of Proposed Rulemaking, 33 FCC Rcd 6915, 6916-17, 6964, paras. 1-2, 5, and 148 (2018) (noting that mid-band spectrum is well-suited for next generation wireless broadband services and seeking comment on whether this band should be included in the Commission's spectrum screen).

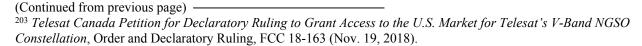
²⁰¹ Space Exploration Holdings, LLC; Application For Approval for Orbital Deployment and Operating Authority for the SpaceX NGSO Satellite System; Application For Approval For Orbital Deployment And Operating Authority for the SpaceX NGSO Satellite System Supplement, Memorandum Opinion, Order and Authorization, 33 FCC Rcd 3391 (2018); see also WorldVu Satellites Limited; Petition for a Declaratory Ruling Granting Access to the U.S. Market for the OneWeb NGSO FSS System, Order and Declaratory Ruling, 32 FCC Rcd 5366 (2017); Space Norway AS; Petition for a Declaratory Ruling Granting Access to the U.S. Market for the Arctic Satellite Broadband Mission, Order and Declaratory Ruling, 32 FCC Rcd 9649 (2017); Telesat Canada; Petition for Declaratory Ruling to Grant Access to the U.S. Market for Telesat's NGSO Constellation, Order and Declaratory Ruling, 32 FCC Rcd 9663 (2017).

²⁰² O3b Limited; Request for Modification of U.S. Market Access for O3b Limited's Non-Geostationary Satellite Orbit System in the Fixed-Satellite Service and in the Mobile-Satellite Service, Order and Declaratory Ruling, 33 FCC Rcd 5508 (2018).

and actions are effective and what more we could consider doing as we continue our work to ensure that all Americans have access to advanced telecommunications capability. We agree with R Street that the work of the Commission's new Office of Economics and Analytics should further enhance the precision of our section 706 analysis and bolster our data-driven policies going forward.²⁰⁶

D. Broadband Deployment Advisory Committee

- 72. The BDAC, a federal advisory committee chartered in March 2017, makes recommendations to the Commission on how to accelerate broadband deployment by reducing and/or removing regulatory barriers to infrastructure investment.²⁰⁷ The BDAC provides a means for stakeholders to exchange ideas and develop recommendations to the Commission on broadband deployment, thereby enhancing the Commission's ability to carry out its statutory responsibility to encourage broadband deployment to all Americans.²⁰⁸ Since the Commission released the *2018 Report*, the BDAC has met three times, first on April 25, 2018²⁰⁹ then on July 26-27, 2018,²¹⁰ and again on December 6-7, 2018.²¹¹
- 73. In 2018, the BDAC considered reports and recommendations from its various working groups, including draft model codes for states and municipalities to encourage the development and deployment of broadband infrastructure.²¹² The BDAC adopted the model code for municipalities at the July 2018 meeting and finalized the model code for states at the December 2018 meeting.
- 74. In August, the BDAC solicited nominations for membership on a new Disaster Response and Recovery Working Group, and on November 1, 2018, Chairman Pai appointed the members who will serve on the Disaster Response and Recovery Working Group of the BDAC.²¹³ The BDAC's Disaster Response and Recovery Working Group will be charged with making recommendations on additional measures that can be taken before a disaster to improve resiliency of broadband infrastructure, strategies that can be used during the response to a disaster to minimize the downtime of broadband networks, and



²⁰⁴ LeoSat MA, Inc. Petition for Declaratory Ruling Concerning U.S. Market Access for the LeoSat Ka-band Low-Earth Orbit Satellite System, Order and Declaratory Ruling, FCC 18-164 (Nov. 19, 2018). In its petition for declaratory ruling, LeoSat stated that it will "ensure access to new broadband services for remote and underserved communities in Alaska, Hawaii, Puerto Rico, and the U.S. Virgin Islands" and that its network will deliver "enterprise-to-enterprise communications, Internet and 5G/4G cellular backhaul, video content delivery, oil field services and operations, and maritime communications." LeoSat MA, Inc., Petition for Declaratory Ruling to Permit U.S. Market Access for the LeoSat Ka-band Low-Earth Orbit Satellite System, IBFS File No. SAT-PDR-20161115-00112, Narrative at 1-4 (filed Nov. 15, 2016).

²⁰⁵ Space Exploration Holdings, LLC; Application for Approval for Orbital Deployment and Operating Authority for the SpaceX V-band NGSO Satellite System, Memorandum Opinion, Order and Authorization, FCC 18-161 (Nov. 19, 2018).

²⁰⁶ R Street Comments at 7-8.

²⁰⁷ FCC, *Broadband Deployment Advisory Committee Charter, Committee's Objective and Scope of its Activities* (Mar. 1, 2017), https://www.fcc.gov/sites/default/files/bdac-charter.pdf.

²⁰⁸ FCC, *Broadband Deployment Advisory Committee Charter, Committee's Objective and Scope of its Activities* (Mar. 1, 2017), https://www.fcc.gov/sites/default/files/bdac-charter.pdf. *Id.*

²⁰⁹ FCC Announces the Next Meeting of the Broadband Deployment Advisory Committee, GN Docket No. 17-83, Public Notice, 33 FCC Rcd 1760 (2018).

²¹⁰ FCC Announces the Next Meeting of the Broadband Deployment Advisory Committee, GN Docket No. 17-83, Public Notice, 33 FCC Rcd 6495 (2018).

actions that can be taken to restore broadband infrastructure during disaster recovery.²¹⁴ On December 10, the Commission announced its intent to re-charter the BDAC for an additional two years, starting on or about March 1, 2019, and solicited nominations for the re-chartered BDAC.²¹⁵

75. The BDAC's efforts have been particularly influential in the Commission's infrastructure proceedings. A number of the BDAC's recommendations²¹⁶ provided the framework for many of the Commission's actions in the August 2018 *Wireline Infrastructure Third Report and Order and Declaratory Ruling*,²¹⁷ including the BDAC's January 2018 proposal to streamline pole attachment makeready workflows under a "one-touch make-ready" (OTMR) model. ²¹⁸ Similarly, the BDAC's findings, reports, and recommendations²¹⁹ informed the conclusions in the Commission's September 2018 *Wireless Infrastructure Declaratory Ruling and Third Report and Order*. ²²⁰

VI. SECTION 706 FINDING

Americans in a reasonable and timely fashion. As discussed in detail above,²²¹ the Commission has taken significant steps since the last *Report* to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans."²²² Public reports of industry efforts and plans for broadband expansion support our belief that the Commission's actions to date to encourage and stimulate broadband deployment and innovation are in fact working as intended. Capital expenditures by broadband providers increased by approximately \$1.5 billion in 2017, reversing declines that occurred in both 2015 and 2016.²²³ Broadband providers, both small and large, built and upgraded networks across the country, deploying fiber to 5.9 million additional homes in 2018, the most ever recorded in a single year.²²⁴ AT&T, Sprint, and Verizon have each announced planned launches of 5G networks in multiple cities to begin in late 2018 and continue through 2019.²²⁵ In addition, several states have announced state

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²¹¹ FCC Announces the Next Meeting of the Broadband Deployment Advisory Committee,	GN Docket No.	17-83,
Public Notice, DA 18-1160 (Nov. 14, 2018).		

²¹² BDAC Model Code for States Working Group, State Model Code for Accelerating Broadband Infrastructure Deployment and Investment, Final Approved Sections (Dec. 6, 2018), https://www.fcc.gov/sites/default/files/bdac-12-0607-2018, https://www.fcc.gov/sites/default/files/bdac-12-0607-2018-model-code-states-discussion-doc.pdf; https://www.fcc.gov/sites/default/files/bdac-12-0607-2018-model-code-states-discussion-doc.pdf; https://www.fcc.gov/sites/default/files/bdac-12-0607-2018-harmonization-wg-model-code-states.pdf; https://www.fcc.gov/sites/default/files/bdac-07-2627-2018-harmonization-wg-model-code-muni.pdf.

²¹³ FCC Announces Membership of the Broadband Deployment Advisory Committee's Disaster Response and Recovery Working Group, GN Docket No. 17-83. Public Notice, DA 18-1121 (Nov. 1, 2018).

²¹⁴ FCC Solicits Nominations for New Disaster Response and Recovery Working Group of the Broadband Deployment Advisory Committee, Public Notice, GN Docket No. 17-83, 33 FCC Rcd 8096 (2018).

²¹⁵ See FCC Announces the Re-Charter of the Broadband Deployment Advisory Committee and Solicits Nominations for Membership, GN Docket No. 17-83, Public Notice, DA 18-1239 (Dec. 10, 2018).

²¹⁶ See, e.g., BDAC January 2018 Recommendations at 19-22, 26-27, 29, 37, 39, https://ecfsapi.fcc.gov/file/107030255502405/Competitive%20Access%20to%20Broadband%20Infrastructure%20Report.pdf; BDAC, Addendum to the Report of the Competitive Access to Broadband Infrastructure Working Group (April 25, 2018), https://www.fcc.gov/sites/default/files/bdac-cabi-report-04252018.pdf.

²¹⁷ See Wireline Infrastructure Third Report and Order, 33 FCC Rcd at 7706, para. 2.

and local programs and public-private partnerships that are expected to further stimulate broadband deployment and access.²²⁶

- Because the data used in our analysis here only provide the extent of U.S. broadband 77. deployment through December 2017, some of the actions that the Commission has more recently undertaken to speed broadband deployment likely are not yet fully reflected by that data. We agree with Free State, however, that the "data available thus far for 2017 supports an affirmative determination that broadband is being reasonably and timely deployed" and that the 2017 Form 477 data "shows further progress in broadband deployment that exceeds 2016 and 2015 ... "227 The available data demonstrate progress in the deployment of "advanced telecommunications capability" from 2016 to 2017. The percentage of Americans with access to fixed terrestrial broadband deployment increased from 91.9% in 2016 to 93.5% in 2017, for example, with increases in urban, rural, and tribal areas.²²⁸ More Americans—89%—have access to mobile LTE with median speeds of 10 Mbps/3 Mbps, up from 87.3% in 2016.²²⁹ Indeed, there were deployment increases in both fixed and mobile services, both apart and when combined.²³⁰ We also are encouraged by the year over year increases in fixed terrestrial services at every speed examined in this report—10 Mbps/1 Mbps, 25 Mbps/3 Mbps, 50 Mbps/5 Mbps, 100 Mbps/10 Mbps, and 250 Mbps/25 Mbps.²³¹ In addition, we believe that the planned 5G deployments and launches, as well as the state and local and private-public partnership efforts noted above, ²³² are signs that the industry is responding favorably to our efforts to spur broadband deployment and expansion with increased investment.
- 78. We disagree with commenters who contend that the section 706 requirements have not been met.²³³ Specifically, the Commission's spectrum policy and its actions in the infrastructure dockets have complemented, not undermined, its efforts to promote broadband deployment.²³⁴ Moreover, as the Commission has previously explained, the statute requires that we determine whether advanced telecommunications capability "is being deployed to all Americans"—not whether it has already been deployed to all Americans.²³⁵ The statute does not require perfection; reading section 706(b) to require

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218 See BDAC January 2018 Recommendations at 18-31,
https://ecfsapi.fcc.gov/file/107030255502405/Competitive%20Access%20to%20Broadband%20Infrastructure%20R
eport.pdf. By some estimates, OTMR alone could result in approximately 8.3 million incremental premises passed
with fiber, and about \$12.6 billion in incremental fiber capital expenditures. See Letter from Thomas J. Navin,
Counsel to Corning, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 17-84, at Attach. A; Ed Naef and Alex
King, CMA Strategy Consulting, Assessing the Impact of Removing Regulatory Barriers on Next Generation
Wireless and Wireline Broadband Infrastructure Investment: Annex 1, Model Sensitivities at 5-6 (filed Feb. 26,
2018).

²¹⁹ See, e.g., BDAC, Model Code for Municipalities Working Group, Model Code for Municipalities (July 19, 2018), https://www.fcc.gov/sites/default/files/bdac-07-2627-2018-harmonization-wg-model-code-muni.pdf; BDAC, Report of the Removal of State and Local Regulatory Barriers Working Group (Jan. 10, 2018), https://www.fcc.gov/sites/default/files/bdac-07-2627-2018-pdf; BDAC, Rates and Fees Committee, Draft Final Report to the BDAC (v 2.5) (July 24, 2018), https://www.fcc.gov/sites/default/files/bdac-07-2627-2018-rates-fees-wg-report-07242018.pdf.

²²⁰ See Wireless Infrastructure Third Report and Order, 33 FCC Rcd 9088, 8098-99, para. 27.

²²¹ See supra Sections V.A.-D.

²²² 47 U.S.C. § 1302(a).

²²³ See generally Patrick Brogan, Vice President for Industry Analysis, USTelecom, U.S. Broadband Investment Rebounded in 2017 (2018), https://www.ustelecom.org/ustelecom-broadband-capital-expenditures-once-again-on-upward-trajectory.

²²⁴ See Fiber Broadband Association, North American 2018 Advanced Broadband Report (2018).

universal availability as a prerequisite for a positive finding would disregard the statute's "reasonable and timely" language.²³⁶ Our policymaking efforts over the last two years are promoting broadband deployment,²³⁷ and the data show that ISPs are making strong progress in deploying advanced telecommunications capability to more and more Americans.²³⁸ These circumstances warrant a positive finding.

79. We recognize that despite our positive finding today, our work to close the digital divide is not complete. For instance, the data demonstrates that six percent of Americans, over 19 million households, lack access to fixed terrestrial advanced telecommunications capability and we recognize that the situation is especially problematic in rural areas, where over 24% lack access, and Tribal Lands, where 32% lack access. Several Commission proceedings remain open as we actively work to close the digital divide. In addition, as detailed in the December 2018 *Communications Marketplace Report*, over the next two years, we plan on taking a number of additional actions to promote further broadband deployment. The further deployment of advanced telecommunications capability will remain a top

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225 See Press Release, AT&T, AT&T Makes World's First Standards-Based Mobile 5G Millimeter Wave

Connection (Sept. 10, 2018), http://about.att.com/story/2018/5g_cities_2018_2019.html (describing a wireless 5G data transfer test using production equipment, announcing plans to introduce mobile 5G in parts of Atlanta, Charlotte, Dallas, Houston, Indianapolis, Jacksonville, Louisville, New Orleans, Oklahoma City, Raleigh, San Antonio, and Waco this year, with expansion to Las Vegas, Los Angeles, Nashville, Orlando, San Diego, San Francisco, and San Jose in early 2019); Nicholas Rossolillo, What to Expect When Verizon Launches Its 5G Network (Aug. 18, 2018), https://www.fool.com/investing/2018/08/18/what-to-expect-when-verizon-launches-its-5g-networ.aspx (describing Verizon's roll out of fixed and wireless 5G service in Houston, Indianapolis, Los Angeles, and Sacramento, including planned service offerings, costs, and timing); Monica Alleven, Sprint CTO Explains How Carrier Plans to Win the 5G Race (May 24, 2018), https://www.fiercewireless.com/wireless/sprint-cto-explains-roll.

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how-it-plans-to-win-5g-race (discussing Sprint's plans to launch 5G initially across Atlanta, Chicago, Dallas,

²²⁶ Christine Book, *Delaware Announces RFP For Broadband Expansion* (July 31, 2018), https://www.smartresilient.com/delaware-announces-rfp-broadband-expansion (discussing state efforts to encourage public-private partnerships to improve broadband availability in rural areas, building on broadband pilot program monetized through legislative negotiations during telecommunications deregulation); Christine Book, *Broadband Expansion Gains Momentum Across U.S.* (Aug. 1 2018), https://www.smartresilient.com/broadband-expansion-gains-momentum-across-us (describing initiatives and plans in Virginia, Kansas, Ohio, and Indiana to upgrade existing infrastructure and expand access to broadband across underserved areas in those states); Lightwave Staff, https://www.lightwaveonline.com/articles/2018/08/middle-tennessee-electric-united-communications-pair-for-broadband-expansion.html (discussing partnership between an electric co-op and an ISP to expand the availability of high-speed broadband in seven Tennessee counties).

²³³ See, e.g., CWA Comments at 2 (Broadband is not being deployed in a reasonable and timely fashion, and the Commission was wrong to conclude so . . . "); PK & CC Comments at 3, 19-23 ("[T]he Commission's actions on a number of broadband related issues from copper retirement, to Lifeline, to spectrum have all widened the digital divide or unnecessarily slowed broadband deployment"; elimination of copper retirement rules puts vulnerable Americans at risk for service downgrades, spectrum policies have delayed CBRS deployment and created potential for spectrum warehousing, and proposed cuts to Lifeline will widen the digital divide); National Associations Reply at 3 ("By focusing on progress rather than those left unserved, the Commission seems to have lowered the bar for assessing broadband deployment at a time when we should be reaching for a higher standard. This progress based standard effectively tells those still waiting for broadband that it is reasonable for them to have been left behind."); CC, PK & NHMC Nov. 15, 2018 Ex Parte Letter at 5.

²³⁴ For example, in the Wireline Infrastructure First Report and Order, the Commission largely returned its copper retirement rules to their pre-2015 state based on a record in that proceeding demonstrating that the copper retirement rules adopted in 2015 were overly burdensome and unnecessary, and caused certain incumbent LECs to delay plans to deploy fiber "and, in some instances, to even consider foregoing fiber deployment altogether." Wireline Infrastructure First Report and Order, 32 FCC Rcd at 11141, para. 31. The currently effective copper retirement rules afford incumbent LECs transitioning to next-generation networks greater flexibility, "eliminating the delays and additional costs imposed by" the rules adopted in 2015. Id. at 11145, para. 41. In addition, recent Commission actions have made additional spectrum available in the 600 MHz band, the 3.5 GHz band, and the millimeter wave bands. See Incentive Auction Closing and Channel Reassignment Public Notice; The Broadcast Television Incentive Auction Closes; Reverse Auction and Forward Auction Results Announced; Final Television Band Channel Assignments Announced: Post-Auction Deadlines Announced. Public Notice. 32 FCC Rcd 2786 (MB. WTB 2017): Use of Spectrum Bands Above 24 GHz For Mobile Radio Services, Third Report and Order, Memorandum Opinion and Order, and Third Further Notice of Proposed Rulemaking, FCC 18-73 (Jun. 8, 2018). The Commission is also attempting to make additional spectrum available in other bands, including making more mid-band spectrum available between 3.7-4.2 GHz for new terrestrial wireless uses while balancing desired speed to the market, efficiency of use, and effectively accommodating incumbent FSS and FS operations in the band. See 3.7 to 4.2 GHz Band Order and NPRM at paras. 1-2. The Commission has proposed rules that will allow more efficient and

(continued....)

²²⁷ FSF Comments at 2, 4-6.

²²⁸ See supra Fig. 1.

²²⁹ See supra Fig. 2b.

²³⁰ See supra Figs. 1, 2a, 2b, 3c, 3d.

²³¹ See supra Fig. 4.

²³² See para. 77, supra; see also ACA Comments at 5 ("[T]he Commission's pursuit of a regulatory agenda that minimizes the costs and burdens of deployment is a major factor that has driven and continues to drive ACA members' substantial broadband investments."); ACA Reply at 2-3 ("Indeed, the investments of the cable industry . . . are expected to bestow 'at least 70 to 75% of American households [with] access to cable gigabit services by the end of 2018."").

priority as we continue our efforts to help deliver the benefits of broadband to all Americans.

VII. ORDERING CLAUSE

80. Accordingly, IT IS ORDERED that, pursuant to section 706 of the Telecommunications Act of 1996, as amended, 47 U.S.C. § 1302, this Report IS ADOPTED.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch Secretary

(Continued from previous page) ————
effective use of the 2.5 GHz band. See Amendment of Parts 1, 21, 73, and 101 of the Commission's Rules to
Facilitate the Provision of Fixed and Mobile Broadband Access, Education and Other Advanced Services in the
2150-2162 and 2500-2690 Bands; Transforming the 2.5 GHz Band, Notice of Proposed Rulemaking, FCC 18-59
(May 10, 2018)

²³⁵ 2018 Report, 33 FCC Rcd at 1663, para. 12; see also ADTRAN Reply at 5-6 ("OTI and Common Cause/Public Knowledge suggest that the Commission should abandon its use of looking at year-over-year progress . . . [b]ut that position ignores the language that Congress specified in the statute – the Commission is directed to assess 'whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion.""); Comcast Reply at 12 ("The undisputed trend toward faster speed tiers supports a finding that deployment of advanced communications capability has been reasonable and timely.").

²³⁶ 2018 Report, 33 FCC Rcd at 1663, para 12; see also ITTA Comments at 4 ("Section 706's definition of 'advanced telecommunications capability' to encompass 'high-quality' telecommunications does not require a failing grade if the broadband service is not capable of providing each and every new function and application to reach the market. Nor does it command an assessment of whether the 'most' advanced telecommunications capability is being deployed on a reasonable and timely basis.").

²³⁷ See supra Section V.

²³⁸ See supra Section IV.

²³⁹ See supra Fig. 1.

²⁴⁰ See Communications Marketplace Report at paras. 326-38, 347.

APPENDIX 1
of Fixed 25 Mbps/3 Mbps; Mobile LTE with a

Deployment (Millions) of Fixed 25 Mbps/3 Mbps; Mobile LTE with a Minimum Advertised Speed of 5 Mbps/1 Mbps; and Mobile LTE with a Median Speed of 10 Mbps/3 Mbps by State and District of Columbia

	D	Fixed 25	-	Mobile LT 1 M	E 5 Mbps/	D		TE 10 Mbps/ Mbps	
	Pop. Evaluated	Pop.	% of Pop.	Pop.	% of Pop.	Pop. Evaluated	Pop.	% of Pop.	
United States	325.716	304.405	93.5%	325.117	99.8%	302.940	269.494	89.0%	
Rural Areas	63.783	46.960	73.6%	63.204	99.1%	47.555	32.966	69.3%	
Urban Areas	261.933	257.446	98.3%	261.912	100%	255.385	236.528	92.6%	
Alabama	4.875	4.199	86.1%	4.871	99.9%	4.192	3.438	82.0%	
Rural Areas	2.010	1.401	69.7%	2.006	99.8%	1.468	1.082	73.7%	
Urban Areas	2.865	2.799	97.7%	2.865	100%	2.724	2.356	86.5%	
Alaska	0.740	0.595	80.5%	0.661	89.4%	0.666	0.431	64.8%	
Rural Areas	0.263	0.135	51.6%	0.196	74.5%	0.219	0.076	34.7%	
Urban Areas	0.477	0.460	96.4%	0.465	97.6%	0.447	0.355	79.5%	
Arizona	7.016	6.098	86.9%	6.991	99.6%	6.898	5.772	83.7%	
Rural Areas	0.832	0.331	39.8%	0.808	97.1%	0.769	0.420	54.6%	
Urban Areas	6.184	5.767	93.3%	6.183	100%	6.129	5.352	87.3%	
Arkansas	3.004	2.324	77.4%	2.998	99.8%	2.262	1.508	66.7%	
Rural Areas	1.331	0.745	55.9%	1.325	99.5%	0.799	0.464	58.1%	
Urban Areas	1.673	1.580	94.4%	1.673	100%	1.463	1.044	71.3%	
California	39.536	38.365	97.0%	39.510	99.9%	39.434	37.422	94.9%	
Rural Areas	2.347	1.579	67.3%	2.320	98.9%	2.280	1.731	75.9%	
Urban Areas	37.190	36.785	98.9%	37.190	100%	37.154	35.692	96.1%	
Colorado	5.606	5.211	92.9%	5.597	99.8%	5.153	4.810	93.3%	
Rural Areas	0.869	0.549	63.2%	0.859	98.9%	0.584	0.460	78.8%	
Urban Areas	4.738	4.662	98.4%	4.738	100%	4.569	4.350	95.2%	
Connecticut	3.588	3.556	99.1%	3.588	100%		3.588	100%	
Rural Areas	0.433	0.431	99.5%	0.433	100%	0.433	0.433	100%	
Urban Areas	3.155	3.126	99.1%	3.155	100%	3.155	3.155	100%	
Delaware	0.962	0.939	97.6%	0.962	100%	0.962	0.737	76.6%	
Rural Areas	0.170	0.160	93.8%	0.170	100%	0.170	0.076	44.8%	
Urban Areas	0.792	0.780	98.5%	0.792	100%	0.792	0.660	83.4%	
District of Columbia	0.694	0.680	98.1%	0.694	100%	0.694	0.694	100%	
Florida	20.984	20.187	96.2%	20.980	100%	20.662	19.893	96.3%	
Rural Areas	2.032	1.583	77.9%	2.028	99.8%	1.797	1.422	79.1%	

	Pop.	Fixed 2: 3 M	5 Mbps/ bps		E 5 Mbps/	Pop.	Mobile LT	E 10 Mbps/
	Evaluated	Pop.	% of Pop.	Pop.	% of Pop.	Evaluated	Pop.	% of Pop.
Urban Areas	18.952	18.604	98.2%	18.952	100%	18.865	18.471	97.9%
Georgia	10.429	9.643	92.5%	10.425	100%	8.990	8.621	95.9%
Rural Areas	2.558	1.986	77.6%	2.554	99.8%	1.533	1.329	86.7%
Urban Areas	7.871	7.658	97.3%	7.871	100%	7.457	7.292	97.8%
Hawaii	1.428	1.372	96.1%	1.426	99.9%	1.427	1.426	99.9%
Rural Areas	0.132	0.094	71.5%	0.131	99.2%	0.132	0.131	99.2%
Urban Areas	1.296	1.278	98.6%	1.296	100%	1.296	1.296	100%
Idaho	1.717	1.465	85.3%	1.704	99.3%	1.389	0.818	58.9%
Rural Areas	0.531	0.311	58.6%	0.518	97.6%	0.322	0.140	43.5%
Urban Areas	1.186	1.154	97.3%	1.186	100%	1.067	0.678	63.6%
Illinois	12.802	12.119	94.7%	12.801	100%	12.019	11.589	96.4%
Rural Areas	1.473	0.900	61.1%	1.472	99.9%	0.972	0.817	84.1%
Urban Areas	11.329	11.219	99.0%	11.329	100%	11.048	10.772	97.5%
Indiana	6.666	5.993	89.9%	6.666	100%	5.962	5.453	91.5%
Rural Areas	1.841	1.242	67.4%	1.841	100%	1.338	1.058	79.1%
Urban Areas	4.826	4.752	98.5%	4.826	100%	4.624	4.395	95.0%
Iowa	3.145	2.851	90.7%	3.141	99.9%	2.124	1.692	79.7%
Rural Areas	1.136	0.880	77.5%	1.132	99.6%	0.444	0.329	74.3%
Urban Areas	2.009	1.971	98.1%	2.009	100%	1.681	1.363	81.1%
Kansas	2.913	2.655	91.1%	2.913	100%	2.292	2.241	97.8%
Rural Areas	0.756	0.543	71.8%	0.756	100%	0.344	0.328	95.3%
Urban Areas	2.157	2.112	97.9%	2.157	100%	1.948	1.913	98.2%
Kentucky	4.454	4.050	90.9%	4.399	98.8%	3.423	3.003	87.7%
Rural Areas	1.830	1.458	79.7%	1.775	97.0%	0.964	0.691	71.7%
Urban Areas	2.624	2.591	98.7%	2.624	100%	2.459	2.312	94.0%
Louisiana	4.684	4.104	87.6%	4.684	100%	4.247	3.471	81.7%
Rural Areas	1.256	0.795	63.3%	1.255	100%	0.942	0.649	68.9%
Urban Areas	3.428	3.309	96.5%	3.428	100%	3.304	2.821	85.4%
Maine	1.336	1.247	93.3%	1.316	98.5%	1.236	0.122	9.9%
Rural Areas	0.829	0.743	89.6%	0.809	97.6%	0.736	0.077	10.5%
Urban Areas	0.507	0.504	99.4%	0.507	100%	0.500	0.045	8.9%
Maryland	6.052	5.907	97.6%	6.052	100%	5.912	5.331	90.2%
Rural Areas	0.802	0.760	94.8%	0.802	100%	0.707	0.485	68.6%
Urban Areas	5.250	5.147	98.0%	5.250	100%	5.205	4.846	93.1%
Massachusetts	6.860	6.718	97.9%	6.859	100%	6.849	6.831	99.7%

	Pop.	Fixed 2:	5 Mbps/ lbps		E 5 Mbps/	Pop.	Mobile LT	E 10 Mbps/
	Evaluated	Pop.	% of Pop.	Pop.	% of Pop.	Evaluated	Pop.	% of Pop.
Rural Areas	0.551	0.508	92.3%	0.550	99.9%	0.548	0.541	98.6%
Urban Areas	6.309	6.210	98.4%	6.309	100%	6.300	6.290	99.8%
Michigan	9.962	9.169	92.0%	9.956	99.9%	9.478	8.515	89.8%
Rural Areas	2.556	1.868	73.1%	2.550	99.8%	2.221	1.523	68.6%
Urban Areas	7.406	7.300	98.6%	7.406	100%	7.257	6.991	96.3%
Minnesota	5.576	5.288	94.8%	5.573	99.9%	4.905	4.803	97.9%
Rural Areas	1.485	1.242	83.7%	1.482	99.8%	1.016	0.959	94.4%
Urban Areas	4.092	4.046	98.9%	4.092	100%	3.889	3.843	98.8%
Mississippi	2.984	2.374	79.6%	2.981	99.9%	1.980	1.009	51.0%
Rural Areas	1.515	0.948	62.6%	1.511	99.8%	0.751	0.305	40.6%
Urban Areas	1.469	1.426	97.0%	1.469	100%	1.229	0.705	57.3%
Missouri	6.113	5.423	88.7%	6.103	99.8%	5.118	4.322	84.4%
Rural Areas	1.828	1.189	65.1%	1.818	99.5%	1.088	0.719	66.1%
Urban Areas	4.286	4.233	98.8%	4.286	100%	4.030	3.603	89.4%
Montana	1.050	0.906	86.3%	1.025	97.5%	0.698	0.563	80.7%
Rural Areas	0.480	0.350	73.0%	0.457	95.1%	0.248	0.168	67.9%
Urban Areas	0.570	0.556	97.5%	0.568	99.6%	0.450	0.395	87.8%
Nebraska	1.920	1.675	87.3%	1.918	99.9%	1.301	1.083	83.3%
Rural Areas	0.514	0.298	58.0%	0.512	99.6%	0.143	0.081	56.4%
Urban Areas	1.406	1.378	97.9%	1.406	100%	1.158	1.002	86.6%
Nevada	2.998	2.778	92.7%	2.990	99.7%	2.923	2.769	94.7%
Rural Areas	0.208	0.097	46.5%	0.200	96.3%	0.170	0.128	75.4%
Urban Areas	2.790	2.682	96.1%	2.790	100%	2.754	2.641	95.9%
New Hampshire	1.343	1.271	94.7%	1.341	99.9%	1.269	0.716	56.4%
Rural Areas	0.533	0.475	89.1%	0.532	99.8%	0.485	0.164	33.9%
Urban Areas	0.810	0.796	98.3%	0.810	100%	0.784	0.552	70.4%
New Jersey	9.005	8.920	99.1%	9.005	100%	9.005	9.005	100%
Rural Areas	0.466	0.457	97.9%	0.466	100%	0.466	0.466	100%
Urban Areas	8.539	8.464	99.1%	8.539	100%	8.539	8.539	100%
New Mexico	2.088	1.741	83.4%	2.078	99.5%	1.856	0.895	48.2%
Rural Areas	0.502	0.237	47.3%	0.492	98.0%	0.376	0.075	19.8%
Urban Areas	1.586	1.504	94.8%	1.586	100%	1.480	0.821	55.4%
New York	19.849	19.530	98.4%	19.836	99.9%	19.385	17.958	92.6%
Rural Areas	2.354	2.051	87.1%	2.341	99.4%	2.017	1.209	60.0%
Urban Areas	17.495	17.479	99.9%	17.495	100%	17.368	16.749	96.4%

	Pop.	Fixed 2:	5 Mbps/ bps		E 5 Mbps/	Pop.	Mobile LT	E 10 Mbps/
	Evaluated	Pop.	% of Pop.	Pop.	% of Pop.	Evaluated	Pop.	% of Pop.
North Carolina	10.273	9.736	94.8%	10.243	99.7%	9.569	7.376	77.1%
Rural Areas	3.416	2.896	84.8%	3.389	99.2%	2.828	1.592	56.3%
Urban Areas	6.857	6.841	99.8%	6.854	100%	6.741	5.783	85.8%
North Dakota	0.755	0.703	93.1%	0.753	99.7%	0.460	0.458	99.6%
Rural Areas	0.335	0.293	87.3%	0.333	99.4%	0.121	0.120	98.4%
Urban Areas	0.420	0.410	97.6%	0.420	100%	0.338	0.338	100%
Ohio	11.658	11.036	94.7%	11.648	99.9%	11.150	10.725	96.2%
Rural Areas	2.579	2.021	78.4%	2.569	99.6%	2.207	1.971	89.3%
Urban Areas	9.079	9.015	99.3%	9.079	100%	8.943	8.754	97.9%
Oklahoma	3.931	3.104	79.0%	3.925	99.9%	3.535	2.329	65.9%
Rural Areas	1.348	0.651	48.3%	1.343	99.6%	1.053	0.439	41.7%
Urban Areas	2.582	2.453	95.0%	2.582	100%	2.482	1.890	76.2%
Oregon	4.143	3.826	92.4%	4.126	99.6%	3.958	3.558	89.9%
Rural Areas	0.836	0.575	68.9%	0.818	97.9%	0.734	0.577	78.6%
Urban Areas	3.307	3.251	98.3%	3.307	100%	3.224	2.981	92.5%
Pennsylvania	12.805	12.198	95.3%	12.795	99.9%	12.204	11.622	95.2%
Rural Areas	2.731	2.299	84.2%	2.721	99.6%	2.307	1.965	85.2%
Urban Areas	10.074	9.899	98.3%	10.074	100%	9.898	9.657	97.6%
Rhode Island	1.060	1.041	98.3%	1.060	100%	1.060	1.060	100%
Rural Areas	0.098	0.096	97.8%	0.098	100%	0.098	0.098	100%
Urban Areas	0.962	0.945	98.3%	0.962	100%	0.962	0.962	100%
South Carolina	5.024	4.516	89.9%	5.024	100%	4.527	4.363	96.4%
Rural Areas	1.707	1.257	73.7%	1.706	100%	1.334	1.264	94.8%
Urban Areas	3.318	3.259	98.2%	3.318	100%	3.193	3.098	97.0%
South Dakota	0.869	0.773	88.9%	0.867	99.8%	0.391	0.389	99.5%
Rural Areas	0.388	0.295	76.1%	0.386	99.5%	0.092	0.090	97.7%
Urban Areas	0.481	0.477	99.2%	0.481	100%	0.299	0.299	100%
Tennessee	6.716	6.130	91.3%	6.698	99.7%	5.766	5.520	95.7%
Rural Areas	2.263	1.743	77.0%	2.245	99.2%	1.496	1.347	90.0%
Urban Areas	4.452	4.387	98.5%	4.452	100%	4.270	4.173	97.7%
Texas	28.304	26.233	92.7%	28.298	100%	27.198	21.161	77.8%
Rural Areas	4.659	3.209	68.9%	4.653	99.9%	3.966	2.214	55.8%
Urban Areas	23.645	23.024	97.4%	23.645	100%	23.231	18.947	81.6%
Utah	3.102	2.923	94.2%	3.093	99.7%	2.938	2.594	88.3%
Rural Areas	0.383	0.245	64.0%	0.374	97.8%	0.279	0.170	61.1%

	Pop.	Fixed 2: 3 M	_	Mobile LTE 5 Mbps/ 1 Mbps Pop.		Mobile LT	•	
	Evaluated	Pop.	% of Pop.	Pop.	% of Pop.		Pop.	% of Pop.
Urban Areas	2.719	2.678	98.5%	2.719	100%	2.659	2.423	91.1%
Vermont	0.624	0.557	89.3%	0.615	98.6%	0.383	0.162	42.3%
Rural Areas	0.383	0.320	83.4%	0.375	97.8%	0.188	0.043	23.0%
Urban Areas	0.241	0.237	98.7%	0.241	100%	0.195	0.119	60.9%
Virginia	8.475	7.772	91.7%	8.456	99.8%	7.529	5.863	77.9%
Rural Areas	2.078	1.541	74.1%	2.060	99.1%	1.380	0.498	36.1%
Urban Areas	6.397	6.231	97.4%	6.397	100%	6.149	5.366	87.3%
Washington	7.406	7.205	97.3%	7.389	99.8%	7.289	6.580	90.3%
Rural Areas	1.269	1.128	88.9%	1.252	98.7%	1.193	0.909	76.2%
Urban Areas	6.137	6.076	99.0%	6.137	100%	6.096	5.670	93.0%
West Virginia	1.816	1.536	84.6%	1.728	95.1%	1.113	0.445	40.0%
Rural Areas	0.926	0.671	72.5%	0.839	90.6%	0.423	0.130	30.6%
Urban Areas	0.890	0.865	97.2%	0.889	99.9%	0.690	0.315	45.7%
Wisconsin	5.795	5.291	91.3%	5.781	99.7%	5.234	4.760	90.9%
Rural Areas	1.744	1.258	72.1%	1.730	99.2%	1.287	1.001	77.8%
Urban Areas	4.051	4.032	99.5%	4.051	100%	3.947	3.759	95.2%
Wyoming	0.579	0.471	81.3%	0.572	98.8%	0.335	0.000	0.0%
Rural Areas	0.220	0.116	52.8%	0.213	96.8%	0.085	0.000	0.0%
Urban Areas	0.360	0.355	98.7%	0.360	100%	0.250	0.000	0.0%

APPENDIX 2

hns/3 Mhns and Mahila I TE with a Minimum Advartisa

Deployment (Millions) of Fixed 25 Mbps/3 Mbps and Mobile LTE with a Minimum Advertised Speed of 5 Mbps/1 Mbps; and Fixed 25 Mbps/3 Mbps and Mobile LTE with a Median Speed of 10 Mbps/3 Mbps by State and District of Columbia

	Pop.	Fixed 25 Mbps/ 3 Mbps and Mobile LTE 5 Mbps/ 1 Mbps Pon		Pop.		nd Mobile Mbps/
	Evaluated	Pop.	% of Pop.	Evaluated	Pop.	% of Pop.
United States	325.716	304.149	93.4%	302.940	259.926	85.8%
Rural Areas	63.783	46.709	73.2%	47.555	26.728	56.2%
Urban Areas	261.933	257.440	98.3%	255.385	233.198	91.3%
Alabama	4.875	4.199	86.1%	4.192	3.193	76.2%
Rural Areas	2.010	1.400	69.7%	1.468	0.872	59.4%
Urban Areas	2.865	2.799	97.7%	2.724	2.321	85.2%
Alaska	0.740	0.590	79.8%	0.666	0.416	62.5%
Rural Areas	0.263	0.130	49.7%	0.219	0.062	28.1%
Urban Areas	0.477	0.459	96.3%	0.447	0.355	79.4%
Arizona	7.016	6.098	86.9%	6.898	5.240	76.0%
Rural Areas	0.832	0.331	39.8%	0.769	0.196	25.5%
Urban Areas	6.184	5.767	93.3%	6.129	5.044	82.3%
Arkansas	3.004	2.323	77.3%	2.262	1.372	60.6%
Rural Areas	1.331	0.744	55.9%	0.799	0.354	44.3%
Urban Areas	1.673	1.580	94.4%	1.463	1.018	69.6%
California	39.536	38.359	97.0%	39.434	36.491	92.5%
Rural Areas	2.347	1.574	67.1%	2.280	1.166	51.1%
Urban Areas	37.190	36.785	98.9%	37.154	35.326	95.1%
Colorado	5.606	5.209	92.9%	5.153	4.575	88.8%
Rural Areas	0.869	0.547	62.9%	0.584	0.284	48.6%
Urban Areas	4.738	4.662	98.4%	4.569	4.291	93.9%
Connecticut	3.588	3.556	99.1%	3.588	3.556	99.1%
Rural Areas	0.433	0.431	99.4%	0.433	0.431	99.4%
Urban Areas	3.155	3.126	99.1%	3.155	3.126	99.1%
Delaware	0.962	0.939	97.6%	0.962	0.721	74.9%
Rural Areas	0.170	0.160	93.8%	0.170	0.071	41.8%
Urban Areas	0.792	0.780	98.5%	0.792	0.650	82.0%
District of Columbia	0.694	0.680	98.1%	0.694	0.680	98.1%

	Pop.	Fixed 25 Mbps/ 3 Mbps and Mobile LTE 5 Mbps/ 1 Mbps Pop. Fixed 25 Mbps/ 3 Mbps and Mobil LTE 10 Mbps/ 3 Mbps			nd Mobile Mbps/	
	Evaluated	Pop.	% of Pop.	Evaluated	Pop.	% of Pop.
Florida	20.984	20.186	96.2%	20.662	19.358	93.7%
Rural Areas	2.032	1.582	77.9%	1.797	1.200	66.8%
Urban Areas	18.952	18.604	98.2%	18.865	18.158	96.3%
Georgia	10.429	9.640	92.4%	8.990	8.315	92.5%
Rural Areas	2.558	1.983	77.5%	1.533	1.181	77.0%
Urban Areas	7.871	7.658	97.3%	7.457	7.134	95.7%
Hawaii	1.428	1.372	96.1%	1.427	1.372	96.1%
Rural Areas	0.132	0.094	71.2%	0.132	0.094	71.2%
Urban Areas	1.296	1.278	98.6%	1.296	1.278	98.6%
Idaho	1.717	1.461	85.1%	1.389	0.747	53.8%
Rural Areas	0.531	0.307	57.9%	0.322	0.076	23.6%
Urban Areas	1.186	1.154	97.3%	1.067	0.671	62.9%
Illinois	12.802	12.119	94.7%	12.019	11.249	93.6%
Rural Areas	1.473	0.900	61.1%	0.972	0.568	58.5%
Urban Areas	11.329	11.219	99.0%	11.048	10.681	96.7%
Indiana	6.666	5.993	89.9%	5.962	5.075	85.1%
Rural Areas	1.841	1.242	67.4%	1.338	0.750	56.0%
Urban Areas	4.826	4.752	98.5%	4.624	4.326	93.5%
Iowa	3.145	2.849	90.6%	2.124	1.600	75.3%
Rural Areas	1.136	0.878	77.3%	0.444	0.264	59.6%
Urban Areas	2.009	1.971	98.1%	1.681	1.336	79.5%
Kansas	2.913	2.655	91.1%	2.292	2.138	93.3%
Rural Areas	0.756	0.543	71.8%	0.344	0.252	73.1%
Urban Areas	2.157	2.112	97.9%	1.948	1.886	96.8%
Kentucky	4.454	4.006	89.9%	3.423	2.869	83.8%
Rural Areas	1.830	1.415	77.4%	0.964	0.574	59.6%
Urban Areas	2.624	2.591	98.7%	2.459	2.294	93.3%
Louisiana	4.684	4.104	87.6%	4.247	3.259	76.7%
Rural Areas	1.256	0.795	63.3%	0.942	0.524	55.6%
Urban Areas	3.428	3.309	96.5%	3.304	2.736	82.8%
Maine	1.336	1.230	92.1%	1.236	0.121	9.8%
Rural Areas	0.829	0.726	87.6%	0.736	0.077	10.4%

	Pop.	Fixed 25 Mbps/ 3 Mbps and Mobile LTE 5 Mbps/ 1 Mbps		Pop.		A
	Evaluated	Pop.	% of Pop.	Evaluated	Pop.	% of Pop.
Urban Areas	0.507	0.504	99.4%	0.500	0.044	8.8%
Maryland	6.052	5.907	97.6%	5.912	5.225	88.4%
Rural Areas	0.802	0.760	94.8%	0.707	0.471	66.6%
Urban Areas	5.250	5.147	98.0%	5.205	4.754	91.3%
Massachusetts	6.860	6.718	97.9%	6.849	6.691	97.7%
Rural Areas	0.551	0.508	92.3%	0.548	0.499	91.0%
Urban Areas	6.309	6.210	98.4%	6.300	6.192	98.3%
Michigan	9.962	9.167	92.0%	9.478	8.106	85.5%
Rural Areas	2.556	1.867	73.0%	2.221	1.209	54.5%
Urban Areas	7.406	7.300	98.6%	7.257	6.897	95.0%
Minnesota	5.576	5.286	94.8%	4.905	4.603	93.8%
Rural Areas	1.485	1.241	83.6%	1.016	0.804	79.1%
Urban Areas	4.092	4.046	98.9%	3.889	3.799	97.7%
Mississippi	2.984	2.374	79.6%	1.980	0.919	46.4%
Rural Areas	1.515	0.948	62.6%	0.751	0.234	31.2%
Urban Areas	1.469	1.426	97.0%	1.229	0.685	55.7%
Missouri	6.113	5.419	88.6%	5.118	4.145	81.0%
Rural Areas	1.828	1.186	64.9%	1.088	0.558	51.3%
Urban Areas	4.286	4.233	98.8%	4.030	3.587	89.0%
Montana	1.050	0.894	85.1%	0.698	0.539	77.1%
Rural Areas	0.480	0.340	70.7%	0.248	0.144	57.9%
Urban Areas	0.570	0.554	97.2%	0.450	0.395	87.8%
Nebraska	1.920	1.675	87.2%	1.301	1.039	79.8%
Rural Areas	0.514	0.297	57.9%	0.143	0.053	36.9%
Urban Areas	1.406	1.378	97.9%	1.158	0.986	85.1%
Nevada	2.998	2.775	92.6%	2.923	2.598	88.9%
Rural Areas	0.208	0.093	44.9%	0.170	0.051	30.0%
Urban Areas	2.790	2.682	96.1%	2.754	2.547	92.5%
New Hampshire	1.343	1.270	94.6%	1.269	0.703	55.4%
Rural Areas	0.533	0.474	89.0%	0.485	0.158	32.6%
Urban Areas	0.810	0.796	98.3%	0.784	0.545	69.5%
New Jersey	9.005	8.920	99.1%	9.005	8.920	99.1%

	Pop.	Fixed 25 Mbps/ 3 Mbps and Mobile LTE 5 Mbps/ 1 Mbps		Pop.	Fixed 23 3 Mbps at LTE 10 3 M	nd Mobile Mbps/
	Evaluated	Pop.	% of Pop.	Evaluated	Pop.	% of Pop.
Rural Areas	0.466	0.457	97.9%	0.466	0.457	97.9%
Urban Areas	8.539	8.464	99.1%	8.539	8.464	99.1%
New Mexico	2.088	1.740	83.3%	1.856	0.860	46.3%
Rural Areas	0.502	0.236	47.1%	0.376	0.049	13.1%
Urban Areas	1.586	1.504	94.8%	1.480	0.811	54.8%
New York	19.849	19.523	98.4%	19.385	17.837	92.0%
Rural Areas	2.354	2.044	86.8%	2.017	1.103	54.7%
Urban Areas	17.495	17.479	99.9%	17.368	16.734	96.3%
North Carolina	10.273	9.711	94.5%	9.569	7.246	75.7%
Rural Areas	3.416	2.872	84.1%	2.828	1.466	51.8%
Urban Areas	6.857	6.839	99.7%	6.741	5.780	85.7%
North Dakota	0.755	0.701	92.8%	0.460	0.428	93.2%
Rural Areas	0.335	0.291	86.8%	0.121	0.099	81.1%
Urban Areas	0.420	0.410	97.6%	0.338	0.330	97.5%
Ohio	11.658	11.034	94.6%	11.150	10.326	92.6%
Rural Areas	2.579	2.019	78.3%	2.207	1.635	74.0%
Urban Areas	9.079	9.015	99.3%	8.943	8.691	97.2%
Oklahoma	3.931	3.104	79.0%	3.535	2.059	58.3%
Rural Areas	1.348	0.651	48.3%	1.053	0.236	22.5%
Urban Areas	2.582	2.453	95.0%	2.482	1.823	73.5%
Oregon	4.143	3.824	92.3%	3.958	3.365	85.0%
Rural Areas	0.836	0.573	68.6%	0.734	0.432	58.8%
Urban Areas	3.307	3.251	98.3%	3.224	2.934	91.0%
Pennsylvania	12.805	12.193	95.2%	12.204	11.226	92.0%
Rural Areas	2.731	2.294	84.0%	2.307	1.725	74.8%
Urban Areas	10.074	9.899	98.3%	9.898	9.501	96.0%
Rhode Island	1.060	1.041	98.3%	1.060	1.041	98.3%
Rural Areas	0.098	0.096	97.8%	0.098	0.096	97.8%
Urban Areas	0.962	0.945	98.3%	0.962	0.945	98.3%
South Carolina	5.024	4.516	89.9%	4.527	4.039	89.2%
Rural Areas	1.707	1.257	73.6%	1.334	0.981	73.6%
Urban Areas	3.318	3.259	98.2%	3.193	3.057	95.8%

	Pop.	3 Mbps at LTE 5	Fixed 25 Mbps/ 3 Mbps and Mobile LTE 5 Mbps/ 1 Mbps Pop. Fixed 25 Mb 3 Mbps and M LTE 10 Mb 3 Mbps		nd Mobile Mbps/	
	Evaluated	Pop.	% of Pop.	Evaluated	Pop.	% of Pop.
South Dakota	0.869	0.771	88.7%	0.391	0.367	93.9%
Rural Areas	0.388	0.294	75.8%	0.092	0.070	76.2%
Urban Areas	0.481	0.477	99.2%	0.299	0.297	99.3%
Tennessee	6.716	6.119	91.1%	5.766	5.225	90.6%
Rural Areas	2.263	1.732	76.5%	1.496	1.110	74.2%
Urban Areas	4.452	4.387	98.5%	4.270	4.115	96.4%
Texas	28.304	26.230	92.7%	27.198	20.392	75.0%
Rural Areas	4.659	3.207	68.8%	3.966	1.809	45.6%
Urban Areas	23.645	23.023	97.4%	23.231	18.583	80.0%
Utah	3.102	2.922	94.2%	2.938	2.487	84.6%
Rural Areas	0.383	0.244	63.7%	0.279	0.100	35.8%
Urban Areas	2.719	2.678	98.5%	2.659	2.387	89.8%
Vermont	0.624	0.553	88.6%	0.383	0.159	41.4%
Rural Areas	0.383	0.315	82.2%	0.188	0.042	22.5%
Urban Areas	0.241	0.237	98.7%	0.195	0.116	59.7%
Virginia	8.475	7.759	91.5%	7.529	5.634	74.8%
Rural Areas	2.078	1.528	73.5%	1.380	0.416	30.1%
Urban Areas	6.397	6.231	97.4%	6.149	5.219	84.9%
Washington	7.406	7.193	97.1%	7.289	6.460	88.6%
Rural Areas	1.269	1.117	88.0%	1.193	0.840	70.4%
Urban Areas	6.137	6.076	99.0%	6.096	5.620	92.2%
West Virginia	1.816	1.486	81.9%	1.113	0.421	37.8%
Rural Areas	0.926	0.622	67.2%	0.423	0.113	26.6%
Urban Areas	0.890	0.864	97.1%	0.690	0.308	44.7%
Wisconsin	5.795	5.286	91.2%	5.234	4.519	86.3%
Rural Areas	1.744	1.254	71.9%	1.287	0.775	60.2%
Urban Areas	4.051	4.032	99.5%	3.947	3.744	94.8%
Wyoming	0.579	0.467	80.7%	0.335	0.000	0.0%
Rural Areas	0.220	0.112	51.2%	0.085	0.000	0.0%
Urban Areas	0.360	0.355	98.7%	0.250	0.000	0.0%

APPENDIX 3

Deployment (Millions) of Fixed 25 Mbps/3 Mbps or Mobile LTE with a Minimum Advertised Speed of 5 Mbps/1 Mbps; and Fixed 25 Mbps/3 Mbps or Mobile LTE with a Median Speed of 10 Mbps/3 Mbps by State and District of Columbia

	Pop.			Pop.	Fixed 25 Mbps/ 3 Mbps or Mobile LTE 10 Mbps/ 3 Mbps		
	Evaluated	Pop.	% of Pop.	Evaluated	Pop.	% of Pop.	
United States	325.716	325.373	99.9%	302.940	297.955	98.4%	
Rural Areas	63.783	63.455	99.5%	47.555	43.192	90.8%	
Urban Areas	261.933	261.919	100%	255.385	254.763	99.8%	
Alabama	4.875	4.871	99.9%	4.192	4.060	96.9%	
Rural Areas	2.010	2.007	99.8%	1.468	1.350	91.9%	
Urban Areas	2.865	2.865	100%	2.724	2.710	99.5%	
Alaska	0.740	0.666	90.1%	0.666	0.559	84.0%	
Rural Areas	0.263	0.201	76.4%	0.219	0.125	57.1%	
Urban Areas	0.477	0.466	97.7%	0.447	0.434	97.2%	
Arizona	7.016	6.991	99.6%	6.898	6.587	95.5%	
Rural Areas	0.832	0.808	97.1%	0.769	0.548	71.3%	
Urban Areas	6.184	6.183	100%	6.129	6.038	98.5%	
Arkansas	3.004	2.998	99.8%	2.262	2.094	92.6%	
Rural Areas	1.331	1.326	99.6%	0.799	0.657	82.2%	
Urban Areas	1.673	1.673	100%	1.463	1.438	98.3%	
California	39.536	39.516	99.9%	39.434	39.238	99.5%	
Rural Areas	2.347	2.326	99.1%	2.280	2.117	92.8%	
Urban Areas	37.190	37.190	100%	37.154	37.122	99.9%	
Colorado	5.606	5.599	99.9%	5.153	5.103	99.0%	
Rural Areas	0.869	0.861	99.2%	0.584	0.543	93.0%	
Urban Areas	4.738	4.738	100%	4.569	4.560	99.8%	
Connecticut	3.588	3.588	100%	3.588	3.588	100%	
Rural Areas	0.433	0.433	100%	0.433	0.433	100%	
Urban Areas	3.155	3.155	100%	3.155	3.155	100%	
Delaware	0.962	0.962	100%	0.962	0.955	99.3%	
Rural Areas	0.170	0.170	100%	0.170	0.165	96.8%	
Urban Areas	0.792	0.792	100%	0.792	0.790	99.8%	
District of Columbia	0.694	0.694	100%	0.694	0.694	100%	

	Pop.	3 Mbps o LTE 5	5 Mbps/ or Mobile Mbps/ lbps	Pop.	Fixed 25 Mbps/ 3 Mbps or Mobile LTE 10 Mbps/ 3 Mbps		
	Evaluated	Pop.	% of Pop.	Evaluated	Pop.	% of Pop.	
Florida	20.984	20.982	100%	20.662	20.524	99.3%	
Rural Areas	2.032	2.029	99.9%	1.797	1.680	93.5%	
Urban Areas	18.952	18.952	100%	18.865	18.844	99.9%	
Georgia	10.429	10.427	100%	8.990	8.919	99.2%	
Rural Areas	2.558	2.557	99.9%	1.533	1.475	96.2%	
Urban Areas	7.871	7.871	100%	7.457	7.444	99.8%	
Hawaii	1.428	1.427	100%	1.427	1.427	100%	
Rural Areas	0.132	0.131	99.5%	0.132	0.131	99.5%	
Urban Areas	1.296	1.296	100%	1.296	1.296	100%	
Idaho	1.717	1.708	99.5%	1.389	1.334	96.1%	
Rural Areas	0.531	0.522	98.3%	0.322	0.275	85.5%	
Urban Areas	1.186	1.186	100%	1.067	1.058	99.2%	
Illinois	12.802	12.801	100%	12.019	11.944	99.4%	
Rural Areas	1.473	1.472	100%	0.972	0.902	92.8%	
Urban Areas	11.329	11.329	100%	11.048	11.042	100%	
Indiana	6.666	6.666	100%	5.962	5.873	98.5%	
Rural Areas	1.841	1.841	100%	1.338	1.251	93.6%	
Urban Areas	4.826	4.826	100%	4.624	4.622	100%	
Iowa	3.145	3.143	99.9%	2.124	2.101	98.9%	
Rural Areas	1.136	1.134	99.8%	0.444	0.427	96.3%	
Urban Areas	2.009	2.009	100%	1.681	1.674	99.6%	
Kansas	2.913	2.913	100%	2.292	2.276	99.3%	
Rural Areas	0.756	0.756	100%	0.344	0.335	97.4%	
Urban Areas	2.157	2.157	100%	1.948	1.940	99.6%	
Kentucky	4.454	4.442	99.7%	3.423	3.369	98.4%	
Rural Areas	1.830	1.818	99.4%	0.964	0.912	94.6%	
Urban Areas	2.624	2.624	100%	2.459	2.456	99.9%	
Louisiana	4.684	4.684	100%	4.247	4.092	96.4%	
Rural Areas	1.256	1.255	100%	0.942	0.812	86.2%	
Urban Areas	3.428	3.428	100%	3.304	3.280	99.3%	
Maine	1.336	1.332	99.7%	1.236	1.169	94.6%	
Rural Areas	0.829	0.825	99.5%	0.736	0.671	91.2%	

	Pop.	3 Mbps o LTE 5	5 Mbps/ or Mobile Mbps/ lbps	Pop.	Fixed 25 Mbps/ 3 Mbps or Mobile LTE 10 Mbps/ 3 Mbps		
	Evaluated	Pop.	% of Pop.	Evaluated	Pop.	% of Pop.	
Urban Areas	0.507	0.507	100%	0.500	0.497	99.5%	
Maryland	6.052	6.052	100%	5.912	5.883	99.5%	
Rural Areas	0.802	0.802	100%	0.707	0.688	97.4%	
Urban Areas	5.250	5.250	100%	5.205	5.195	99.8%	
Massachusetts	6.860	6.859	100%	6.849	6.847	100%	
Rural Areas	0.551	0.550	99.9%	0.548	0.547	99.9%	
Urban Areas	6.309	6.309	100%	6.300	6.299	100%	
Michigan	9.962	9.958	100%	9.478	9.253	97.6%	
Rural Areas	2.556	2.552	99.9%	2.221	1.998	90.0%	
Urban Areas	7.406	7.406	100%	7.257	7.255	100%	
Minnesota	5.576	5.575	100%	4.905	4.889	99.7%	
Rural Areas	1.485	1.484	99.9%	1.016	1.001	98.5%	
Urban Areas	4.092	4.092	100%	3.889	3.889	100%	
Mississippi	2.984	2.981	99.9%	1.980	1.861	94.0%	
Rural Areas	1.515	1.511	99.8%	0.751	0.645	85.9%	
Urban Areas	1.469	1.469	100%	1.229	1.216	98.9%	
Missouri	6.113	6.107	99.9%	5.118	5.000	97.7%	
Rural Areas	1.828	1.821	99.6%	1.088	0.977	89.8%	
Urban Areas	4.286	4.286	100%	4.030	4.024	99.8%	
Montana	1.050	1.037	98.7%	0.698	0.683	97.9%	
Rural Areas	0.480	0.468	97.4%	0.248	0.235	94.5%	
Urban Areas	0.570	0.569	99.8%	0.450	0.449	99.8%	
Nebraska	1.920	1.919	99.9%	1.301	1.277	98.1%	
Rural Areas	0.514	0.512	99.7%	0.143	0.119	83.3%	
Urban Areas	1.406	1.406	100%	1.158	1.158	100%	
Nevada	2.998	2.994	99.9%	2.923	2.913	99.6%	
Rural Areas	0.208	0.203	97.9%	0.170	0.159	93.9%	
Urban Areas	2.790	2.790	100%	2.754	2.753	100%	
New Hampshire	1.343	1.342	100%	1.269	1.225	96.5%	
Rural Areas	0.533	0.533	99.9%	0.485	0.447	92.2%	
Urban Areas	0.810	0.810	100%	0.784	0.778	99.2%	
New Jersey	9.005	9.005	100%	9.005	9.005	100%	

	Pop.	3 Mbps o LTE 5	5 Mbps/ or Mobile Mbps/ lbps	Pop.	Fixed 25 Mbps/ 3 Mbps or Mobile LTE 10 Mbps/ 3 Mbps		
	Evaluated	Pop.	% of Pop.	Evaluated	Pop.	% of Pop.	
Rural Areas	0.466	0.466	100%	0.466	0.466	100%	
Urban Areas	8.539	8.539	100%	8.539	8.539	100%	
New Mexico	2.088	2.079	99.6%	1.856	1.649	88.8%	
Rural Areas	0.502	0.492	98.2%	0.376	0.216	57.5%	
Urban Areas	1.586	1.586	100%	1.480	1.433	96.8%	
New York	19.849	19.843	100%	19.385	19.266	99.4%	
Rural Areas	2.354	2.348	99.7%	2.017	1.898	94.1%	
Urban Areas	17.495	17.495	100%	17.368	17.368	100%	
North Carolina	10.273	10.269	100%	9.569	9.315	97.3%	
Rural Areas	3.416	3.412	99.9%	2.828	2.583	91.3%	
Urban Areas	6.857	6.856	100%	6.741	6.732	99.9%	
North Dakota	0.755	0.755	99.9%	0.460	0.459	99.9%	
Rural Areas	0.335	0.335	99.9%	0.121	0.121	99.7%	
Urban Areas	0.420	0.420	100%	0.338	0.338	100%	
Ohio	11.658	11.650	99.9%	11.150	11.071	99.3%	
Rural Areas	2.579	2.571	99.7%	2.207	2.129	96.4%	
Urban Areas	9.079	9.079	100%	8.943	8.942	100%	
Oklahoma	3.931	3.925	99.9%	3.535	3.187	90.2%	
Rural Areas	1.348	1.343	99.6%	1.053	0.742	70.5%	
Urban Areas	2.582	2.582	100%	2.482	2.445	98.5%	
Oregon	4.143	4.128	99.6%	3.958	3.881	98.1%	
Rural Areas	0.836	0.821	98.3%	0.734	0.662	90.2%	
Urban Areas	3.307	3.307	100%	3.224	3.219	99.8%	
Pennsylvania	12.805	12.800	100%	12.204	12.107	99.2%	
Rural Areas	2.731	2.726	99.8%	2.307	2.218	96.2%	
Urban Areas	10.074	10.074	100%	9.898	9.889	99.9%	
Rhode Island	1.060	1.060	100%	1.060	1.060	100%	
Rural Areas	0.098	0.098	100%	0.098	0.098	100%	
Urban Areas	0.962	0.962	100%	0.962	0.962	100%	
South Carolina	5.024	5.024	100%	4.527	4.515	99.7%	
Rural Areas	1.707	1.707	100%	1.334	1.322	99.1%	
Urban Areas	3.318	3.318	100%	3.193	3.193	100%	

	Pop.	3 Mbps o LTE 5	5 Mbps/ or Mobile Mbps/ lbps	Pop.	Fixed 25 3 Mbps o LTE 10 3 M	or Mobile Mbps/
	Evaluated	Pop.	% of Pop.	Evaluated	Pop.	% of Pop.
South Dakota	0.869	0.868	99.9%	0.391	0.390	99.7%
Rural Areas	0.388	0.387	99.7%	0.092	0.091	98.9%
Urban Areas	0.481	0.481	100%	0.299	0.299	100%
Tennessee	6.716	6.709	99.9%	5.766	5.724	99.3%
Rural Areas	2.263	2.256	99.7%	1.496	1.459	97.5%
Urban Areas	4.452	4.452	100%	4.270	4.265	99.9%
Texas	28.304	28.300	100%	27.198	26.324	96.8%
Rural Areas	4.659	4.655	99.9%	3.966	3.249	81.9%
Urban Areas	23.645	23.645	100%	23.231	23.075	99.3%
Utah	3.102	3.094	99.8%	2.938	2.907	98.9%
Rural Areas	0.383	0.375	98.1%	0.279	0.251	90.0%
Urban Areas	2.719	2.719	100%	2.659	2.655	99.9%
Vermont	0.624	0.620	99.4%	0.383	0.362	94.4%
Rural Areas	0.383	0.379	99.0%	0.188	0.167	88.9%
Urban Areas	0.241	0.241	100%	0.195	0.194	99.6%
Virginia	8.475	8.469	99.9%	7.529	7.281	96.7%
Rural Areas	2.078	2.073	99.7%	1.380	1.145	82.9%
Urban Areas	6.397	6.397	100%	6.149	6.136	99.8%
Washington	7.406	7.400	99.9%	7.289	7.236	99.3%
Rural Areas	1.269	1.263	99.6%	1.193	1.146	96.0%
Urban Areas	6.137	6.137	100%	6.096	6.090	99.9%
West Virginia	1.816	1.778	97.9%	1.113	1.044	93.8%
Rural Areas	0.926	0.888	95.9%	0.423	0.361	85.1%
Urban Areas	0.890	0.889	100%	0.690	0.684	99.1%
Wisconsin	5.795	5.785	99.8%	5.234	5.131	98.0%
Rural Areas	1.744	1.734	99.4%	1.287	1.186	92.1%
Urban Areas	4.051	4.051	100%	3.947	3.945	100%
Wyoming	0.579	0.576	99.4%	0.335	0.304	90.8%
Rural Areas	0.220	0.216	98.4%	0.085	0.055	64.6%
Urban Areas	0.360	0.360	100%	0.250	0.249	99.7%

APPENDIX 4

Deployment of Fixed Terrestrial 25 Mbps/3 Mbps and Mobile LTE 5 Mbps/1 Mbps Services by U.S. Territory (December 31, 2017)

		Fixed 25 Mbps/3 Mbps		Mobile 1 Mbps/1		Fixed 25 Mbps & LTE 5 M	Mobile Mbps or Abps/1 LTE 5 M		r Mobile Mbps/1	
	Pop. Evaluated	Pop.	% of Pop.	Pop.	% of Pop.	Pop.	% of Pop.	Pop.	% of Pop.	
U.S. Territories	3,715,570	3,191,589	85.9%	3,657,920	98.4%	3,188,149	85.8%	3,661,360	98.5%	
Rural Areas	245,734	151,456	61.6%	233,019	94.8%	148,153	60.3%	236,322	96.2%	
Urban Areas	3,469,836	3,040,133	87.6%	3,424,901	98.7%	3,039,996	87.6%	3,425,038	98.7%	
American Samoa	51,504	0	0.0%	0	0.0%	0	0.0%	0	0.0%	
Rural Areas	7,741	0	0.0%	0	0.0%	0	0.0%	0	0.0%	
Urban Areas	43,763	0	0.0%	0	0.0%	0	0.0%	0	0.0%	
Guam	167,358	2,610	1.6%	166,684	99.6%	2,610	1.6%	166,684	99.6%	
Rural Areas	11,166	142	1.3%	11,058	99.0%	142	1.3%	11,058	99.0%	
Urban Areas	156,192	2,468	1.6%	155,626	99.6%	2,468	1.6%	155,626	99.6%	
Northern Mariana Isl.	52,263	792	1.5%	52,075	99.6%	792	1.5%	52,075	99.6%	
Rural Areas	5,784	4	0.1%	5,596	96.7%	4	0.1%	5,596	96.7%	
Urban Areas	46,479	788	1.7%	46,479	100%	788	1.7%	46,479	100%	
Puerto Rico	3,337,177	3,080,928	92.3%	3,332,516	99.9%	3,078,111	92.2%	3,335,333	99.9%	
Rural Areas	214,478	144,754	67.5%	210,385	98.1%	142,036	66.2%	213,103	99.4%	
Urban Areas	3,122,699	2,936,174	94.0%	3,122,131	100%	2,936,075	94.0%	3,122,230	100%	
U.S. Virgin Isl.	107,268	107,259	100%	106,645	99.4%	106,636	99.4%	107,268	100%	
Rural Areas	6,565	6,556	99.9%	5,980	91.1%	5,971	91.0%	6,565	100%	
Urban Areas	100,703	100,703	100%	100,665	100%	100,665	100%	100,703	100%	

APPENDIX 5

Deployment of Fixed 25 Mbps/3 Mbps and Mobile LTE 5 Mbps/1 Mbps Services By State and County (Data as of December 31, 2017)

	Populati on Evaluate d	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
Alabama	4,874,67 8	86.1%	99.9%	86.1%	96.251	•
Autauga County	55,504	80.9%	100.0%	80.9%	93.373	\$27,824
Baldwin	212,628	87.6%	99.9%	87.6%	133.746	\$29,364
Barbour County	25,270	59.0%	99.7%	59.0%	28.558	\$17,561
Bibb County	22,668	29.3%	99.7%	29.3%	36.410	\$20,911
Blount County	58,013	68.7%	100.0%	68.7%	89.974	\$22,021
Bullock	10,309	5.6%	99.9%	5.6%	16.553	\$20,856
Butler County	19,825	78.0%	99.3%	77.5%	25.520	\$19,004
Calhoun	114,728	92.5%	100.0%	92.5%	189.361	\$23,638
Chambers County	33,713	81.9%	100.0%	81.9%	56.515	\$22,002
Cherokee	25,857	98.7%	100.0%	98.7%	46.699	\$23,010
Chilton County	44,067	65.8%	100.0%	65.8%	63.602	\$23,368
Choctaw	12,945	22.8%	99.6%	22.8%	14.171	\$20,994
Clarke County	24,083	62.6%	98.4%	61.9%	19.446	\$20,765
Clay County	13,367	40.4%	99.2%	40.4%	22.132	\$21,330
Cleburne County	14,900	12.9%	98.3%	12.9%	26.602	\$20,873
Coffee County	51,871	90.1%	100.0%	90.1%	76.396	\$26,216
Colbert County	54,500	80.1%	100.0%	80.1%	91.965	\$23,675
Conecuh	12,468	40.0%	99.9%	40.0%		
Coosa County	10,754	76.2%	100.0%	76.2%	16.521	\$20,342
Covington	37,092	84.2%	100.0%	84.2%	35.996	\$22,431
Crenshaw County	13,871	75.4%	99.4%	75.4%	22.783	\$21,580
Cullman	82,755	77.3%	100.0%	77.3%	112.616	\$21,857
Dale County	49,226	93.1%	100.0%	93.1%	87.723	\$23,194
Dallas County	39,215	76.3%	99.9%	76.3%	40.069	\$18,248
DeKalb County	71,617	97.9%	100.0%	97.9%	92.160	\$20,020

	Populati on Evaluate	% of Pop. with	Pop.	% of		
	on		21.			
			with	Pop.		Per
	Evaluate	Fixed 25	Mobile 5	with Fixed &	Populati	Capita
	d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile	on Density	Income (\$2017)
Elmore County	81,677	92.4%	100.0%	92.4%	132.060	\$26,251
Escambia	37,447	74.2%	99.6%	74.2%	39.623	\$18,164
county						
Etowah County	102,755	95.6%		95.6%	192.069	\$22,278
Fayette County	16,468	37.8%	99.2%	37.8%	26.237	\$21,191
ranklin	31,495	64.0%	99.8%	64.0%	49.691	\$19,314
Geneva County	26,421	54.0%	100.0%	54.0%	45.997	\$21,084
Greene County	8,330	0.2%	99.0%	0.2%	12.873	\$14,197
Hale County	14,812	53.7%	100.0%	53.7%	23.002	\$20,269
Henry County	17,147	59.2%	99.6%	59.2%	30.524	\$23,983
Iouston	104,346	87.2%	100.0%	87.2%	179.961	\$24,781
ounty						
ackson	51,909	83.4%		83.4%	48.159	\$20,946
efferson	659,197	99.0%	100.0%	99.0%	593.189	\$29,456
ounty						
<u>amar County</u>	13,946	34.1%		34.1%	23.057	\$21,152
Lauderdale	92,536	78.6%	99.9%	78.6%	138.590	\$25,803
ounty	22.040	FF 00/	00.00/	FF 00/	47.050	422 410
Lawrence Lee County	33,049 161,602	55.0% 96.3%	99.8% 100.0%	55.0% 96.3%	47.850 265.996	\$22,419 \$26,170
,						
<u>imestone</u> owndes	94,373 10,076	91.4% 12.6%	100.0% 100.0%	91.4% 12.6%	168.542 14.074	\$26,685 \$18,976
county	10,076	12.070	100.0%	12.070	14.0/4	\$10,970
Macon County	18,755	60.6%	100.0%	60.6%	30.802	\$19,564
Madison	361,024	96.2%	100.0%	96.2%	450.383	\$34,232
ounty						
<u> Marengo</u>	19,375	12.8%	100.0%	12.8%	19.834	\$22,996
Marion County	29,833	48.2%	100.0%	48.2%	40.190	\$21,835
Marshall	95,548	95.2%	100.0%	95.2%	168.860	\$22,710
Mobile County	413,955	95.0%	100.0%	95.0%	336.703	\$24,347
Monroe	21,327	60.2%	99.2%	60.2%	20.793	\$17,264
Montgomery County	226,646	97.7%	100.0%	97.7%	288.998	\$26,712
Morgan (1980)	118,818	90.7%	100.0%	90.7%	205.093	\$25,013
Perry County	9,339	0.0%	99.7%	0.0%	12.977	\$13,449
Pickens	20,176		99.4%	27.0%	22.891	\$20,089

	Donulati	% of Pop.	% of Pop. with	% of		Dov
	Populati on Evaluate d	with Fixed 25 Mbps/ 3 Mbps	Mobile 5 Mbps/ 1 Mbps	Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
Pike County	33,267	92.0%	98.6%	91.1%	49.498	\$20,808
Randolph	22,670	49.8%	99.4%	49.8%	39.049	\$20,983
Russell County	57,045	89.3%	99.9%	89.3%	88.974	\$21,279
Shelby County	213,599	95.2%	100.0%	95.2%	272.125	\$35,330
St. Clair	88,195	78.4%	100.0%	78.4%	139.571	\$24,686
Sumter County	12,687	43.8%	99.9%	43.8%	14.036	\$14,739
Talladega County	80,065	76.2%	100.0%	76.2%	108.669	\$21,382
Tallapoosa	40,681	91.5%	100.0%	91.5%	56.776	\$22,430
Tuscaloosa County	207,811	91.7%	100.0%	91.7%	157.224	\$24,895
Walker County	64,058	75.5%	100.0%	75.5%	80.964	\$21,217
Washington County	16,531	30.4%	98.2%	29.8%	15.304	\$23,239
Wilcox County	10,719	41.6%	100.0%	41.6%	12.064	\$15,774
Winston County	23,722	49.1%	99.8%	49.1%	38.700	\$20,580
Alaska	739,515	80.5%	89.4%	79.8%	1.296	•
Aleutians East Borough	3,370	0.0%	0.0%	0.0%	0.483	\$31,254
Aleutians West Census Area	5,763	0.0%	51.3%	0.0%	1.313	\$35,998
Anchorage Municipality	294,356	99.4%	99.8%	99.2%	172.675	\$38,977
Bethel Census Area	18,076	0.0%		0.0%	0.446	\$18,654
Bristol Bay Borough	867	0.0%	0.0%	0.0%	1.721	\$42,002
Denali	2,074	36.6%		30.5%		\$33,084
Dillingham Census Area	4,932	0.0%	0.0%	0.0%	0.266	\$24,647
Fairbanks North Star	99,703	88.1%	99.6%	88.1%	13.587	\$35,328
Haines Borough	2,526	92.2%	77.3%	74.0%	1.089	\$35,907
Hoonah- Angoon Census	2,145	25.1%	18.9%	17.8%	0.285	\$33,704

	Populati on Evaluate d	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
Juneau City and Borough	32,094	99.3%	99.7%	99.2%	11.878	\$41,904
Kenai Peninsula	58,617	61.4%	96.9%	59.3%	3.646	\$33,336
Ketchikan Gateway Borough	13,856	98.9%	99.6%	98.7%	2.852	\$33,771
Kodiak Island Borough	13,448	85.0%	93.2%	85.0%	2.053	\$32,625
Kusilvak Census Area	7,996	0.0%	7.5%	0.0%	0.468	\$11,693
Lake and Peninsula Borough	1,620	0.0%	0.0%	0.0%	0.068	\$23,434
Matanuska- Susitna	106,532	87.4%	99.1%	86.9%	4.329	\$30,409
Nome Census Area	9,921	0.0%	19.5%	0.0%	0.432	\$20,952
North Slope Borough	9,782	0.0%	73.3%	0.0%	0.110	\$48,777
Northwest Arctic Borough	7,684	0.0%		0.0%	0.216	\$21,879
Petersburg Borough	3,281	80.2%	58.9%	55.6%	1.000	\$35,044
Prince of Wales-Hyder Census Area	6,369	0.0%	39.7%	0.0%	1.624	\$26,695
Sitka City and Borough	8,689	97.8%	94.6%	94.1%	3.027	\$36,617
Skagway Municipality	1,157	97.8%	80.0%	79.9%	2.558	\$39,376
Southeast Fairbanks Census Area	6,888	36.9%	83.2%	35.6%	0.278	\$31,051
Valdez- Cordova Census Area	9,278	86.5%	95.0%	84.4%	0.271	\$37,935
Wrangell City and Borough	2,521	89.7%	70.2%	67.0%	0.992	\$29,943

	Populati on Evaluate d	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
Yakutat City	605	0.0%	0.0%	0.0%	0.079	\$32,393
and Borough Yukon- Koyukuk Census Area	5,365	0.0%	12.6%	0.0%	0.037	\$21,057
Arizona	7,016,20 6	86.9%	99.6%	86.9%	61.766	•
Apache County	71,606	0.2%	86.8%	0.2%	6.395	\$13,865
Cochise	124,756	58.6%	100.0%	58.6%	20.234	\$24,896
Coconino County	140,776	62.3%	99.4%	62.3%	7.561	\$25,722
Gila County	53,501	71.3%	99.7%	71.3%	11.245	\$22,433
Graham County	37,466	68.0%	99.8%	68.0%	8.105	\$17,874
Greenlee	9,455	54.7%		54.7%	5.130	\$24,935
La Paz County	20,601	47.0%	100.0%	47.0%	4.578	\$21,707
Maricopa	4,306,978	92.7%		92.7%	468.143	\$30,186
Mohave County	207,198	78.8%	99.8%	78.8%	15.566	\$23,527
Navajo County	108,956	46.6%		46.6%	10.950	\$17,685
Pima County	1,022,763	91.8%	100.0%	91.8%	111.327	\$27,323
Pinal County	430,237	67.8%		67.8%	80.184	\$22,944
Santa Cruz County	46,212	82.7%	99.9%	82.7%	37.361	\$19,482
Yavapai	228,167	87.0%		87.0%	28.087	\$27,504
Yuma County	207,534	89.6%	100.0%	89.6%	37.638	\$20,600
Arkansas	3,004,11 6	77.4%	99.8%	77.3%	57.732	٠
Arkansas County	17,967	9.9%	100.0%	9.9%	18.171	\$23,766
Ashley County	20,283	51.9%		51.9%	21.919	\$20,703
Baxter County	41,355	76.9%	99.3%	76.8%	74.610	\$24,737
Benton County	266,250	95.1%		95.1%	314.212	\$30,611
Boone County	37,380	70.8%		70.8%	63.331	\$22,288
Bradley	10,864	62.2%	100.0%	62.2%	16.734	\$21,575

		% of	% of			
	.	Pop.	Pop.	% of		
	Populati on	with Fixed 25	with Mobile 5	Pop. with	Populati	Per Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Calhoun	5,247	6.9%	100.0%	6.9%	8.347	\$22,866
County						
Carroll County	27,943	100.0%				\$21,754
Chicot County	10,636	53.8%	100.0%	53.8%	16.508	\$20,560
Clark County	22,293	76.0%		76.0%	25.740	\$20,382
Clay County	14,920	65.5%	100.0%	65.5%	23.332	\$19,171
Cleburne	25,048	53.1%		53.1%	45.238	\$26,189
Cleveland	8,202	83.1%	100.0%	83.1%	13.721	\$23,171
County						
Columbia	23,627	68.1%			30.843	\$20,296
Conway County	20,916	45.3%	99.7%	45.3%	37.874	\$22,365
Craighead	107,096	86.1%	100.0%	86.1%	151.435	\$25,594
Crawford	62,996	85.8%	99.9%	85.8%	106.216	\$22,104
County						
Crittenden	48,750	79.4%	100.0%	79.4%	79.949	\$20,721
Cross County	16,863	57.1%	100.0%	57.1%	27.358	\$22,894
Dallas County	7,393	37.7%	98.5%	37.4%	11.078	\$18,309
Desha County	11,764	69.8%	100.0%	69.8%	15.315	\$18,187
Drew County	18,547	68.2%	100.0%	68.2%	22.390	\$20,300
Faulkner	123,647	91.8%	100.0%	91.8%	190.847	\$25,240
County						
Franklin	17,889	21.4%	99.8%	21.4%	29.381	\$19,988
Fulton County	12,055	26.7%	99.5%	26.7%	19.500	\$19,674
Garland	98,657	97.2%		97.1%	145.559	\$25,690
Grant County	18,163	43.2%	100.0%	43.2%	28.748	\$25,814
Greene County	45,048					\$22,094
Hempstead	21,861	63.7%	100.0%	63.7%	30.049	\$18,817
County						
Hot Spring	33,570	55.8%		55.8%		\$20,868
Howard	13,478	16.5%	99.5%	16.5%	22.900	\$23,627
County	05 - 0	0:	02.25	0:	46.00	100.07
Independence	37,501	65.7%	99.9%	65.7%	49.088	\$23,056
County Izard County	13,685	44.4%	99.4%	44.4%	23.571	\$19,737
Jackson	17,135	77.7%	99.7%	77.4%	27.029	\$19,458

		% of	% of			
	Populati	Pop. with	Pop. with	% of Pop.		Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	on Density	Income (\$2017)
Jefferson County	69,115	56.6%	100.0%	56.6%	79.375	\$20,371
Johnson	26,551	53.3%	98.9%	53.3%	40.241	\$18,757
Lafayette County	6,862	13.7%	100.0%	13.7%	12.990	\$25,140
Lawrence	16,525	45.6%	99.8%	45.6%	28.122	\$19,422
Lee County	9,176	29.8%	100.0%	29.8%	15.227	\$15,610
Lincoln County	13,646	17.2%	100.0%	17.2%	24.302	\$13,142
Little River County	12,359	57.7%	100.0%	57.7%	23.220	\$23,412
Logan County	21,722	22.2%	100.0%	22.2%	30.675	\$19,708
Lonoke County	72,894	76.9%	100.0%	76.9%	94.578	\$25,184
Madison	16,339	34.0%	99.7%	34.0%	19.585	\$23,203
Marion County	16,428	42.2%	98.9%	41.4%	27.517	\$19,200
Miller County	43,980	91.8%	100.0%	91.8%	70.303	\$22,227
Mississippi County	42,159	72.4%	100.0%	72.4%	46.813	\$20,378
Monroe	7,085	12.8%	100.0%	12.8%	11.670	\$20,486
Montgomery County	8,917	42.9%	99.2%	42.8%	11.434	\$21,480
Nevada County	8,327	46.6%	100.0%	46.6%	13.478	\$18,644
Newton County	7,828	1.0%	91.0%	1.0%	9.536	\$18,053
Ouachita	23,868	57.6%	100.0%	57.6%	32.572	\$19,780
Perry County	10,346	65.8%	97.3%	65.1%	18.763	\$21,781
Phillips	18,572	84.3%		84.3%	26.697	\$17,287
Pike County	10,726	42.4%	98.6%	42.3%	17.858	\$20,180
Poinsett	24,154	62.8%		62.8%	31.849	\$18,361
Polk County	20,118	63.0%		63.0%	23.456	\$18,735
Pope County	63,835	87.0%		86.7%	78.561	\$21,650
Prairie County	8,248	36.4%		36.4%	12.729	\$22,653
Pulaski County	393,948	96.8%		96.8%		\$29,855
Randolph County	17,557	63.1%		62.9%		\$20,932
Saline County	119,312	91.3%	100.0%	91.3%	164.886	\$28,410
Scott County	10,436	47.9%	99.0%	47.9%	11.695	\$18,077

		% of Pop.	% of Pop.	% of		
	Populati	with	with	Pop.		Per
	on Evaluate	Fixed 25	Mobile 5	with Fixed &	Populati	Capita Income
	d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile	on Density	(\$2017)
Searcy County	7,938	31.8%	93.8%	31.4%	11.917	\$21,475
Sebastian	128,105	94.4%	100.0%	94.4%	240.839	\$23,916
Sevier County	17,115	74.3%	100.0%	74.3%	30.285	\$18,388
Sharp County	17,393	40.9%	99.1%	40.9%	28.775	\$20,078
St. Francis	25,930	36.3%	100.0%	36.3%	40.849	\$16,518
Stone County	12,537	0.7%	94.4%	0.7%	20.674	\$19,881
Union County	39,449	72.5%	100.0%	72.5%	37.960	\$23,463
Van Buren County	16,506	39.0%	96.9%	39.0%	23.309	\$20,568
Washington County	231,971	92.6%	100.0%	92.6%	246.262	\$26,371
White County	79,016	63.6%	99.9%	63.6%	76.338	\$23,120
Woodruff	6,571	37.3%	100.0%	37.3%	11.198	\$19,987
Yell County	21,523	80.0%	99.1%	79.5%	23.143	\$20,209
California	39,536,3 94	97.0%	99.9%	97.0%	253.798	
Alameda County	1,663,187	98.8%	100.0%	98.8%	2,250.538	\$41,363
Alpine County	1,120	9.1%	96.1%	7.4%	1.517	\$27,448
Amador County	38,623	68.2%	99.8%	68.2%	64.958	\$29,628
Butte County	229,292	87.7%	99.5%	87.7%	140.114	\$26,304
Calaveras County	45,669	89.6%	99.5%	89.5%	44.773	\$31,652
Colusa County	21,800	34.3%	99.7%	34.3%	18.944	\$25,676
Contra Costa County	1,147,436	97.8%	100.0%	97.8%	1,602.705	\$42,898
Del Norte	27,470	93.8%	95.8%	91.4%	27.296	\$20,809
El Dorado County	188,985	98.6%	99.9%	98.5%	110.655	\$38,156
Fresno County	989,250	98.0%	99.9%	98.0%	166.037	\$22,234
Glenn County	28,094	69.5%	99.9%	69.5%	21.381	\$21,029
Humboldt	136,754	82.6%	98.7%	82.6%	38.328	\$25,208
Imperial County	182,829	81.6%	100.0%	81.6%	43.775	\$17,303
Inyo County	18,026	86.7%	96.9%	86.7%	1.771	\$30,323

	Populati on Evaluate d	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
Kern County	893,108	95.3%	100.0%	95.3%	109.827	\$21,716
Kings County	150,101	88.9%	100.0%	88.9%	108.031	\$19,835
Lake County	64,246	83.8%	99.7%	83.8%	51.132	\$23,345
Lassen County	31,163	48.2%	100.0%	48.2%	6.862	\$20,974
Los Angeles County	10,163,48 2	99.4%	100.0%	99.4%	2,504.626	\$30,798
Madera	156,890	98.6%	100.0%	98.6%	73.414	\$19,975
Marin County	260,955	97.1%	100.0%	97.1%	501.542	\$66,748
Mariposa	17,569	50.3%	96.6%	50.0%	12.126	\$28,241
Mendocino County	88,018	75.3%	96.4%	75.2%	25.103	\$27,093
Merced County	272,668	99.9%	100.0%	99.9%	140.916	\$20,120
Modoc County	8,859	13.5%	99.1%	13.3%	2.261	\$22,052
Mono County	14,167	75.9%	98.4%	75.9%	4.646	\$30,888
Monterey County	437,901	98.8%	99.6%	98.5%	133.482	\$27,168
Napa County	140,973	93.3%	100.0%	93.3%	188.376	\$40,632
Nevada County	99,814	75.7%	99.8%	75.7%	104.215	\$35,581
Orange County	3,190,372	98.2%	100.0%	98.2%	4,035.545	\$37,603
Placer County	386,159	96.7%	99.9%	96.7%	274.454	\$39,734
Plumas County	18,742	18.3%	97.9%	18.3%	7.341	\$32,056
Riverside County	2,423,237	96.1%	100.0%	96.1%	336.258	\$25,700
Sacramento County	1,530,614	97.3%	100.0%		1,586.714	\$29,693
San Benito County	60,309	99.1%	99.6%	98.9%	43.428	\$30,012
San Bernardino	2,157,390	94.2%	100.0%	94.2%		\$22,867
San Diego County	3,337,681	97.6%	100.0%	97.6%	793.434	\$34,350
San Francisco County	884,357	98.7%	100.0%	98.7%	2	\$59,508
San Joaquin County	745,409	99.9%	100.0%	99.9%	535.756	\$24,694
San Luis Obispo County	283,404	97.2%	99.9%	97.1%	85.917	\$33,972

		% of	% of	0/ -£		
	Populati on Evaluate d	Pop. with Fixed 25 Mbps/ 3 Mbps	Pop. with Mobile 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
San Mateo County	771,408	99.1%	_		1,720.325	\$53,516
Santa Barbara County	448,148	91.6%	99.9%	91.6%	163.852	\$32,872
Santa Clara County	1,938,122	100.0%	100.0%	100.0%	1,502.304	\$48,689
Santa Cruz Countv	275,888	100.0%	99.9%	99.9%	619.736	\$36,388
Shasta County	179,920	74.9%	99.8%	74.9%	47.656	\$26,455
Sierra County	2,999	11.4%		11.4%		\$31,750
Siskiyou County	43,853	17.9%	96.9%	17.9%	6.985	\$24,605
Solano County	445,454	94.8%				\$31,934
Sonoma County	504,217	95.6%	99.9%	95.5%	319.965	\$37,767
Stanislaus	547,893	99.6%		99.6%		\$24,007
Sutter County	96,648	90.7%	100.0%	90.7%	160.435	\$24,849
Tehama	63,925	49.2%		49.2%	i	\$22,631
Trinity County	12,709	20.8%	85.4%	20.8%	3.997	\$23,575
Tulare County	464,475	97.1%	99.8%	97.1%	96.280	\$18,962
Tuolumne County	54,248	91.6%	99.4%	91.3%	24.426	\$31,570
Ventura	854,219	98.1%				\$35,771
Yolo County	219,115	96.5%	100.0%	96.5%	215.943	\$30,615
Yuba County	77,030	79.5%	99.4%	79.5%	121.914	\$22,814
Colorado	5,606,36 8	92.9%	99.8%	92.9%	54.094	•
Adams County	503,059	97.9%	100.0%	97.9%	430.829	\$27,487
Alamosa	16,545	72.2%	100.0%	72.2%	22.895	\$19,217
Arapahoe County	642,995	98.9%	100.0%	98.9%	805.657	\$36,951
Archuleta	13,315	35.2%		35.2%		\$29,344
Baca County	3,562	53.9%	99.7%	53.8%	1.394	\$22,853
Bent County	5,933	48.5%		48.5%		\$14,028
Boulder County	322,501	95.1%	100.0%	95.1%		\$42,119
Broomfield	68,280	96.8%	100.0%	96.8%	2,066.964	\$43,736

	Populati on Evaluate	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile 5 Mbps/	% of Pop. with Fixed &	Populati on	Per Capita Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Chaffee County	19,638	69.4%	98.9%	68.4%	19.378	\$28,907
Chevenne	1,845	82.0%	100.0%	82.0%	1.038	\$23,698
Clear Creek County	9,574	76.6%	100.0%	76.6%	24.224	\$41,257
Conejos	8,183	9.9%	99.2%	9.9%	6.356	\$19,047
Costilla County	3,775	59.0%	99.5%	59.0%	3.077	\$20,737
Crowley	5,809	66.7%	100.0%	66.7%	7.377	\$14,393
Custer County	4,874	27.6%	99.1%	27.2%	6.599	\$26,032
Delta County	30,568	92.0%	99.7%	91.8%	26.766	\$25,546
Denver County	704,336	100.0%	100.0%	100.0%	4,603.498	\$38,991
Dolores	2,067	11.1%	83.4%	10.9%	1.937	\$23,190
Douglas County	335,284	98.2%	100.0%	98.2%	399.030	\$48,725
Eagle County	54,770	83.6%	99.6%	83.6%	32.514	\$40,450
El Paso County	699,195	94.0%	100.0%	94.0%	328.754	\$31,217
Elbert County	25,632	79.5%	100.0%	79.5%	13.849	\$42,522
Fremont County	47,559	83.8%	99.4%	83.8%	31.022	\$20,919
Garfield	59,118	80.2%	99.1%	80.2%	20.057	\$31,483
Gilpin County	6,013	38.8%	100.0%	38.8%	40.114	\$45,110
Grand County	15,321	70.1%	99.8%	70.1%		\$32,919
Gunnison County	16,939	89.5%	92.6%	87.3%	5.230	\$27,669
Hinsdale	794	44.5%	3.1%	0.0%		\$29,574
Huerfano County	6,662	55.4%	99.2%	55.4%	4.187	\$25,547
Jackson	1,385	77.8%	97.5%	77.8%		\$24,299
Jefferson County	574,611	98.6%	100.0%	98.6%	751.904	\$40,187
Kiowa County	1,376	53.1%	98.6%	51.9%		\$23,621
Kit Carson County	7,158	92.6%	100.0%	92.6%	3.313	\$26,125
La Plata County	55,589	82.2%	100.0%	82.2%	32.852	\$34,501

	Populati on Evaluate d	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
Lake County	7,778	88.7%	99.8%	88.7%	20.636	\$28,492
Larimer	343,976	87.9%		87.8%	132.502	\$34,087
Las Animas County	14,238	67.3%	99.5%	67.0%	2.983	\$24,268
Lincoln County	5,546	19.4%	100.0%	19.4%	2.152	\$14,765
Logan County	21,896	92.9%	100.0%	92.9%	11.909	\$24,595
Mesa County	151,616	91.7%	99.5%	91.7%	45.544	\$27,612
Mineral County	701	82.0%	71.3%	60.1%	0.801	\$33,018
Moffat County	13,131	95.4%	98.3%	95.1%	2.768	\$27,331
Montezuma County	26,140	58.4%	99.8%	58.3%	12.880	\$24,440
Montrose	41,784	93.3%	99.6%	93.2%	18.648	\$24,308
Morgan County	28,192	85.5%	100.0%	85.5%	22.018	\$24,077
Otero County	18,326	86.9%	99.8%	86.9%	14.522	\$20,358
Ouray County	4,794	99.9%	100.0%	99.9%	8.852	\$35,544
Park County	17,905	59.2%	98.5%	58.7%	8.161	\$34,377
Phillips County	4,291	99.8%	100.0%	99.8%	6.238	\$27,790
Pitkin County	17,890	87.4%	96.9%	86.3%	18.430	\$65,800
Prowers County	12,069	72.1%	100.0%	72.1%	7.366	\$22,033
Pueblo County	166,475	90.9%	100.0%	90.9%	69.769	\$23,110
Rio Blanco County	6,420	70.1%	91.4%	70.1%	1.993	\$28,185
Rio Grande County	11,301	78.9%	99.8%	78.9%	12.392	\$22,412
Routt County	25,220	96.1%	99.3%	95.8%	10.677	\$38,111
Saguache	6,626	70.6%		69.8%		\$22,267
San Juan County	715	39.9%	94.8%	39.6%	1.845	\$28,889
San Miguel County	7,967	65.6%		65.3%	6.192	\$42,015
Sedgwick County	2,344	77.9%	100.0%	77.9%	4.277	\$24,666
Summit	30,576	90.6%	99.8%	90.6%	50.260	\$37,192

		% of	% of			
		Pop.	Pop.	% of		
	Populati	with	with	Pop.	_	Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	on Density	Income (\$2017)
Teller County	24,644	78.2%	100.0%	78.2%	44.240	\$34,974
Washington County	4,937	80.5%	100.0%	80.5%	1.961	\$26,279
Weld County	304,530	78.5%	100.0%	78.5%	76.376	\$29,226
Yuma County	10,075	97.7%	100.0%	97.7%	4.261	\$24,789
Connecticut	3,588,17	99.1%	100.0%	99.1%	740.998	•
	5					
Fairfield County	949,916	99.8%	100.0%	99.8%	1,520.134	\$53,433
Hartford	895,384	98.8%	100.0%	98.8%	1,218.049	\$37,817
Litchfield County	182,177	99.8%	100.0%	99.7%	197.898	\$40,619
Middlesex	163,410	99.2%	100.0%	99.2%	442.484	\$43,695
New Haven County	860,435	99.4%	100.0%	99.3%	1,423.369	\$35,085
New London County	269,033	97.7%	100.0%	97.7%	404.635	\$36,881
Tolland County	151,461	96.9%	100.0%	96.9%	369.225	\$37,830
Windham	116,359	99.1%	100.0%	99.1%	226.861	\$29,993
Delaware	961,901	97.6%	100.0%	97.6%	493.651	•
Kent County	176,823	96.0%	100.0%	96.0%	301.654	\$27,420
New Castle	559,792	98.4%	100.0%	98.4%	1,313.185	\$34,541
Sussex County	225,286	97.0%	100.0%	97.0%	240.670	\$31,874
District of Columbia	693,881	98.1%	100.0%	98.1%	11,366.0 76	\$50,832
Florida	20,983,8 57	96.2%	100.0%	96.2%	391.309	
Alachua County	266,935	84.4%	100.0%	84.4%	305.062	\$26,431
Baker County	28,283	83.6%	97.5%	82.1%	48.328	\$22,440
Bay County	183,563	94.5%	100.0%	94.5%	242.021	\$26,742
Bradford	27,038	100.0%	100.0%	100.0%	91.978	\$19,656
Brevard County	589,160	100.0%	100.0%	100.0%	580.074	\$29,405
Broward	1,935,869	98.2%	100.0%	98.2%	1,600.176	\$30,109

		% of	% of Pop.	% of		
	Populati on Evaluate	Pop. with Fixed 25 Mbps/	with Mobile 5 Mbps/	Pop. with Fixed &	Populati on	Per Capita Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Calhoun County	14,483	69.7%	100.0%	69.7%	25.528	\$15,927
Charlotte	182,027	90.3%	100.0%	90.3%	267.577	\$29,243
Citrus County	145,647	94.3%	100.0%	94.3%	250.383	\$25,034
Clay County	212,204	100.0%	100.0%	100.0%	351.122	\$28,599
Collier County	372,870	95.2%	100.0%	95.2%	186.591	\$41,239
Columbia	69,612	81.7%	100.0%	81.7%	87.280	\$22,855
DeSoto County	36,854	67.1%	100.0%	67.1%	57.850	\$17,892
Dixie County	16,673	0.8%	99.8%	0.8%	23.648	\$19,342
Duval County	937,925	100.0%	100.0%	100.0%	1,230.563	\$28,593
Escambia	313,512	95.8%	100.0%	95.8%	477.579	\$25,666
Flagler County	110,507	96.2%	100.0%	96.2%	227.633	\$25,741
Franklin	11,727	95.7%	99.6%	95.4%	21.931	\$23,524
Gadsden County	46,070	89.0%	99.6%	88.7%	89.226	\$19,252
Gilchrist	17,733	23.2%	100.0%	23.2%	50.713	\$21,145
Glades County	13,754	73.0%	100.0%	73.0%	17.064	\$20,476
Gulf County	16,159	89.2%	100.0%	89.2%	28.650	\$21,085
Hamilton County	14,184	59.4%	100.0%	59.4%	27.607	\$16,109
Hardee County	27,410	93.6%	100.0%	93.6%	42.977	\$18,643
Hendry County	40,340	76.8%	100.0%	76.8%	34.995	\$18,426
Hernando	186,534	97.7%			394.749	\$23,495
Highlands County	102,876	87.1%	100.0%	87.1%	101.195	\$23,020
Hillsborough County	1,408,519	99.7%	100.0%	99.7%	1,380.612	\$29,806
Holmes County	19,558	40.6%	100.0%	40.6%	40.850	\$18,402
Indian River County	154,379	100.0%	100.0%	100.0%	306.995	\$33,122
Jackson County	48,330	53.3%	100.0%	53.3%	52.661	\$18,126
Jefferson	14,144	28.6%	100.0%	28.6%	23.648	\$22,452
Lafayette County	8,451	50.8%	99.9%	50.7%	15.552	\$21,955

		% of Pop.	% of Pop.	% of		
	Populati on Evaluate	with Fixed 25 Mbps/	with Mobile 5 Mbps/	Pop. with Fixed &	Populati on	Per Capita Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Lake County	346,008			100.0%		\$25,991
Lee County	739,207	91.8%		91.8%	942.250	\$30,233
Leon County	290,286	95.4%		95.4%	435.308	\$28,548
Levy County	40,354	19.6%	99.9%	19.6%	36.088	\$21,043
Liberty County	8,242	32.5%	96.4%	30.1%	9.864	\$16,937
Madison County	18,447	62.7%	100.0%	62.7%	26.506	\$17,192
Manatee	385,558	99.0%	100.0%	99.0%	518.969	\$30,477
Marion County	354,342	91.5%	99.9%	91.4%	223.624	\$23,598
Martin County	159,915	100.0%	100.0%	100.0%	294.251	\$38,021
Miami-Dade County	2,751,790	96.3%			1,450.054	\$25,481
Monroe	77,013	95.4%	100.0%	95.4%	78.322	\$39,176
Nassau County	82,721	91.2%	100.0%	91.2%	127.530	\$33,337
Okaloosa	202,963	91.9%	99.8%	91.9%	218.182	\$30,775
Okeechobee County	41,603	81.1%	100.0%	81.1%	54.107	\$18,611
Orange County	1,348,928	100.0%	100.0%	100.0%	1,493.120	\$27,394
Osceola County	352,139	100.0%	100.0%	100.0%	265.274	\$20,165
Palm Beach County	1,471,143	97.0%	100.0%	97.0%	746.863	\$36,303
Pasco County	525,602	98.5%	100.0%	98.5%	703.724	\$26,624
Pinellas	970,626	99.9%	100.0%	99.9%	3,545.032	\$32,120
Polk County	686,437	95.3%	100.0%	95.3%	381.813	\$22,579
Putnam	73,461	81.3%	100.0%	81.3%	100.960	\$18,950
Santa Rosa County	174,257	91.6%	99.4%	91.6%	172.258	\$28,908
Sarasota	419,095	96.5%	100.0%	96.5%	753.947	\$37,054
Seminole County	462,639	100.0%	100.0%	100.0%	1,496.142	\$31,363
St. Johns County	243,799	100.0%	100.0%	100.0%	405.888	\$39,563
St. Lucie	313,506	100.0%	100.0%	100.0%	548.159	\$24,940
Sumter County						\$33,168

	Populati on Evaluate	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile 5 Mbps/	% of Pop. with Fixed &	Populati on	Per Capita Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Suwannee County	44,183	81.3%	100.0%	81.3%	64.168	\$21,565
Taylor County	21,833	65.5%	100.0%	65.5%	20.927	\$16,979
Union County	15,517	50.6%	100.0%	50.6%	63.710	\$13,485
Volusia County	538,689	100.0%	100.0%	100.0%	489.258	\$25,871
Wakulla County	32,120	92.9%	99.5%	92.8%	52.967	\$22,846
Walton County	68,372	75.3%	100.0%	75.3%	65.893	\$30,853
Washington County	24,567	36.6%	100.0%	36.6%	42.153	\$18,718
Georgia	10,428,9 87	92.5%	100.0%	92.4%	181.331	•
Appling County	18,521	48.0%	99.7%	48.0%	36.525	\$19,936
Atkinson	8,342	59.2%		59.2%	24.580	\$19,904
Bacon County	11,319	65.8%	99.8%	65.8%	43.774	\$18,856
Baker County	3,200	1.8%		1.8%	9.358	\$22,270
Baldwin County	44,906	93.3%	100.0%	93.3%	174.160	\$20,114
Banks County	18,628	69.1%		69.1%	80.262	\$19,451
Barrow County	79,060	98.6%	100.0%	98.6%	493.172	\$22,978
Bartow County	105,054	94.8%		94.8%	228.605	\$24,931
Ben Hill County	16,996	90.0%	100.0%	90.0%	67.951	\$16,635
Berrien	19,185	82.1%		82.1%	42.454	\$18,064
Bibb County	152,862	96.9%	100.0%	96.9%	612.032	\$23,426
Bleckley	12,830	43.2%		43.2%	59.434	\$20,667
Brantley County	18,720	99.5%	100.0%	99.5%	42.318	\$18,220
Brooks County	15,587	78.6%		78.6%	31.614	\$20,964
Bryan County	37,060	95.9%	100.0%	95.9%	85.007	\$29,880
Bulloch	76,148	98.2%		98.2%	113.179	\$20,526
Burke County	22,522	72.4%	99.9%	72.4%	27.234	\$19,720
Butts County	24,056	78.0%		78.0%	130.460	\$21,236
Calhoun County	6,454	42.0%	100.0%	42.0%	23.020	\$13,865

		% of	% of	0/ 6		
	Populati	Pop. with	Pop. with	% of Pop.		Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	on Density	Income (\$2017)
Camden	53,044	94.3%	100.0%	94.3%	86.528	\$26,854
Candler County	10,797	100.0%	100.0%	100.0%	44.424	\$18,233
Carroll County	117,811	91.6%	100.0%	91.6%	236.058	\$23,139
Catoosa County	66,550	99.1%	100.0%	99.1%	410.399	\$25,643
Charlton	12,715	59.9%	99.9%	59.9%	16.437	\$19,102
Chatham County	290,501	95.6%	100.0%	95.6%	681.229	\$28,765
Chattahoochee County	10,343	57.1%	100.0%	57.1%	41.582	\$22,774
Chattooga County	24,770	96.5%	98.7%	95.9%	79.052	\$17,716
Cherokee	247,565	97.3%		97.3%		\$33,466
Clarke County	127,052	99.4%	100.0%	99.4%	1,065.869	\$21,203
Clay County	2,962	62.6%		62.6%		\$14,559
Clayton County	285,141	98.4%	100.0%	98.4%	2,014.136	\$19,498
Clinch County	6,727	63.1%		63.1%		\$17,145
Cobb County	755,747	97.9%	100.0%	97.9%	2,225.736	\$36,587
Coffee County	43,012	89.2%		89.2%		\$18,945
Colquitt County	45,832	87.7%	100.0%	87.7%	84.226	\$18,121
Columbia	151,547	98.3%		98.3%		\$31,720
Cook County	17,277	83.5%	100.0%	83.5%	76.056	\$17,587
Coweta County	143,107	95.6%		95.6%		\$31,548
Crawford County	12,295	92.8%	100.0%	92.8%	37.844	\$22,212
Crisp County	22,736	81.6%		81.6%		\$21,225
Dade County	16,285	90.9%		90.9%		\$23,184
Dawson	24,379	79.6%		79.6%		\$31,954
DeKalb County	753,209	98.6%			2,814.873	\$32,110
Decatur County	26,716	67.6%		67.6%	44.740	\$19,650
Dodge County	20,728	63.9%		63.9%	41.800	\$18,563
Dooly County	13,737	65.8%	100.0%	65.8%	35.049	\$16,867

	Populati on	% of Pop. with Fixed 25	% of Pop. with Mobile 5	% of Pop. with	Populati	Per Capita
	Evaluate d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	on Density	Income (\$2017)
Dougherty County	89,502	97.1%	100.0%	97.1%	272.300	\$20,292
Douglas	143,876	97.3%	100.0%	97.3%	719.139	\$25,449
Early County	10,296	38.3%	99.9%	38.2%	20.086	\$17,972
Echols County	3,936	0.0%	100.0%	0.0%	9.487	\$20,589
Effingham County	59,982	93.7%	100.0%	93.7%	125.564	\$26,765
Elbert County	19,109	67.3%	99.2%	67.3%		\$21,138
Emanuel County	22,530	94.1%	99.7%	93.8%	33.103	\$17,944
Evans County	10,775	60.2%	100.0%	60.2%	58.927	\$20,736
Fannin County	25,322	82.9%	97.6%	81.2%	65.478	\$24,845
Favette County	112,547	98.1%	100.0%	98.1%	579.118	\$39,936
Floyd County	97,609	94.2%	100.0%	94.2%	191.424	\$23,929
Forsyth	227,952	99.1%	100.0%	99.1%	1,017.549	\$39,896
Franklin County	22,817	59.9%	100.0%	59.9%	87.255	\$19,663
Fulton County	1,041,348	96.4%		96.4%		\$41,041
Gilmer County	30,671	81.5%	98.1%	79.8%	71.907	\$23,688
Glascock	3,062	1.0%		1.0%	21.302	\$19,815
Glynn County	85,282	96.4%	100.0%	96.4%	203.172	\$29,209
Gordon County	57,089	89.1%	100.0%	89.1%	160.449	\$21,208
Grady County	24,819	80.7%	100.0%	80.7%	54.604	\$20,864
Greene County	17,281	67.0%		66.9%		\$32,890
Gwinnett County	920,251	99.0%	100.0%	99.0%	2,138.213	\$27,945
Habersham County	44,566	71.2%	100.0%	71.2%	161.040	\$20,656
Hall County	199,326	97.8%	100.0%	97.8%	507.473	\$26,283
Hancock	8,561	8.1%		8.1%	18.144	\$15,454
Haralson County	29,255	100.0%	99.9%	99.9%	103.680	\$23,141
Harris County	33,913	88.7%		88.7%	73.109	\$32,373
Hart County	25,793	67.9%	100.0%	67.9%	110.988	\$21,668
Heard County	11,730	58.0%		58.0%	39.624	\$20,946
Henry County	225,797	99.5%	100.0%	99.5%	700.957	\$26,924

		% of	% of			
		Pop.	Pop.	% of		
	Populati	with	with	Pop.		Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	on Density	Income (\$2017)
Houston	153,477	97.7%	_	97.7%	408.683	\$26,305
Houston Irwin County	9,409	57.1%		57.1%	26.553	\$20,303
Jackson	67,506	80.3%	100.0%	80.3%	198.744	\$25,598
Jasper County	13,964	60.5%	100.0%	60.5%	37.929	\$19,784
Jeff Davis	15,022	67.7%		67.7%	45.419	\$18,550
Jefferson	15,648	8.9%		8.9%	29.722	\$17,485
County						, ,
Jenkins County	8,767	54.6%	99.4%	54.6%	25.245	\$15,149
Johnson	9,787	30.0%	98.8%	28.8%	32.299	\$19,706
County	20.470	02.00/	00.20/	02.20/	70.074	#3C 000
Jones County	28,470 18,599	83.9% 70.3%		83.2% 70.3%	72.271 101.357	\$26,098 \$20,458
Lamar County	-					-
Lanier County Laurens	10,425 47,330	82.6% 60.2%	100.0% 99.9%	82.6% 60.2%	56.272 58.628	\$17,739 \$20,687
County	47,550	00.270	33.370	00.270	30.020	φ20,007
Lee County	29,468	91.8%	100.0%	91.8%	82.826	\$28,061
Liberty County	61,386	93.9%	100.0%	93.9%	125.328	\$20,966
Lincoln County	7,880	100.0%	95.6%	95.6%	37.456	\$24,529
Long County	19,005	82.4%	100.0%	82.4%	47.478	\$20,321
Lowndes	115,485	88.6%	100.0%	88.6%	232.802	\$21,199
Lumpkin County	32,865	70.2%	99.8%	70.1%	116.158	\$23,364
Macon County	13,314	62.9%	100.0%	62.9%	33.232	\$15,919
Madison	29,300	81.8%	100.0%	81.8%	103.786	\$22,885
County		0.1.107	0.1.00/	24.224	00.00=	
Marion County	8,450	64.4%		61.0%	23.087	\$20,154
McDuffie McIntosh	21,498 14,106	84.6% 97.3%		84.6% 97.3%	83.500 33.245	\$20,436 \$25,226
County	14,100	37.370	100.070	37.370	33.243	\$2 <i>0,</i> 220
Meriwether	21,049	50.9%	100.0%	50.9%	41.995	\$19,679
County Millor County	E 020	11 00/	100.00/	11 00/	20 671	¢21 002
Miller County Mitchell	5,838 22,292	11.9% 62.3%		11.9% 62.3%	20.671 43.532	\$21,002 \$16,088
County	22,232	02.5/0	100.0 /0	04.5/0	40.002	φ10,000
Monroe	27,113	42.9%	100.0%	42.9%	68.526	\$30,359

	Populati	% of Pop. with	% of Pop. with	% of Pop.		Per
	on Evaluate d	Fixed 25 Mbps/ 3 Mbps	Mobile 5 Mbps/ 1 Mbps	with Fixed & Mobile	Populati on Density	Capita Income (\$2017)
Montgomery County	9,031	32.5%	100.0%	32.5%	37.704	\$20,114
Morgan	18,409	42.7%	100.0%	42.7%	52.998	\$28,830
Murray County	39,779	97.9%	99.9%	97.9%	115.480	\$19,084
Muscogee	194,058	98.6%	100.0%	98.6%	896.817	\$24,604
Newton County	108,075	96.7%	100.0%	96.7%	397.099	\$23,611
Oconee County	38,025	91.3%		91.3%	206.333	\$38,639
Oglethorpe County	14,877	69.1%	99.6%	69.0%	33.887	\$21,858
Paulding	159,438	98.8%	100.0%	98.8%	510.661	\$26,636
Peach County	27,096	83.4%	100.0%	83.4%	180.319	\$22,388
Pickens	31,585	88.8%		88.8%	136.109	\$29,460
Pierce County	19,307	73.1%	100.0%	73.1%	61.003	\$23,754
Pike County	18,212	29.5%	100.0%	29.5%	84.281	\$25,176
Polk County	42,085	96.9%	100.0%	96.9%	135.613	\$22,314
Pulaski County	11,201	72.2%	100.0%	72.2%	44.978	\$18,623
Putnam County	21,730	87.9%	100.0%	87.9%	63.051	\$27,498
Quitman	2,358	63.1%	99.5%	62.8%	15.591	\$18,921
Rabun County	16,601	87.5%	100.0%	87.5%	44.868	\$26,942
Randolph	7,075	79.6%	99.5%	79.6%	16.521	\$19,781
Richmond County	201,799	96.0%	100.0%	96.0%	622.211	\$21,464
Rockdale	90,309	98.3%		98.3%	695.794	\$24,254
Schley County	5,213	76.2%	100.0%	76.2%	31.233	\$19,761
Screven	13,953	98.5%	100.0%	98.5%	21.629	\$20,255
Seminole County	8,292	74.8%	100.0%	74.8%	35.251	\$21,257
Spalding	65,378			95.7%	332.765	\$21,675
Stephens County	25,890	89.7%	100.0%	89.7%	144.531	\$21,657
Stewart	5,984	56.2%	98.5%	56.2%	13.045	\$14,954
Sumter County	29,847	73.1%	100.0%	73.1%	61.834	\$18,785
Talbot County	6,249	83.2%	100.0%	83.2%	15.966	\$21,351

		% of Pop.	% of Pop.	% of		
	Populati on Evaluate d	with Fixed 25 Mbps/ 3 Mbps	with Mobile 5 Mbps/ 1 Mbps	Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
Taliaferro	1,628	91.1%	_	90.0%	8.366	\$17,939
County	1,020	31.170	30.370	30.070	0.500	φ17,555
Tattnall	25,334	70.8%	100.0%	70.8%	52.845	\$16,279
Taylor County	8,142	85.9%		85.6%	21.615	\$18,482
Telfair County	15,989	71.4%		71.4%	36.563	\$13,594
Terrell County	8,729	74.6%	99.9%	74.6%	26.023	\$17,562
Thomas	44,779	88.2%		88.2%	82.224	\$24,047
Tift County	40,598	86.5%		86.5%	156.801	\$20,800
Toombs	26,999	44.2%		44.2%	74.172	\$21,309
Towns County	11,505	92.7%		92.4%	69.073	\$22,301
Treutlen	6,740	12.8%	100.0%	12.8%	33.795	\$20,775
Troup County	69,786	91.6%		91.6%	168.570	\$22,091
Turner County	7,961	72.6%	100.0%	72.6%	27.895	\$20,302
Twiggs County	8,174	37.3%	99.9%	37.3%	22.807	\$17,485
Union County	23,459	92.1%	99.6%	91.9%	72.871	\$26,755
Upson County	26,135	92.4%		92.4%	80.804	\$19,624
Walker County	68,937	95.4%	99.8%	95.3%	154.436	\$22,564
Walton County	91,597	89.5%		89.5%	281.248	\$25,184
Ware County	35,871	82.5%	99.9%	82.5%	40.193	\$19,246
Warren County	5,303	0.1%		0.1%	18.653	\$20,712
Washington County	20,313	67.1%	99.1%	66.9%	29.940	\$19,238
Wayne County	29,817	79.3%	100.0%	79.3%	46.460	\$19,188
Webster	2,605	43.4%			12.457	\$22,206
Wheeler County	7,952	43.3%		43.3%		\$11,192
White County	29,451	82.8%	99.9%	82.8%	122.363	\$23,630
Whitfield County	104,658	100.0%	100.0%	100.0%	360.314	\$22,262
Wilcox County	8,800	60.1%	99.8%	60.1%	23.299	\$15,119
Wilkes County	9,892	100.0%	99.2%	99.2%		\$21,957
Wilkinson	8,959	54.9%	100.0%	54.9%	20.029	\$19,823
Worth County	20,533	69.9%	99.9%	69.8%	35.979	\$20,783
Hawaii	1,427,53 8	96.1%	99.9%	96.1%	222.267	•

	Populati on Evaluate d	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
Hawaii County	200,381	86.9%	99.8%	86.7%	49.742	\$26,959
Honolulu	988,650	98.8%	100.0%	98.8%	1,645.712	\$33,776
Kalawao County	88	5.7%		5.7%	7.339	\$46,024
Kauai County	72,159	91.3%	99.8%	91.3%	116.394	\$30,515
Maui County	166,260	93.2%	99.7%	93.2%	143.140	\$32,379
Idaho	1,716,79 2	85.3%	99.3%	85.1%	20.774	•
Ada County	456,812	96.9%	100.0%	96.9%	433.994	\$31,642
Adams County	4,145	34.5%	96.2%	34.5%	3.041	\$24,315
Bannock County	85,265	90.0%		90.0%	76.678	\$23,872
Bear Lake	6,028	80.9%	97.3%	80.7%	6.184	\$24,411
Benewah County	9,184	27.3%	84.8%	26.4%	11.826	\$23,120
Bingham	45,921	75.0%	99.9%	75.0%	21.930	\$20,720
Blaine County	22,024	81.8%	98.1%	80.3%	8.331	\$32,736
Boise County	7,290	29.3%	71.3%	22.7%	3.838	\$29,648
Bonner County	43,557	98.9%	99.6%	98.6%	25.111	\$25,909
Bonneville	114,578	90.2%	99.6%	89.9%	61.400	\$25,706
Boundary County	11,922	94.6%	94.9%	90.5%	9.398	\$24,606
Butte County	2,599	46.8%	98.0%	46.0%	1.165	\$26,227
Camas County	1,102	0.0%	98.6%	0.0%	1.026	\$29,193
Canyon County	216,668	90.9%	100.0%	90.9%	368.878	\$19,765
Caribou County	7,034	69.5%	97.8%	68.4%	3.987	\$25,669
Cassia County	23,662	75.8%	99.9%	75.8%	9.225	\$20,007
Clark County	873	93.0%	98.5%	93.0%	0.495	\$15,283
Clearwater	8,546	0.0%		0.0%	3.478	\$22,169
Custer County	4,172	59.4%	86.9%	50.1%	0.848	\$23,290
Elmore County	26,822	77.6%		77.6%	8.723	\$23,029
Franklin County	13,563	57.0%	98.4%	56.4%	20.437	\$20,454
Fremont	13,093	43.9%		43.9%	7.026	\$21,611
Gem County	17,377	83.2%	99.9%	83.2%	30.981	\$20,041

		% of	% of			
	Dl-1	Pop.	Pop.	% of		D
	Populati on	with Fixed 25	with Mobile 5	Pop. with	Populati	Per Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Gooding	15,124	54.7%		54.7%	20.747	\$20,821
Idaho County	16,369	0.9%	94.0%	0.9%	1.931	\$20,741
<u>Jefferson</u>	28,430	64.6%		64.6%	25.999	\$21,519
Jerome County	23,619	64.3%	100.0%	64.3%	39.551	\$19,329
Kootenai	157,632	99.1%		99.0%	126.701	\$28,275
Latah County	39,333	79.8%	95.6%	77.6%	36.555	\$24,166
Lemhi County	7,875	35.1%	93.8%	34.8%	1.726	\$22,489
Lewis County	3,887	21.5%	99.8%	21.5%	8.118	\$23,285
Lincoln County	5,317	32.6%		32.6%	4.426	\$19,095
Madison County	39,140	79.8%	100.0%	79.8%	83.418	\$15,257
Minidoka	20,729	63.4%	100.0%	63.4%	27.362	\$21,887
Nez Perce	40,383	84.3%	98.7%	84.1%	47.616	\$26,799
County						Ψ=0,100
Oneida County	4,427	81.6%		81.3%	3.689	\$21,360
Owyhee County	11,628	46.6%	99.0%	46.6%	1.517	\$19,909
Payette County	23,212	87.1%	100.0%	87.1%	57.051	\$23,361
Power County	7,600	81.0%		81.0%	5.412	\$21,513
Shoshone	12,542	57.6%	95.5%	56.6%	4.769	\$23,834
Teton County	11,381	84.7%	100.0%	84.7%	25.322	\$28,004
Twin Falls	85,119	83.0%	99.9%	83.0%	44.305	\$22,723
Valley County	10,687	71.0%		71.0%	2.916	\$28,515
Washington	10,121	73.3%	99.9%	73.3%	6.966	\$20,435
County Illinois	12,801,8	94.7%	100.0%	94.7%	230.585	
11111013	38	31.770	100.070	31.770	250.505	•
Adams County	66,234	88.3%	100.0%	88.3%	77.448	\$27,256
Alexander	6,315	0.3%	99.5%	0.3%	26.814	\$18,564
Bond County	16,946	42.5%	100.0%	42.5%	44.562	\$24,473
Boone County	53,513	96.3%	100.0%	96.3%	190.628	\$29,029
Brown County	6,716	46.8%	99.6%	46.8%	21.976	\$21,906
Bureau County	33,243	69.0%	100.0%	69.0%	38.253	\$28,332
Calhoun County	4,833	0.6%	95.6%	0.6%	19.041	\$25,660
Carroll County	14,518	74.8%	100.0%	74.8%	32.639	\$27,605

		% of	% of			
		Pop.	Pop.	% of		
	Populati	with	with	Pop.	D 1	Per
	on Evaluate	Fixed 25 Mbps/	Mobile 5 Mbps/	with Fixed &	Populati on	Capita Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Cass County	12,505	78.2%	99.9%	78.2%	33.274	\$25,451
Champaign County	209,389	92.1%	100.0%	92.1%	210.174	\$28,463
Christian County	33,102	85.3%	100.0%	85.3%	46.663	\$25,614
Clark County	15,767	70.7%	99.9%	70.7%	31.445	\$28,495
Clay County	13,269	86.1%	100.0%	86.1%	28.333	\$25,700
Clinton County	37,614	71.9%	100.0%	71.9%	79.340	\$30,382
Coles County	51,979	83.7%	100.0%	83.7%	102.262	\$26,060
Cook County	5,211,243	99.3%		99.3%	5,512.640	\$33,722
Crawford County	18,961	66.5%	100.0%	66.5%	42.741	\$25,955
Cumberland County	10,907	44.0%	100.0%	44.0%	31.521	\$24,956
De Witt	15,942	72.7%		72.7%	40.104	\$27,866
DeKalb County	104,731	97.1%	100.0%	97.1%	165.896	\$26,511
Douglas County	19,747	74.6%	100.0%	74.6%	47.393	\$26,284
DuPage	930,125	99.6%	100.0%	99.6%	2,840.085	\$42,050
Edgar County	17,328	88.3%	100.0%	88.3%	27.797	\$26,344
Edwards	6,486	67.4%	100.0%	67.4%	29.162	\$26,549
Effingham County	34,132	66.5%	100.0%	66.5%	71.290	\$29,300
Fayette County	21,784	50.7%	100.0%	50.7%	30.404	\$21,844
Ford County	13,280	64.5%	100.0%	64.5%	27.347	\$26,611
Franklin	39,039	77.9%	100.0%	77.9%	95.476	\$22,346
Fulton County	35,110	67.0%	100.0%	67.0%	40.562	\$24,269
Gallatin	5,080	67.1%		67.1%	15.724	\$24,538
Greene County	13,173	53.5%	99.8%	53.5%	24.259	\$22,836
Grundy County	50,577	100.0%		100.0%	120.985	\$31,914
Hamilton County	8,189	60.1%	100.0%	60.1%	18.840	\$25,945
Hancock	18,020	72.9%		72.9%	22.703	\$26,118
Hardin County	4,046	100.0%	97.3%	97.3%	22.791	\$20,025
Henderson	6,795	40.8%		40.4%	17.935	\$27,949
Henry County	49,328	86.5%	100.0%	86.5%	59.938	\$28,443

		% of	% of			
		Pop.	Pop.	% of		_
	Populati on	with Fixed 25	with Mobile 5	Pop. with	Populati	Per Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Iroquois	27,876	46.2%	100.0%	46.2%	24.949	\$26,480
Jackson	58,284	90.8%	99.9%	90.8%	99.787	\$23,455
County Jasper County	9,578	30.6%	100.0%	30.6%	19.369	\$25,806
Jefferson	38,179	58.5%	100.0%	58.5%	66.844	\$23,800
County	50,175	30.370	100.070	30.370	00.011	ΨΔ4,017
Jersey County	21,941	53.1%	98.9%	53.1%	59.417	\$27,528
Jo Daviess County	21,594	74.0%	100.0%	74.0%	35.925	\$32,401
Johnson	12,900	13.3%	99.9%	13.2%	37.509	\$20,726
Kane County	534,643	98.8%	100.0%	98.8%	1,028.045	\$33,486
Kankakee	109,605	94.9%	100.0%	94.9%	162.004	\$26,150
Kendall County	126,204	98.8%	100.0%	98.8%	393.975	\$33,369
Knox County	50,638	89.3%	100.0%	89.3%	70.684	\$23,676
LaSalle County	110,067	97.1%		97.1%	96.965	\$27,959
Lake County	703,514	100.0%	100.0%	100.0%	1,585.670	\$42,388
Lawrence County	16,168	55.2%	100.0%	55.2%	43.442	\$21,072
Lee County	34,404	65.0%	100.0%	65.0%	47.461	\$28,179
Livingston County	36,518	81.6%	100.0%	81.6%	34.969	\$27,318
Logan County	29,245	78.4%	100.0%	78.4%	47.318	\$26,479
Macon County	105,801	92.0%	100.0%	92.0%	182.199	\$28,280
Macoupin County	45,446	72.6%	100.0%	72.6%	52.666	\$27,255
Madison	265,428	97.7%	100.0%	97.7%	370.926	\$30,278
Marion County	37,902	74.4%	100.0%	74.4%	66.220	\$24,112
Marshall	11,730	66.1%	100.0%	66.1%	30.327	\$29,025
Mason County	13,714	64.8%	100.0%	64.8%	25.432	\$25,952
Massac County	14,344	60.7%	100.0%	60.7%	60.468	\$23,434
McDonough County	30,823	95.9%	100.0%	95.9%	52.295	\$22,527
McHenry	309,090	99.8%		99.8%		\$36,208
McLean County	172,290	89.3%	100.0%	89.3%	145.592	\$32,943

		% of	% of	0/ 6		
	Populati	Pop. with	Pop. with	% of Pop.		Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	on Density	Income (\$2017)
Menard	12,245	53.5%	100.0%	53.5%	38.943	\$32,839
County						
Mercer County	15,618	59.8%	100.0%	59.8%	27.830	\$27,844
Monroe County	34,097	91.9%	99.8%	91.8%	88.561	\$37,043
Montgomery County	28,790	69.1%	100.0%	69.1%	40.913	\$23,172
Morgan County	33,798	68.9%	100.0%	68.9%	59.421	\$26,253
Moultrie	14,688	69.0%	100.0%	69.0%	43.722	\$26,166
Ogle County	51,063	77.4%	100.0%	77.4%	67.314	\$29,239
Peoria County	183,011	94.4%	100.0%	94.4%	295.556	\$29,683
Perry County	21,285	82.5%	100.0%	82.5%	48.182	\$23,929
Piatt County	16,445	72.9%	100.0%	72.9%	37.443	\$33,672
Pike County	15,821	47.1%	100.0%	47.1%	19.030	\$23,218
Pope County	4,325	77.4%	100.0%	77.4%	11.728	\$22,191
Pulaski County	5,509	28.8%	100.0%	28.8%	27.658	\$20,195
Putnam	5,726	54.8%	100.0%	54.8%	35.752	\$33,697
Randolph	32,423	85.3%	100.0%	85.3%	56.339	\$24,716
County						
Richland	15,901	75.5%		75.5%		\$25,262
Rock Island County	144,807	96.6%	100.0%	96.6%	338.622	\$27,822
Saline County	24,102	74.9%	100.0%	74.9%	63.457	\$22,725
Sangamon	196,452	90.6%	100.0%	90.6%	226.248	\$33,277
Schuyler	7,034	54.2%	99.2%	53.7%	16.086	\$23,670
County						
Scott County	5,002	50.4%		50.4%	19.935	\$26,918
Shelby County	21,719	49.9%	100.0%	49.9%	28.633	\$24,808
St. Clair	262,479	98.6%	100.0%	98.6%	399.050	\$28,643
Stark County	5,434	58.0%		58.0%	18.863	\$30,009
Stephenson County	45,054	81.4%	100.0%	81.4%	79.809	\$25,792
Tazewell	133,526	92.5%	100.0%	92.5%	205.749	\$32,082
Union County	17,000	55.4%	100.0%	55.4%	41.117	\$24,646
Vermilion	77,909	87.6%	100.0%	87.6%	86.723	\$23,416

		% of	% of			
		Pop.	Pop.	% of		
	Populati	with Fixed 25	with Mobile 5	Pop. with	Populati	Per Capita
	on Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Wabash	11,489	66.0%	100.0%	66.0%	51.462	\$25,105
County						
Warren County	17,167	69.5%		69.5%		\$24,840
Washington County	14,030	47.1%	100.0%	47.1%	24.939	\$29,687
Wayne County	16,495	79.8%	100.0%	79.8%	23.108	\$25,046
White County	13,938	68.0%	100.0%	68.0%	28.171	\$26,522
Whiteside	56,118	82.9%	100.0%	82.9%	82.014	\$28,188
Will County	692,614	99.7%	100.0%	99.7%	827.587	\$33,731
Williamson County	67,328	84.1%	100.0%	84.1%	160.248	\$26,023
Winnebago County	284,778	96.5%	100.0%	96.5%	554.731	\$27,297
Woodford	38,726	83.5%		83.5%	73.373	\$34,198
Indiana	6,666,47 8	89.9%	100.0%	89.9%	186.079	•
Adams County	35,485	93.4%	100.0%	93.4%	104.667	\$21,534
Allen County	372,855	96.0%	100.0%	96.0%	567.245	\$26,932
Bartholomew County	82,036	88.3%	100.0%	88.3%	201.608	\$29,955
Benton County	8,613	17.4%	100.0%	17.4%	21.192	\$23,652
Blackford County	11,976	83.5%	100.0%	83.5%	72.547	\$22,328
Boone County	65,865	79.9%	100.0%	79.9%	155.741	\$42,844
Brown County	15,035	74.7%	100.0%	74.7%	48.192	\$31,365
Carroll County	20,039	62.6%	100.0%	62.6%	53.836	\$26,589
Cass County	37,993	83.7%	100.0%	83.7%	92.181	\$23,592
Clark County	116,965	94.8%		94.8%		\$26,875
Clay County	26,198	75.9%	100.0%	75.9%	73.273	\$24,339
Clinton County	32,317	69.9%	100.0%	69.9%		\$23,722
Crawford County	10,566	0.1%	99.5%	0.1%	34.570	\$19,424
Daviess	33,113	63.5%		63.5%		\$21,794
DeKalb County	42,832	80.7%	100.0%	80.7%	118.052	\$26,057
Dearborn County	49,741	92.4%	99.9%	92.4%	163.067	\$30,228

		% of	% of			
		Pop.	Pop.	% of		
	Populati	with	with	Pop.		Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Decatur	26,732	62.6%		62.6%		\$25,548
Delaware	115,184	92.1%		92.1%		\$23,271
Dubois County	42,558	69.4%	100.0%	69.4%	99.605	\$28,302
Elkhart County	205,024	94.6%	100.0%	94.6%	442.654	\$23,817
Fayette County	23,209	76.6%	100.0%	76.6%	107.942	\$22,428
Floyd County	77,070	97.7%	100.0%	97.7%	520.973	\$30,663
Fountain	16,505	74.7%	100.0%	74.7%	41.716	\$25,383
County						
Franklin	22,619	37.4%	100.0%	37.4%	58.838	\$26,267
Fulton County	20,059	100.0%	100.0%	100.0%	54.451	\$23,557
Gibson County	33,576	71.3%	100.0%	71.3%	68.876	\$27,342
Grant County	66,491	81.4%	100.0%	81.4%	160.578	\$21,024
Greene County	32,177	78.9%	100.0%	78.9%	59.313	\$24,744
Hamilton	323,677	95.6%	100.0%	95.6%	820.958	\$44,443
County						
Hancock	74,955	98.9%	100.0%	98.9%	244.938	\$31,428
Harrison	39,898	79.7%	100.0%	79.7%	82.346	\$25,993
County						
Hendricks	163,652	94.4%	100.0%	94.4%	402.181	\$33,031
Henry County	48,476	92.1%	100.0%	92.1%	123.702	\$23,293
Howard	82,363	91.4%	100.0%	91.4%	281.048	\$26,294
Huntington	36,337	77.9%	100.0%	77.9%	94.961	\$24,222
County						
Jackson	43,884	76.7%				\$23,260
Jasper County	33,444	81.5%	100.0%	81.5%	59.761	\$24,953
Jav County	20,945	82.1%	100.0%	82.1%	54.558	\$20,193
Jefferson	32,089	68.5%	100.0%	68.5%	88.980	\$25,429
County						
<u>Jennings</u>	27,626	65.3%		65.3%		\$22,901
Johnson	153,884	95.0%	100.0%	95.0%	480.246	\$31,101
County						
Knox County	37,508	86.1%		86.1%		\$23,441
Kosciusko	79,206	98.4%	100.0%	98.4%	149.057	\$27,884
County						
LaGrange	39,301	49.0%		49.0%		\$22,780
LaPorte	110,029	99.7%	100.0%	99.7%	183.903	\$25,004

	Populati on Evaluate d	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
Lake County	485,640	99.6%	100.0%	99.6%	973.302	\$26,590
Lawrence County	45,666	78.9%	100.0%	78.9%	101.668	\$25,036
Madison	129,498	88.8%	100.0%	88.8%	286.554	\$23,680
Marion County	950,029	98.3%	100.0%	98.3%	2,397.257	\$26,284
Marshall	46,498	100.0%	100.0%	100.0%	104.813	\$24,289
Martin County	10,215	59.5%	100.0%	59.5%	30.426	\$25,138
Miami County	35,845	72.8%	100.0%	72.8%	95.883	\$22,890
Monroe County	146,982	94.0%	100.0%	94.0%	372.570	\$26,738
Montgomery County	38,520	61.7%	100.0%	61.7%	76.336	\$25,519
Morgan County	69,711	87.8%	100.0%	87.8%	172.565	\$27,402
Newton	14,125	87.2%	100.0%	87.2%	35.158	\$24,315
Noble County	47,452	71.5%	100.0%	71.5%	115.499	\$25,260
Ohio County	5,828	65.8%	99.5%	65.8%	67.657	\$27,715
Orange County	19,426	79.6%	99.9%	79.6%	48.762	\$22,715
Owen County	20,838	78.1%	100.0%	78.1%	54.084	\$24,220
Parke County	16,885	72.3%	99.8%	72.3%	37.973	\$21,636
Perry County	19,081	88.7%		88.6%	49.986	\$23,003
Pike County	12,365	57.8%	100.0%	57.8%	36.995	\$25,648
Porter County	168,402	99.3%		99.3%	402.728	\$31,879
Posey County	25,593	67.7%	100.0%	67.7%	62.487	\$30,763
Pulaski County	12,534	77.6%	100.0%	77.6%	28.904	\$24,445
Putnam County	37,699	73.3%	100.0%	73.3%	78.453	\$23,842
Randolph	24,922	66.3%	100.0%	66.3%	55.091	\$23,427
Ripley County	28,442	54.3%	100.0%	54.3%	63.711	\$25,385
Rush County	16,645	53.0%		53.0%	40.784	\$23,749
Scott County	23,867	78.4%		78.4%		\$24,186
Shelby County	44,395	74.9%		74.9%		\$27,317
Spencer	20,394	48.8%		48.8%	51.403	\$29,114
St. Joseph County	270,434	100.0%		100.0%		\$25,893
Starke County	22,893	96.2%	100.0%	96.2%	74.055	\$22,153

		% of	% of			
		Pop.	Pop.	% of		
	Populati	with	with	Pop.		Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Steuben	34,477	74.1%			111.598	\$26,902
Sullivan	20,746	56.0%	100.0%	56.0%	46.397	\$22,239
County						
Switzerland	10,694	38.2%	100.0%	38.2%	48.470	\$21,511
County Tippecanoe	190,565	89.5%	100.0%	89.5%	381.278	\$25,481
County	150,505	05.070	100.070	05.570	501.270	Ψ20,101
Tipton County	15,128	79.1%	100.0%	79.1%	58.064	\$28,507
Union County	7,200	48.1%	100.0%	48.1%	44.658	\$22,527
Vanderburgh	181,615	98.5%	100.0%	98.5%	777.877	\$26,917
County						, .
Vermillion	15,505	95.6%	100.0%	95.6%	60.359	\$23,891
County						
Vigo County	107,516	93.9%		93.9%	266.582	\$22,932
Wabash	31,443	70.1%	100.0%	70.1%	76.238	\$24,700
County						
Warren County	8,201	31.7%		31.7%	22.488	\$29,312
Warrick	62,530	82.4%	100.0%	82.4%	162.493	\$33,528
County	0.7.00.7	00.00/	400.004	00.00/	54405	+00.000
Washington County	27,827	90.3%	100.0%	90.3%	54.167	\$23,223
Wayne County	66,185	85.7%	100.0%	85.7%	164.746	\$23,895
Wells County	27,981	71.7%		71.7%	76.017	\$25,850
White County	24,181	84.6%	100.0%	84.6%	47.871	\$26,275
Whitley	33,753	70.8%	100.0%	70.8%	100.584	\$28,073
Iowa	3,145,49	90.7%		90.6%	56.313	•
	8					
Adair County	7,054	79.3%	100.0%	79.3%	12.391	\$28,861
Adams County	3,686	61.2%	100.0%	61.2%	8.705	\$27,022
Allamakee	13,882	77.0%	96.7%	76.1%	21.722	\$27,377
County						
Appanoose	12,352	75.5%		74.4%	24.839	\$25,543
Audubon	5,578	72.9%	100.0%	72.9%	12.593	\$31,523
County					_	
Benton County	25,642	79.2%		79.2%	35.800	\$32,356
Black Hawk	132,648	99.4%	100.0%	99.4%	234.456	\$27,669
County						

		% of	% of			
		Pop.	Pop.	% of		
	Populati	with	with	Pop.		Per
	on Evaluate	Fixed 25 Mbps/	Mobile 5 Mbps/	with Fixed &	Populati on	Capita Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Boone County	26,484	96.4%	100.0%	96.4%	46.336	\$30,190
Bremer	24,908	99.8%	100.0%	99.8%	57.197	\$32,105
County						
Buchanan	21,195	69.3%	100.0%	69.3%	37.118	\$30,974
Buena Vista	20,110	76.2%	100.0%	76.2%	34.979	\$26,345
County						
Butler County	14,606	83.5%	100.0%	83.5%	25.177	\$28,584
Calhoun	9,738	78.1%	100.0%	78.1%	17.085	\$27,370
County	0.000	0.1.55	402.25	0.1.05	05.00	100.10
Carroll County	20,320	94.3%	100.0%	94.3%	35.684	\$29,191
Cass County	13,145	92.8%	100.0%	92.8%	23.296	\$26,427
Cedar County	18,542	84.6%	100.0%	84.6%	32.000	\$30,362
Cerro Gordo County	43,006	100.0%	100.0%	100.0%	75.673	\$31,292
	11 210	72.20/	100.00/	72.20/	10.015	420 072
Cherokee Chickasaw	11,316 12,005	73.3% 100.0%	100.0% 100.0%	73.3% 100.0%	19.615 23.801	\$30,973
County	12,003	100.0%	100.0%	100.0%	23.601	\$27,973
Clarke County	9,369	81.3%	99.6%	81.2%	21.729	\$25,879
Clay County	16,170	85.1%	100.0%	85.1%	28.507	\$28,514
Clayton	17,637	72.8%	98.6%	72.1%	22.654	\$27,719
Clinton County	47,010	94.7%	100.0%	94.7%	67.649	\$28,091
Crawford	17,048	68.1%	100.0%	68.1%	23.870	\$27,270
Dallas County	87,210	90.8%	100.0%	90.7%	148.204	\$42,417
Davis County	8,966	77.4%	93.7%	74.0%	17.854	\$25,747
Decatur	7,950	85.6%	100.0%	85.6%	14.947	\$21,110
County						
Delaware	17,153	91.4%	98.9%	90.5%	29.689	\$30,768
Des Moines	39,417	95.1%	100.0%	95.1%	94.724	\$27,168
County		_		_		
Dickinson	17,199	93.9%	100.0%	93.9%	45.188	\$36,588
Dubuque County	97,040	98.6%	100.0%	98.6%	159.525	\$30,117
Emmet County	9,432	99.2%	100.0%	99.2%	23.825	\$29,396
Fayette County	19,796	88.8%	99.6%	88.4%	27.088	\$27,020
Floyd County	15,744	100.0%	100.0%	100.0%	31.448	\$28,323

	Populati on Evaluate d	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
Franklin	10,164	95.3%	100.0%	95.3%	17.465	\$25,248
County						
Fremont	6,948	66.2%	100.0%	66.2%	13.593	\$29,813
Greene County	8,981	94.4%	100.0%	94.4%	15.768	\$27,968
Grundy County	12,332	78.7%	100.0%	78.7%	24.573	\$35,662
Guthrie County	10,669	83.5%	100.0%	83.5%	18.064	\$30,646
Hamilton	15,115	84.4%	100.0%	84.4%	26.207	\$27,963
Hancock County	10,771	94.7%	100.0%	94.7%	18.863	\$29,147
Hardin County	17,048	89.6%	100.0%	89.5%	29.945	\$28,445
Harrison County	14,136	68.0%	100.0%	68.0%	20.286	\$29,332
Henry County	19,861	90.8%		90.7%	45.728	\$26,340
Howard County	9,228	100.0%	99.1%	99.1%	19.499	\$27,906
Humboldt	9,561	72.2%		72.2%	22.012	\$29,587
Ida County	6,865	34.5%	100.0%	34.5%	15.909	\$30,192
Iowa County	16,103	77.3%	99.8%	77.2%	27.458	\$29,881
Jackson County	19,366	85.0%	99.9%	85.0%	30.448	\$27,672
Jasper County	36,962	86.7%		86.7%	50.604	\$27,214
Jefferson County	18,421	99.9%	99.6%	99.5%	42.298	\$26,630
Johnson	149,165	93.8%	100.0%	93.8%	242.924	\$33,039
Jones County	20,534	90.9%	99.8%	90.8%	35.673	\$29,653
Keokuk	10,153	64.9%	99.2%	64.3%	17.530	\$26,638
Kossuth County	14,999	73.8%	100.0%	73.8%	15.420	\$29,949
Lee County	34,295	91.4%		91.4%	66.268	\$24,408
Linn County	224,101	97.1%	100.0%	97.1%	312.606	\$32,786
Louisa County	11,184	70.3%		70.3%	27.837	\$27,234
Lucas County	8,534	69.1%	98.3%	68.4%	19.819	\$27,234
Lvon County	11,790	84.7%		84.7%	20.063	\$28,356
Madison County	16,007	80.7%	99.9%	80.6%	28.533	\$31,449

		% of	% of			
	D 1	Pop.	Pop.	% of		
	Populati on	with Fixed 25	with Mobile 5	Pop. with	Populati	Per Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Mahaska	22,235	78.0%	100.0%	78.0%	38.950	\$26,575
Marion County	33,105	87.8%	99.2%	87.4%	59.699	\$27,815
Marshall	40,288	98.2%	100.0%	98.2%	70.372	\$25,693
Mills County	15,068	73.0%	100.0%	73.0%	34.446	\$31,309
Mitchell	10,631	100.0%	100.0%	100.0%	22.661	\$27,407
Monona County	8,740	57.5%	100.0%	57.5%	12.592	\$26,829
Monroe	7,845	73.0%	96.3%	71.3%	18.088	\$25,929
Montgomery	10,137	90.3%	100.0%	90.3%	23.903	\$25,005
County						
Muscatine	42,880	88.8%		88.8%	98.018	\$28,028
O'Brien	13,801	86.6%	100.0%	86.6%	24.084	\$32,051
County						
Osceola	6,045	81.3%		81.3%	15.162	\$26,776
Page County	15,224	86.5%	100.0%	86.5%	28.459	\$25,739
Palo Alto	9,092	59.3%	100.0%	59.3%	16.125	\$27,902
Plymouth County	25,220	67.7%	100.0%	67.7%	29.227	\$30,686
Pocahontas	6,846	67.8%	100.0%	67.8%	11.860	\$27,553
County	0,040	07.070	100.070	07.070	11.000	φ <u>4</u> 7,333
Polk County	481,778	97.1%	100.0%	97.1%	839.635	\$33,524
Pottawattamie County	93,386	88.1%	100.0%	88.1%	98.272	\$29,085
Poweshiek County	18,314	72.6%	100.0%	72.6%	31.310	\$27,679
Ringgold	5,034	58.0%	100.0%	58.0%	9.401	\$27,621
Sac County	9,817	50.1%	100.0%	50.1%	17.073	\$29,502
Scott County	172,509	96.4%	100.0%	96.4%	376.584	\$30,798
Shelby County	11,628	92.0%	100.0%	92.0%	19.682	\$30,799
Sioux County	34,860	81.6%		81.6%	45.371	\$27,339
Story County	97,494	94.2%	100.0%	94.2%	170.201	\$27,392
Tama County	17,058	80.8%	100.0%	80.8%	23.658	\$27,074
Taylor County	6,178	67.6%	100.0%	67.6%	11.615	\$27,344
Union County	12,450	86.8%	100.0%	86.8%	29.388	\$25,098
Van Buren	7,157	79.1%	93.9%	73.8%	14.763	\$24,952
County						

	Populati on Evaluate	% of Pop. with Fixed 25	% of Pop. with Mobile 5	% of Pop. with	Populati	Per Capita
	d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	on Density	Income (\$2017)
Wapello	35,044	88.3%	99.4%	88.3%	81.152	\$23,413
Warren County	50,153	88.7%	99.1%	88.0%	88.014	\$33,013
Washington County	22,281	88.4%	99.7%	88.2%	39.170	\$28,397
Wayne County	6,474	86.0%	100.0%	86.0%	12.321	\$23,367
Webster	36,605	93.9%	99.9%	93.8%	51.152	\$24,629
Winnebago County	10,587	98.7%	100.0%	98.7%	26.435	\$26,558
Winneshiek County	20,201	89.3%	99.1%	89.2%	29.282	\$29,052
Woodbury County	102,429	89.5%	100.0%	89.5%	117.352	\$25,699
Worth County	7,469	100.0%	100.0%	100.0%	18.667	\$26,781
Wright County	12,784	83.5%	100.0%	83.5%	22.025	\$28,200
Kansas	2,912,95 3	91.1%	100.0%	91.1%	35.629	•
Allen County	12,519	95.7%	100.0%	95.7%	25.023	\$23,011
Anderson	7,833	97.9%	100.0%	97.9%	13.513	\$21,887
Atchison County	16,332	76.9%	100.0%	76.9%	37.878	\$25,494
Barber County	4,586	81.1%		81.1%		\$28,840
Barton County	26,476	89.9%	100.0%	89.9%	29.569	\$26,264
Bourbon	14,751	88.9%		88.3%	23.213	\$20,707
Brown County	9,641	71.8%	100.0%	71.8%	16.888	\$24,319
Butler County	66,878	72.0%		72.0%	46.772	\$28,478
Chase County	2,682	13.0%	100.0%	13.0%	3.469	\$24,469
Chautauqua Countv	3,363	18.1%	96.3%	18.1%	5.264	\$23,621
Cherokee County	20,115	82.6%	100.0%	82.6%	34.234	\$21,006
Chevenne	2,683	1.8%		1.8%		\$27,934
Clark County	2,004	0.5%	100.0%	0.5%	2.056	\$27,087
Clay County	7,958	92.1%		92.1%	12.332	\$28,115
Cloud County	8,991	93.6%	100.0%	93.6%	12.569	\$25,579
Coffey County	8,224	99.5%	100.0%	99.5%	13.118	\$31,679

	Populati on Evaluate d	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
Comanche County	1,790	52.0%	100.0%	52.0%	2.271	\$28,388
Cowley County	35,361	84.5%	100.0%	84.5%	31.411	\$23,130
Crawford County	39,034	93.1%	100.0%	93.1%	66.187	\$21,207
Decatur	2,884	16.9%	99.8%	16.9%	3.228	\$30,890
Dickinson County	18,902	61.6%	100.0%	61.6%	22.315	\$24,434
Doniphan	7,727	81.7%	100.0%	81.7%	19.641	\$24,520
Douglas County	120,777	100.0%	100.0%	100.0%	264.937	\$29,438
Edwards	2,893	69.9%		69.9%	4.652	\$27,966
Elk County	2,498	58.9%	99.7%	58.9%	3.877	\$21,156
Ellis County	28,689	97.7%	100.0%	97.7%	31.880	\$29,339
Ellsworth County	6,330	63.7%	100.0%	63.7%	8.843	\$24,102
Finney County	37,079	99.3%	100.0%	99.3%	28.479	\$23,074
Ford County	34,377	79.6%	100.0%	79.6%	31.301	\$22,053
Franklin	25,732	100.0%	100.0%	100.0%	45.005	\$25,701
Geary County	33,855	81.8%	100.0%	81.8%	88.022	\$21,583
Gove County	2,631	72.4%		72.4%	2.455	\$29,352
Graham County	2,495	98.6%	100.0%	98.6%	2.777	\$27,165
Grant County	7,526					
Gray County	5,958	7.0%	100.0%	7.0%	6.857	\$27,031
Greeley	1,249	92.1%		92.1%	1.604	\$25,775
Greenwood County	6,123	65.6%	99.9%	65.6%	5.356	\$24,837
Hamilton	2,637	100.0%		100.0%		\$21,694
Harper County	5,590	47.7%	99.9%	47.6%	6.976	\$25,698
Harvey County	34,544	84.5%		84.5%	63.999	\$26,587
Haskell County	4,049	98.4%	100.0%	98.4%	7.011	\$24,141
Hodgeman	1,842	40.7%	100.0%	40.7%	2.142	\$28,857
Jackson County	13,316	62.0%	100.0%	62.0%	20.292	\$25,920

		% of	% of			
		Pop.	Pop.	% of		_
	Populati on	with Fixed 25	with Mobile 5	Pop. with	Populati	Per Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Jefferson	18,997	97.0%	100.0%	97.0%	35.670	\$27,783
Jewell County	2,850	89.5%	100.0%	89.5%	3.133	\$24,361
Johnson	591,143	100.0%	100.0%	100.0%	1,248.785	\$43,061
Kearny County	3,959	100.0%	100.0%	100.0%	4.548	\$24,232
Kingman	7,360	48.9%	100.0%	48.9%	8.525	\$30,927
Kiowa County	2,485	0.1%	99.4%	0.1%	3.439	\$24,961
Labette	20,145	65.8%	100.0%	65.8%	31.218	\$22,841
Lane County	1,559	98.0%	100.0%	98.0%	2.173	\$29,768
Leavenworth County	81,085	100.0%	100.0%	100.0%	175.194	\$30,170
Lincoln County	3,043	34.1%	100.0%	34.1%	4.230	\$25,667
Linn County	9,725	100.0%	100.0%	100.0%	16.370	\$25,796
Logan County	2,821	89.4%	100.0%	89.4%	2.629	\$28,549
Lyon County	33,392	97.9%	100.0%	97.9%	39.402	\$24,307
Marion County	11,986	51.6%	100.0%	51.6%	12.693	\$25,620
Marshall County	9,745	43.6%	100.0%	43.6%	10.826	\$27,908
McPherson County	28,708	74.9%	100.0%	74.9%	31.959	\$29,508
Meade County	4,303	0.0%	100.0%	0.0%	4.399	\$25,173
Miami County	33,451	100.0%	100.0%	100.0%	58.109	\$31,611
Mitchell	6,128	96.5%	100.0%	96.5%	8.732	\$26,108
Montgomery County	32,556	87.4%	100.0%	87.4%	50.590	\$22,823
Morris County	5,455	96.4%	100.0%	96.4%	7.846	\$26,569
Morton County	2,740	100.0%	100.0%	100.0%	3.755	\$23,038
Nemaha	10,118	63.4%	100.0%	63.3%	14.103	\$27,438
Neosho County	16,015	83.0%	100.0%	83.0%	28.024	\$23,589
Ness County	2,869	73.2%	100.0%	73.2%	2.669	\$30,761
Norton County	5,441	87.2%	100.0%	87.2%	6.196	\$22,935
Osage County	15,772	100.0%	100.0%	100.0%	22.355	\$27,209
Osborne County	3,610	97.8%	100.0%	97.8%	4.045	\$26,559
Ottawa County	5,863	53.0%	100.0%	53.0%	8.135	\$28,839
Pawnee County	6,680	71.4%	100.0%	71.4%	8.856	\$24,404

		0/ - C	0/ - C			
		% of Pop.	% of Pop.	% of		
	Populati	with	with	Pop.		Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Phillips	5,370	70.1%	100.0%	70.1%	6.062	\$24,795
Pottawatomie	23,905	94.4%	100.0%	94.4%	28.424	\$27,978
County						
Pratt County	9,547	75.3%			12.988	\$27,063
Rawlins	2,497	46.5%	99.8%	46.3%	2.335	\$27,615
County						
Reno County	62,510	80.1%		80.1%	49.795	\$25,267
Republic	4,691	68.2%	100.0%	68.2%	6.539	\$27,121
County	6.22		400.00		45.55	100 07=
Rice County	9,660	75.8%		75.8%	13.301	\$23,355
Riley County	74,150	87.0%		87.0%	121.603	\$26,619
Rooks County	5,043	86.3%		86.3%	5.663	\$25,415
Rush County	3,099	79.5%		79.5%	4.318	\$25,983
Russell County	6,915	98.7%		98.7%	7.802	\$25,686
Saline County	54,734	86.6%	100.0%	86.6%	75.996	\$27,951
Scott County	4,961	100.0%		100.0%	6.914	\$31,825
Sedgwick	513,671	94.5%	100.0%	94.5%	514.952	\$27,583
County						
Seward County	22,159	58.4%		58.4%	34.651	\$21,158
Shawnee	178,184	100.0%	100.0%	100.0%	327.534	\$28,584
County	00-	=0.40/				
Sheridan	2,527	76.1%		76.1%	2.820	\$30,165
Sherman	5,930	85.5%	100.0%	85.5%	5.615	\$25,653
County	0.000	0.4.007	100.00/	0.4.00/	4.004	+00.400
Smith County	3,666	84.8%		84.8%	4.094	\$28,122
Stafford County	4,207	29.0%	100.0%	29.0%	5.312	\$25,941
Stanton	2.050	100.00/	100.0%	100.0%	2 026	ቀጋ1 በፍጋ
Stanton	2,059 5,612	100.0% 98.8%		98.8%	3.026 7.716	\$21,062 \$24,691
County	3,014	30.070	100.070	30.070	/./10	φ44,U31
Sumner	23,159	100.0%	100.0%	100.0%	19.594	\$25,393
Thomas	7,788	90.2%		90.2%	7.247	\$26,718
County	,,,,,,	50.270	100.070	50.270	/ • - - • /	Ψ=0,710
Trego County	2,884	86.4%	100.0%	86.4%	3.242	\$33,233
Wabaunsee	6,874	65.8%		65.8%	8.654	\$25,790
County						, ,
Wallace	1,521	47.5%	99.7%	47.4%	1.665	\$29,931

	Populati on Evaluate d	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
Washington County	5,485	55.5%	100.0%	55.5%	6.130	\$26,927
Wichita	2,124	95.2%	100.0%	95.2%	2.956	\$27,111
Wilson County	8,675	70.1%	100.0%	70.1%	15.208	\$25,107
Woodson	3,147	72.4%	99.9%	72.3%	6.322	\$21,419
Wyandotte County	165,271	100.0%	100.0%	100.0%	1,090.178	\$20,192
Kentucky	4,454,12 8	90.9%	98.8%	89.9%	112.802	
Adair County	19,484	75.4%	95.6%	73.7%	48.075	\$18,408
Allen County	20,933	98.9%	99.7%	98.6%	60.792	\$21,652
Anderson County	22,542	80.6%	100.0%	80.6%	111.687	\$24,991
Ballard County	8,039	100.0%	100.0%	100.0%	32.592	\$25,063
Barren County	43,801	81.1%	99.1%	80.9%	89.841	\$20,493
Bath County	12,378	80.0%	100.0%	80.0%	44.399	\$20,059
Bell County	26,894	98.4%	98.6%	97.4%	74.914	\$14,754
Boone County	130,726	99.1%	100.0%	99.1%	530.632	\$33,553
Bourbon County	20,029	87.6%	100.0%	87.6%	69.132	\$25,994
Boyd County	47,979	95.7%	99.7%	95.5%	300.124	\$26,420
Boyle County	29,924	98.6%	99.7%	98.4%	166.089	\$23,822
Bracken	8,267	73.6%	100.0%	73.6%	40.207	\$22,433
Breathitt County	12,946	53.3%	81.5%	49.4%	26.291	\$16,875
Breckinridge County	20,111	65.5%	99.9%	65.5%	35.458	\$20,735
Bullitt County	80,245	99.1%	100.0%	99.1%	270.163	\$26,643
Butler County	12,831	52.2%	99.9%	52.2%	30.114	\$21,787
Caldwell County	12,639	75.5%	100.0%	75.5%	36.657	\$25,272
Calloway	38,913	98.1%	100.0%	98.1%	101.067	\$21,757
Campbell County	92,488	99.2%	100.0%	99.2%	611.255	\$31,065
Carlisle	4,846	94.1%	100.0%	94.1%	25.581	\$24,015
Carroll County	10,713	73.4%	100.0%	73.4%	83.325	\$22,296

		% of	% of			
		Pop.	Pop.	% of		
	Populati	with Fixed 25	with Mobile 5	Pop.	Donulati	Per
	on Evaluate	Mbps/	Mobile 5 Mbps/	with Fixed &	Populati on	Capita Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Carter County	27,144	75.2%	95.4%	72.8%	66.286	\$18,477
Casey County	15,750	90.7%	95.7%	87.4%	35.455	\$18,319
Christian	70,416	88.3%	99.7%	88.3%	98.140	\$21,393
Clark County	36,046	81.5%	100.0%	81.5%	142.777	\$26,219
Clay County	20,366	89.8%	88.2%	79.2%	43.401	\$15,388
Clinton County	10,276	92.4%	100.0%	92.4%	52.097	\$19,325
Crittenden	9,084	67.1%	100.0%	67.1%	25.237	\$22,765
Cumberland County	6,706	69.0%	96.7%	68.2%	21.974	\$18,669
Daviess	100,373	93.0%	100.0%	93.0%	218.989	\$26,501
Edmonson County	12,226	85.2%	97.2%	82.4%	40.365	\$21,851
Elliott County	7,523	100.0%	37.6%	37.6%	32.106	\$13,436
Estill County	14,277	96.4%	97.0%	93.5%	56.413	\$17,728
Favette County	321,947	99.5%	100.0%	99.5%	1,135.017	\$31,653
Fleming County	14,446	79.3%	100.0%	79.3%	41.447	\$23,351
Flovd County	36,271	88.2%	94.3%	83.5%	92.212	\$18,366
Franklin County	50,485	97.5%	100.0%	97.5%	243.012	\$28,001
Fulton County	6,192	60.6%	100.0%	60.6%	30.131	\$18,111
Gallatin County	8,776	73.1%	100.0%	73.1%	86.690	\$22,508
Garrard	17,523	84.0%	100.0%	84.0%	76.161	\$24,874
Grant County	24,984	92.6%	100.0%	92.6%	96.851	\$20,892
Graves County	37,120	94.8%	100.0%	94.8%	67.278	\$22,112
Grayson County	26,358	89.1%	98.9%	88.0%	53.066	\$19,520
Green County	11,065	82.7%	99.2%	82.1%	38.684	\$23,448
Greenup County	35,518	92.5%	95.6%	89.7%	103.131	\$25,378
Hancock	8,801	21.2%	99.8%	21.2%	46.901	\$22,438
Hardin County	108,070	99.3%	99.9%	99.1%	173.390	\$26,436
Harlan County	26,713	84.3%	82.3%	71.5%	57.345	\$15,457
Harrison County	18,779	46.7%	100.0%	46.7%	61.296	\$22,497

		% of Pop.	% of Pop.	% of		
	Populati	with	with	Pop.		Per
	on Evaluate	Fixed 25 Mbps/	Mobile 5 Mbps/	with Fixed &	Populati on	Capita Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Hart County	18,757	89.8%	100.0%	89.8%	45.517	\$19,715
Henderson County	45,928	94.2%	100.0%	94.2%	105.178	\$23,958
Henry County	16,006	65.9%	100.0%	65.9%	55.911	\$23,932
Hickman County	4,520	32.5%	100.0%	32.5%	18.657	\$19,764
Hopkins	45,547	85.8%	100.0%	85.8%	84.036	\$23,288
Jackson County	13,431	100.0%	91.0%	91.0%	38.908	\$16,827
Jefferson	771,156	99.9%	100.0%	99.9%	2,027.136	\$31,039
Jessamine County	53,368	97.3%	100.0%	97.3%	310.071	\$28,195
Johnson	22,594	85.3%	93.5%	78.9%	86.252	\$19,925
Kenton County	165,399	99.4%	100.0%	99.4%	1,032.133	\$30,195
Knott County	15,291	60.1%	90.8%	52.7%	43.500	\$17,670
Knox County	31,227	84.0%	98.6%	82.6%	80.837	\$15,869
Larue County	14,197	84.4%	99.8%	84.2%	54.287	\$21,879
Laurel County	60,174	98.0%	99.7%	97.8%	138.665	\$20,446
Lawrence	15,719	100.0%	81.5%	81.5%	37.823	\$18,885
Lee County	6,570	26.8%	99.0%	26.1%	31.457	\$16,489
Leslie County	10,334	48.2%	76.8%	31.5%	25.781	\$15,112
Letcher County	22,339	89.7%	86.3%	78.9%	66.109	\$18,085
Lewis County	13,339	71.8%		70.6%		
Lincoln County	24,456	86.7%	100.0%	86.7%	73.201	\$19,351
Livingston	9,269	69.8%	100.0%	69.8%	29.601	\$24,464
Logan County	27,060	82.4%	100.0%	82.4%	49.010	\$21,465
Lyon County	8,082	26.2%	100.0%	26.2%	37.795	\$27,098
Madison	91,226	94.9%	100.0%	94.9%		\$23,733
Magoffin County	12,538	100.0%	89.4%	89.4%	40.649	\$17,279
Marion County	19,392	86.6%	97.9%	85.8%	56.535	\$21,823
Marshall County	31,382	97.9%	100.0%	97.9%	104.172	\$27,391
Martin County	11,452	77.9%	97.7%	75.7%	49.877	\$14,914
Mason County	17,174	39.9%	100.0%	39.9%	71.520	\$25,285

	Populati on Evaluate d	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
McCracken	65,384	98.0%	_	98.0%	262.857	\$29,881
County	05,504	30.070	100.070	30.070	202.007	ΨΔ3,001
McCreary	17,465	100.0%	96.6%	96.6%	40.921	\$11,492
McLean	9,201	48.8%	100.0%	48.8%	36.443	\$22,884
County						
Meade County	28,154	85.3%	99.6%	85.3%	92.180	\$25,119
Menifee	6,455	100.0%	100.0%	100.0%	31.707	\$19,744
County						
Mercer County	21,521	82.4%		82.4%	86.500	\$24,981
Metcalfe	10,107	74.4%	96.8%	71.5%	34.894	\$18,449
County	40.050	07.00/	04.40/	00.00/	20.004	+04.005
Monroe	10,659	87.0%		80.2%	32.361	\$21,985
Montgomery County	27,928	92.6%	100.0%	92.6%	141.504	\$21,371
Morgan	13,188	100.0%	89.4%	89.4%	34.603	\$17,089
Muhlenberg County	30,816	80.1%	99.9%	80.1%	65.976	\$20,376
Nelson County	45,640	65.7%	100.0%	65.6%	109.314	\$28,156
Nicholas County	7,130	43.5%	100.0%	43.5%	36.532	\$21,519
Ohio County	24,182	55.7%	100.0%	55.7%	41.177	\$21,368
Oldham County	66,415	98.3%	100.0%	98.3%	354.746	\$38,063
Owen County	10,764	60.7%	99.1%	60.7%	30.658	\$22,802
Owsley County	4,435	100.0%		94.9%	22.466	\$16,582
Pendleton	14,573	71.9%	100.0%	71.9%	52.580	\$23,191
Perry County	26,553	94.7%		77.3%	78.173	\$19,890
Pike County	58,883	72.4%	92.6%	66.7%	74.835	\$20,576
Powell County	12,374	41.2%		41.2%	69.136	\$19,302
Pulaski County	64,449	97.1%	99.8%	97.0%	97.886	\$21,036
Robertson County	2,134	45.1%	100.0%	45.1%	21.359	\$21,764
Rockcastle	16,698	93.3%	99.6%	92.9%	52.751	\$19,750
Rowan County	24,517	98.1%	98.4%	96.6%	87.625	\$19,032
Russell County	17,775	87.2%	100.0%	87.2%	70.075	\$18,857
Scott County	54,872	83.5%	100.0%	83.5%	194.743	\$30,702

		% of	% of			
		Pop.	Pop.	% of		
	Populati	with	with	Pop.		Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	on Density	Income (\$2017)
Shelby County	47,420	85.4%	_	85.4%	124.909	\$30,240
Simpson County	18,108	67.1%		67.1%	77.317	\$22,663
Spencer	18,506	79.8%	100.0%	79.8%	99.134	\$30,779
Taylor County	25,466	90.8%	99.1%	90.0%	95.619	\$19,885
Todd County	12,243	57.4%	97.8%	56.3%	32.692	\$19,555
Trigg County	14,444	77.4%	100.0%	77.4%	32.721	\$26,224
Trimble	8,561	81.7%	100.0%	81.7%	56.453	\$26,542
Union County	14,668	81.0%	100.0%	81.0%	42.783	\$21,758
Warren County	128,845	92.9%	100.0%	92.9%	237.897	\$25,840
Washington County	12,126	78.6%	99.6%	78.6%	40.792	\$22,611
Wayne County	20,715	74.5%	93.1%	70.3%	45.212	\$17,627
Webster County	13,018	60.8%	100.0%	60.8%	39.218	\$21,150
Whitley	36,214	96.4%	99.8%	96.3%	82.713	\$18,463
Wolfe County	7,264	100.0%	100.0%	100.0%	32.696	\$13,533
Woodford	26,368	97.9%	100.0%	97.9%	139.673	\$31,208
Louisiana	4,684,28 6	87.6%	100.0%	87.6%	108.423	•
Acadia Parish	62,590	71.9%	100.0%	71.9%	95.540	\$21,591
Allen Parish	25,621	63.1%	100.0%	63.1%	33.630	\$20,103
Ascension Parish	122,947	98.7%	100.0%	98.7%	423.983	\$31,520
Assumption	22,526	98.8%	100.0%	98.8%	66.515	\$25,765
Avoyelles Parish	40,980	74.6%	100.0%	74.6%	49.229	\$20,199
Beauregard	36,928	50.2%	100.0%	50.2%	31.908	\$24,551
Bienville Parish	13,638	4.5%	99.2%	4.5%	16.811	\$22,701
Bossier Parish	127,630	90.7%	100.0%	90.7%	151.930	\$27,235
Caddo Parish	246,581	96.1%	100.0%	96.1%	280.672	\$25,565
Calcasieu	202,439	91.7%	100.0%	91.7%	190.323	\$26,569
Caldwell Parish	9,950	51.4%	100.0%	51.4%	18.794	\$20,961
Cameron	6,912	12.9%	100.0%	12.9%	5.379	\$29,681

		% of	% of			
		Pop.	% 01 Pop.	% of		
	Populati	with	with	Pop.		Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Catahoula	9,875	26.2%	100.0%	26.2%	13.947	\$20,717
Parish						
Claiborne	15,969	40.2%				\$16,384
Concordia Parish	19,866	81.5%	100.0%	81.5%	28.505	\$17,551
De Soto Parish	27,340	69.6%	99.9%	69.6%	31.225	\$23,471
East Baton	446,268	100.0%		100.0%		\$30,162
Rouge Parish						400,10
East Carroll Parish	7,126	63.0%	100.0%	63.0%	16.938	\$14,694
East Feliciana Parish	19,412	17.7%	100.0%	17.7%	42.813	\$21,138
Evangeline	33,708	46.4%	100.0%	46.4%	50.889	\$18,655
Franklin Parish	20,260	50.0%	100.0%	50.0%	32.438	\$18,786
Grant Parish	22,336	37.2%	100.0%	37.2%	34.736	\$18,509
Iberia Parish	72,176	93.6%	100.0%	93.6%	125.718	\$23,410
Iberville	33,027	80.8%	100.0%	80.8%	53.388	\$22,252
Jackson Parish	15,846	57.9%	100.0%	57.9%	27.840	\$20,109
Jefferson Davis Parish	31,477	75.8%	100.0%	75.8%	48.327	\$23,068
Jefferson	439,035	97.8%	100.0%	97.8%	1,485.074	\$28,839
LaSalle Parish	14,933	45.3%	100.0%	45.3%	23.905	\$18,836
Lafavette	242,481	97.4%	100.0%	97.4%	902.357	\$30,656
Lafourche Parish	98,418	72.0%	100.0%	72.0%	92.133	\$26,331
Lincoln Parish	47,744	82.3%	100.0%	82.3%	101.208	\$21,934
Livingston	138,228	98.4%	100.0%	98.4%	213.259	\$27,280
Madison Parish	11,316	68.7%	100.0%	68.7%	18.122	\$15,134
Morehouse	25,641	91.7%	100.0%	91.7%	32.255	\$18,776
Natchitoches Parish	39,021	68.0%		68.0%	31.161	\$18,219
Orleans Parish	393,284	92.3%	100.0%	92.3%	2,321.315	\$29,275
Ouachita Parish	155,874	97.1%		97.1%		\$22,538

		% of	% of			
		Pop.	Pop.	% of		_
	Populati on	with Fixed 25	with Mobile 5	Pop. with	Populati	Per Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Plaquemines Parish	23,348	68.5%	100.0%	68.5%	29.937	\$26,177
Pointe Coupee Parish	22,268	65.8%	100.0%	65.8%	39.954	\$27,160
Rapides Parish	131,648	87.3%	100.0%	87.3%	99.888	\$23,486
Red River Parish	8,536	21.1%	100.0%	21.1%	21.938	\$25,154
Richland	20,411	47.7%		47.7%	36.511	\$19,975
Sabine Parish	24,018	6.3%	100.0%	6.3%	27.713	\$22,980
St. Bernard	46,202	93.6%		93.6%	122.384	\$20,431
St. Charles Parish	52,749	97.3%	100.0%	97.3%	189.009	\$30,378
St. Helena	10,363	35.5%	100.0%	35.5%	25.374	\$21,148
St. James Parish	21,367	99.5%	100.0%	99.5%	88.463	\$25,724
St. John the Bantist Parish	43,441	100.0%	100.0%	100.0%	203.880	\$23,380
St. Landry Parish	83,497	81.8%	100.0%	81.8%	90.377	\$19,205
St. Martin	54,170	93.6%	100.0%	93.6%	73.436	\$23,654
St. Mary Parish	50,973	89.6%	100.0%	89.6%	91.781	\$22,212
St. Tammany Parish	256,325	98.5%	100.0%	98.5%	303.146	, ,
Tangipahoa Parish	132,489	88.7%	100.0%	88.7%	167.437	\$23,520
Tensas Parish	4,615	0.5%	100.0%	0.5%	7.656	\$16,194
Terrebonne Parish	112,086	99.6%	100.0%	99.6%	90.993	\$24,017
Union Parish	22,571	38.0%	99.9%	38.0%	25.737	\$20,742
Vermilion Parish	60,136	96.1%	100.0%	96.1%	51.258	\$23,608
Vernon Parish	50,725	69.7%	100.0%	69.7%	38.199	\$22,583
Washington Parish	46,633	37.6%	100.0%	37.6%	69.651	\$18,345
Webster	39,378	74.8%	100.0%	74.8%	66.401	\$19,256

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		% of Pop.	% of Pop.	% of		
	Populati	with	with	Pop.		Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	on Density	Income (\$2017)
West Baton	26,262	88.1%	100.0%	88.1%	136.501	\$28,140
Rouge Parish						
West Carroll	10,981	31.5%	100.0%	31.5%	30.533	\$22,857
Parish West Feliciana	15,380	32.1%	100.0%	32.1%	38.144	\$23,041
Parish	-,					, -,-
Winn Parish	14,311	46.5%		46.5%	15.063	\$18,417
Maine	1,335,90 4	93.3%	98.5%	92.1%	43.313	•
Androscoggin	107,651	99.8%	100.0%	99.8%	230.059	\$26,276
County						
Aroostook	67,653	84.1%		75.9%	10.141	\$23,631
County	292,499	99.6%	100.0%	99.6%	350.197	\$36,780
County	20.000	76 70/	00.70/	76.60/	17 675	424 1G2
Franklin Hancock	29,988 54,497	76.7% 85.5%	99.7% 98.5%	76.6% 84.3%	17.675 34.342	\$24,162 \$31,178
County	34,437	05.570	30.370	04.570	34.342	ψ31,170
Kennebec	121,821	99.2%	100.0%	99.2%	140.424	\$27,336
Knox County	39,790	97.6%	99.7%	97.3%	108.974	\$29,806
Lincoln County	34,204	95.1%	99.9%	95.1%	75.039	\$31,522
Oxford County	57,439	88.5%	99.7%	88.5%	27.657	\$22,862
Penobscot	151,957	91.3%		91.2%	44.728	\$26,347
Piscataquis County	16,773	42.4%	99.8%	42.4%	4.235	\$23,464
Sagadahoc	35,392	96.0%	100.0%	96.0%	139.506	\$32,947
Somerset	50,626	83.5%		83.5%	12.900	\$22,641
County	ŕ					,
Waldo County	39,831	71.5%	99.8%	71.4%	54.569	\$27,763
Washington	31,593	81.9%	61.4%	51.8%	12.328	\$24,311
County	204.100	00.004	100.004	00.004	200.104	400 COE
York County Maryland	204,190 6,052,12	98.8% 97.6%		98.8% 97.6%	206.104	\$33,635
Maryland	4	97.0%	100.0%	97.0%	623.465	•
Allegany County	71,615	88.6%	100.0%	88.6%	168.840	\$22,355
Anne Arundel County	573,232	97.4%	100.0%	97.4%	1,381.609	\$43,258

		% of	% of			
		Pop.	Pop.	% of		
	Populati	with	with	Pop.		Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	on Density	Income (\$2017)
D. I.:		_	_			
Baltimore County	832,463	97.8%	100.0%	97.8%	1,391.376	\$37,270
Baltimore city	611,648	99.2%	100.0%	99.2%	7,556.461	\$28,488
Calvert County	91,502	98.3%	100.0%	98.3%	429.281	\$41,469
Caroline	33,190	97.1%	100.0%	97.1%	103.907	\$25,355
County						
Carroll County	167,781	98.8%		98.8%	374.850	\$39,690
Cecil County	102,746	97.7%	100.0%	97.7%	296.720	\$32,542
Charles	159,700	92.0%	100.0%	92.0%	348.881	\$38,890
Dorchester County	32,162	100.0%	100.0%	99.9%	59.475	\$28,911
Frederick	252,019	99.5%	100.0%	99.5%	381.719	\$39,566
Garrett County	29,233	73.3%	100.0%	73.2%	45.175	\$26,303
Harford	252,157	98.4%	100.0%	98.4%	576.901	\$37,972
Howard	321,112	96.8%	100.0%	96.8%		\$51,045
County						
Kent County	19,384	99.0%	100.0%	99.0%	69.971	\$32,217
Montgomery County	1,058,790	98.4%	100.0%	98.4%	2,155.278	\$51,162
Prince	912,755	96.9%	100.0%	96.9%	1,890.972	\$34,391
George's						
Queen Anne's County	49,758	99.5%	100.0%	99.5%	133.791	\$40,553
Somerset County	25,918	98.5%	99.9%	98.5%	81.064	\$18,395
St. Mary's	112,667	96.8%	100.0%	96.8%	315.435	\$37,528
Talbot County	37,103	92.1%	100.0%	92.1%	138.166	\$44,785
Washington	150,577	98.9%	100.0%	98.9%	328.929	\$28,742
County						
Wicomico	102,923	99.3%		99.3%	274.869	\$27,755
Worcester County	51,689	99.7%	100.0%	99.7%	110.380	\$34,425
Massachusetts	6,859,74 2	97.9%	100.0%	97.9%	879.448	•
Barnstable County	213,444	98.6%	100.0%	98.6%	542.117	\$40,886
Berkshire	126,313	91.9%	99.8%	91.8%	136.286	\$33,245

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		% of Pop.	% of Pop.	% of		
	Populati	with	with	Pop.		Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Bristol County	561,468	98.4%	100.0%	98.4%	1,015.137	\$32,406
Dukes County	17,325	91.5%	100.0%	91.5%	167.804	\$42,956
Essex County	785,200	98.8%	100.0%	98.8%	1,594.111	\$38,604
Franklin	70,701	79.9%	99.8%	79.9%	101.100	\$33,010
Hampden	469,816	100.0%	100.0%	100.0%	761.279	\$28,072
County						
<u>Hampshire</u>	161,832	87.0%				\$32,198
Middlesex	1,602,935	98.6%	100.0%	98.6%	1,960.018	\$47,616
County						
Nantucket	11,229	98.9%				\$47,924
Norfolk County	700,317	97.9%	100.0%	97.9%	1,768.006	\$49,816
	F1 F 1 A 1	07.00/	100.00/	07.00/	701 (10	+20 24T
Plymouth	515,141	97.9% 98.4%	100.0% 100.0%			\$39,247
Suffolk County	797,907	98.4%	100.0%	98.4%	13,720.52 0	\$38,031
Worcester	826,114	98.5%	100.0%	98.5%	546.816	\$34,691
Michigan	9,961,98	92.0%	99.9%	92.0%	176.197	•
	8					
Alcona County	10,351	65.9%	100.0%	65.8%	15.344	\$24,463
Alger County	9,121	74.4%	89.6%	68.7%	9.968	\$21,771
Allegan	116,432	78.8%	100.0%	78.8%	141.090	\$27,172
County						
Alpena County	28,462	91.9%			49.771	\$24,030
Antrim County	23,292	92.7%		92.7%		\$29,307
Arenac County	15,045	54.4%		54.4%		\$22,622
Baraga County	8,441	62.4%		62.4%	9.397	\$18,975
Barry County	60,568	61.1%		61.1%		\$27,166
Bay County	104,239	92.4%	99.9%	92.4%	235.674	\$25,462
Benzie County	17,573	80.2%		80.2%		\$26,790
Berrien	154,257	93.3%	100.0%	93.3%	271.700	\$27,505
County						
Branch County	43,410	69.6%				\$22,977
Calhoun	134,128	88.4%	100.0%	88.4%	189.920	\$24,859
County	- 4	02.25	400.00	02.25	40.55	100.015
Cass County	51,381	93.3%	100.0%	93.3%	104.846	\$28,019

		% of	% of			
		Pop.	Pop.	% of		
	Populati	with Fixed 25	with Mobile 5	Pop. with	Donulati	Per
	on Evaluate	Mbps/	Mbps/	Fixed &	Populati on	Capita Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Charlevoix	26,139	92.2%	99.9%	92.2%	62.783	\$31,730
County						
Cheboygan	25,369	62.5%		62.5%	35.468	\$24,956
Chippewa County	37,709	77.0%	99.3%	76.7%	24.197	\$21,958
Clare County	30,645	76.6%	100.0%	76.6%	54.305	\$21,198
Clinton County	78,436	82.1%	100.0%	82.1%	138.480	\$32,792
Crawford	13,906	53.1%	100.0%	53.1%	24.998	\$22,891
Delta County	35,965	84.0%	97.7%	83.3%	30.711	\$25,582
Dickinson	25,415	72.6%	99.2%	72.6%	33.379	\$25,998
Eaton County	109,027	88.8%	100.0%	88.8%	189.555	\$30,064
Emmet County	33,193	91.0%	100.0%	91.0%	71.002	\$31,356
Genesee County	407,385	98.6%	100.0%	98.6%	639.560	\$25,180
Gladwin	25,234	65.4%	100.0%	65.4%	50.289	\$23,491
Gogebic County	15,342	84.7%	99.2%	84.3%	13.924	\$22,297
Grand Traverse	91,807	97.5%	100.0%	97.5%	197.719	\$31,701
Gratiot County	41,018	100.0%	100.0%	100.0%	72.156	\$20,597
Hillsdale	45,879	62.7%	100.0%	62.7%		\$23,831
Houghton County	36,305	87.9%	99.4%	87.9%	35.978	\$21,462
Huron County	31,280			68.6%		\$26,352
Ingham County	290,171	94.2%	100.0%	94.2%	521.778	\$27,399
Ionia County	64,291	89.2%	100.0%	89.2%	112.534	\$22,715
Iosco County	25,162	86.3%	99.6%	85.9%	45.824	\$24,099
Iron County	11,124	15.6%	97.8%	15.6%	9.539	\$23,658
Isabella County	71,063	98.5%	100.0%	98.5%	124.089	\$22,009
Jackson	158,639	84.0%	100.0%	84.0%		\$25,952
Kalamazoo County	262,979	98.2%	100.0%	98.2%	468.219	\$29,258
Kalkaska	17,629	82.7%	100.0%	82.7%	31.488	\$22,822
Kent County	648,559	96.7%	100.0%	96.7%	765.760	\$29,433

	Populati	% of Pop. with	% of Pop. with	% of Pop.		Per
	on Evaluate d	Fixed 25 Mbps/ 3 Mbps	Mobile 5 Mbps/ 1 Mbps	with Fixed & Mobile	Populati on Density	Capita Income (\$2017)
Keweenaw	2,105	77.5%	87.1%	69.4%	3.897	\$28,700
Lake County	12,013	4.9%	100.0%	4.9%	21.173	\$18,199
Lapeer County	88,174	76.7%	100.0%	76.7%	137.126	\$26,650
Leelanau County	21,657	87.1%	100.0%	87.1%	62.381	\$37,061
Lenawee	98,623	81.4%				\$25,649
Livingston County	189,632	97.9%	100.0%	97.9%	335.481	\$36,845
Luce County	6,358	0.0%	97.4%	0.0%	7.072	\$19,442
Mackinac County	10,712	50.1%	99.4%	50.1%	10.486	\$26,967
Macomb	871,339	98.4%	100.0%	98.4%	1,818.231	\$29,740
Manistee County	24,427	71.7%	100.0%	71.7%	45.056	\$24,398
Marquette	66,502	90.3%		90.3%	36.774	\$25,550
Mason County	29,073	85.8%	100.0%	85.8%	58.725	\$26,251
Mecosta	43,387	85.4%		85.4%	78.165	\$21,978
Menominee County	23,046	71.3%	98.7%	71.1%	22.073	\$26,151
Midland	83,411	95.7%		95.7%		\$33,013
Missaukee County	14,998	25.5%	100.0%	25.5%	26.558	\$21,805
Monroe	149,646	92.9%		92.9%		\$29,245
Montcalm County	63,546	93.0%	100.0%	93.0%	90.085	\$21,509
Montmorency County	9,250	0.5%		0.5%		\$23,155
Muskegon County	173,693	93.8%	100.0%	93.8%	347.911	\$22,829
Newaygo	48,229	39.1%		39.1%		\$22,735
Oakland County	1,250,785	99.4%	100.0%	99.4%	1,441.556	\$40,941
Oceana County	26,438	46.5%	100.0%	46.5%	51.630	\$22,185
Ogemaw County	20,981	72.2%	100.0%	72.2%	37.234	\$22,028
Ontonagon	5,881	65.0%	89.3%	57.1%	4.485	\$22,958

		% of	% of			
	Populati	Pop. with	Pop. with	% of Pop.		Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	on Density	Income (\$2017)
Osceola County	23,259	28.1%	100.0%	28.1%	41.065	\$21,090
Oscoda County	8,287	1.6%	100.0%	1.6%	14.648	\$22,343
Otsego County	24,537	70.7%	100.0%	70.7%	47.647	\$26,012
Ottawa County	286,345	97.2%	100.0%	97.2%	508.184	\$29,121
Presque Isle County	12,791	29.2%		29.2%	19.418	\$24,793
Roscommon County	23,892	93.1%	100.0%	93.1%	45.978	\$22,333
Saginaw County	191,934	95.4%	100.0%	95.4%	239.883	\$25,348
Sanilac County	41,269	42.8%	100.0%	42.8%	42.874	\$23,924
Schoolcraft County	8,048	56.5%	97.5%	56.5%	6.871	\$21,534
Shiawassee	68,446			85.7%	128.981	\$25,218
St. Clair	159,350	84.5%				\$27,807
St. Joseph County	60,946	81.1%	100.0%	81.1%	121.748	\$23,702
Tuscola County	52,764	66.6%	99.9%	66.5%	65.698	\$23,573
Van Buren	75,352	74.1%	100.0%	74.1%	124.041	\$25,433
Washtenaw County	367,603	92.2%	100.0%	92.2%	520.710	\$37,455
Wayne County	1,753,616	98.9%	100.0%	98.9%	2,865.011	\$24,847
Wexford County	33,272	64.8%	100.0%	64.8%	58.888	\$22,028
Minnesota	5,576,26 0	94.8%	99.9%	94.8%	70.030	•
Aitkin County	15,826	48.1%	100.0%	48.1%	8.688	\$26,883
Anoka County	351,342	98.1%	100.0%	98.1%	830.577	\$34,321
Becker County	34,097	88.5%	99.9%	88.4%	25.925	\$28,525
Beltrami	46,505	99.5%		98.5%	18.565	\$23,748
Benton County	39,937	88.8%		88.8%	97.813	\$27,018
Big Stone	5,026			87.9%		\$29,035
Blue Earth County	66,964	100.0%	100.0%	100.0%	89.543	\$28,283
Brown County	25,194	95.5%	100.0%	95.5%	41.228	\$29,696

		% of	% of			
	Danulati	Pop.	Pop.	% of		Dan
	Populati on	with Fixed 25	with Mobile 5	Pop. with	Populati	Per Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Carlton County	35,498	78.5%	100.0%	78.5%	41.211	\$26,900
Carver County	102,103	97.7%	100.0%	97.7%	288.162	\$44,212
Cass County	29,354	77.4%	100.0%	77.4%	14.521	\$28,004
Chippewa	11,980	100.0%	100.0%	100.0%	20.615	\$29,354
Chisago County	55,304	75.3%	100.0%	75.3%	133.307	\$32,105
Clay County	63,565	95.6%	100.0%	95.6%	60.806	\$28,122
Clearwater County	8,878	99.8%	99.3%	99.1%	8.887	\$24,515
Cook County	5,398	91.8%	92.1%	85.0%	3.717	\$31,831
Cottonwood County	11,295	100.0%	100.0%	100.0%	17.687	\$27,206
Crow Wing County	64,422	93.4%	100.0%	93.4%	64.480	\$30,013
Dakota County	421,744	99.2%	100.0%	99.2%	750.210	\$38,863
Dodge County	20,754	100.0%	100.0%	100.0%	47.246	\$31,417
Douglas County	37,575	87.7%	100.0%	87.7%	58.960	\$33,336
Faribault	13,784	100.0%	100.0%	100.0%	19.347	\$29,116
Fillmore County	20,980	93.0%	98.6%	92.3%	24.359	\$28,441
Freeborn	30,535	100.0%	100.0%	100.0%	43.184	\$27,603
Goodhue County	46,304	99.8%	100.0%	99.8%	61.181	\$33,477
Grant County	5,941	89.1%	100.0%	89.1%	10.838	\$30,359
Hennepin County	1,252,001	98.5%	100.0%	98.5%	2,261.600	\$41,794
Houston	18,660	79.4%	97.9%	78.6%	33.801	\$30,150
Hubbard County	21,015	95.5%	100.0%	95.5%	22.702	\$28,073
Isanti County	39,576	77.0%	100.0%	77.0%	90.814	\$30,145
Itasca County	45,137	83.6%	99.9%	83.5%	16.920	\$27,497
Jackson	9,946	100.0%	100.0%	100.0%	14.148	\$31,010
Kanabec County	16,022	73.9%	100.0%	73.9%	30.718	\$26,345
Kandiyohi	42,739	100.0%	100.0%	100.0%	53.639	\$29,375

		% of	% of	0/ - C		
	Populati -	Pop. with	Pop. with	% of Pop.		Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	on Density	Income (\$2017)
Kittson County	4,250	46.6%	98.9%	46.6%	3.868	\$30,525
Koochiching County	12,528	74.8%	99.6%	74.8%	4.036	\$26,804
Lac qui Parle County	6,685	99.3%	100.0%	99.3%	8.738	\$31,427
Lake County	10,524	89.3%	99.2%	89.1%	4.989	\$32,319
Lake of the Woods County	3,744	51.3%	98.2%	51.3%	2.885	\$24,964
Le Sueur	28,103	100.0%	100.0%	100.0%	62.624	\$31,135
Lincoln County	5,678	93.9%	100.0%	93.9%	10.578	\$28,382
Lyon County	25,829	99.6%		99.6%	36.147	\$30,203
Mahnomen County	5,595	80.3%	99.5%	80.0%	10.029	\$20,720
Marshall County	9,356	53.4%	99.8%	53.4%	5.271	\$28,585
Martin County	19,850	100.0%	100.0%	100.0%	27.866	\$30,806
McLeod County	35,884	84.8%	100.0%	84.8%	73.013	\$30,145
Meeker County	23,129	91.0%	100.0%	91.0%	38.030	\$29,216
Mille Lacs	25,872	59.6%	100.0%	59.6%	45.206	\$25,732
Morrison County	33,059	80.3%	100.0%	80.3%	29.384	\$28,040
Mower County	39,559	100.0%	100.0%	100.0%	55.613	\$28,613
Murray County	8,346	91.6%	100.0%	91.6%	11.843	\$30,553
Nicollet	33,962	100.0%		100.0%	75.725	\$29,722
Nobles County	21,941	96.9%	100.0%	96.9%	30.682	\$24,935
Norman	6,597	90.4%		90.4%	7.559	\$27,099
Olmsted County	154,916	100.0%	100.0%	100.0%	237.111	\$37,956
Otter Tail	58,344	93.5%		93.5%	29.585	\$29,932
Pennington County	14,236	92.1%	99.9%	91.9%	23.089	\$28,562
Pine County	29,198	50.5%	100.0%	50.5%	20.689	\$24,044
Pipestone County	9,087	97.9%	100.0%	97.9%	19.540	\$28,706
Polk County	31,619	94.8%	100.0%	94.8%	16.041	\$28,260

		% of	% of			
		Pop.	Pop.	% of		
	Populati	with	with	Pop.		Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	on Density	Income (\$2017)
Pope County	10,970	69.5%	100.0%	69.5%	16.380	\$32,454
Ramsey	547,910	98.7%	100.0%	98.7%	3,599.641	\$32,544
Red Lake County	4,029	100.0%	100.0%	100.0%	9.318	\$26,988
Redwood	15,272	99.3%	100.0%	99.3%	17.383	\$27,543
Renville County	14,645	98.9%	100.0%	98.9%	14.900	\$31,215
Rice County	65,961	99.7%	100.0%	99.7%	133.071	\$28,603
Rock County	9,490	99.7%	100.0%	99.7%	19.670	\$29,000
Roseau County	15,327	60.4%	99.8%	60.4%	9.169	\$27,935
Scott County	145,788	96.4%	100.0%	96.4%	408.970	\$38,322
Sherburne County	94,562	89.0%	100.0%	89.0%	218.430	\$33,048
Sibley County	14,868	99.7%	100.0%	99.7%	25.252	\$29,884
St. Louis County	200,000	86.5%	99.9%	86.5%	32.013	\$29,197
Stearns County	157,809	90.0%	100.0%	90.0%	117.493	\$29,148
Steele County	36,887	100.0%	100.0%	100.0%	85.855	\$29,930
Stevens County	9,634	98.0%	100.0%	98.0%	17.094	\$31,419
Swift County	9,407	99.7%	100.0%	99.7%	12.676	\$29,470
Todd County	24,510	62.8%	100.0%	62.8%	25.937	\$24,988
Traverse	3,319	63.2%	100.0%	63.2%	5.783	\$30,234
Wabasha County	21,606	100.0%	99.3%	99.3%	41.313	\$32,307
Wadena	13,669	90.7%	100.0%	90.7%	25.489	\$24,200
Waseca County	18,787	100.0%	100.0%	100.0%	44.376	\$27,383
Washington County	256,336	97.4%	100.0%	97.4%	667.052	\$41,591
Watonwan County	10,840	100.0%	100.0%	100.0%	24.923	\$26,884
Wilkin County	6,324	83.3%	100.0%	83.3%	8.421	\$28,575
Winona County	50,873	99.2%	99.3%	98.5%	81.240	\$27,200
Wright County	134,278	89.9%	100.0%	89.9%	203.003	\$32,506

		% of	% of			
		Pop.	Pop.	% of		
	Populati	with	with	Pop.		Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	on Density	Income (\$2017)
Yellow	9,867	99.9%	100.0%	99.9%	12.998	\$28,182
Medicine	·					, ,
County						
Mississippi	2,984,07 0	79.6%	99.9%	79.6%	63.595	
Adams County	31,003	86.3%	100.0%	86.3%	67.047	\$17,721
Alcorn County	37,210	100.0%	100.0%	100.0%	93.016	\$20,527
Amite County	12,447	22.5%	99.9%	22.5%	17.048	\$19,665
Attala County	18,477	51.9%	100.0%	51.9%	25.139	\$20,617
Benton County	8,312	92.4%	100.0%	92.4%	20.442	\$18,599
Bolivar County	31,945	79.7%	100.0%	79.7%	36.443	\$16,984
Calhoun County	14,492	76.3%	100.0%	76.3%	24.706	\$17,837
Carroll County	10,139	34.9%	99.9%	34.9%	16.139	\$22,995
Chickasaw	17,146	55.9%	100.0%	55.9%	34.170	\$19,609
County	,					, ,
Choctaw	8,277	26.9%	100.0%	26.9%	19.793	\$19,816
Claiborne County	8,950	51.6%	98.1%	51.6%	18.363	\$13,095
Clarke County	15,828	60.4%	91.8%	60.3%	22.888	\$20,564
Clay County	19,640	66.4%	100.0%	66.4%	47.893	\$19,220
Coahoma	23,154	75.5%	100.0%	75.5%	41.912	\$16,699
Copiah County	28,516	53.3%	99.9%	53.3%	36.689	\$18,756
Covington	19,079	22.6%	99.5%	22.6%	46.108	\$18,749
DeSoto County	178,741	95.9%	100.0%	95.9%	375.392	\$28,316
Forrest County	75,471	88.9%	100.0%	88.9%	161.846	\$20,783
Franklin County	7,765	27.6%	99.6%	27.6%	13.773	\$24,864
George County	24,092	77.0%	100.0%	77.0%	50.327	\$20,973
Greene County	13,345	22.8%	100.0%	22.8%	18.723	\$18,002
Grenada	21,087	84.0%	100.0%	84.0%	49.957	\$20,150
Hancock County	47,053	84.4%	100.0%	84.4%	99.321	\$24,373
Harrison	205,024	95.6%	100.0%	95.6%	357.188	\$23,127
Hinds County	239,497	93.2%	100.0%	93.2%	275.366	\$22,397
Holmes	17,739	67.3%	99.7%	67.3%	23.443	\$12,394

	Populati	% of Pop. with	% of Pop. with	% of Pop.		Per
	on Evaluate d	Fixed 25 Mbps/ 3 Mbps	Mobile 5 Mbps/ 1 Mbps	with Fixed & Mobile	Populati on Density	Capita Income (\$2017)
Humphreys County	8,342	86.2%	100.0%	86.2%	19.934	\$15,696
Issaguena	1,339	1.6%	100.0%	1.6%	3.242	\$16,348
Itawamba County	23,508	78.1%	100.0%	78.1%	44.123	\$20,859
Jackson	142,149	96.2%	100.0%	96.2%	196.677	\$24,665
Jasper County	16,582	60.3%	100.0%	60.3%	24.521	\$20,619
Jefferson	7,262	54.5%	99.5%	54.5%	13.967	\$13,758
Jefferson Davis County	11,314	51.6%	99.6%	51.6%	27.700	\$17,035
Jones County	67,930	77.8%	100.0%	77.8%	97.770	\$20,958
Kemper County	9,883	11.6%	99.7%	11.6%	12.899	\$15,790
Lafayette	54,374	83.6%		83.6%	86.075	\$25,719
Lamar County	61,372	75.9%	100.0%	75.9%	123.471	\$28,342
Lauderdale County	76,155	89.7%		89.7%	108.231	\$23,339
Lawrence County	12,643	4.1%	100.0%	4.1%	29.357	\$21,826
Leake County	22,715	48.3%	100.0%	48.3%	38.962	\$18,825
Lee County	84,933	96.3%	100.0%	96.3%	188.761	\$23,968
Leflore County	29,223	89.5%	100.0%	89.5%	49.318	\$15,403
Lincoln County	34,347	65.6%	100.0%	65.6%	58.601	\$20,627
Lowndes	59,186			88.5%	117.082	\$23,141
Madison County	104,618	92.5%	100.0%	92.5%	146.420	\$36,627
Marion County	25,069	56.7%		56.7%	46.220	\$19,610
Marshall County	35,619	68.0%	100.0%	68.0%	50.438	\$19,775
Monroe	35,872	66.4%	99.9%	66.4%	46.886	\$21,643
Montgomery County	10,173	78.9%	99.8%	78.9%	24.996	\$22,666
Neshoba	29,369	62.4%	100.0%	62.4%	51.512	\$19,243
Newton County	21,185	42.8%	99.9%	42.8%	36.646	\$21,177
Noxubee	10,742	43.8%	100.0%	43.8%	15.453	\$16,591

		% of	% of	% of		
	Populati on Evaluate	Pop. with Fixed 25 Mbps/	Pop. with Mobile 5 Mbps/	Pop. with Fixed &	Populati on	Per Capita Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Oktibbeha County	49,799	78.6%	100.0%	78.6%	108.684	\$21,322
Panola County	33,994	71.3%	100.0%	71.3%	49.616	\$20,191
Pearl River County	55,270	82.4%	100.0%	82.4%	68.162	\$22,136
Perry County	12,032	23.4%	97.2%	23.4%	18.589	\$19,308
Pike County	39,468	71.8%	100.0%	71.8%	96.495	\$17,470
Pontotoc	31,640	59.1%	100.0%	59.1%	63.574	\$20,421
Prentiss County	25,261	100.0%	100.0%	100.0%	60.873	\$19,016
Quitman	7,269	61.2%	100.0%	61.2%	17.948	\$15,189
Rankin County	152,077	93.1%	100.0%	93.1%	196.106	\$29,055
Scott County	28,420	50.9%	99.9%	50.9%	46.653	\$20,520
Sharkey County	4,435	42.6%	100.0%	42.6%	10.273	\$17,192
Simpson	26,947	53.2%	100.0%	53.2%	45.738	\$19,336
Smith County	16,078	16.3%	98.6%	16.3%	25.270	\$21,864
Stone County	18,112	67.9%	100.0%	67.9%	40.657	\$21,615
Sunflower County	25,981	75.2%	100.0%	75.2%	37.235	\$14,427
Tallahatchie Countv	14,125	52.6%		52.6%	21.889	\$14,163
Tate County	28,436	70.6%	100.0%	70.6%	70.254	\$21,671
Tippah County	21,969	65.5%	99.5%	65.0%	47.987	\$19,780
Tishomingo County	19,542	97.6%	100.0%	97.6%	46.062	\$19,379
Tunica County	10,024	66.2%		66.2%	22.047	\$18,486
Union County	28,555	80.5%	100.0%	80.5%	68.708	\$19,518
Walthall	14,499	24.9%	99.8%	24.9%	35.894	\$20,155
Warren County	46,768	94.3%	99.8%	94.3%	79.470	\$22,542
Washington County	46,221	92.1%	100.0%	92.1%	63.776	\$19,247
Wayne County	20,446	60.5%	97.5%	60.3%	25.219	\$21,515
Webster	9,765	46.1%	99.9%	46.1%	23.198	\$20,662
Wilkinson County	8,804	36.4%	99.0%	36.4%	12.983	\$12,722

		% of	% of			
	D 1	Pop.	Pop.	% of		.
	Populati on	with Fixed 25	with Mobile 5	Pop. with	Populati	Per Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Winston	18,246	65.8%	99.9%	65.8%	30.047	\$23,527
Yalobusha County	12,497	65.3%	99.8%	65.3%	26.753	\$20,037
Yazoo County	27,057	63.4%	99.8%	63.4%	29.316	\$16,927
Missouri	6,113,35	88.7%	99.8%	88.6%	88.932	•
	0					
Adair County	25,377	80.3%	99.6%	80.3%	44.731	\$21,778
Andrew	17,554	87.9%	100.0%	87.9%	40.568	\$28,003
Atchison County	5,275	76.2%	100.0%	76.2%	9.638	\$28,209
Audrain	25,641	67.5%	100.0%	67.5%	37.041	\$21,226
Barry County	35,668	100.0%	100.0%	100.0%	45.831	\$20,840
Barton County	11,850	72.8%	100.0%	72.8%	20.020	\$24,628
Bates County	16,334	51.5%	100.0%	51.5%	19.522	\$25,873
Benton County	19,070	36.9%	99.8%	36.9%	27.086	\$20,163
Bollinger County	12,302	21.2%	100.0%	21.2%	19.909	\$20,687
Boone County	178,269	92.7%	100.0%	92.7%	260.090	\$28,495
Buchanan County	89,065	94.4%	100.0%	94.4%	218.282	\$24,271
Butler County	42,666	68.4%	100.0%	68.4%	61.419	\$20,855
Caldwell County	9,099	42.2%	100.0%	42.2%	21.339	\$24,200
Callaway	45,032	94.5%	100.0%	94.5%	53.958	\$24,208
Camden County	45,630	93.7%	99.2%	93.4%	69.566	\$25,492
Cape Girardeau	78,161	85.5%	100.0%	85.5%	135.102	\$25,965
Carroll County	8,796	66.6%	100.0%	66.6%	12.663	\$24,642
Carter County	6,169	7.3%	99.7%	7.3%	12.159	\$21,569
Cass County	103,721	100.0%	100.0%	100.0%	148.846	\$30,618
Cedar County	14,073	53.2%	100.0%	53.2%	29.660	\$20,228
Chariton County	7,480	39.2%	99.7%	39.1%	9.958	\$23,463
Christian	85,425	100.0%	99.8%	99.8%	151.828	\$26,628
Clark County	6,723	31.2%	99.9%	31.2%	13.321	\$26,253

		% of Pop.	% of Pop.	% of		
	Populati on Evaluate d	with Fixed 25 Mbps/ 3 Mbps	with Mobile 5 Mbps/ 1 Mbps	Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
Clay County	242,856	100.0%		100.0%	611.269	\$31,953
Clinton County	20,554	68.7%	100.0%	68.7%	49.060	\$27,655
Cole County	76,708	88.3%	100.0%	88.3%	194.814	\$27,559
Cooper County	17,644	100.0%	100.0%	100.0%	31.241	\$22,371
Crawford	24,102	82.1%	98.1%	82.1%	32.460	\$20,799
Dade County	7,588	42.2%	100.0%	42.2%	15.485	\$20,468
Dallas County	16,670	100.0%	99.5%	99.5%	30.826	\$19,647
Daviess	8,357	54.3%	100.0%	54.3%	14.837	\$22,642
County						
DeKalb County	12,588	71.5%	100.0%	71.5%	29.875	\$18,994
Dent County	15,477	54.9%	95.3%	54.9%	20.560	\$20,908
Douglas	13,300	100.0%	93.4%	93.4%	16.346	\$18,095
Dunklin County	30,119	82.8%	100.0%	82.8%	55.666	\$18,878
Franklin	103,330	74.9%	99.8%	74.8%	111.989	\$27,209
Gasconade County	14,726	26.9%	99.4%	26.9%	28.439	\$25,963
Gentry County	6,665	77.8%	100.0%	77.8%	13.563	\$20,903
Greene County	289,801	100.0%	100.0%	100.0%	429.141	\$25,529
Grundy County	9,949	38.4%	100.0%	38.4%	22.857	\$22,014
Harrison County	8,524	58.2%	99.7%	58.2%	11.798	\$20,947
Henry County	21,717	41.9%	100.0%	41.9%	31.160	\$24,371
Hickory County	9,475	10.5%	99.9%	10.5%	23.741	\$19,711
Holt County	4,413	33.7%	100.0%	33.7%	9.538	\$25,306
Howard County	10,139	24.3%	100.0%	24.3%	21.858	\$23,430
Howell County	40,103	47.4%	99.6%	47.4%	43.249	\$20,274
Iron County	10,224	44.9%	97.4%	44.9%	18.580	\$19,414
Jackson	698,869	100.0%			1,156.183	\$28,965
Jasper County	120,193	94.1%	100.0%	94.1%	188.246	\$23,390
<u>Iefferson</u>	223,810	93.4%	100.0%	93.4%		\$27,443
Johnson County	53,897	58.3%	100.0%	58.3%	64.992	\$23,304
Knox County	3,976	3.7%	99.7%	3.7%	7.889	\$22,171

		% of	% of	0/ 6		
	Populati –	Pop. with	Pop. with	% of Pop.		Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Laclede County	35,443	100.0%	100.0%	100.0%	46.348	\$20,534
Lafayette	32,641	28.3%	100.0%	28.3%	51.940	\$27,260
Lawrence	38,434	100.0%	100.0%	100.0%	62.828	\$27,200
County	50,101	100.070	100.070	100.070	02.020	Ψ21,022
Lewis County	9,967	29.6%	99.8%	29.4%	19.735	\$22,083
Lincoln County	56,179	68.6%	100.0%	68.6%	89.663	\$24,023
Linn County	12,193	57.0%	99.9%	57.0%	19.808	\$22,361
Livingston	15,173	72.7%	100.0%	72.7%	28.503	\$22,248
County		_	_	_		
Macon County	15,250	74.5%	98.5%	74.2%	19.033	\$20,890
Madison	12,243	56.5%	99.8%	56.5%	24.764	\$20,081
Maries County	8,867	31.9%	100.0%	31.9%	16.826	\$22,087
Marion County	28,634	83.8%		83.8%	65.535	\$22,662
McDonald	22,827	71.3%		71.3%	42.313	\$19,577
Mercer County	3,678	48.4%	99.9%	48.3%	8.104	\$20,374
Miller County	25,228	60.3%	100.0%	60.3%	42.572	\$23,346
Mississippi County	13,586	87.4%	100.0%	87.4%	33.009	\$17,918
Moniteau	16,063	98.7%	100.0%	98.7%	38.704	\$21,305
Monroe County	8,612	52.6%	100.0%	52.6%	13.297	\$22,255
Montgomery County	11,438	54.2%	99.8%	54.1%	21.330	\$21,757
Morgan County	20,145	95.9%	99.6%	95.5%	33.708	\$20,055
New Madrid County	17,582	81.8%	100.0%	81.8%	26.054	\$20,261
Newton County	58,290	83.3%	100.0%	83.3%	93.299	\$25,837
Nodaway	22,472	89.1%	100.0%	89.1%	25.625	\$21,056
Oregon County	10,558	34.2%	90.6%	31.6%	13.368	\$18,309
Osage County	13,662	34.3%	99.8%	34.3%	22.606	\$24,995
Ozark County	9,186	10.2%	98.3%	10.2%	12.331	\$17,857
Pemiscot	16,826	74.8%		74.8%	34.161	\$18,883
Perry County	19,225	59.3%	100.0%	59.3%	40.529	\$24,846

		% of	% of			
		Pop.	Pop.	% of		
	Populati	with	with	Pop.		Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	on Density	Income (\$2017)
Pettis County	42,551	66.8%	100.0%	66.8%	62.371	\$22,304
Phelps County	44,743	87.3%	99.9%	87.3%	66.603	\$23,691
Pike County	18,567	31.7%	100.0%	31.7%	27.694	\$20,947
Platte County	101,157	89.7%	100.0%	89.7%	240.741	\$37,443
Polk County	31,784	100.0%	100.0%	100.0%	50.012	\$21,357
Pulaski County	52,059	94.6%	99.9%	94.6%	95.155	\$21,716
Putnam	4,811	71.3%	99.8%	71.1%	9.300	\$20,729
Ralls County	10,224	78.5%	100.0%	78.5%	21.763	\$24,687
Randolph	24,945	72.6%	99.8%	72.5%	51.680	\$19,984
Ray County	22,854	62.8%	100.0%	62.8%	40.179	\$26,781
Reynolds	6,275	24.5%	80.7%	23.3%	7.762	\$21,593
Ripley County	13,564	31.8%	95.6%	30.8%	21.546	\$18,434
Saline County	22,660	58.9%	100.0%	58.9%	29.993	\$21,729
Schuyler	4,508	0.3%	100.0%	0.3%	14.670	\$19,882
Scotland	4,961	80.4%	99.6%	80.4%	11.361	\$23,785
County						
Scott County	38,541	87.5%		87.5%	91.766	\$22,939
Shannon County	8,249	25.1%	90.4%	25.1%	8.218	\$17,903
Shelby County	6,021	37.3%	96.7%	37.2%	12.021	\$22,349
St. Charles	395,503	97.6%	100.0%	97.6%	705.707	\$35,628
St. Clair County	9,362	28.0%	99.9%	28.0%	13.973	\$20,827
St. Francois County	66,705	86.8%	100.0%	86.8%	147.614	\$20,944
St. Louis	996,726	99.7%	100.0%	99.7%	1,962.833	\$38,081
St. Louis city	308,626	100.0%	100.0%	100.0%	4,985.168	\$26,739
Ste. Genevieve County	17,843	51.5%	100.0%	51.5%	35.747	\$26,418
Stoddard County	29,369	69.3%	100.0%	69.3%	35.676	\$21,684
Stone County	31,695	100.0%	100.0%	100.0%	68.303	\$26,052
Sullivan	6,229	64.3%	100.0%	64.3%	9.613	\$21,168
County						
Taney County	55,355	97.8%	100.0%	97.8%	87.527	\$21,381
Texas County	25,735	76.9%	96.2%	73.4%	21.860	\$17,918

		% of	% of	0/ of		
	Populati on	Pop. with Fixed 25	Pop. with Mobile 5	% of Pop. with	Populati	Per Capita
	Evaluate d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	on Density	Income (\$2017)
Vernon County	20,437	68.5%	100.0%	68.5%	24.730	\$22,369
Warren County	34,366	77.3%	100.0%	77.3%	80.182	\$26,845
Washington County	25,022	26.6%	99.8%	26.6%	32.927	\$18,314
Wayne County	13,296	30.0%	99.5%	30.0%	17.514	\$18,897
Webster	38,663	100.0%	100.0%	100.0%	65.247	\$20,468
Worth County	2,057	56.3%	99.8%	56.3%	7.715	\$22,961
Wright County	18,331	100.0%	97.7%	97.7%	26.887	\$19,805
Montana	1,050,46 3	86.3%	97.5%	85.1%	7.217	•
Beaverhead County	9,434	76.9%	94.3%	72.0%	1.702	\$28,420
Big Horn	13,359	81.5%	91.2%	78.2%	2.674	\$17,905
Blaine County	6,708	96.3%	78.3%	75.6%	1.587	\$17,059
Broadwater County	5,934	28.9%	99.4%	28.9%	4.976	\$32,268
Carbon County	10,696	95.6%	99.8%	95.5%	5.221	\$31,697
Carter County	1,222	47.8%	14.7%	6.8%	0.366	\$30,659
Cascade County	81,653	99.6%	99.8%	99.5%	30.262	\$28,350
Chouteau	5,765	98.2%	96.5%	94.7%	1.451	\$22,014
Custer County	11,721	90.8%	96.2%	90.3%	3.098	\$28,501
Daniels County	1,737	98.4%	74.0%	73.5%	1.218	\$36,108
Dawson County	8,950	86.1%	95.2%	82.3%	3.773	\$29,130
Deer Lodge County	9,106	78.0%	98.7%	76.8%	12.363	\$25,107
Fallon County	3,009	61.1%	94.1%	59.8%	1.857	\$32,371
Fergus County	11,291	80.9%	96.5%	77.6%	2.602	\$27,491
Flathead County	99,995	90.5%	99.6%	90.5%	19.654	\$28,379
Gallatin	107,808	92.3%		92.1%	41.422	\$33,181
Garfield County	1,293	43.3%	73.4%	35.2%	0.277	\$29,896
Glacier County	13,640	25.6%	99.6%	25.6%	4.553	\$16,737
Golden Valley County	822	55.2%	99.5%	55.2%	0.699	\$25,110

		% of	% of			
		Pop.	Pop.	% of		
	Populati	with	with	Pop.		Per
	on Evaluate	Fixed 25	Mobile 5	with Fixed &	Populati	Capita
	d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile	on Density	Income (\$2017)
Granite	3,358	15.5%	95.2%	14.3%	1.944	\$29,144
Hill County	16,463	96.1%	99.7%	95.8%	5.679	\$21,780
Jefferson	11,891	80.8%		80.6%	7.179	\$32,387
Judith Basin County	1,960	83.1%	96.5%	80.3%	1.048	\$28,709
Lake County	30,271	66.0%	99.2%	65.7%	20.314	\$24,348
Lewis and Clark County	67,773	99.3%	99.6%	99.0%	19.594	\$31,252
Liberty County	2,425	83.4%		70.1%	1.696	\$36,525
Lincoln County	19,440	22.6%	91.4%	21.0%	5.381	\$22,483
Madison County	8,174	83.3%	95.9%	80.0%	2.278	\$31,620
McCone	1,718	45.6%	83.5%	43.9%	0.650	\$28,230
Meagher	1,851	97.0%		91.3%	0.774	\$20,095
Mineral County	4,255	18.2%	97.9%	18.2%	3.489	\$22,894
Missoula	117,432	93.3%	98.8%	93.1%	45.281	\$29,681
Musselshell County	4,639	50.2%	98.1%	49.2%	2.483	\$23,908
Park County	16,352	98.8%	98.5%	98.2%	5.834	\$29,181
Petroleum County	523	39.6%	89.3%	39.4%	0.316	\$31,549
Phillips	4,119	82.2%		80.4%	0.801	\$22,369
Pondera County	5,960	19.4%	99.7%	19.4%	3.673	\$22,866
Powder River County	1,752	36.6%		28.3%	0.531	\$31,211
Powell County	6,795	54.1%	96.4%	54.0%	2.921	\$23,990
Prairie County	1,109	62.2%	95.9%	61.2%	0.639	\$28,366
Ravalli County	42,561	97.1%	97.3%	95.9%	17.802	\$25,151
Richland	11,039	77.7%		74.8%	5.297	\$33,709
Roosevelt County	11,098	71.0%	69.9%	53.9%	4.713	\$18,030
Rosebud	9,248	43.6%		32.1%	1.846	\$23,832
Sanders County	11,711	14.4%	92.6%	13.0%	4.242	\$23,020
Sheridan	3,469	83.9%	80.3%	67.9%	2.068	\$32,833

	Populati on Evaluate d	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
Silver Bow County	34,601	92.4%	99.9%	92.3%	48.159	\$26,248
Stillwater	9,419	94.1%	97.3%	92.2%	5.246	\$31,583
Sweet Grass County	3,691	92.7%	98.5%	91.8%	1.990	\$28,065
Teton County	6,085	32.8%	99.1%	32.7%	2.678	\$26,884
Toole County	4,886	28.9%	98.1%	28.9%	2.551	\$26,354
Treasure	679	53.3%	97.6%	53.3%	0.695	\$22,880
Valley County	7,433	80.2%	88.1%	72.4%	1.509	\$29,096
Wheatland	2,140	81.8%	99.8%	81.8%	1.504	\$20,165
Wibaux County	1,020	8.5%	73.5%	5.8%	1.147	\$24,662
Yellowstone County	158,980	99.5%	100.0%	99.4%	60.373	\$32,296
Nebraska	1,919,90 5	87.3%	99.9%	87.2%	24.991	•
Adams County	31,678	91.7%	100.0%	91.7%	56.239	\$28,085
Antelope	6,361	55.7%	99.9%	55.7%	7.421	\$28,091
Arthur County	457	72.4%	97.8%	70.2%	0.639	\$21,799
Banner County	742	19.0%	99.7%	19.0%	0.994	\$30,736
Blaine County	482	35.3%	94.6%	31.3%	0.678	\$28,503
Boone County	5,352	54.0%		54.0%		\$28,861
Box Butte County	10,886	97.0%	100.0%	97.0%	10.124	\$28,483
Boyd County	1,977	99.2%		98.6%	3.662	\$26,413
Brown County	3,014	80.2%	97.1%	79.1%	2.468	\$29,664
Buffalo County	49,726	91.3%		91.3%	51.364	\$28,553
Burt County	6,535	74.8%	100.0%	74.8%	13.294	\$26,421
Butler County	8,053	62.6%		62.6%	13.768	\$27,216
Cass County	25,887	73.6%		73.6%		\$32,509
Cedar County	8,530	68.4%		68.4%	11.522	\$29,694
Chase County	3,971	83.9%		83.9%	4.440	\$33,708
Cherry County	5,818	61.7%		59.4%		\$27,891
Cheyenne County	9,676	92.1%		92.1%	8.088	\$32,995
Clay County	6,204	61.9%		61.9%		\$27,275
Colfax County	10,582	46.3%	99.9%	46.3%	25.706	\$23,393

		% of Pop.	% of Pop.	% of		
	Populati on Evaluate d	with Fixed 25 Mbps/ 3 Mbps	with Mobile 5 Mbps/ 1 Mbps	Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
Cuming	9,042	65.2%	100.0%	65.2%	15.846	\$28,762
Custer County	10,897	41.0%	99.7%	41.0%	4.231	\$32,605
Dakota County	20,186	90.5%	100.0%	90.5%	76.388	\$22,463
Dawes County	8,890	80.5%	100.0%	80.5%	6.366	\$24,811
Dawson	23,709	82.1%	99.9%	82.1%	23.403	\$24,912
Deuel County	1,883	2.3%	100.0%	2.3%	4.281	\$28,225
Dixon County	5,754	86.0%	100.0%	86.0%	12.082	\$26,094
Dodge County	36,707	90.8%	100.0%	90.8%	69.428	\$27,162
Douglas	561,543	97.7%	100.0%	97.7%	1,709.652	\$32,023
Dundy County	1,801	78.6%	99.4%	78.3%	1.958	\$26,949
Fillmore	5,582	60.7%	99.9%	60.7%	9.702	\$30,874
Franklin County	2,990	46.9%	99.2%	46.5%	5.193	\$28,635
Frontier	2,631	10.7%	98.5%	10.4%	2.700	\$27,900
Furnas County	4,780	25.3%	100.0%	25.3%	6.647	\$24,522
Gage County	21,601	71.1%	100.0%	71.1%	25.368	\$27,424
Garden County	1,906	85.5%	98.0%	85.5%	1.118	\$35,602
Garfield	2,016	0.6%	98.8%	0.6%	3.538	\$25,856
Gosper County	2,026	13.0%	100.0%	13.0%	4.422	\$31,901
Grant County	649	25.4%	99.5%	25.1%	0.836	\$22,693
Greeley County	2,374	18.7%	99.8%	18.7%	4.166	\$25,544
Hall County	61,518					\$26,419
Hamilton County	9,207	9.5%	99.9%	9.5%	16.960	\$31,989
Harlan County	3,443	2.6%		2.5%		\$26,375
Hayes County	893	33.0%	99.8%	32.8%	1.252	\$27,183
Hitchcock	2,834	67.2%	100.0%	67.2%	3.992	\$25,290
Holt County	10,202	59.4%	99.4%	59.1%	4.229	\$27,858
Hooker County	674	21.1%		19.1%	0.935	\$27,714
Howard County	6,437	43.8%	100.0%	43.8%	11.306	\$26,734
Jefferson	7,178	63.7%	97.6%	63.4%	12.589	\$26,859
Johnson County	5,184	48.6%	100.0%	48.6%	13.785	\$22,398
Kearney	6,530	86.8%	100.0%	86.8%	12.649	\$31,234

	Populati on	% of Pop. with Fixed 25	% of Pop. with Mobile 5	% of Pop. with	Populati	Per Capita
	Evaluate d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	on Density	Income (\$2017)
Keith County	8,072	80.4%	100.0%	80.4%	7.604	\$27,890
Keva Paha	793	96.8%	94.3%	91.9%	1.026	\$28,981
Kimball County	3,619	94.4%	99.9%	94.4%	3.802	\$24,011
Knox County	8,472	62.8%	99.5%	62.6%	7.644	\$27,283
Lancaster County	314,328	95.2%	100.0%	95.2%	375.295	\$29,901
Lincoln County		85.7%		85.6%	13.759	
Logan County	768	43.2%	100.0%	43.2%	1.346	\$24,624
Loup County	609	3.3%	98.2%	1.5%	1.072	\$29,248
Madison	35,140	89.8%		89.8%	61.354	\$26,093
McPherson County	499	43.3%	94.6%	43.3%	0.581	\$27,241
Merrick County	7,880	57.3%	100.0%	57.3%	16.251	\$27,223
Morrill County	4,836	80.9%		80.9%	3.396	\$25,120
Nance County	3,606	48.1%	99.8%	48.1%	8.165	\$26,852
Nemaha	6,949	73.4%		73.2%	17.058	\$28,572
Nuckolls County	4,274	54.7%	100.0%	54.7%	7.431	\$24,426
Otoe County	16,027	72.6%	99.9%	72.5%	26.033	\$28,567
Pawnee County	2,641	54.4%	100.0%	54.4%	6.127	\$27,196
Perkins	2,901	63.0%	99.4%	63.0%	3.284	\$30,923
Phelps County	9,060	81.2%	100.0%	81.2%	16.784	\$30,166
Pierce County	7,138	72.7%		72.7%	12.452	\$28,766
Platte County	33,172	78.9%	99.9%	78.9%	49.212	\$28,187
Polk County	5,321	51.5%		51.5%	12.139	\$32,424
Red Willow County	10,728	88.6%	99.9%	88.5%	14.963	\$25,006
Richardson County	7,969	92.0%		91.9%	14.441	\$28,109
Rock County	1,436	77.4%	95.8%	74.8%	1.424	\$33,867
Saline County	14,433	78.2%	99.4%	78.1%	25.144	\$22,324
Sarpy County	181,430	94.5%	100.0%	94.5%	759.152	\$33,103
Saunders	21,056	73.7%	100.0%	73.7%	28.066	\$31,163

		% of	% of			
	Dannelati	Pop.	Pop.	% of		Dan
	Populati on	with Fixed 25	with Mobile 5	Pop. with	Populati	Per Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Scotts Bluff	36,363	98.5%	100.0%	98.4%	49.179	\$26,532
County						
Seward County	17,161	73.2%		73.2%	30.032	\$29,398
Sheridan County	5,289	61.1%	97.3%	60.9%	2.167	\$25,817
Sherman	3,085	51.4%	100.0%	51.4%	5.452	\$27,983
Sioux County	1,203	76.6%	97.4%	74.8%	0.582	\$26,852
Stanton	5,986	83.0%	100.0%	83.0%	13.988	\$29,517
Thayer County	5,045	66.9%	99.9%	66.9%	8.792	\$31,129
Thomas	725	32.7%	99.7%	32.7%	1.016	\$29,243
Thurston County	7,222	44.7%	100.0%	44.7%	18.349	\$19,380
Valley County	4,209	52.1%	99.9%	52.1%	7.410	\$27,271
Washington County	20,720	69.0%	99.9%	69.0%	53.134	\$33,136
Wayne County	9,318	71.4%	100.0%	71.4%	21.038	\$27,292
Webster County	3,524	72.4%	99.7%	72.2%	6.130	\$26,136
Wheeler	814	52.0%	99.6%	51.7%	1.415	\$28,257
York County	13,806	80.6%	100.0%	80.6%	24.115	\$28,298
Nevada	2,998,01 8	92.7%	99.7%	92.6%	27.309	•
Carson City	54,745	99.3%	100.0%	99.3%	378.434	\$28,044
Churchill County	24,230	89.0%	99.4%	89.0%	4.914	\$25,211
Clark County	2,204,066	95.5%	100.0%	95.5%	279.299	\$27,719
Douglas County	48,309	94.3%	100.0%	94.3%	68.068	\$35,727
Elko County	52,649	8.6%	98.1%	8.5%	3.066	\$32,498
Esmeralda County	850	72.1%	99.6%	71.8%	0.237	\$23,755
Eureka County	1,961	28.3%	97.9%	28.3%	0.470	\$35,606
Humboldt County	16,826	1.1%	98.6%	1.1%	1.745	\$29,215
Lander County	5,693	5.1%		4.7%		\$30,256
Lincoln County	5,223	79.4%	25.5%	19.2%	0.491	\$27,218

	Populati	% of Pop. with	% of Pop. with	% of Pop.		Per
	on Evaluate d	Fixed 25 Mbps/ 3 Mbps	Mobile 5 Mbps/ 1 Mbps	with Fixed & Mobile	Populati on Density	Capita Income (\$2017)
Lyon County	54,120	73.1%	99.9%	73.1%	27.044	\$25,063
Mineral County	4,457	82.3%	100.0%	82.3%	1.188	\$22,791
Nve County	44,202	91.5%	99.0%	91.5%	2.431	\$23,740
Pershing County	6,508	27.0%	98.9%	27.0%	1.078	\$19,201
Storey County	4,006	70.7%	100.0%	70.7%	15.237	\$36,388
Washoe County	460,581	97.2%	99.7%	97.2%	73.081	\$31,879
White Pine	9,592	47.0%	98.6%	47.0%	1.081	\$25,350
New Hampshire	1,342,77 7	94.7%	99.9%	94.6%	149.987	•
Belknap County	60,785	97.2%	100.0%	97.2%	151.874	\$33,849
Carroll County	48,062	95.3%	100.0%	95.3%	51.621	\$35,646
Cheshire County	75,960	70.6%	100.0%	70.6%	107.492	\$32,072
Coos County	31,634	74.3%	97.0%	73.1%	17.626	\$25,895
Grafton County	89,385	90.1%	99.6%	89.8%	52.310	\$35,255
Hillsborough County	409,694	97.6%		97.6%		\$37,622
Merrimack County	149,213	96.6%	100.0%	96.6%	159.737	\$34,475
Rockingham County	306,354	99.0%		99.0%		\$43,474
Strafford County	128,613	97.6%	100.0%	97.6%	348.568	\$32,540
Sullivan	43,077	83.0%	100.0%	83.0%	80.171	\$31,301
New Jersey	9,005,41 0	99.1%	100.0%	99.1%	1,224.52 3	•
Atlantic County	269,918	97.5%	100.0%	97.5%	485.722	\$29,941
Bergen County	948,395	99.9%	100.0%	99.9%	4,070.210	\$46,601
Burlington County	448,596	97.9%	100.0%	97.9%	561.745	\$39,528
Camden	510,719	98.4%	100.0%	98.4%	2,308.202	\$32,931

	Populati	% of Pop. with	% of Pop. with	% of Pop.		Per
	on Evaluate d	Fixed 25 Mbps/ 3 Mbps	Mobile 5 Mbps/ 1 Mbps	with Fixed & Mobile	Populati on Density	Capita Income (\$2017)
Cape May County	93,553	98.5%	100.0%	98.5%	372.091	\$36,256
Cumberland County	152,538	96.0%		96.0%	315.355	\$23,012
Essex County	808,261	99.0%	100.0%	99.0%	6,403.982	\$35,133
Gloucester	292,205	99.0%	100.0%	99.0%	907.454	\$36,205
Hudson County	691,606	99.0%	100.0%	99.0%	14,972.74 1	\$35,910
Hunterdon	125,059	99.0%	100.0%	99.0%		\$54,200
Mercer County	374,712	98.0%	100.0%	98.0%	1,668.668	\$40,064
Middlesex	842,762	99.1%	100.0%		2,728.146	\$36,558
Monmouth County	626,350	99.8%	100.0%	99.8%	1,336.092	\$46,736
Morris County	499,692	100.0%	100.0%	100.0%	1,085.870	\$53,491
Ocean County	597,935	98.4%	100.0%	98.4%	950.943	\$33,312
Passaic County	512,590	100.0%	100.0%	100.0%	2,776.869	\$29,393
Salem County	62,792	96.5%	100.0%	96.5%	189.190	\$31,681
Somerset	335,411	99.6%	100.0%	99.6%	1,111.320	\$51,923
Sussex County	141,682	100.0%	100.0%	100.0%	272.983	\$41,272
Union County	563,836	99.5%	100.0%	99.5%	5,481.855	\$38,163
Warren County	106,798	99.2%	100.0%	99.2%	299.223	\$37,001
New Mexico	2,088,06 0	83.4%	99.5%	83.3%	17.214	
Bernalillo County	676,773	98.7%	100.0%	98.7%	583.009	\$28,340
Catron County	3,587	0.0%		0.0%	0.518	\$22,487
Chaves County	64,866	85.8%	100.0%	85.8%	10.695	\$21,177
Cibola County	26,853	13.7%	97.9%	13.7%	5.915	\$17,768
Colfax County	12,174	9.8%	100.0%	9.8%	3.239	\$21,785
Curry County	49,812	92.8%	100.0%	92.8%	35.459	\$22,628
De Baca County	1,829	64.9%	100.0%	64.9%	0.787	\$24,571
Doña Ana	215,578	84.9%	100.0%	84.9%	56.619	\$21,050
Eddy County	56,997	85.0%	99.9%	84.9%	13.650	\$28,419
Grant County	27,687	77.6%	99.5%	77.6%	6.989	\$23,898

	Populati on Evaluate d	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
Guadalupe County	4,429	52.4%	_	52.4%	1.461	\$18,086
Harding	692	47.3%	100.0%	47.3%	0.326	\$30,782
Hidalgo County	4,305	3.0%	97.7%	2.4%	1.253	\$18,338
Lea County	68,759	85.1%	100.0%	85.1%	15.659	\$24,507
Lincoln County	19,395	78.6%	100.0%	78.6%	4.015	\$26,820
Los Alamos County	18,738	99.6%	100.0%	99.6%	171.646	\$52,125
Luna County	24,078	62.3%	99.9%	62.3%	8.120	\$16,622
McKinley	72,564	36.5%	98.8%	36.5%	13.315	\$14,077
Mora County	4,551	30.3%	97.6%	30.3%	2.356	\$16,019
Otero County	65,815	78.7%	98.1%	78.5%	9.952	\$21,876
Quay County	8,306	43.0%	100.0%	43.0%	2.890	\$18,220
Rio Arriba	39,159	83.1%	97.8%	82.1%	6.681	\$19,602
Roosevelt County	18,847	74.9%	100.0%	74.9%	7.701	\$18,954
San Juan County	126,920	65.9%	99.8%	65.9%	23.022	\$22,665
San Miguel County	27,748	47.6%	98.8%	47.6%	5.884	\$18,012
Sandoval	142,506	89.0%	99.9%	89.0%	38.405	\$27,406
Santa Fe County	148,750	97.5%	100.0%	97.5%	77.903	\$35,801
Sierra County	11,116	77.9%	98.2%	76.7%	2.660	\$22,749
Socorro County	16,798	2.1%	92.2%	2.1%	2.527	\$17,017
Taos County	32,795	57.5%	91.8%	57.0%	14.886	\$23,229
Torrance County	15,506	45.4%	100.0%	45.4%	4.636	\$19,129
Union County	4,187	71.5%	99.7%	71.5%	1.095	\$23,180
Valencia County	75,940	86.1%	100.0%	86.1%	71.227	\$20,572
New York	19,849,1 78	98.4%	99.9%	98.4%	421.190	•
Albany County	309,612	99.3%	100.0%	99.3%	592.214	\$35,278
Allegany	46,894	72.9%	99.9%	72.9%	45.559	\$22,377

		% of	% of			
		Pop.	Pop.	% of		
	Populati	with	with	Pop.		Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	on Density	Income (\$2017)
Bronx County	1,471,140	99.1%		99.1%		\$19,721
Dionx County	1,471,140	33.170	100.070	33.170	6	Ψ13,721
Broome	193,639	96.2%	100.0%	96.2%	274.367	\$26,790
Cattaraugus	77,348	79.3%	99.9%	79.3%	59.119	\$23,984
County	FF 000	70 00/	100.00/	50 60/	110.011	+05.055
Cayuga County	77,603	78.6%				\$27,957
Chautauqua County	129,046	90.9%	100.0%	90.9%	121.716	\$23,962
Chemung	85,557	94.7%	99.4%	94.2%	210.032	\$27,209
Chenango County	47,863	76.7%	96.6%	75.4%	53.565	\$25,233
Clinton County	80,980	92.2%	99.3%	92.0%	78.027	\$25,833
Columbia	60,604	94.0%		93.9%		\$34,737
County	ŕ					, ,
Cortland	47,786	87.3%		87.3%	95.810	\$26,271
Delaware County	45,001	76.9%	98.3%	75.8%	31.198	\$26,016
Dutchess	295,568	99.9%	100.0%	99.9%	371.489	\$36,704
Erie County	925,525	99.8%		99.8%		\$30,704
Essex County	37,956	88.1%		85.9%		\$29,008
Franklin	51,115	90.1%	98.2%	89.1%	31.376	\$29,008
County	31,113	50.170	50.270	05.170	31.370	ΨΔ4,Δ34
Fulton County	53,877	92.4%		92.1%	108.739	\$26,298
Genesee County	57,956	94.7%	100.0%	94.7%	117.573	\$27,499
Greene County	47,470	92.7%	99.5%	92.2%	73.351	\$27,402
Hamilton County	4,485	21.6%	89.9%	21.4%	2.612	\$24,891
Herkimer	62,240	85.6%	99.3%	85.5%	44.096	\$24,932
Jefferson	114,185	91.0%		91.0%		\$24,717
County						
Kings County	2,648,702	100.0%			37,402.71	\$29,928
Lewis County	26,551	73.0%		72.9%		\$25,779
Livingston	63,799	87.5%		87.5%	l .	\$25,882
Madison County	70,965	89.5%	100.0%	89.5%	108.370	\$28,010
Monroe	747,642	99.9%	100.0%	99.9%	1,137.608	\$31,291

		% of	% of			
		Pop.	Pop.	% of		
	Populati	with	with	Pop.	D 1	Per
	on Evaluate	Fixed 25 Mbps/	Mobile 5 Mbps/	with Fixed &	Populati on	Capita Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Montgomery	49,258	92.6%	100.0%	92.6%	122.215	\$25,307
County						
Nassau County		100.0%			4,810.087	\$46,839
New York	1,664,727	100.0%	100.0%	100.0%	72,922.58	\$69,529
County					1	
Niagara	211,328	99.0%		99.0%		\$28,395
Oneida County	231,331	95.7%		95.7%		\$27,283
Onondaga	465,398	99.6%		99.6%		\$31,436
Ontario	109,897	95.0%	100.0%	95.0%	170.630	\$33,685
County	005					
Orange County	382,224	99.9%		99.9%		\$32,616
Orleans County	40,983	96.8%	100.0%	96.8%	104.746	\$23,929
	110 470	92.8%	100.0%	92.8%	124.497	ቀጋ도 701
Oswego Otsego County	118,478 60,094	92.8% 77.3%	99.6%	92.8% 77.1%	i	\$25,791 \$26,688
	·					
Putnam Queens County	99,323 2,358,477	99.4% 100.0%		99.4%	431.255 21,730.67	\$44,063 \$28,814
Queens County	2,330,477	100.0%	100.0%	100.0%	9	\$40,014
Rensselaer	159,722	99.7%	100.0%	99.7%	244.810	\$33,067
Richmond	479,458	100.0%	100.0%	100.0%	8,214.067	\$33,922
County						
Rockland	328,868	100.0%	100.0%	100.0%	1,894.944	\$36,898
Saratoga	229,869	99.9%		99.3%		\$39,653
Schenectady County	155,563	99.8%	100.0%	99.8%	760.640	\$29,981
Schoharie	31,420	89.1%	99.8%	89.0%	50.529	\$26,953
Schuyler	18,000	76.5%		76.5%		\$25,285
County						
Seneca County	34,498	80.7%	100.0%	80.7%	106.572	\$26,541
St. Lawrence	109,623	89.6%	99.7%	89.4%	40.898	\$23,554
County						
Steuben County	96,281	81.4%	99.9%	81.4%	69.239	\$27,731
	1 402 052	100.00/	100.00/	100.00/	1 626 017	¢40.277
Suffolk County Sullivan	1,492,952 75,485	100.0% 98.9%	100.0% 99.8%	98.6%	1,636.917 77.970	\$40,277 \$28,224
County	73,403	30.3%	99.0%	90.0%	77.970	\$40,42 4
Tioga County	48,578	92.3%	99.9%	92.3%	93.671	\$30,252

		% of	% of			
		Pop.	Pop.	% of		
	Populati	with	with	Pop.	Dl-4	Per
	on Evaluate	Fixed 25 Mbps/	Mobile 5 Mbps/	with Fixed &	Populati on	Capita Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Tompkins	104,800	96.1%	100.0%	96.1%	220.795	\$29,759
County						
Ulster County	179,417	99.5%				\$32,453
Warren County	64,532	92.2%	97.8%	91.9%	74.435	\$33,127
Washington County	61,620	97.2%	99.7%	97.1%	74.135	\$26,064
Wayne County	90,670	93.7%	100.0%	93.7%	150.159	\$27,318
Westchester	980,238	100.0%	100.0%	100.0%	2,276.991	\$52,049
County	40.400	00.004	100.00	00.004	60.014	40E 00E
Wyoming County	40,493	83.8%	100.0%	83.8%	68.314	\$25,635
Yates County	24,955	71.0%				\$26,608
North Carolina	10,273,1 22	94.8%	99.7%	94.5%	211.303	٠
Alamance County	162,380	98.6%	100.0%	98.6%	383.023	\$25,157
Alexander	37,286	86.5%	100.0%	86.5%	143.411	\$22,655
Alleghany County	11,029	94.4%	63.8%	60.3%	46.920	\$21,153
Anson County	24,991	83.0%	100.0%	83.0%	47.024	\$19,105
Ashe County	26,957	92.5%	44.0%	40.9%	63.259	\$23,650
Avery County	17,536	96.0%	99.5%	95.5%	70.971	\$21,704
Beaufort County	47,088	88.4%	99.9%	88.4%	56.925	\$24,657
Bertie County	19,224	82.3%	100.0%	82.3%	27.492	\$18,319
Bladen County	33,478	70.1%	100.0%	70.1%	38.290	\$20,839
Brunswick	130,896	89.9%	100.0%	89.8%	154.546	\$29,707
Buncombe County	257,607	98.8%	99.9%	98.7%	392.292	\$29,590
Burke County	89,293	97.3%	100.0%	97.3%	176.086	\$21,885
Cabarrus County	206,864	99.3%	100.0%	99.3%	571.844	\$29,143
Caldwell	81,981	97.4%	100.0%	97.3%	173.848	\$21,991
Camden County	10,581	96.7%	100.0%	96.7%		\$27,468
Carteret	68,881	99.8%	99.9%	99.8%	136.061	\$30,903

		% of	% of			
		Pop.	Pop.	% of		
	Populati	with Fixed 25	with Mobile 5	Pop. with	Donulati	Per Capita
	on Evaluate	Mbps/	Mbps/	Fixed &	Populati on	Capita Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Caswell	22,646	53.1%	99.2%	52.3%	53.295	\$21,692
County						
Catawba	157,956	99.5%		99.5%		\$25,960
Chatham	71,472	79.4%	100.0%	79.4%	104.769	\$36,933
County		=1.00/	0= 00/		24 2=2	
Cherokee	28,087	71.3%		70.7%	61.672	\$21,152
Chowan County	14,105	91.2%	100.0%	91.2%	81.781	\$23,542
Clay County	11,074	58.7%	98.0%	58.7%	51.567	\$25,433
Clay County Cleveland	97,334	95.1%		95.1%	209.657	\$23,433
County	07,004	55.170	100.070	55.170	200.007	Ψ21,001
Columbus	55,936	83.3%	100.0%	83.3%	59.678	\$21,849
Craven County	102,578	94.4%	100.0%	94.4%	144.688	\$26,830
Cumberland County	332,542	99.5%	100.0%	99.5%	509.788	\$23,627
Currituck	26,331	96.6%	100.0%	96.6%	100.557	\$29,340
County		5 5 7 5	100,070	2 3.3 7 5	100,007	Ψ=0,010
Dare County	36,099	99.3%	99.7%	99.0%	94.150	\$30,898
Davidson	165,463	99.6%	100.0%	99.6%	299.386	\$24,231
County						
Davie County	42,456	99.4%		99.4%		\$29,234
Duplin County	59,039	64.6%		64.6%	72.332	\$18,529
<u>Durham</u>	311,597	99.2%	100.0%	99.2%		\$33,151
Edgecombe County	52,747	87.8%	100.0%	87.8%	104.380	\$18,946
Forsyth	376,310	100.0%	100.0%	100.0%	921.995	\$28,640
Franklin County	66,166	85.0%	98.9%	84.6%	134.571	\$23,862
Gaston County	220,181	99.8%	100.0%	99.8%	618.439	\$24,937
Gates County	11,544	60.7%		60.7%	33.909	\$24,335
Graham	8,541	46.3%	100.0%	46.3%	29.242	\$19,095
Granville	59,557	87.4%		87.4%	112.040	\$24,859
County						
Greene County	21,015	33.4%		33.4%	79.025	\$18,662
Guilford County	526,947	99.8%	100.0%	99.8%	816.082	\$28,582
Halifax County	51,310	83.8%	100.0%	83.8%	70.862	\$20,406

	Populati on Evaluate	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile 5 Mbps/	% of Pop. with Fixed &	Populati on	Per Capita Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Harnett County	132,735	95.1%	100.0%	95.1%	223.089	\$22,351
Haywood	61,084	80.5%	99.5%	80.5%	110.321	\$27,166
Henderson County	115,698	90.8%	100.0%	90.8%	310.126	\$28,290
Hertford	23,906	81.1%	100.0%	81.1%	67.711	\$18,383
Hoke County	54,104	88.2%	100.0%	88.2%	138.464	\$19,654
Hyde County	5,363	20.9%	99.9%	20.9%	8.753	\$19,181
Iredell County	175,699	97.7%	100.0%	97.7%	306.185	\$30,393
Jackson	42,971	35.3%	99.1%	35.3%	87.561	\$23,674
Johnston County	196,691	100.0%	100.0%	100.0%	248.567	\$24,872
Jones County	9,597	54.4%		54.4%		\$21,058
Lee County	60,429	96.8%	100.0%	96.8%	237.014	\$23,613
Lenoir County	56,883	88.1%		88.1%	141.998	\$21,594
Lincoln County	82,401	98.7%	100.0%	98.7%	276.571	\$27,359
Macon County	34,732	54.8%	100.0%	54.8%	67.368	\$27,282
Madison	21,745	100.0%	90.3%	90.3%	48.368	\$22,653
Martin County	22,789	79.4%	100.0%	79.4%	49.411	\$22,161
McDowell	45,159	76.2%	100.0%	76.2%	102.492	\$20,439
Mecklenburg County	1,076,818	100.0%	100.0%	100.0%	2,055.614	\$35,669
Mitchell County	15,072	89.8%	98.2%	88.4%	68.068	\$22,302
Montgomery County	27,435	56.5%	100.0%	56.5%	55.789	\$20,900
Moore County	97,249	88.7%	100.0%	88.7%	139.357	\$31,554
Nash County	93,991	92.8%	100.0%	92.8%		\$25,232
New Hanover County	227,191	99.8%	100.0%	99.8%	1,186.163	\$31,708
Northampton County	19,862	79.8%	100.0%	79.8%	37.015	\$19,126
Onslow County	193,886	97.4%	100.0%	97.4%	254.195	\$23,141
Orange County	144,931	93.9%	100.0%	93.9%		\$38,348
Pamlico County	12,689	84.7%	99.8%	84.6%	37.705	\$25,461

		% of	% of			
		Pop.	Pop.	% of		,
	Populati on	with Fixed 25	with Mobile 5	Pop. with	Populati	Per Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Pasquotank	39,743	99.9%	100.0%	99.9%	175.172	\$23,714
County Pender County	60,951	78.3%	100.0%	78.3%	70.075	\$25,997
Perquimans	13,473	92.1%	100.0%	92.1%	54.527	\$25,848
County	13,473	32.170	100.070	32.170	34.327	\$25,040
Person County	39,370	91.1%	100.0%	91.1%	100.351	\$24,477
Pitt County	179,042	95.7%		95.7%	274.615	\$25,462
Polk County	20,557	73.0%		73.0%	86.451	\$29,728
Randolph	143,282	94.9%		94.9%	183.104	\$22,349
Richmond County	44,798	93.5%	100.0%	93.5%	94.546	\$19,966
Robeson	132,606	84.2%	100.0%	84.2%	139.700	\$17,161
Rockingham County	90,949	96.9%	100.0%	96.9%	160.815	\$22,521
Rowan County	140,641	97.9%	100.0%	97.9%	275.026	\$23,838
Rutherford County	66,550	67.7%	99.5%	67.7%	117.965	\$21,092
Sampson	63,430	58.8%	100.0%	58.8%	67.140	\$20,872
Scotland County	35,093	90.5%	100.0%	90.5%	110.063	\$17,103
Stanly County	61,482	97.8%	100.0%	97.8%	155.617	\$23,398
Stokes County	45,717	96.6%	100.0%	96.6%	101.852	\$23,500
Surry County	72,222	98.5%	98.1%	96.7%	135.713	\$22,533
Swain County	14,294	45.9%	96.6%	45.9%	27.072	\$20,918
Transylvania Countv	33,956	76.9%		76.6%	89.705	\$26,037
Tyrrell County	4,052	82.1%	99.2%	81.3%	10.416	\$17,736
Union County	231,357	98.6%		98.6%	366.349	\$32,754
Vance County	44,211	96.1%	100.0%	96.1%	174.390	\$21,188
Wake County	1,072,182	99.8%	100.0%	99.8%		\$37,315
Warren County		67.8%	99.8%	67.8%	46.406	\$21,543
Washington County	12,012	92.0%	100.0%	92.0%	34.504	\$21,117
Watauga County	55,120	97.6%	100.0%	97.6%	176.353	\$24,545
Wayne County	124,170	96.7%	100.0%	96.7%	224.504	\$23,163
Wilkes County	68,576	99.3%	96.1%	95.4%	90.916	\$21,798

		% of Pop.	% of Pop.	% of		-
	Populati on Evaluate d	with Fixed 25 Mbps/ 3 Mbps	with Mobile 5 Mbps/ 1 Mbps	Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
Wilson County	81,671	98.3%	100.0%	98.3%	221.827	\$23,383
Yadkin County	37,773	99.3%	100.0%	99.3%	112.813	\$23,038
Yancey County	17,744	90.5%	96.7%	87.7%	56.763	\$21,947
North Dakota	755,345	93.1%	99.7%	92.8%	10.947	•
Adams County	2,318	100.0%	98.2%	98.2%	2.347	\$35,933
Barnes County	10,734	91.6%	100.0%	91.6%	7.197	\$32,517
Benson County	6,934	44.5%	100.0%	44.5%	4.993	\$21,658
Billings	940	56.2%	93.1%	54.4%	0.818	\$44,683
Bottineau County	6,530	90.0%	100.0%	90.0%	3.914	\$35,698
Bowman	3,166	100.0%	98.6%	98.6%	2.725	\$36,318
Burke County	2,131	55.6%	98.8%	54.4%	1.931	\$35,674
Burleigh	95,021	98.4%	100.0%	98.4%	58.200	\$36,483
Cass County	177,752	93.6%	100.0%	93.6%	100.713	\$34,193
Cavalier	3,762	100.0%	100.0%	100.0%	2.527	\$43,144
Dickey County	4,861	99.8%	100.0%	99.8%	4.296	\$30,510
Divide County	2,288	94.4%	89.9%	86.2%	1.815	\$39,171
Dunn County	4,289	98.3%	99.2%	97.5%	2.135	\$42,438
Eddy County	2,316	84.5%	99.5%	84.0%	3.675	\$35,444
Emmons County	3,301	100.0%	100.0%	100.0%	2.185	\$29,622
Foster County	3,257	100.0%	100.0%	100.0%	5.125	\$32,665
Golden Valley County	1,789	3.0%	97.4%	1.7%	1.788	\$28,840
Grand Forks County	70,795	92.0%		92.0%	49.287	\$30,465
Grant County	2,376	96.1%	91.5%	90.2%	1.432	\$33,537
Griggs County	2,258	92.6%	99.8%	92.4%	3.186	\$33,416
Hettinger County	2,483	100.0%	99.8%	99.8%	2.193	\$32,544
Kidder County	2,482	100.0%	99.5%	99.5%	1.837	\$34,455
LaMoure County	4,087	100.0%	99.1%	99.1%	3.566	\$36,653
Logan County	1,918	100.0%	98.9%	98.9%	1.932	\$31,952
McHenry County	5,900	77.4%	100.0%	77.4%	3.148	\$36,874

		% of	% of			
		Pop.	Pop.	% of		
	Populati	with	with	Pop.		Per
	on Evoluete	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	on Density	Income (\$2017)
McIntosh	2,606	100.0%	100.0%	100.0%	2.674	\$31,133
McKenzie County	12,724	73.5%	96.8%	70.8%	4.610	\$38,324
McLean	9,685	90.3%	99.7%	90.0%	4.588	\$36,953
Mercer County	8,465	100.0%	100.0%	100.0%	8.116	\$36,720
Morton County	30,796	93.1%	100.0%	93.1%	15.987	\$37,335
Mountrail County	10,265	86.2%	99.9%	86.2%	5.624	\$40,113
Nelson County	2,937	100.0%	100.0%	100.0%	2.992	\$33,599
Oliver County	1,938	92.2%	99.9%	92.1%	2.682	\$38,604
Pembina	6,972	100.0%	100.0%	100.0%	6.232	\$34,824
Pierce County	4,099	97.8%	100.0%	97.8%	4.024	\$26,619
Ramsev	11,519	100.0%	100.0%	100.0%	9.705	\$33,884
Ransom	5,297	99.3%	100.0%	99.3%	6.142	\$33,574
County						
Renville	2,463	88.9%	100.0%	88.9%	2.808	\$30,888
Richland County	16,351	89.8%	100.0%	89.8%	11.388	\$29,818
Rolette County	14,531	91.7%	99.8%	91.6%	16.091	\$18,075
Sargent	3,858	100.0%	100.0%	100.0%	4.494	\$36,207
County						
Sheridan	1,353	94.5%	99.2%	93.6%	1.391	\$34,172
Sioux County	4,376	97.7%	97.2%	96.2%	4.000	\$15,944
Slope County	771	98.3%		76.4%	0.635	
Stark County	30,209	98.0%	99.9%	97.9%	22.633	\$37,978
Steele County	1,917	70.2%	99.6%	69.7%	2.692	\$40,479
Stutsman County	21,087	98.2%	100.0%	98.2%	9.491	\$31,182
Towner County	2,253	86.2%	100.0%	86.2%	2.199	\$36,099
Traill County	8,013	86.3%		86.3%	9.296	\$31,774
Walsh County	10,855	90.9%	100.0%	90.9%	8.468	\$30,693
Ward County	68,946	94.2%	100.0%	94.2%	34.246	\$33,414
Wells County	4,022	96.7%	100.0%	96.7%	3.164	\$33,580
Williams County	33,349	88.8%	99.0%	88.1%	16.053	\$44,474

	Populati on Evaluate d	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
Ohio	11,658,3 65	94.7%	99.9%	94.6%	285.320	•
Adams County	27,726	51.1%	99.7%	51.1%	47.487	\$20,248
Allen County	103,198	95.7%	100.0%	95.7%	256.395	\$24,551
Ashland County	53,628	80.9%	100.0%	80.9%	126.795	\$24,612
Ashtabula	97,807	92.0%	100.0%	92.0%	139.340	\$21,936
Athens County	66,597	73.7%	99.7%	73.6%	132.242	\$20,062
Auglaize	45,778	93.6%	100.0%	93.6%		\$28,340
Belmont County	68,029	81.5%	99.9%	81.5%	127.843	\$25,326
Brown County	43,576	65.8%	100.0%	65.8%	88.928	\$24,525
Butler County	380,570	99.7%	100.0%	99.6%	814.828	\$29,745
Carroll County	27,385	53.0%	99.8%	53.0%	69.398	\$26,908
Champaign County	38,840	82.3%	100.0%	82.3%	90.606	\$25,528
Clark County	134,557	99.2%	100.0%	99.2%	338.531	\$25,270
Clermont County	204,214	99.3%	100.0%	99.3%	451.701	\$31,812
Clinton County	42,009	77.9%				\$25,238
Columbiana County	103,077	80.9%	100.0%	80.9%	193.793	\$24,758
Coshocton	36,544	67.6%		67.6%		\$21,520
Crawford County	41,746	99.0%	100.0%	99.0%	103.901	\$24,386
Cuyahoga	1,248,514	99.3%			2,730.837	\$30,441
Darke County	51,536	84.7%	100.0%	84.7%	86.166	\$24,768
Defiance	38,156	98.4%		98.4%		\$26,941
Delaware County	200,434	96.7%	100.0%	96.7%	452.347	\$45,116
Erie County	74,817	96.5%		96.5%		\$30,223
Fairfield County	154,708	94.2%	100.0%	94.2%	306.710	\$29,582
Favette County	28,752	88.8%				
Franklin County	1,291,947	100.0%	100.0%	100.0%	2,427.613	\$31,199

		% of	% of			
	Populati	Pop. with	Pop. with	% of		Per
	on	Fixed 25	Mobile 5	Pop. with	Populati	Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Fulton County	42,289	97.8%			104.303	\$27,922
Gallia County	29,973	85.7%	97.8%	84.7%	64.247	\$22,293
Geauga County	93,918	87.9%			234.699	\$39,513
Greene County	166,741	96.6%	100.0%	96.6%	403.019	\$33,138
Guernsey	39,093	58.4%			74.854	\$22,864
Hamilton County	813,816	100.0%	100.0%	100.0%	2,004.916	\$32,638
Hancock	75,754	95.6%	100.0%	95.6%	142.567	\$29,608
Hardin County	31,364	85.5%	100.0%	85.5%	66.674	\$21,099
Harrison	15,216	49.1%	100.0%	49.1%	37.819	\$22,965
Henry County	27,185	99.8%	100.0%	99.8%	65.347	\$27,325
Highland	42,971	71.0%				\$22,079
Hocking County	28,470	58.2%	99.8%	58.2%	67.573	\$23,192
Holmes	43,957	43.4%			104.032	\$21,143
Huron County	58,494	95.1%	100.0%	95.1%	119.012	\$24,193
Jackson	32,449	70.3%		70.3%	77.204	\$21,730
Jefferson County	66,359	86.2%	99.9%	86.2%	162.514	\$24,028
Knox County	61,256	74.5%		74.5%	116.568	\$24,523
Lake County	230,116	99.8%	100.0%	99.8%	1,011.531	\$32,125
Lawrence	60,249	85.7%		85.2%	132.891	\$22,844
Licking County	173,443	94.6%	100.0%	94.6%	254.129	\$29,093
Logan County	45,325	82.4%			98.870	\$26,525
Lorain County	307,906	90.2%	100.0%	90.2%	626.970	\$28,555
Lucas County	430,887	98.9%				\$27,111
Madison	44,036	91.6%	100.0%	91.6%	94.523	\$27,798
County						
Mahoning	229,796					\$25,901
Marion County	64,967	95.8%		95.8%		\$22,579
Medina County		98.2%			423.270	\$34,174
Meigs County	23,080	61.4%		60.5%	53.662	\$22,396
Mercer County	40,873	100.0%		100.0%	88.384	\$27,540
Miami County	105,118	95.9%		95.9%		\$28,051
Monroe	13,946	0.3%	98.0%	0.3%	30.602	\$23,154

		% of	% of			
		Pop.	Pop.	% of		_
	Populati on	with Fixed 25	with Mobile 5	Pop. with	Populati	Per Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Montgomery	531,539	99.8%	100.0%	99.8%	1,151.631	\$27,602
County						
Morgan	14,709	52.5%		52.2%	35.322	\$22,122
Morrow	34,994	74.6%	100.0%	74.6%	86.175	\$24,864
County						
Muskingum	86,149	88.2%	98.3%	88.1%	129.629	\$22,877
County Noble County	14,406	50.3%	98.9%	50.3%	36.195	\$23,119
Ottawa County	40,657	100.0%	100.0%	100.0%	159.491	\$31,574
Paulding Paulding	18,845	93.5%	100.0%	93.5%	45.253	\$24,319
County			/ -			, ,
Perry County	36,024	57.9%	99.2%	57.9%	88.300	\$21,557
Pickaway	57,828	81.9%	100.0%	81.9%	115.351	\$25,460
County						
Pike County	28,268	74.4%		74.4%	64.204	\$21,983
Portage	162,275	96.4%	100.0%	96.4%	332.953	\$27,985
County						
Preble County	41,120	98.4%		98.4%	96.954	\$25,374
Putnam County	33,878	89.6%	100.0%	89.6%	70.210	\$28,568
-	120 500	02.70/	100.00/	00.70/	242 402	422.420
Richland Ross County	120,589 77,310	93.7% 92.7%	100.0% 100.0%	93.7% 92.6%	243.482 112.176	\$23,439 \$22,714
3	•					
Sandusky Scioto County	59,195 75,929	99.9% 84.0%	100.0% 98.5%	99.9% 83.5%	144.925 124.430	\$25,219 \$22,586
	·					· · ·
Seneca County Shelby County	55,243 48,759	95.7% 92.2%	100.0% 100.0%	95.7% 92.2%	100.256 119.603	\$25,004 \$28,410
5 5	·					•
Stark County Summit	372,542 541,226	99.1% 100.0%	100.0% 100.0%	99.1%	647.594 1,311.274	\$27,401 \$30,803
County	J±1,440	100.070	100.070	100.070	1,011.4/4	ფა ს,ისა
Trumbull	200,380	96.3%	100.0%	96.3%	324.084	\$25,542
Tuscarawas	92,297	84.4%	100.0%	84.4%	162.599	\$25,054
County						· · ·
Union County	56,739	79.8%	100.0%	79.8%	131.422	\$33,066
Van Wert	28,217	99.1%	100.0%	99.1%	68.964	\$26,130
County						
Vinton County	13,091	38.2%	99.9%	38.2%	31.746	\$19,876

		% of	% of			
		Pop.	Pop.	% of		
	Populati	with	with	Pop.		Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	on Density	Income (\$2017)
Warren County	228,859	97.2%	_	97.2%	570.274	\$37,479
Washington	60,418	79.0%	97.8%	78.5%	95.602	\$26,608
County Wayne County	116,038	90.8%	100.0%	90.8%	209.104	\$25,762
Williams	36,784	98.4%	100.0%	98.4%	87.380	\$24,160
Wood County	130,488	100.0%	100.0%	100.0%	211.418	\$30,042
Wyandot	22,029	69.2%	100.0%	69.2%	54.143	\$25,431
Oklahoma	3,930,57	79.0%		79.0%	57.301	
	1					
Adair County	21,909	14.5%	100.0%	14.5%	38.204	\$16,576
Alfalfa County	5,906	99.1%		99.1%	6.816	\$28,007
Atoka County	13,887	30.0%	99.7%	30.0%	14.236	\$19,439
Beaver County	5,315	67.0%		65.6%	2.929	\$25,935
Beckham County	21,793	69.1%	100.0%	69.1%	24.166	\$23,883
Blaine County	9,498	63.9%	99.6%	63.8%	10.230	\$22,823
Bryan County	46,318	71.6%	100.0%	71.6%	51.210	\$22,171
Caddo County	29,173	43.5%	100.0%	43.5%	22.822	\$21,071
Canadian County	139,865	83.4%	100.0%	83.4%	155.990	\$29,852
Carter County	48,190	71.3%	100.0%	71.3%	58.613	\$24,965
Cherokee County	48,887	60.1%	99.7%	60.0%	65.234	\$19,799
Choctaw	14,863	0.0%	100.0%	0.0%	19.294	\$19,446
Cimarron County	2,154	69.5%	98.7%	69.0%	1.174	\$28,461
Cleveland	279,628	80.6%	100.0%	80.6%	519.015	\$29,231
Coal County	5,642	40.7%	100.0%	40.7%	10.920	\$24,004
Comanche	121,518	87.6%	100.0%	87.6%	113.644	\$25,186
Cotton County	5,823	43.9%	100.0%	43.9%	9.204	\$21,887
Craig County	14,327	98.3%		98.3%	18.818	\$20,666
Creek County	71,697	65.8%	100.0%	65.8%	75.459	\$24,056
Custer County	28,800	79.9%		79.9%	29.126	\$24,621
Delaware County	42,589	82.9%	100.0%	82.9%	57.695	\$22,175
Dewey County	4,877	20.6%	100.0%	20.6%	4.880	\$25,821

		% of	% of			
	Populati	Pop. with	Pop. with	% of Pop.		Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on Donoitre	Income
Elli C	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Ellis County	3,966	56.0%	99.0%	56.0%	3.220	\$27,272
Garfield	61,581	89.9%	100.0%	89.9%	58.179	\$25,787
Garvin County	27,909	55.7%	100.0%	55.7%	34.794	\$22,433
Grady County	54,935	56.6%	100.0%		49.918	\$27,334
Grant County	4,395	99.5%	100.0%	99.5%	4.391	\$29,002
Greer County	5,843	50.2%	100.0%	50.2%	9.139	\$20,073
Harmon County	2,689	59.2%	100.0%	59.2%	5.006	\$21,620
Harper County	3,805	76.5%	99.6%	76.5%	3.662	\$23,536
Haskell County	12,763	37.7%	100.0%	37.7%	22.138	\$20,009
Hughes	13,302	42.9%	100.0%	42.9%	16.531	\$18,004
Jackson	25,125	79.8%	100.0%	79.8%	31.303	\$22,988
County						
<u>Jefferson</u>	6,183	27.3%	100.0%			\$19,130
Johnston County	11,060	48.0%	100.0%	48.0%	17.202	\$21,022
Kay County	44,544	99.9%	100.0%	99.9%	48.432	\$24,057
Kingfisher County	15,669	58.2%	100.0%	58.2%	17.446	\$31,885
Kiowa County	8,893	70.7%	100.0%	70.7%	8.760	\$23,076
Latimer County	10,411	48.1%	94.2%	47.8%	14.418	\$24,233
Le Flore	49,731	46.7%	99.6%	46.7%	31.293	\$20,264
Lincoln County	35,139	41.7%	100.0%	41.7%	36.899	\$23,911
Logan County	46,775	65.8%	100.0%	65.8%	62.884	\$28,265
Love County	10,034	30.9%	100.0%	30.9%	19.522	\$20,965
Major County	7,693	42.3%	99.9%	42.3%	8.056	\$28,294
Marshall	16,432	72.7%	100.0%		44.282	\$22,431
Mayes County	40,920	88.0%	100.0%	88.0%	62.437	\$22,575
McClain	39,310	67.4%	100.0%	67.4%	68.880	\$28,353
McCurtain County	32,808	14.6%	95.1%	14.6%	17.734	\$19,040
McIntosh	19,742	35.1%	100.0%	35.1%	31.919	\$22,241
Murray County	13,853	63.0%	100.0%		33.264	\$24,804

		0/ - C	0/ - C			
	Populati on Evaluate d	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
Muskogee County	69,086	70.2%	100.0%	70.2%	85.244	\$21,800
Noble County	11,277	56.7%	100.0%	56.7%	15.408	\$28,054
Nowata County	10,306	84.9%	100.0%	84.9%	18.216	\$21,491
Okfuskee	12,140	35.1%	100.0%	35.1%	19.626	\$17,656
Oklahoma County	787,901	93.5%	100.0%	93.5%	1,111.569	\$29,127
Okmulgee	38,930	60.9%	100.0%	60.9%	55.826	\$21,436
Osage County	47,233	62.1%	99.7%	62.1%	21.026	\$24,195
Ottawa County	31,312	99.2%	100.0%	99.2%	66.505	\$19,415
Pawnee County	16,472	0.0%	100.0%	0.0%	29.002	\$22,965
Payne County	81,569	74.2%	100.0%	74.2%	119.131	\$22,785
Pittsburg County	44,184	66.9%	100.0%	66.9%	33.845	\$24,408
Pontotoc	38,224	73.6%	100.0%	73.6%	53.057	\$23,862
Pottawatomie County	72,224	80.8%	100.0%	80.8%	91.693	\$22,284
Pushmataha County	11,173	0.1%	77.4%	0.1%	8.005	\$22,596
Roger Mills County	3,714	13.3%	99.8%	13.3%	3.255	\$27,797
Rogers County	91,444	97.3%	100.0%	97.3%	135.346	\$29,824
Seminole County	24,878	46.0%	100.0%	46.0%	39.312	\$19,605
Seguoyah	41,252	31.1%	100.0%	31.1%	61.271	\$19,253
Stephens County	43,332	71.9%	100.0%	71.9%	49.793	\$25,177
Texas County	20,900	82.4%	100.0%	82.4%	10.239	\$23,324
Tillman County	7,433	83.4%	100.0%	83.4%	8.533	\$21,422
Tulsa County	646,214	97.7%	100.0%	97.7%		\$29,797
Wagoner County	78,648	86.1%	100.0%	86.1%	140.054	\$27,337
Washington County	51,932	83.6%	100.0%	83.6%	125.001	\$28,913

	Populati on Evaluate d	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
Washita County	11,134	60.5%	_	60.5%	11.099	\$26,409
Woods County	9,031	84.0%	99.9%	84.0%	7.020	\$28,322
Woodward County	20,459	12.5%	99.9%	12.5%	16.467	\$27,413
Oregon	4,142,69 3	92.4%	99.6%	92.3%	43.158	•
Baker County	16,054	70.4%	99.5%	70.2%	5.232	\$25,820
Benton County	90,947	98.9%	99.8%	98.7%	134.549	\$30,873
Clackamas County	412,657	93.8%	99.9%	93.7%	220.634	\$37,551
Clatsop	39,179	82.3%	99.6%	82.3%	47.258	\$28,115
Columbia County	51,782	69.8%	99.8%	69.8%	78.773	\$28,460
Coos County	63,888	88.6%	98.9%	88.5%	40.026	\$26,007
Crook County	23,119	93.4%	99.1%	93.4%	7.760	\$24,239
Curry County	22,669	93.8%	98.6%	93.5%	13.929	\$26,925
Deschutes County	186,867	96.1%	100.0%	96.1%	61.914	\$31,575
Douglas	109,404	89.1%	98.5%	89.0%	21.724	\$25,002
Gilliam County	1,855	51.2%	96.8%	51.2%	1.540	\$24,178
Grant County	7,190	56.2%	91.4%	55.9%	1.588	\$25,154
Harney County	7,289	15.7%	98.4%	15.7%	0.719	\$24,398
Hood River County	23,377	95.5%	100.0%	95.5%	44.788	\$29,595
Jackson County	217,478	91.3%	98.3%	90.9%	78.130	\$27,081
Jefferson	23,754	82.6%	99.1%	82.5%	13.339	\$22,957
Josephine County	86,351	76.5%	98.7%	76.5%	52.664	\$24,349
Klamath	66,933	82.4%	99.9%	82.4%	11.266	\$23,793
Lake County	7,863	46.3%	98.8%	46.2%	0.966	\$21,005
Lane County	374,743	88.9%	99.2%	88.8%	82.305	\$27,032
Lincoln County	48,919	88.9%	98.7%	88.4%	49.929	\$25,782
Linn County	125,045	97.0%	99.6%	97.0%	54.602	\$24,448

		% of	% of			
	D 1	Pop.	Pop.	% of		
	Populati on	with Fixed 25	with Mobile 5	Pop. with	Populati	Per Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Malheur County	30,480	77.9%	99.4%	77.7%	3.083	\$17,567
Marion County	341,286	97.4%	99.9%	97.4%	288.656	\$24,791
Morrow	11,166	60.5%	98.5%	60.5%	5.496	\$21,743
County	007.500	07.70/	100.00/	07.70/	1 072 240	÷24.040
Multnomah County	807,538	97.7%	100.0%	97.7%	1,872.348	\$34,848
Polk County	83,696	95.8%	99.5%	95.8%	112.983	\$25,928
Sherman	1,758	30.8%	100.0%	30.8%	2.134	\$34,226
Tillamook County	26,688	92.6%	96.6%	91.4%	24.205	\$25,458
Umatilla	76,985	86.1%	99.7%	86.1%	23.942	\$22,153
Union County	26,222	64.6%	99.0%	64.6%	12.875	\$26,586
Wallowa	7,051	90.8%	94.1%	88.3%	2.241	\$26,898
Wasco County	26,436	79.4%	99.8%	79.4%	11.100	\$24,727
Washington County	588,947	96.7%	100.0%	96.7%	813.204	\$35,369
Wheeler County	1,357	0.0%	55.3%	0.0%	0.791	\$21,268
Yamhill	105,720	81.9%	100.0%	81.9%	147.682	\$28,540
Pennsylvania	12,805,4 51	95.3%	99.9%	95.2%	286.202	•
Adams County	102,334	94.0%	99.9%	94.0%	197.302	\$29,685
Allegheny	1,223,048	99.2%	100.0%	99.2%	1,675.237	\$35,280
Armstrong County	65,642	93.5%	99.8%	93.3%		\$25,502
Beaver County	166,140	98.2%	100.0%	98.2%	382.184	\$29,162
Bedford County	48,480	76.8%	98.5%	75.8%	47.891	\$24,219
Berks County	417,853	97.8%	100.0%	97.8%	487.857	\$29,041
Blair County	123,457	94.1%	100.0%	94.1%	234.798	\$25,531
Bradford	60,853	61.4%	97.9%	60.7%	53.036	\$26,937
Bucks County	628,333	98.5%	100.0%		1,039.757	\$41,924
Butler County	187,108	96.5%	100.0%	96.5%		\$35,101
Cambria County	133,054	91.3%	99.8%	91.1%	193.294	\$24,838
Cameron	4,592	91.7%	90.4%	86.8%	11.589	\$24,933

	Populati on	% of Pop. with Fixed 25	% of Pop. with Mobile 5	% of Pop. with	Populati	Per Capita
	Evaluate d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	on Density	Income (\$2017)
Carbon County	63,853	97.4%	100.0%	97.4%	167.391	\$25,680
Centre County	162,660	91.6%	99.8%	91.5%	146.551	\$28,545
Chester County	519,288	98.8%	100.0%	98.8%	691.916	\$46,256
Clarion County	38,458	83.5%	100.0%	83.5%	64.008	\$23,595
Clearfield County	79,685	82.5%	99.4%	82.0%	69.611	\$22,568
Clinton County	38,998	91.2%		91.0%		\$22,794
Columbia County	65,932	78.5%	100.0%	78.5%	136.475	\$24,908
Crawford	86,159	75.1%		75.1%		\$24,716
Cumberland County	250,066	95.6%	100.0%	95.5%	458.451	\$34,246
Dauphin	275,710	98.4%		98.4%		\$31,152
Delaware County	564,692	99.0%	100.0%	99.0%	3,071.592	\$36,747
Elk County	30,197	94.5%		93.9%		\$27,163
Erie County	274,541	93.8%	100.0%	93.8%	343.540	\$26,361
Favette County	131,504	89.8%		89.8%	166.389	\$24,247
Forest County	7,297	71.9%	99.6%	71.8%	17.082	\$14,989
Franklin	154,234	92.6%		92.6%		\$28,985
Fulton County	14,590	43.8%		43.8%	33.345	\$25,273
Greene County	36,770	78.3%		77.0%		\$25,574
Huntingdon County	45,491	83.7%		82.8%		\$22,908
Indiana	84,953	78.3%				\$25,014
Jefferson County	43,804	86.6%	99.0%	85.7%	67.140	\$23,895
Juniata County	24,514	77.4%		77.4%		\$24,068
Lackawanna County	210,761	88.8%	100.0%	88.8%	459.096	\$27,258
Lancaster	542,903	97.7%		97.7%		\$29,280
Lawrence County	87,069	95.9%	100.0%	95.9%	243.091	\$26,918
Lebanon	139,754	97.5%				\$27,916
Lehigh County	366,490	99.9%	100.0%	99.9%	1,061.779	\$30,988

		% of	% of			
		Pop.	% 01 Pop.	% of		
	Populati	with	with	Pop.		Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Luzerne	317,343					\$26,809
Lycoming	113,841	90.9%	99.1%	90.2%	92.660	\$26,265
County						
McKean	41,330	88.3%	99.8%	88.3%		\$24,868
Mercer County	111,750	89.9%	100.0%	89.9%	166.153	\$25,499
Mifflin County	46,388	88.6%	99.4%	88.1%	112.858	\$23,568
Monroe	168,046	99.0%	100.0%	99.0%	276.262	\$27,439
County						
Montgomery	826,038	98.9%	100.0%	98.9%	1,710.083	\$45,048
County						
Montour	18,272	72.9%	100.0%	72.9%	140.292	\$31,818
County						
Northampton	303,404	100.0%	100.0%	100.0%	820.740	\$32,608
<u>County</u> Northumberla	92,029	84.8%	100.0%	84.8%	200.776	\$24,278
nd County	92,029	04.070	100.0%	04.070	200.776	\$44,470
Perry County	46,127	84.8%	100.0%	84.8%	83.647	\$28,900
Philadelphia	1,580,843	98.9%		98.9%		\$24,811
County	1,500,045	30.370	100.070	30.370	2	φ24,011
Pike County	55,691	98.9%	100.0%	98.9%	102.193	\$31,156
Potter County	16,802	68.7%		68.5%		\$23,213
Schuylkill	142,569	92.4%				\$25,224
Snyder County	40,800	67.1%		67.1%	124.123	\$24,961
Somerset	74,501	82.8%				\$23,877
Sullivan	6,089	32.0%		31.7%	13.533	\$26,720
County	0,000	32.070	55.570	31.770	10.000	Ψ Ξ 0,7 Ξ 0
Susquehanna	40,985	46.8%	99.3%	46.7%	49.773	\$27,823
County	10,000	20.070	20.070	201, 70	23.770	Ψ=.,0 2 0
Tioga County	40,793	78.7%	99.3%	78.3%	35.979	\$25,353
Union County	44,595	69.3%	100.0%	69.3%	141.131	\$25,089
Venango	51,762	89.7%	100.0%	89.7%	76.766	\$25,190
County						
Warren County	39,659	74.5%	99.5%	74.5%	44.856	\$26,558
Washington	207,298	94.2%	100.0%	94.2%	241.891	\$32,828
County						
Wayne County	51,204	63.9%	99.9%	63.9%	70.567	\$25,569

	Populati on	% of Pop. with Fixed 25	% of Pop. with Mobile 5	% of Pop. with	Populati	Per Capita
	Evaluate d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	on Density	Income (\$2017)
Westmoreland County	352,627	97.7%	100.0%	97.7%	343.171	\$31,827
Wyoming	27,322	88.9%	99.6%	88.8%	68.765	\$28,046
York County	446,076	96.8%	100.0%	96.8%	493.348	\$30,178
Rhode Island	1,059,62	98.3%	100.0%	98.3%	1,024.96	•
	5				7	
Bristol County	48,912	100.0%	100.0%	100.0%	2,024.153	\$42,360
Kent County	163,760	98.8%	100.0%	98.8%		\$37,157
Newport County	83,459	95.6%	100.0%	95.6%		\$43,603
Providence	637,344	98.4%			1,556.389	
Washington County	126,150	97.9%	100.0%	97.9%	383.161	\$39,568
South Carolina	5,024,27 9	89.9%	100.0%	89.9%	167.138	•
Abbeville County	24,722	94.6%	100.0%	94.6%	50.403	\$19,234
Aiken County	168,179	88.3%	100.0%	88.3%	157.025	\$26,222
Allendale County	9,002	45.6%	98.8%	45.3%	22.059	\$13,439
Anderson	198,757	95.0%	100.0%	95.0%	277.816	\$24,485
Bamberg County	14,381	61.6%	100.0%	61.6%	36.559	\$19,256
Barnwell	21,345	76.5%		76.5%		\$20,018
Beaufort County	186,835	86.4%	100.0%	86.4%	324.209	\$34,966
Berkelev	217,921	91.6%	100.0%	91.6%	198.316	\$27,010
Calhoun County	14,704	68.5%	100.0%	68.5%	38.578	\$24,766
Charleston	401,432	94.5%		94.5%	438.202	\$35,587
Cherokee County	57,103	87.1%	100.0%	87.1%	145.426	\$20,516
Chester	32,301	70.4%	100.0%	70.4%	55.628	\$20,518
Chesterfield County	45,948	44.3%	100.0%	44.3%	57.501	\$19,768
Clarendon	34,057	91.9%	100.0%	91.9%	56.113	\$20,616

	Populati	% of Pop. with Fixed 25	% of Pop. with Mobile 5	% of Pop. with	Donulati	Per
	on Evaluate d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	Populati on Density	Capita Income (\$2017)
Colleton County	37,611	80.9%	100.0%	80.9%	35.600	\$21,059
Darlington	67,265	88.6%	100.0%	88.6%	119.869	\$21,225
Dillon County	30,666	75.7%	100.0%	75.7%	75.742	\$15,638
Dorchester	156,433	92.2%	100.0%	92.2%	272.896	\$27,317
Edgefield County	26,693	64.4%	99.8%	64.4%	53.343	\$23,804
Fairfield	22,607	58.4%	100.0%	58.4%	32.942	\$21,972
Florence County	138,566	93.3%	100.0%	93.3%	173.215	\$23,797
Georgetown County	61,607	88.2%	100.0%	88.2%	75.726	\$28,748
Greenville County	506,827	98.3%	100.0%	98.3%	645.541	\$29,132
Greenwood County	70,355	86.8%	100.0%	86.8%	154.720	\$22,636
Hampton County	19,602	52.7%	100.0%	52.7%	35.010	\$17,676
Horry County	333,267	99.2%	100.0%	99.2%	293.913	\$25,804
Jasper County	28,458	65.6%	100.0%	65.6%	43.426	\$20,067
Kershaw	65,032	82.0%		82.0%	89.506	\$23,530
Lancaster County	92,545	87.4%	100.0%	87.4%	168.521	\$26,425
Laurens	66,848	83.8%		83.8%	93.650	\$20,748
Lee County	17,350	84.9%	100.0%	84.9%	42.298	\$16,972
Lexington	290,638	94.0%		94.0%	415.843	\$29,311
Marion County	31,293	70.5%				\$18,556
Marlboro County	26,825	0.6%		0.6%	55.923	\$16,561
McCormick County	9,545	40.4%	97.5%	38.2%	26.578	\$22,836
Newberry	38,487	70.9%		70.9%	61.087	\$22,190
Oconee County	77,270	78.3%	100.0%	78.3%	123.369	\$26,798
Orangeburg County	87,476	57.4%		57.4%	79.085	\$19,489
Pickens County	123,479	93.3%	100.0%	93.3%	248.746	\$23,501

		% of	% of			
		Pop.	% 01 Pop.	% of		
	Populati	with	with	Pop.		Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	on Density	Income (\$2017)
Richland	411,592	97.4%	100.0%	97.4%	543.666	\$28,018
Saluda County	20,451	32.2%	100.0%	32.2%	45.168	\$20,390
Spartanburg County	306,854	95.2%	100.0%	95.2%	379.805	\$24,786
Sumter County	106,847	96.1%	100.0%	96.1%	160.656	\$21,733
Union County	27,537	79.5%	100.0%	79.5%	53.556	\$21,183
Williamsburg County	31,133	77.7%	100.0%	77.7%	33.327	\$17,440
York County	266,433	96.0%	100.0%	96.0%	391.471	\$30,387
South Dakota	869,371	88.9%	99.8%	88.7%	11.468	•
Aurora County	2,738	91.5%	100.0%	91.5%	3.865	\$30,872
Beadle County	18,155	87.4%	100.0%	87.4%	14.424	\$24,950
Bennett	3,454	90.6%	100.0%	90.6%	2.915	\$15,287
County						
Bon Homme County	6,984	66.9%	100.0%	66.9%	12.390	\$24,858
Brookings County	34,249	97.2%	100.0%	97.2%	43.232	\$27,197
Brown County	39,173	94.0%	100.0%	94.0%	22.868	\$31,493
Brule County	5,310	100.0%		100.0%	6.497	\$26,074
Buffalo County	1,999	100.0%	100.0%	100.0%	4.241	\$10,960
Butte County	10,107	99.4%	100.0%	99.4%	4.492	\$26,178
Campbell	1,378	73.5%	100.0%	73.5%	1.878	\$36,158
Charles Mix County	9,427	35.1%	100.0%	35.1%	8.590	
Clark County	3,668	87.2%	100.0%	87.2%	3.830	\$26,759
Clay County	13,990	76.8%	100.0%	76.8%	33.941	\$24,541
Codington	28,098	86.3%	100.0%	86.3%	40.811	\$29,249
Corson County	4,202	81.2%	82.7%	67.7%	1.701	\$15,160
Custer County	8,691	55.4%	97.7%	54.9%	5.582	\$31,015
Davison County	19,704	95.8%	100.0%	95.8%	45.239	\$28,086
Day County	5,521	74.6%	100.0%	74.6%	5.371	\$30,841
Deuel County	4,280	97.7%	100.0%	97.7%		\$29,204
Dewey County	5,833	58.2%	100.0%	58.2%	2.533	\$17,267

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	Populati on Evaluate d	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
Douglas County	2,931	81.0%	100.0%	81.0%	6.788	\$27,603
Edmunds	3,919	99.3%	100.0%	99.3%	3.481	\$31,836
Fall River County	6,687	90.4%	99.8%	90.4%	3.843	\$26,584
Faulk County	2,329	99.5%	100.0%	99.5%	2.372	\$29,714
Grant County	7,061	70.8%	100.0%	70.8%	10.362	\$29,363
Gregory	4,226	91.1%	99.7%	90.8%	4.164	\$26,169
Haakon County	1,943	95.3%	99.3%	94.6%	1.073	\$22,863
Hamlin County	5,948	69.4%	100.0%	69.4%	11.726	\$27,060
Hand County	3,277	82.5%	100.0%	82.5%	2.281	\$33,109
Hanson	3,423	85.4%	100.0%	85.4%	7.878	\$24,805
Harding County	1,242	100.0%	97.9%	97.9%	0.465	\$30,464
Hughes	17,663	93.7%	100.0%	93.7%	23.819	\$32,000
Hutchinson County	7,358	99.7%	100.0%	99.7%	9.051	\$29,869
Hyde County	1,318	100.0%	100.0%	100.0%	1.532	\$30,277
Jackson County	3,289	72.9%	100.0%	72.9%	1.765	\$16,939
Jerauld County	2,026	100.0%	100.0%	100.0%	3.850	\$38,776
Jones County	936	50.2%	100.0%	50.2%	0.965	\$26,526
Kingsbury	4,952	66.6%	100.0%	66.6%	5.950	\$33,333
Lake County	12,809	99.8%	100.0%	99.8%	22.740	\$31,145
Lawrence	25,428	93.0%	99.9%	93.0%	31.784	\$28,606
Lincoln County	56,635	85.2%	100.0%	85.2%	98.107	\$39,404
Lyman County	3,904	76.2%		76.2%	2.378	\$21,155
Marshall County	4,804	84.5%	100.0%	84.5%	5.732	\$28,861
McCook County	5,499	76.9%	100.0%	76.9%	9.577	\$29,254
McPherson County	2,426	85.5%	100.0%	85.5%	2.134	\$25,975
Meade County	28,016	92.1%	99.9%	92.1%	8.071	\$26,896

		% of	% of			
		Pop.	% 01 Pop.	% of		
	Populati	with	with	Pop.		Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Mellette	2,088	58.2%	100.0%	58.2%	1.597	\$14,264
County						
Miner County	2,228	100.0%		100.0%	3.907	\$28,633
Minnehaha	188,585	97.6%	100.0%	97.6%	233.644	\$29,551
County					40.00=	
Moody County	6,579	71.6%		71.6%	12.667	\$27,774
Oglala Lakota County	14,155	69.0%	100.0%	69.0%	6.760	\$9,334
Pennington	110,140	92.4%	99.6%	92.4%	39.668	\$28,910
County	,					Ψ==,==
Perkins	2,974	84.3%	97.2%	83.1%	1.036	\$30,120
Potter County	2,231	100.0%	100.0%	100.0%	2.591	\$32,853
Roberts	10,278	66.6%	100.0%	66.6%	9.335	\$25,767
Sanborn	2,446	100.0%	100.0%	100.0%	4.296	\$31,965
County						
Spink County	6,410	88.4%	100.0%	88.4%	4.262	\$31,957
Stanley County	3,011	91.4%	99.3%	90.7%	2.085	\$32,862
Sully County	1,407	100.0%	100.0%	100.0%	1.397	\$39,888
Todd County	10,065	62.1%		62.1%	7.249	\$11,665
Tripp County	5,460	89.9%	100.0%	89.9%	3.386	\$27,613
Turner County	8,315	60.5%		60.5%	13.475	\$27,844
Union County	15,029	84.5%	100.0%	84.5%	32.633	\$37,093
Walworth	5,543	98.9%	100.0%	98.9%	7.822	\$29,457
Yankton	22,661	85.6%	100.0%	85.6%	43.482	\$30,395
County						
Ziebach	2,756	97.9%			1.405	\$13,461
Tennessee	6,715,85 9	91.3%	99.7%	91.1%	162.868	•
Anderson County	76,256	97.1%	98.9%	95.9%	226.170	\$26,972
<u> </u>	40.110	OE E0/	100.0%	95.5%	101 500	ቀጋጋ በደጋ
Bedford Benton County	48,116 15,986	95.5% 36.7%		95.5% 36.7%	101.589 40.559	\$22,953 \$21,282
	·					
Bledsoe Blount County	14,717 129,929	39.3% 98.0%		39.2% 97.6%	36.211 232.553	\$21,402 \$28,334
-						
Bradley	105,559	97.4%	100.0%	97.4%	321.081	\$25,144

Population Pop			% of	% of			
Population Fixed 25 Mbps Mobile 5 Mbps					% of		
Campbell		Populati	_	_			Per
Campbell County 3 Mbps 1 Mbps Mobile Density (\$2017) Campbell County 39,648 85.0% 99.6% 84.6% 82.567 \$21,282 Cannon 14,214 99.5% 100.0% 99.5% 53.509 \$24,595 Carroll County 56,488 96.8% 98.9% 96.2% 165.555 \$21,001 Cheatham 40,329 93.3% 100.0% 49.6% 59.912 \$20,497 Claiborne 31,609 93.3% 100.0% 49.6% 59.912 \$20,497 Claiborne County 7,703 95.4% 85.0% 80.4% 32.566 \$17.667 Corke County 7,703 95.4% 85.0% 80.4% 32.566 \$17.667 Coffee County 55.033 83.0% 100.0% 83.0% 128.295 \$24,748 County 55.033 83.0% 100.0% 86.1% 54.505 \$21,056 Coffee County 50,077 57.7% 99.6% 57.7% 86.747 <th></th> <th>_</th> <th></th> <th></th> <th>_</th> <th>Populati</th> <th></th>		_			_	Populati	
Campbell County 39,648 85.0% 99.6% 84.6% 82.567 \$21,282 Cannon 14,214 99.5% 100.0% 99.5% 53.509 \$24,595 Carroll County 27,860 68.1% 100.0% 68.1% 46.491 \$20,555 Carter County 56,488 96.8% 98.9% 96.2% 165.555 \$21,001 Cheatham 40,329 93.3% 100.0% 93.3% 133.347 \$25,673 County 7.7119 49.6% 100.0% 49.6% 59.912 \$20,497 Claiborne County 31,609 93.3% 100.0% 93.3% 72.735 \$20,184 Cocke County 7,703 95.4% 85.0% 80.4% 32.566 \$17,667 Cocke County 55.033 83.0% 100.0% 83.0% 128.295 \$24,748 Crockett 14.473 68.1% 100.0% 68.1% 54.505 \$21,056 County 59,077 57.7% 99.6% 57.7%			_	-			
County Cannon 14,214 99.5% 100.0% 99.5% 53.509 \$24,595 Carroll County 27,860 68.1% 100.0% 68.1% 46.491 \$20,557 Carter County 56,488 96.8% 98.9% 96.2% 165.555 \$21,001 Cheatham 40,329 93.3% 100.0% 49.6% 59.912 \$20,497 Chester 17,119 49.6% 100.0% 49.6% 59.912 \$20,497 Claiborne 31,609 93.3% 100.0% 93.3% 72.735 \$20,184 County 7,703 95.4% 85.0% 80.4% 32.566 \$17,667 Cocke County 35,556 75.7% 95.6% 75.7% 81.820 \$20,189 Coffee County 55.033 83.0% 100.0% 83.0% 128.295 \$24,748 County 50.33 83.0% 100.0% 86.747 \$23,668 County 59.077 57.7% 99.6% 57.7% 86.747		d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Cannon 14,214 99.5% 100.0% 99.5% 53.509 \$24,595 Carroll County 27,860 68.1% 100.0% 68.1% 46.491 \$20,557 Carter County 56,488 96.8% 98.9% 96.2% 165.555 \$21,001 Cheatham County 40,329 93.3% 100.0% 49.6% 59.912 \$25,673 Claster 17,119 49.6% 100.0% 49.6% 59.912 \$20,497 Claiborne County 31,609 93.3% 100.0% 93.3% 72.735 \$20,184 County 7,703 95.4% 85.0% 80.4% 32.566 \$17,667 Cocke County 55,033 83.0% 100.0% 83.0% 128.295 \$24,748 Coffee County 55,033 83.0% 100.0% 68.1% 54.505 \$21,056 Combrada 59,077 57.7% 99.6% 57.7% 86.747 \$23,668 County Davidson 691,236 97.2% 100.0%	_	39,648	85.0%	99.6%	84.6%	82.567	\$21,282
Carroll County 27,860 68.1% 100.0% 68.1% 46.491 \$20,557 Carter County 56,488 96.8% 98.9% 96.2% 165.555 \$21,001 Cheatham County 40,329 93.3% 100.0% 93.3% 133.347 \$25,673 Chester 17,119 49.6% 100.0% 49.6% 59.912 \$20,497 Claiborne County 31,609 93.3% 100.0% 49.6% 59.912 \$20,497 Clay County 7,703 95.4% 85.0% 80.4% 32.566 \$17,667 Cocke County 35,556 75.7% 95.6% 75.7% 81.820 \$20,189 Corocket County 55,033 83.0% 100.0% 83.0% 128.295 \$24,748 County 55,033 83.0% 100.0% 86.747 \$23,668 \$21,056 Cumberland County 59,077 57.7% 99.6% 57.7% 86.747 \$23,668 County DeKalb County 19,848 98.6%	County						
Carter County 56,488 96.8% 98.9% 96.2% 165.555 \$21,001 Cheatham County 40,329 93.3% 100.0% 93.3% 133.347 \$25,673 Chester 17,119 49.6% 100.0% 49.6% 59.912 \$20,497 Claiborne County 31,609 93.3% 100.0% 93.3% 72.735 \$20,184 Cocke County 7,703 95.4% 85.0% 80.4% 32.566 \$17.667 Cocke County 55,033 83.0% 100.0% 83.0% 128.295 \$24,748 Crockett County 55,033 83.0% 100.0% 83.0% 128.295 \$24,748 County 55,033 83.0% 100.0% 68.1% 54.505 \$21,056 Cumberland County 59,077 57.7% 99.6% 57.7% 86.747 \$23,668 County 19,848 98.6% 100.0% 97.2% 1,371.411 \$32,347 Decatur 11,751 58.8% 99.4% 58.8%<							
Cheatham County 40,329 93.3% 100.0% 93.3% 133.347 \$25,673 Chester 17,119 49.6% 100.0% 49.6% 59.912 \$20,497 Claiborne County 31,609 93.3% 100.0% 93.3% 72.735 \$20,184 Clay County 7,703 95.4% 85.0% 80.4% 32.566 \$17,667 Cocke County 35,556 75.7% 95.6% 75.7% 81.820 \$20,189 Coffee County 55,033 83.0% 100.0% 83.0% 128.295 \$24,748 Crockett 14,473 68.1% 100.0% 68.1% 54.505 \$21,056 Cumberland County 59,077 57.7% 99.6% 57.7% 86.747 \$23,668 Cunty Davidson 691,236 97.2% 100.0% 97.2% 1,371.411 \$32,347 Decatur 11,751 58.8% 99.4% 58.8% 35.199 \$21.098 Dickson 52,853 84.9% 100.0%	Carroll County	27,860	68.1%	100.0%	68.1%	46.491	\$20,557
County Chester 17,119 49.6% 100.0% 49.6% 59.912 \$20,497 Claiborne County 31,609 93.3% 100.0% 93.3% 72.735 \$20,184 Clay County 7,703 95.4% 85.0% 80.4% 32.566 \$17,667 Cocke County 35,556 75.7% 95.6% 75.7% 81.820 \$20,189 Coffee County 55,033 83.0% 100.0% 83.0% 128.295 \$24,748 Crockett 14,473 68.1% 100.0% 68.1% 54.505 \$21,056 County 59,077 57.7% 99.6% 57.7% 86.747 \$23,668 County Davidson 691,236 97.2% 100.0% 97.2% 1,371.411 \$32,347 County 19,848 98.6% 100.0% 98.6% 65.215 \$25,443 Decatur 11,751 58.8% 99.4% 58.8% 35.199 \$21,098 Dickson 52,853 84.9% 100.0% <th>Carter County</th> <th>56,488</th> <th>96.8%</th> <th>98.9%</th> <th>96.2%</th> <th>165.555</th> <th>\$21,001</th>	Carter County	56,488	96.8%	98.9%	96.2%	165.555	\$21,001
Chester 17,119 49.6% 100.0% 49.6% 59.912 \$20,497 Claiborne County 31,609 93.3% 100.0% 93.3% 72.735 \$20,184 County 7,703 95.4% 85.0% 80.4% 32.566 \$17,667 Cocke County 35,556 75.7% 95.6% 75.7% 81.820 \$20,189 Coffee County 55,033 83.0% 100.0% 83.0% 128.295 \$24,748 Crockett County 14,473 68.1% 100.0% 68.1% 54.505 \$21,056 County 59,077 57.7% 99.6% 57.7% 86.747 \$23,668 County 691,236 97.2% 100.0% 97.2% 1,371.411 \$32,347 Decatur 11,751 58.8% 99.4% 58.8% 35.199 \$21,098 Dickson 52,853 84.9% 100.0% 84.9% 107.886 \$25.211 Dyer County 37,463 90.8% 100.0% 99.8% 73.1		40,329	93.3%	100.0%	93.3%	133.347	\$25,673
Claiborne County 31,609 93.3% 100.0% 93.3% 72.735 \$20,184 Clay County 7,703 95.4% 85.0% 80.4% 32.566 \$17,667 Cocke County 35,556 75.7% 95.6% 75.7% 81.820 \$20,189 Coffee County 55,033 83.0% 100.0% 83.0% 128.295 \$24,748 Crockett 14,473 68.1% 100.0% 68.1% 54.505 \$21,056 Cumberland County 59,077 57.7% 99.6% 57.7% 86.747 \$23,668 County 0avidson 691,236 97.2% 100.0% 97.2% 1,371.411 \$32,347 Deckalb County 19,848 98.6% 100.0% 98.6% 65.215 \$25,443 Decatur 11,751 58.8% 99.4% 58.8% 35.199 \$21,098 Dickson 52,853 84.9% 100.0% 84.9% 107.886 \$25,211 Dyer County 37,463 90.8% 100.0% <th>County</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	County						
County 7,703 95.4% 85.0% 80.4% 32.566 \$17,667 Cocke County 35,556 75.7% 95.6% 75.7% 81.820 \$20,189 Coffee County 55,033 83.0% 100.0% 83.0% 128.295 \$24,748 Crockett 14,473 68.1% 100.0% 68.1% 54.505 \$21,056 County 59,077 57.7% 99.6% 57.7% 86.747 \$23,668 County Davidson 691,236 97.2% 100.0% 97.2% 1,371.411 \$32,347 Decatur 11,751 58.8% 99.4% 58.8% 35.199 \$21,098 Dickson 52,853 84.9% 100.0% 90.8% 73.123 \$24,695 Favette County 40,036 79.9% 100.0% 79.9% 56.806 \$30,471 Fentress 18,136 98.7% 97.6% 96.4% 36.373 \$18,171 County 40,036 79.9% 100.0% 74.0%							
Clav County 7,703 95.4% 85.0% 80.4% 32.566 \$17,667 Cocke County 35,556 75.7% 95.6% 75.7% 81.820 \$20,189 Coffee County 55,033 83.0% 100.0% 83.0% 128.295 \$24,748 Crockett 14,473 68.1% 100.0% 68.1% 54.505 \$21,056 County 59,077 57.7% 99.6% 57.7% 86.747 \$23,668 County Davidson 691,236 97.2% 100.0% 97.2% 1,371.411 \$32,347 County DeKalb County 19,848 98.6% 100.0% 98.6% 65.215 \$25,443 Decatur 11,751 58.8% 99.4% 58.8% 35.199 \$21,098 Dickson 52,853 84.9% 100.0% 84.9% 107.886 \$25,211 Dyer County 37,463 90.8% 100.0% 79.9% 56.806 \$30,471 Fentress 18,136 98.7% 97.6%		31,609	93.3%	100.0%	93.3%	72.735	\$20,184
Cocke County 35,556 75.7% 95.6% 75.7% 81.820 \$20,189 Coffee County 55,033 83.0% 100.0% 83.0% 128.295 \$24,748 Crockett County 14,473 68.1% 100.0% 68.1% 54.505 \$21,056 County 59,077 57.7% 99.6% 57.7% 86.747 \$23,668 County Davidson 691,236 97.2% 100.0% 97.2% 1,371.411 \$32,347 Decatur 11,751 58.8% 99.4% 58.8% 35.199 \$21,098 Dickson 52,853 84.9% 100.0% 84.9% 107.886 \$25,211 Dyer County 37,463 90.8% 100.0% 90.8% 73.123 \$24,695 Favette County 40,036 79.9% 100.0% 79.9% 56.806 \$30,471 Fentress County 18,136 98.7% 97.6% 96.4% 36.373 \$18,171 Franklin 41,652 79.5% <td< th=""><th>-</th><th></th><th></th><th></th><th></th><th></th><th></th></td<>	-						
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County 59,077 57.7% 99.6% 57.7% 86.747 \$23,668 County Davidson County 691,236 97.2% 100.0% 97.2% 1,371.411 \$32,347 DeKalb County 19,848 98.6% 100.0% 98.6% 65.215 \$25,443 Decatur 11,751 58.8% 99.4% 58.8% 35.199 \$21,098 Dickson 52,853 84.9% 100.0% 84.9% 107.886 \$25,211 Dyer County 37,463 90.8% 100.0% 90.8% 73.123 \$24,695 Fayette County 40,036 79.9% 100.0% 79.9% 56.806 \$30,471 Fentress 18,136 98.7% 97.6% 96.4% 36.373 \$18,171 County 41,652 79.5% 99.6% 79.3% 75.111 \$25,637 Giles County 49,111 74.0% 100.0% 74.0% 81.479 \$21,858 Giles County 23,144 65.1% 100.0% <t< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th></t<>							
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County 691,236 97.2% 100.0% 97.2% 1,371.411 \$32,347 DeKalb County 19,848 98.6% 100.0% 98.6% 65.215 \$25,443 Decatur 11,751 58.8% 99.4% 58.8% 35.199 \$21,098 Dickson 52,853 84.9% 100.0% 84.9% 107.886 \$25,211 Dyer County 37,463 90.8% 100.0% 90.8% 73.123 \$24,695 Favette County 40,036 79.9% 100.0% 79.9% 56.806 \$30,471 Fentress 18,136 98.7% 97.6% 96.4% 36.373 \$18,171 County 49,111 74.0% 100.0% 74.0% 81.479 \$21,858 Giles County 29,401 54.7% 100.0% 54.7% 48.125 \$22,994 Grainger 23,144 65.1% 100.0% 65.1% 82.480 \$20,966 Grundy County 13,361 78.5% 99.5% 78.4% 37.0	County						
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County 19,848 98.6% 100.0% 98.6% 65.215 \$25,443 Decatur 11,751 58.8% 99.4% 58.8% 35.199 \$21,098 Dickson 52,853 84.9% 100.0% 84.9% 107.886 \$25,211 Dyer County 37,463 90.8% 100.0% 90.8% 73.123 \$24,695 Favette County 40,036 79.9% 100.0% 79.9% 56.806 \$30,471 Fentress 18,136 98.7% 97.6% 96.4% 36.373 \$18,171 County 41,652 79.5% 99.6% 79.3% 75.111 \$25,637 Gibson County 49,111 74.0% 100.0% 74.0% 81.479 \$21,858 Giles County 29,401 54.7% 100.0% 54.7% 48.125 \$22,994 Grainger 23,144 65.1% 100.0% 54.7% 48.125 \$22,996 Grundy County 13,361 78.5% 99.5% 78.4% 37.059 <th></th> <th>CO1 22C</th> <th>07.20/</th> <th>100.00/</th> <th>07.20/</th> <th>1 271 411</th> <th>422 247</th>		CO1 22C	07.20/	100.00/	07.20/	1 271 411	422 24 7
DeKalb County 19,848 98.6% 100.0% 98.6% 65.215 \$25,443 Decatur 11,751 58.8% 99.4% 58.8% 35.199 \$21,098 Dickson 52,853 84.9% 100.0% 84.9% 107.886 \$25,211 Dyer County 37,463 90.8% 100.0% 90.8% 73.123 \$24,695 Favette County 40,036 79.9% 100.0% 79.9% 56.806 \$30,471 Fentress 18,136 98.7% 97.6% 96.4% 36.373 \$18,171 County 49,111 74.0% 100.0% 79.3% 75.111 \$25,637 Giles County 49,111 74.0% 100.0% 74.0% 81.479 \$21,858 Giles County 29,401 54.7% 100.0% 54.7% 48.125 \$22,994 Grainger 23,144 65.1% 100.0% 54.7% 48.125 \$22,996 Greene County 68,808 100.0% 100.0% 100.0% <th< th=""><th></th><th>091,230</th><th>97.2%</th><th>100.0%</th><th>97.2%</th><th>1,3/1.411</th><th>\$32,347</th></th<>		091,230	97.2%	100.0%	97.2%	1,3/1.411	\$32,347
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Dickson 52,853 84.9% 100.0% 84.9% 107.886 \$25,211 Dyer County 37,463 90.8% 100.0% 90.8% 73.123 \$24,695 Favette County 40,036 79.9% 100.0% 79.9% 56.806 \$30,471 Fentress 18,136 98.7% 97.6% 96.4% 36.373 \$18,171 County 41,652 79.5% 99.6% 79.3% 75.111 \$25,637 Gibson County 49,111 74.0% 100.0% 74.0% 81.479 \$21,858 Giles County 29,401 54.7% 100.0% 54.7% 48.125 \$22,994 Grainger 23,144 65.1% 100.0% 65.1% 82.480 \$20,966 Grundy County 68,808 100.0% 100.0% 100.0% 110.594 \$21,960 Hamblen 64,277 100.0% 100.0% 100.0% 398.793 \$21,962 Hamilton 361,605 98.8% 100.0% 98.8% <t< th=""><th></th><th>,</th><th></th><th></th><th></th><th></th><th>· ·</th></t<>		,					· ·
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Giles County 29,401 54.7% 100.0% 54.7% 48.125 \$22,994 Grainger County 23,144 65.1% 100.0% 65.1% 82.480 \$20,966 Greene County 68,808 100.0% 100.0% 100.0% 110.594 \$21,960 Grundy County 13,361 78.5% 99.5% 78.4% 37.059 \$15,824 Hamblen 64,277 100.0% 100.0% 100.0% 398.793 \$21,962 Hamilton 361,605 98.8% 100.0% 98.8% 666.638 \$29,711							\$21,858
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Grundy County13,36178.5%99.5%78.4%37.059\$15,824Hamblen64,277100.0%100.0%100.0%398.793\$21,962Hamilton361,60598.8%100.0%98.8%666.638\$29,711	Greene County	68,808	100.0%	100.0%	100.0%	110.594	\$21,960
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	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	on Density	Income (\$2017)
Hancock	6,600	56.8%	94.5%	52.2%	29.684	\$19,396
Hardeman County	25,447	51.4%	100.0%	51.4%	38.108	\$16,938
Hardin County	25,846	95.9%	99.3%	95.8%	44.769	\$23,328
Hawkins	56,459	73.4%		73.4%	115.938	\$22,141
County	,					τ ,
Haywood	17,573	62.1%			32.963	\$21,453
Henderson County	27,751	63.3%	100.0%	63.3%	53.360	\$21,344
Henry County	32,449	84.9%	100.0%	84.8%	57.729	\$22,952
Hickman County	24,864	62.1%	98.8%	61.9%	40.594	\$20,936
Houston	8,213	46.2%	94.6%	43.1%	41.006	\$20,819
Humphreys County	18,484	38.0%	99.0%	37.9%	34.811	\$23,498
Jackson	11,677	93.4%	86.9%	82.2%	37.873	\$18,643
Jefferson County	53,801	75.0%	100.0%	75.0%	196.298	\$23,724
Johnson	17,691	94.5%	98.7%	93.7%	59.271	\$19,183
Knox County	461,852	98.3%	100.0%	98.3%	908.773	\$30,541
Lake County	7,468	62.9%	100.0%	62.9%	45.047	\$14,232
Lauderdale County	25,274	75.0%	100.0%	75.0%	53.548	\$17,178
Lawrence	43,394	70.8%	100.0%	70.8%	70.316	\$19,879
Lewis County	12,032	87.6%		87.5%	42.653	\$20,099
Lincoln County	33,749	77.7%			59.174	\$24,029
Loudon County	52,148	93.1%	100.0%	93.1%	227.506	\$30,177
Macon County	24,079	89.9%			78.397	\$20,666
Madison County	97,643	94.2%	99.9%	94.1%	175.265	\$24,600
Marion County	28,425	84.7%			57.060	\$23,807
Marshall County	32,926	90.7%	100.0%	90.7%	87.695	\$23,920
Maury County	92,158	92.9%	100.0%	92.9%	150.305	\$25,872
McMinn	52,877	79.5%		79.5%	122.934	\$21,583
McNairy County	26,004	81.8%	100.0%	81.8%	46.200	\$19,745

	Populati	% of Pop. with	% of Pop. with	% of Pop.		Per
	on Evaluate d	Fixed 25 Mbps/ 3 Mbps	Mobile 5 Mbps/ 1 Mbps	with Fixed & Mobile	Populati on Density	Capita Income (\$2017)
Meigs County	12,068	54.8%	100.0%	54.8%	61.849	\$22,542
Monroe	46,239	68.6%	96.2%	67.9%	72.753	\$20,353
Montgomery County	200,176	93.0%	100.0%	93.0%	371.262	\$24,827
Moore County	6,384	44.5%		44.5%		\$31,479
Morgan County	21,636	100.0%	97.5%	97.5%	41.434	\$18,649
Obion County	30,385	71.5%		71.5%		\$21,939
Overton County	22,012	86.3%	99.0%	85.5%	50.779	\$19,961
Perry County	7,975	38.9%		38.2%		\$20,204
Pickett County	5,073	95.8%	95.3%	91.1%	31.127	\$21,300
Polk County	16,757	82.8%		76.8%		\$24,247
Putnam County	77,670	93.9%	100.0%	93.9%	193.641	\$23,337
Rhea County	32,691	83.7%	100.0%	83.7%	103.657	\$22,031
Roane County	53,036	92.5%	100.0%	92.5%	147.033	\$25,555
Robertson	70,171	83.8%	100.0%	83.8%		\$26,441
Rutherford County	317,137	97.6%	100.0%	97.6%	512.037	\$27,932
Scott County	21,989	99.9%		97.3%		\$18,748
Sequatchie County	14,736	52.3%	98.9%	52.2%	55.428	\$22,744
Sevier County	97,637	92.1%				\$23,298
Shelby County	936,959	98.2%	100.0%	98.2%	1,227.713	\$28,117
Smith County	19,636	87.5%		82.0%		\$23,015
Stewart County	13,355	76.5%	99.0%	76.4%	29.075	\$22,680
Sullivan	157,158	100.0%		100.0%		\$25,946
Sumner County	183,536	97.8%	100.0%	97.7%	346.654	\$30,669
Tipton County	61,366	90.9%		90.9%		\$26,110
Trousdale County	10,081	68.8%	98.8%	68.2%	88.280	\$22,863
Unicoi County	17,759	95.8%	98.5%	94.5%	95.394	\$21,374
Union County	19,442	77.8%	100.0%	77.8%	86.970	\$20,478

		% of	% of			
		Pop.	Pop.	% of		
	Populati	with	with	Pop.	D 1	Per
	on Evaluate	Fixed 25 Mbps/	Mobile 5 Mbps/	with Fixed &	Populati on	Capita Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Van Buren	5,742	48.6%	99.4%	48.5%	21.001	\$20,672
Warren County	40,651	81.0%	99.9%	81.0%	93.952	\$21,339
Washington County	127,805	97.9%	100.0%	97.9%	391.482	\$27,334
Wayne County	16,583	49.5%	97.3%	49.5%	22.590	\$18,702
Weakley	33,337	57.4%	99.7%	57.3%	57.442	\$19,699
White County	26,753	67.1%	100.0%	67.1%	71.024	\$19,867
Williamson County	226,250	93.3%	100.0%	93.3%	388.346	\$48,482
Wilson County	136,436	95.2%	100.0%	95.2%	239.015	\$31,155
Texas	28,303,9 61	92.7%	100.0%	92.7%	108.348	•
Anderson County	57,741	52.2%	99.6%	52.2%	54.339	\$17,466
Andrews	17,722	83.0%	100.0%	83.0%	11.809	\$29,903
Angelina County	87,805	84.8%	100.0%	84.8%	110.062	\$21,974
Aransas	25,572	99.5%	98.8%	98.3%	101.446	\$29,999
Archer County	8,809	87.5%	100.0%	87.5%	9.754	\$31,103
Armstrong	1,879	52.5%	99.3%	51.8%	2.067	\$31,219
Atascosa County	48,980	94.4%	100.0%	94.4%	40.163	\$23,973
Austin County	29,786	53.1%		53.1%	46.072	\$30,101
Bailey County	7,077	74.3%	100.0%	74.3%	8.560	\$18,662
Bandera	22,351	33.9%	95.3%	29.7%	28.258	\$29,177
Bastrop County	84,759	99.8%	100.0%	99.8%	95.433	\$25,172
Baylor County	3,581	99.6%	100.0%	99.6%	4.128	\$30,820
Bee County	32,563	100.0%	100.0%	100.0%	36.993	\$17,504
Bell County	347,829	95.8%	100.0%	95.8%	330.946	\$25,017
Bexar County	1,958,557	99.8%	100.0%	99.8%	1,579.710	\$26,158
Blanco County	11,626	24.0%		24.0%	16.392	\$31,249
Borden County	673	29.9%	100.0%	29.9%	0.750	\$38,923
Bosque County	18,326	100.0%		100.0%	18.643	\$25,763
Bowie County	94,012	91.0%		91.0%		\$24,761
Brazoria	362,452	82.5%	100.0%	82.5%	266.960	\$32,343

		% of	% of			
		Pop.	Pop.	% of		
	Populati	with	with	Pop.	D1-4	Per
	on Evaluate	Fixed 25 Mbps/	Mobile 5 Mbps/	with Fixed &	Populati on	Capita Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Brazos County	222,803	98.5%	100.0%	98.5%	380.570	\$25,337
Brewster	9,337	66.1%	86.5%	63.4%	1.510	\$26,073
Briscoe County	1,528	68.9%	99.9%	68.9%	1.698	\$23,199
Brooks County	7,235	99.1%	100.0%	99.1%	7.669	\$13,549
Brown County	38,053	99.6%	100.0%	99.6%	40.292	\$24,040
Burleson	18,011	6.1%	100.0%	6.1%	27.330	\$27,112
Burnet County	46,804	48.0%	100.0%	48.0%	47.074	\$29,247
Caldwell	42,332	100.0%	100.0%	100.0%	77.637	\$23,366
Calhoun County	21,744	85.7%	100.0%	85.7%	42.901	\$26,909
Callahan	13,946	59.0%	100.0%	59.0%	15.506	\$22,205
Cameron County	423,712	99.5%	99.9%	99.4%	475.588	\$16,085
Camp County	12,855	50.5%	100.0%	50.5%	65.645	\$21,069
Carson County	6,032	64.0%	100.0%	64.0%	6.555	\$31,788
Cass County	30,012	51.7%	100.0%	51.7%	32.031	\$22,145
Castro County	7,843	52.8%	100.0%	52.8%	8.769	\$22,292
Chambers	41,433	59.2%	100.0%	59.2%	69.386	\$31,412
Cherokee County	52,240	40.9%	99.9%	40.9%	49.615	\$21,102
Childress	7,067	94.3%	100.0%	94.3%	10.148	\$18,694
Clay County	10,421	18.6%	100.0%	18.6%	9.572	\$27,593
Cochran	2,851	65.3%	100.0%	65.3%	3.678	\$19,195
Coke County	3,306	70.0%	99.7%	70.0%	3.627	\$24,623
Coleman	8,430	27.0%	99.9%	27.0%	6.680	\$26,436
Collin County	969,509	96.7%	100.0%	96.7%	1,152.497	\$41,609
Collingsworth County	2,987	49.0%	100.0%	49.0%	3.252	\$21,356
Colorado County	21,232	88.7%	100.0%	88.7%	22.110	\$26,689
Comal County	141,003	95.9%		95.9%	252.027	\$35,841
Comanche County	13,573	29.9%	100.0%	29.9%	14.474	\$22,751
Concho County	2,717	14.3%	100.0%	14.3%	2.762	\$17,513
Cooke County	39,895	95.6%	100.0%	95.6%	45.607	\$29,067

	Populati	% of Pop. with	% of Pop. with	% of Pop.		Per
	on Evaluate d	Fixed 25 Mbps/ 3 Mbps	Mobile 5 Mbps/ 1 Mbps	with Fixed & Mobile	Populati on Density	Capita Income (\$2017)
Corvell County	74,913	94.0%	100.0%	94.0%	71.206	\$21,171
Cottle County	1,387	85.4%	100.0%	85.4%	1.540	\$20,566
Crane County	4,740	0.7%	100.0%	0.7%	6.038	\$24,582
Crockett County	3,564	0.0%	99.2%	0.0%	1.270	\$23,296
Crosby County	5,899	66.0%	100.0%	66.0%	6.553	\$20,057
Culberson County	2,231	82.8%	100.0%	82.8%	0.585	\$16,763
Dallam County	7,206	96.3%		96.3%		\$25,221
Dallas County	2,618,140	99.9%	100.0%	99.9%	3,004.938	\$29,810
Dawson	12,813	56.3%		56.3%	14.232	\$21,360
DeWitt County	20,226	99.9%		99.9%		\$28,116
Deaf Smith County	18,836	86.8%	100.0%	86.8%	12.584	\$21,209
Delta County	5,298			16.9%	20.629	\$22,732
Denton County	836,181	99.9%	100.0%	99.9%	951.901	\$37,928
Dickens County	2,209	90.0%	100.0%	90.0%	2.450	\$24,171
Dimmit County	10,418	80.3%	100.0%	80.3%	7.840	\$17,939
Donley County	3,311	40.1%	100.0%	40.1%	3.572	\$23,212
Duval County	11,273	68.9%	100.0%	68.9%	6.286	\$19,085
Eastland County	18,411	92.7%	100.0%	92.7%	19.872	\$20,433
Ector County	157,087	75.6%			174.991	\$27,728
Edwards County	1,953	42.0%	99.6%	42.0%	0.922	\$28,968
El Paso County	840,407	97.8%	100.0%	97.8%	829.873	\$19,950
Ellis County	173,620	100.0%	100.0%	100.0%	185.593	\$28,612
Erath County	41,969	99.5%		99.5%		\$23,511
Falls County	17,436	42.7%	100.0%	42.7%	22.778	\$17,755
Fannin County	34,443	60.9%		60.9%	38.664	\$23,212
Fayette County	25,272	93.6%	100.0%	93.6%	26.602	\$30,405
Fisher County	3,880	8.4%		8.4%	4.316	\$27,750
Floyd County	5,855	48.7%	100.0%	48.7%	5.901	\$24,347
Foard County	1,222	99.3%	100.0%	99.3%	1.735	\$26,034

	Populati on Evaluate	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile 5 Mbps/	% of Pop. with Fixed &	Populati on	Per Capita Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Fort Bend County	764,799	89.8%	100.0%	89.8%	887.772	\$38,382
Franklin	10,766	69.3%	100.0%	69.3%	37.856	\$23,642
Freestone County	19,625	33.6%	100.0%	33.6%	22.359	\$24,060
Frio County	19,600	99.4%	100.0%	99.4%	17.292	\$16,833
Gaines County	20,638	62.3%	100.0%	62.3%	13.737	\$22,656
Galveston	335,035	93.8%	100.0%	93.8%	885.497	\$33,870
Garza County	6,528	88.7%	100.0%	88.7%	7.307	\$20,635
Gillespie	26,646	87.4%	98.8%	87.4%	25.180	\$32,557
Glasscock County	1,348	77.9%	100.0%	77.9%	1.497	\$32,885
Goliad County	7,562	94.4%	100.0%	94.4%	8.875	\$30,075
Gonzales County	20,893	99.9%	100.0%	99.9%	19.587	\$23,635
Gray County	22,404	80.7%	100.0%	80.7%	24.195	\$23,457
Grayson County	131,139	99.8%	100.0%	99.8%	140.586	\$26,535
Gregg County	123,367	91.4%	100.0%	91.4%	451.393	\$25,144
Grimes County	28,082	83.1%	100.0%	83.1%	35.662	\$23,585
Guadalupe	159,657	100.0%	100.0%	100.0%	224.458	\$29,300
Hale County	34,134	88.0%	100.0%	88.0%	33.975	\$19,205
Hall County	3,071	55.7%	100.0%	55.7%	3.476	\$20,022
Hamilton County	8,422	96.6%	100.0%	96.6%	10.075	\$26,522
Hansford	5,447	59.8%	100.0%	59.8%	5.922	\$21,989
Hardeman County	3,994	12.5%	100.0%	12.5%	5.746	\$21,517
Hardin County	57,139	77.8%	100.0%	77.8%	64.160	\$29,693
Harris County	4,652,967	94.1%	100.0%	94.1%	2,731.452	\$30,856
Harrison	66,661	77.3%	100.0%	77.3%	74.072	\$25,123
Hartley County	5,691	89.0%	100.0%	89.0%	3.893	\$20,676
Haskell	5,746	95.9%	100.0%	95.9%	6.362	\$21,120
Hays County	214,342	95.4%	100.0%	95.4%	316.149	\$29,253
Hemphill	4,024	0.0%	99.8%	0.0%	4.440	\$29,470

		% of	% of			
	Populati	Pop. with	Pop. with	% of Pop.		Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Henderson County	81,058	68.7%	100.0%	68.7%	92.770	\$24,315
Hidalgo	860,652	99.4%	100.0%	99.4%	547.884	\$15,883
Hill County	35,849	100.0%	100.0%	100.0%	37.387	\$23,342
Hockley	23,088	45.2%	100.0%	45.2%	25.416	\$22,673
Hood County	58,273	100.0%	100.0%	100.0%	138.534	\$32,578
Hopkins	36,496	60.1%	100.0%	60.1%	47.572	\$24,236
Houston County	23,021	55.9%	98.9%	55.8%	18.702	\$17,884
Howard	26.040	02.00/	100.00/	02.00/	40.000	ቀንን በበ4
Hudspeth	36,040 4,407	93.9% 29.7%	100.0% 99.3%	93.9% 29.4%	40.009 0.964	\$22,994 \$12,543
County	4,407	23.7 70	33.370	23.470	0.504	φ12,5 4 5
Hunt County	93,872	43.7%		43.7%	111.710	\$23,942
Hutchinson County	21,375	89.3%	100.0%	89.3%	24.087	\$25,154
Irion County	1,516	0.0%	99.9%	0.0%	1.442	\$32,307
Jack County	8,832	99.4%	99.9%	99.3%	9.698	\$25,553
Jackson	14,805	60.7%	100.0%	60.7%	17.850	\$26,809
Jasper County	35,561	36.0%	100.0%	36.0%	37.877	\$21,402
Jeff Davis	2,280	28.3%	90.4%	28.3%	1.007	\$25,167
Jefferson	256,296	93.7%	100.0%	93.7%	292.477	\$25,370
County	F 0.00	0.0.007	100.00/	0.0.004	4.550	+45 504
<u>Iim Hogg</u> Jim Wells	5,202 40,871	96.3% 98.6%		96.3% 98.6%	4.579 47.252	\$17,761 \$20,631
County	40,0/1	90.0%	100.0%	90.0%	47.232	\$20,031
Johnson	167,300	100.0%	100.0%	100.0%	230.857	\$26,574
Jones County	19,983	45.2%	100.0%	45.2%	21.521	\$17,960
Karnes County	15,187	100.0%		100.0%	20.316	\$27,011
Kaufman County	122,879	66.6%	100.0%	66.6%	157.396	\$26,631
Kendall	44,024	88.8%	100.0%	88.8%	66.456	\$39,517
Kenedy County	417	6.5%	100.0%	6.5%	0.286	\$13,705
Kent County	763	79.4%	100.0%	79.4%	0.845	\$27,515
Kerr County	51,720	89.9%	99.9%	89.9%	46.877	\$28,484
Kimble County	4,410	58.0%		58.0%	3.525	\$26,982
King County	296	43.9%	100.0%	43.9%	0.325	\$29,918

		% of	% of			
		Pop.	Pop.	% of		
	Populati	with	with	Pop.		Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Kinney County	3,745	77.3%		77.3%	2.754	\$21,395
Kleberg	31,088	99.6%	100.0%	99.6%	35.275	\$19,806
County						
Knox County	3,710	99.9%		99.9%	4.362	\$21,046
La Salle	7,584	74.9%		74.9%	5.101	\$26,268
Lamar County	49,587	71.1%	100.0%	71.1%	54.660	\$23,625
Lamb County	13,210	62.1%	100.0%	62.1%	13.000	\$21,760
Lampasas	21,026	99.8%	100.0%	99.8%	29.496	\$26,405
County						
Lavaca County	20,062	93.8%	100.0%	93.8%	20.689	\$29,946
Lee County	17,183	52.8%	100.0%	52.8%	27.317	\$26,740
Leon County	17,243	55.8%	97.1%	54.1%	16.068	\$27,096
Liberty County	83,656	58.5%	100.0%	58.5%	72.216	\$22,153
Limestone	23,527	24.9%	100.0%	24.9%	25.988	\$21,093
County						
Lipscomb	3,378	74.6%	100.0%	74.6%	3.624	\$29,995
Live Oak	12,174	100.0%	100.0%	100.0%	11.709	\$22,847
County						
Llano County	21,210	0.4%	100.0%	0.4%	22.708	\$35,680
Loving County	134	18.7%	100.0%	18.7%	0.200	\$35,530
Lubbock	305,225	91.0%	100.0%	91.0%	340.805	\$26,196
Lynn County	5,859	75.9%	100.0%	75.9%	6.569	\$26,758
Madison	14,222	14.5%	100.0%	14.5%	30.515	\$17,436
County	ĺ					, ,
Marion County	10,064	57.5%	100.0%	57.5%	26.423	\$25,933
Martin County	5,626	80.9%	100.0%	80.9%	6.149	\$28,560
Mason County	4,222	72.8%	99.9%	72.8%	4.546	\$24,519
Matagorda	36,840	71.5%		71.5%	33.483	\$23,294
County						
Maverick	58,216	93.3%	100.0%	93.3%	45.508	\$16,658
McCulloch	7,957	1.7%	100.0%	1.7%	7.467	\$23,398
McLennan	251,255	100.0%	100.0%	100.0%	242.267	\$24,273
County						
McMullen	778	99.7%	100.0%	99.7%	0.683	\$33,472
Medina County	50,063	74.8%	99.8%	74.6%	37.773	\$25,572
Menard	2,124	1.9%	98.0%	1.9%	2.355	\$23,613

		% of	% of			
		Pop.	Pop.	% of		_
	Populati on	with Fixed 25	with Mobile 5	Pop. with	Populati	Per Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Midland	165,049	94.0%	100.0%	94.0%	183.327	\$38,545
County						
Milam County	25,053	25.5%		25.5%	24.636	\$22,911
Mills County	4,921	60.6%	100.0%	60.6%	6.577	\$24,858
Mitchell	8,468	7.2%		7.2%	9.294	\$19,741
Montague County	19,538	95.6%	99.8%	95.6%	20.988	\$26,278
Montgomery County	570,926	99.2%	100.0%	99.2%	548.053	\$38,012
Moore County	22,097	82.3%	100.0%	82.3%	24.561	\$21,372
Morris County	12,467	65.8%	100.0%	65.8%	49.475	\$22,803
Motley County	1,230	72.8%	99.8%	72.8%	1.243	\$25,908
Nacogdoches County	65,580	81.8%	100.0%	81.8%	69.284	\$22,589
Navarro County	48,701	94.3%	100.0%	94.3%	48.237	\$22,152
Newton	13,952	23.6%	99.8%	23.6%	14.943	\$20,800
Nolan County	14,770	77.2%	100.0%	77.2%	16.195	\$23,686
Nueces County	361,221	99.9%	100.0%	99.9%	430.804	\$26,780
Ochiltree County	10,073	86.6%	100.0%	86.6%	10.977	\$24,157
Oldham	2,114	49.9%	100.0%	49.9%	1.409	\$25,461
Orange County	85,047	86.9%	100.0%	86.9%	254.885	\$27,938
Palo Pinto	28,569	100.0%	100.0%	100.0%	30.016	\$24,840
Panola County	23,243	49.1%	100.0%	49.1%	28.990	\$26,205
Parker County	133,462	100.0%	100.0%	100.0%	147.720	\$33,367
Parmer County	9,842	49.6%	100.0%	49.6%	11.174	\$21,876
Pecos County	15,634	69.7%	99.8%	69.7%	3.282	\$19,088
Polk County	49,162	43.8%	100.0%	43.8%	46.507	\$23,023
Potter County	120,458	91.5%		91.5%	132.609	\$21,941
Presidio County	7,156	15.8%	97.6%	15.7%	1.856	\$15,329
Rains County	11,762	8.6%	100.0%	8.6%	51.261	\$23,976
Randall County	134,421	95.8%	100.0%	95.8%	147.465	\$32,922
Reagan County	3,710	1.6%	99.9%	1.6%	3.157	\$25,273

		% of	% of			
		Pop.	Pop.	% of		_
	Populati on	with Fixed 25	with Mobile 5	Pop. with	Populati	Per Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Real County	3,429	65.5%	94.4%	60.4%	4.904	\$20,873
Red River	12,229	71.0%		70.8%	11.797	\$21,177
Reeves County	15,281	61.9%	100.0%	61.9%	5.798	\$18,992
Refugio	7,224	87.9%		87.9%	9.376	\$23,959
Roberts	938	62.7%	100.0%	62.7%	1.015	\$34,555
County						
Robertson	17,200	43.8%		43.8%		\$23,337
Rockwall County	96,743	94.6%	100.0%	94.6%	761.543	\$38,933
Runnels	10,266	69.5%		69.5%		\$22,190
Rusk County	52,833	58.8%	100.0%	58.8%	57.177	\$23,521
Sabine County	10,461	57.1%		57.1%	21.289	\$20,876
San Augustine County	8,253	13.3%	98.9%	13.3%	15.552	\$21,066
San Jacinto County	28,270	44.0%	100.0%	44.0%	49.662	\$22,308
San Patricio County	67,215	100.0%	100.0%	100.0%	96.928	\$24,613
San Saba	5,959	71.9%	99.9%	71.9%	5.249	\$22,481
Schleicher County	3,001	0.0%	99.2%	0.0%	2.290	\$28,112
Scurry County	17,050	76.8%	100.0%	76.8%	18.831	\$24,140
Shackelford County	3,328	39.6%	100.0%	39.6%	3.640	\$24,296
Shelby County	25,513	11.9%	99.2%	11.9%	32.068	\$20,686
Sherman County	3,067	40.1%	100.0%	40.1%	3.323	\$25,358
Smith County	227,725	90.1%	100.0%	90.1%	247.137	\$26,270
Somervell County	8,845	100.0%	100.0%	100.0%	47.436	\$27,095
Starr County	64,454	91.1%	100.0%	91.1%	52.694	\$13,167
Stephens County	9,337	99.0%	100.0%	99.0%	10.412	\$23,044
Sterling	1,295	0.0%	99.6%	0.0%	1.402	\$25,675
Stonewall County	1,388	80.0%	100.0%	80.0%	1.515	\$28,063
Sutton County	3,767	0.0%	99.6%	0.0%	2.591	\$31,603

	Donulati	% of Pop. with	% of Pop. with	% of		Per
	Populati on Evaluate d	Fixed 25 Mbps/ 3 Mbps	Mobile 5 Mbps/ 1 Mbps	Pop. with Fixed & Mobile	Populati on Density	Capita Income (\$2017)
Swisher County	7,515	78.3%	100.0%	78.3%	8.442	\$18,878
Tarrant	2,054,462	99.9%	100.0%	99.9%	2,378.928	\$30,857
Taylor County	136,290	97.0%	100.0%	97.0%	148.861	\$25,419
Terrell County	810	4.9%	96.7%	4.4%	0.344	\$21,204
Terry County	12,715	47.0%	100.0%	47.0%	14.305	\$21,938
Throckmorton County	1,527	60.0%	99.8%	60.0%	1.673	\$27,732
Titus County	32,904	65.2%	100.0%	65.2%	81.034	\$21,090
Tom Green County	118,018	87.8%	100.0%	87.8%	77.543	\$27,513
Travis County	1,226,677	99.7%	100.0%	99.7%	1,238.814	\$38,820
Trinity County	14,667	57.3%	100.0%	57.3%	21.146	\$20,369
Tyler County	21,539	36.0%	100.0%	36.0%	23.298	\$21,172
Upshur County	41,280	86.0%	100.0%	86.0%	70.813	\$24,088
Upton County	3,663	0.4%	100.0%	0.4%	2.951	\$25,290
Uvalde County	27,132	98.3%	99.8%	98.3%	17.483	\$19,146
Val Verde County	49,205	96.9%	99.8%	96.9%	15.647	\$20,160
Van Zandt	55,180	16.6%	100.0%	16.6%	65.491	\$25,394
Victoria County	92,084	98.8%	100.0%	98.8%	104.387	\$28,181
Walker County	72,245	84.9%		84.9%	92.129	\$17,194
Waller County	51,304	36.7%	100.0%	36.7%	99.924	\$23,888
Ward County	11,472	44.2%	100.0%	44.2%	13.729	\$26,860
Washington County	35,043	56.0%	100.0%	56.0%	58.023	\$28,517
Webb County	274,792	93.9%	100.0%	93.9%	81.747	\$16,316
Wharton County	41,966	61.4%	100.0%	61.4%	38.637	\$25,867
Wheeler	5,358	23.6%	100.0%	23.6%	5.859	\$25,809
Wichita County	132,000	92.9%	100.0%	92.9%	210.266	\$23,263
Wilbarger	12,764	81.5%	100.0%	81.5%	13.147	\$21,938
Willacy County	21,584	100.0%	100.0%	100.0%	36.549	\$13,369
Williamson County	547,512	92.8%	100.0%	92.8%	489.592	\$34,575

		% of	% of			
	Dl-+:	Pop.	Pop.	% of		Dom
	Populati on	with Fixed 25	with Mobile 5	Pop. with	Populati	Per Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Wilson County	49,300	100.0%	100.0%	100.0%	61.339	\$29,862
Winkler	7,574	22.7%	100.0%	22.7%		\$23,483
Wise County	66,173	100.0%	100.0%	100.0%	73.166	\$27,447
Wood County	44,314	63.2%	100.0%	63.2%		\$25,955
Yoakum	8,567	72.7%	100.0%	72.7%	10.713	\$23,681
County						
Young County	17,979	98.3%		98.3%		\$25,661
Zapata County	14,322	81.0%	100.0%	81.0%	14.345	\$17,817
Zavala County	11,948	69.9%	100.0%	69.9%		\$13,105
Utah	3,101,76 3	94.2%	99.7%	94.2%	37.748	•
Beaver County	6,386	92.2%	99.9%	92.2%	2.466	\$21,128
Box Elder	54,077	89.9%	100.0%	89.9%	9.412	\$22,808
Cache County	124,436	93.0%	100.0%	93.0%	106.829	\$21,752
Carbon County	20,295	92.6%	99.2%	92.6%	13.727	\$22,536
Daggett County	1,029	0.0%	75.8%	0.0%	1.476	\$28,533
Davis County	347,635	97.4%	100.0%	97.4%	1,163.522	\$28,293
Duchesne County	20,026	64.3%	99.6%	64.3%	6.179	\$23,323
Emery County	10,077	85.4%	98.4%	85.1%	2.258	\$21,465
Garfield County	5,078	97.6%	97.7%	96.6%		\$23,228
Grand County	9,673	51.8%	92.9%	51.8%	2.635	\$25,662
Iron County	51,001	96.5%	99.9%	96.5%	15.470	\$19,791
Juab County	11,250	86.0%	95.3%	86.0%	3.316	\$20,457
Kane County	7,567	93.9%	99.6%	93.6%	1.896	\$24,836
Millard County	12,863	52.6%	99.2%	52.6%	1.957	\$23,283
Morgan County	11,871	87.0%	95.6%	82.7%	19.486	\$30,457
Piute County	1,420	100.0%	100.0%	100.0%	1.874	\$17,455
Rich County	2,391	54.8%	99.2%	54.8%		\$19,512
Salt Lake	1,135,642	98.8%	100.0%	98.8%	1,529.934	\$30,134
San Juan County	15,356	15.9%	89.3%	15.9%		\$17,385
Sanpete	30,035	87.9%	99.6%	87.9%	18.888	\$17,426

	Populati	% of Pop. with	% of Pop. with	% of Pop.		Per
	on Evaluate d	Fixed 25 Mbps/ 3 Mbps	Mobile 5 Mbps/ 1 Mbps	with Fixed & Mobile	Populati on Density	Capita Income (\$2017)
Sevier County	21,316	86.7%	99.9%	86.7%	11.157	\$21,196
Summit	41,104	89.1%	99.5%	88.8%	21.961	\$52,671
Tooele County	67,447	83.3%	99.0%	83.3%	9.717	\$24,069
Uintah County	35,150	74.5%	95.3%	74.5%	7.847	\$25,001
Utah County	606,401	92.7%	99.8%	92.7%	302.678	\$23,207
Wasatch	32,103	82.7%	99.2%	82.4%	27.310	\$30,086
Washington County	165,647	97.5%	100.0%	97.5%	68.270	\$25,415
Wayne County	2,719	90.0%	99.8%	90.0%	1.105	\$22,195
Weber County	251,768	94.5%	100.0%	94.5%	437.033	\$25,275
Vermont	623,655	89.3%	98.6%	88.6%	67.666	•
Addison County	36,776	94.6%	99.4%	94.2%	47.990	\$31,051
Bennington County	35,594	95.1%	97.8%	94.1%	52.733	\$31,313
Caledonia County	30,164	77.1%	97.9%	76.1%	46.487	\$25,896
Chittenden	162,371	98.0%	99.8%	97.8%	302.605	\$36,384
Essex County	6,230	42.5%	94.5%	42.4%	9.388	\$23,022
Franklin	49,025	85.2%	98.1%	83.9%	77.362	\$30,624
Grand Isle County	6,997	63.1%	100.0%	63.1%	85.526	\$38,635
Lamoille	25,337	84.7%	98.4%	83.8%	55.225	\$31,390
Orange County	28,974	66.0%	96.6%	65.4%	42.173	\$29,651
Orleans	26,841	72.5%	95.4%	71.8%	38.717	\$25,392
Rutland County	59,087	98.6%	98.4%	96.9%	63.547	\$28,443
Washington County	58,290	92.5%	98.1%	91.0%	84.818	\$32,137
Windham County	42,869	77.5%	99.6%	77.5%	54.589	\$29,819
Windsor	55,100	94.1%	99.2%	93.4%	56.843	\$34,264
Virginia	8,475,16 6	91.7%	99.8%	91.5%	214.615	•
Accomack County	32,545	58.3%	100.0%	58.3%	72.403	\$24,266

		% of	% of			
	D 1	Pop.	Pop.	% of		
	Populati on	with Fixed 25	with Mobile 5	Pop. with	Populati -	Per Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Albemarle	107,700	88.9%	100.0%	88.9%	149.438	\$39,273
Alexandria city	159,968	98.2%			10,645.37	\$57,019
Alleghany	15,122	92.0%	98.0%	90.3%	33.947	\$25,952
County						
Amelia County	13,020	64.9%		64.9%		
Amherst	31,594	94.4%	99.9%	94.4%	66.663	\$24,296
County	15.070	70.50/	100.00/	70.50/	47.011	+DC D47
Appomattox County	15,678	70.5%	100.0%	70.5%	47.011	\$26,347
Arlington	234,935	98.1%	100.0%	98.1%	9,044.842	\$67,061
County	-				·	, ,
Augusta	75,144	79.6%		79.5%	77.708	\$30,088
Bath County	4,297	61.5%	90.6%	56.9%	8.120	\$28,195
Bedford	83,578	67.9%	100.0%	67.9%	109.986	\$30,633
Bland County	6,350	100.0%	98.8%	98.8%	17.751	\$23,505
Botetourt	33,192	77.4%	99.7%	77.4%	61.330	\$34,733
Bristol city	16,790	100.0%	100.0%	100.0%	1,290.248	\$21,589
Brunswick	16,244	21.9%	100.0%	21.9%	28.691	\$20,278
County						
Buchanan	21,514	100.0%		81.9%		\$19,241
Buckingham	17,065	42.0%	100.0%	42.0%	29.440	\$19,702
County						
Buena Vista	6,327	98.5%	100.0%	98.5%		\$17,969
Campbell	55,010	80.9%		80.9%		_ · · · /
Caroline County	30,458	65.6%	100.0%	65.6%	57.739	\$28,039
Carroll County	29,706	62.9%	98.8%	62.4%	62.580	\$23,690
Charles City County	7,004	100.0%	100.0%	100.0%	38.312	\$32,689
Charlotte	12,119	29.4%	94.3%	27.1%	25.499	\$19,830
Charlottesville	48,002	98.4%			4,688.423	\$32,860
city						
Chesapeake	240,387	98.0%		98.0%		\$32,123
Chesterfield County	343,587	97.3%	100.0%	97.3%	811.693	\$35,370
Clarke County	14,507	64.1%	100.0%	64.1%	82.343	\$38,658

	Populati on	% of Pop. with Fixed 25	% of Pop. with Mobile 5	% of Pop. with	Populati	Per Capita
	Evaluate d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	on Density	Income (\$2017)
Colonial Heights city	17,830	98.2%	100.0%	98.2%	2,371.069	\$27,608
Covington city	5,527	99.7%	100.0%	99.7%	1,010.698	\$22,098
Craig County	5,062	69.2%	77.9%	61.4%	15.361	\$26,753
Culpeper	51,278	97.9%	100.0%	97.9%	135.215	\$29,979
Cumberland County	9,810	19.8%	100.0%	19.8%	32.979	\$23,488
Danville city	41,130	99.2%	100.0%	99.2%	957.981	\$21,882
Dickenson	14,782	97.6%	88.9%	86.5%	44.722	\$21,082
Dinwiddie County	28,208	54.3%	100.0%	54.3%	56.000	\$25,981
Emporia city	5,282	97.1%		97.1%		\$18,548
Essex County	11,028	79.1%		79.1%		\$25,730
Fairfax County	1,148,418	97.9%			2,937.365	\$52,976
Fairfax city	24,097	97.2%	100.0%	97.2%	3,862.191	\$46,489
Falls Church	14,554	98.5%			7,281.446	\$65,510
Fauguier	69,463	97.8%	100.0%	97.8%		\$43,067
Floyd County	15,752	50.2%	99.9%	50.2%		\$25,446
Fluvanna	26,449	78.9%		78.9%		\$31,952
Franklin County	56,444	85.3%	100.0%	85.3%		\$27,282
Franklin city	8,176	100.0%	100.0%	100.0%	996.370	\$24,820
Frederick	86,480	80.2%		80.2%		\$32,554
Fredericksbur a city	28,360	93.1%			2,716.432	\$32,359
Galax city	6,625	95.6%	100.0%	95.6%		\$22,572
Giles County	16,837	97.7%	99.6%	97.4%	47.324	\$25,004
Gloucester	37,292	94.1%		94.1%	i	\$32,271
Goochland County	22,685	65.7%	100.0%	65.7%	80.610	\$47,610
Grayson	15,662	73.7%	78.0%	61.1%		\$20,525
Greene County	19,612	87.9%	99.6%	87.8%	125.520	\$30,215
Greensville	11,679	25.3%	99.9%	25.3%		\$16,835
Halifax County	34,563	51.0%	99.7%	50.9%		\$21,155
Hampton city	134,669	97.6%			2,619.337	\$27,053
Hanover	105,922	88.1%	100.0%	88.1%	226.070	\$37,924

	Populati	% of Pop. with Fixed 25	% of Pop. with Mobile 5	% of Pop. with	Donulati	Per
	on Evaluate d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	Populati on Density	Capita Income (\$2017)
Harrisonburg city	54,211	91.9%	100.0%	91.9%	3,112.341	\$20,134
Henrico County	327,898	98.2%	100.0%	98.2%	1,403.092	\$36,497
Henry County	51,227	96.8%	100.0%	96.8%	133.985	\$21,473
Highland County	2,212	0.0%	81.7%	0.0%	5.328	\$32,648
Hopewell city	22,621	98.3%	100.0%	98.3%	2,200.864	\$22,668
Isle of Wight County	36,552	85.1%	100.0%	85.1%		\$33,172
James City County	75,505	94.3%	100.0%	94.3%	530.095	\$42,047
King George County	26,337	92.6%	100.0%	92.6%	146.613	\$35,676
King William County	16,708	20.1%	100.0%	20.1%	60.991	\$31,192
King and Oueen County	7,003	17.3%	100.0%	17.3%		\$25,831
Lancaster County	10,788	72.4%	99.9%	72.3%	80.961	\$33,997
Lee County	23,758	88.3%	95.9%	86.0%	54.551	\$18,514
Lexington city	7,106	97.7%	100.0%	97.7%	2,845.929	\$16,668
Loudoun County	398,055	94.8%	100.0%	94.8%	772.081	\$50,456
Louisa County	35,858	57.9%	100.0%	57.9%	72.251	\$30,237
Lunenburg County	12,235	30.6%	100.0%	30.6%	28.343	\$18,555
Lynchburg city	80,990	93.7%	100.0%	93.7%	1,648.567	\$22,439
Madison	13,277	92.4%	99.4%	91.9%	41.402	\$29,705
Manassas Park	16,541	98.6%	100.0%		6,528.257	\$29,641
Manassas city	41,501	96.1%	100.0%	96.1%	4,200.214	\$30,572
Martinsville city	13,142	99.1%	100.0%	99.1%	1,199.495	\$22,544
Mathews County	8,779	93.5%	100.0%	93.5%	102.166	\$35,252
Mecklenburg County	30,686	46.4%	100.0%	46.4%	49.060	\$22,970

		% of	% of			
		Pop.	Pop.	% of		
	Populati	with	with	Pop.		Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	on Density	Income (\$2017)
Middless		_	_			
Middlesex County	10,679	87.4%	100.0%	87.4%	81.953	\$29,871
Montgomery County	98,558	84.9%	100.0%	84.9%	254.663	\$28,277
Nelson County	14,943	95.3%	99.8%	95.2%	31.736	\$33,597
New Kent	21,679	76.9%	100.0%	76.9%	103.367	\$36,768
Newport News	179,388	97.9%	100.0%	97.9%	2,610.657	\$26,028
Norfolk city	244,703	95.5%	100.0%	95.5%	4,521.452	\$26,670
Northampton County	11,846	67.9%	100.0%	67.9%	55.980	\$24,835
Northumberla nd County	12,274	82.8%	100.0%	82.8%	64.163	\$33,364
Norton city	3,930	96.7%	100.0%	96.7%	525.341	\$19,297
Nottoway County	15,434	55.9%	100.0%	55.9%	49.092	\$19,452
Orange County	36,064	83.3%	100.0%	83.3%	105.827	\$30,660
Page County	23,731	82.1%	100.0%	82.1%	76.341	\$24,057
Patrick County	17,665	48.2%	96.0%	45.8%	36.566	\$21,785
Petersburg city	31,750	98.1%	100.0%	98.1%	1,384.541	\$21,992
Pittsylvania County	61,258	65.9%	99.9%	65.9%	63.222	\$23,597
Poquoson city	12,053	99.1%	100.0%			\$39,305
Portsmouth city	94,572	97.8%	100.0%	97.8%	2,810.239	\$24,291
Powhatan	28,601	82.5%	100.0%	82.5%	109.910	\$33,807
Prince Edward County	22,703	66.3%	100.0%	66.3%	64.873	\$19,751
Prince George County	37,809	83.1%	100.0%	83.1%	142.592	\$27,970
Prince William County	462,957	97.1%	100.0%	97.1%	1,376.203	\$38,225
Pulaski County	34,184	87.6%				\$26,328
Radford city	17,655	99.3%				\$19,539
Rappahannock County	7,320	81.9%	96.7%	81.0%	27.495	\$38,185
Richmond	8,939	62.6%	100.0%	62.6%	46.681	\$19,728

		% of	% of			
	Danulati	Pop.	Pop.	% of		Dom
	Populati on	with Fixed 25	with Mobile 5	Pop. with	Populati	Per Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Richmond city	227,015	94.9%	100.0%	94.9%	3,795.908	\$30,113
Roanoke County	93,730	97.4%	99.8%	97.4%	374.145	\$33,717
Roanoke city	99,837	98.3%	100.0%	98.3%	2,345.703	\$24,697
Rockbridge County	22,657	61.5%	99.8%	61.5%	37.916	\$31,534
Rockingham County	80,227	82.7%	99.9%	82.7%	94.486	\$28,884
Russell County	27,048	87.9%		87.1%	57.085	\$21,673
Salem city	25,854	96.1%	100.0%	96.1%	1,790.867	\$30,141
Scott County	21,865	82.5%	98.4%	82.1%	40.829	\$20,969
Shenandoah Countv	43,225	84.6%	100.0%	84.6%	84.959	\$27,016
Smyth County	30,656	94.4%	95.9%	90.7%	67.984	\$22,319
Southampton County	17,750	47.6%	100.0%	47.6%	29.626	\$25,784
Spotsylvania County	133,032	97.5%	100.0%	97.5%	331.341	\$33,859
Stafford	146,649	99.1%		99.1%	545.253	\$39,158
Staunton city	24,523	98.1%		98.1%		\$27,571
Suffolk city	90,237	94.7%		94.7%	225.498	\$31,239
Surry County	6,540	0.0%	100.0%	0.0%	23.445	\$27,162
Sussex County	11,373	33.6%		33.6%	23.200	\$15,882
Tazewell County	41,095	98.3%	99.2%	97.5%	79.205	\$24,325
Virginia Beach	450,435	97.5%			1,808.858	\$34,607
Warren County	39,561	91.3%		91.3%		\$30,009
Washington County	54,386	99.0%	98.6%	97.7%	96.949	\$25,640
Waynesboro city	22,320	97.7%	100.0%	97.7%	1,484.142	\$23,640
Westmoreland County	17,780	90.3%		90.3%	77.515	\$32,265
Williamsburg	15,031	70.5%			1,666.031	\$26,921
Winchester city	27,929	99.1%	100.0%	99.1%	3,025.005	\$28,429
Wise County	38,586	95.2%	99.6%	94.8%	95.702	\$21,694

	Populati on Evaluate d	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
Wythe County	28,882	89.0%	99.9%	89.0%		\$24,879
York County	67,739	98.2%	100.0%	98.2%	646.487	\$38,193
Washington	7,405,56 9	97.3%	99.8%	97.1%	111.436	•
Adams County	19,498	100.0%	99.9%	99.9%	10.129	\$18,415
Asotin County	22,535	93.2%	98.8%	93.2%	35.421	\$26,878
Benton County	198,171	100.0%	100.0%	100.0%	116.545	\$30,511
Chelan County	76,532	94.0%	99.6%	93.9%	26.205	\$27,605
Clallam County	75,474	81.5%	99.7%	81.5%	43.418	\$28,857
Clark County	474,639	100.0%	100.0%	100.0%		\$32,162
Columbia County	4,047	96.5%	99.2%	96.1%	4.659	\$28,950
Cowlitz County	106,908	92.4%	99.3%	92.3%	93.769	\$25,878
Douglas County	41,942	100.0%	99.8%	99.8%	23.054	\$25,060
Ferry County	7,594	99.9%	88.0%	87.8%	3.447	\$21,951
Franklin County	92,112	100.0%	99.7%	99.7%	74.154	\$22,125
Garfield	2,210	11.9%	99.9%	11.9%		\$24,781
Grant County	95,149	100.0%	99.9%	99.9%	35.510	\$22,508
Grays Harbor County	72,695	86.3%	99.9%	86.2%	38.220	\$24,081
Island County	83,159	100.0%	100.0%	100.0%	398.942	\$33,837
<u>Jefferson</u>	31,234	84.0%	100.0%	84.0%		\$32,317
King County	2,188,610	97.4%	99.9%	97.3%	1,034.527	\$46,316
Kitsap County	266,408	97.3%	100.0%	97.3%		\$34,412
Kittitas County	46,205	100.0%	99.5%	99.5%	20.113	\$26,698
Klickitat	21,809	41.0%	93.9%	40.0%		\$25,069
Lewis County	78,192	71.1%	98.8%	70.5%	32.542	\$23,853
Lincoln County		100.0%	99.0%	99.0%		\$26,918
Mason County	63,702	88.8%	99.9%	88.8%	66.397	\$26,312
Okanogan	41,741	94.9%	95.1%	91.2%		\$22,755
Pacific County	21,626	85.7%	99.7%	85.5%	23.187	\$23,050

		% of	% of			
		Pop.	Pop.	% of		_
	Populati on	with Fixed 25	with Mobile 5	Pop. with	Populati	Per Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Pend Oreille County	13,354	100.0%	99.0%	99.0%	9.539	\$26,128
Pierce County	876,759	97.5%	100.0%	97.5%	525.160	\$31,157
San Juan	16,715	100.0%	100.0%	100.0%	96.110	\$40,784
Skagit County	125,618	100.0%	99.8%	99.8%	72.561	\$30,069
Skamania	11,835	47.2%	97.3%	45.5%	7.148	\$28,644
Snohomish County	801,607	99.4%	99.9%	99.3%	384.045	\$35,737
Spokane	506,135	100.0%	100.0%	100.0%	286.959	\$28,325
Stevens	44,730	100.0%		98.1%	18.053	\$24,707
County	000 -00		22.22/			
Thurston	280,582	97.7%				\$32,410
Wahkiakum County	4,264	20.7%	94.0%	18.9%	16.190	\$26,964
Walla Walla County	60,566	99.9%	99.9%	99.8%	47.685	\$26,651
Whatcom County	221,400	99.9%	99.5%	99.4%	105.085	\$29,186
Whitman	49,046	100.0%	99.6%	99.6%	22.716	\$22,154
Yakima County	250,187	100.0%	99.3%	99.3%	58.245	\$21,510
West Virginia	1,815,85 3	84.6%	95.1%	81.9%	75.540	•
Barbour County	16,497	100.0%	98.3%	98.3%	48.370	\$20,762
Berkeley	114,920	95.0%	100.0%	95.0%	357.848	\$27,658
Boone County	22,349	86.4%	83.5%	73.1%	44.560	\$20,992
Braxton	14,237	99.9%	95.0%	94.9%	27.871	\$20,633
Brooke County	22,443	87.4%	100.0%	87.4%	251.590	\$25,630
Cabell County	94,958	94.8%	i	94.6%	337.908	\$24,646
Calhoun County	7,307	28.9%	80.3%	25.8%	26.167	\$19,696
Clay County	8,764	24.1%	85.3%	14.5%	25.633	\$16,229
Doddridge County	8,559	70.8%	83.2%	56.4%	26.770	\$21,164
Favette County	43,521	75.9%	97.9%	74.3%	65.786	\$20,758
Gilmer County	8,005	100.0%		77.9%		\$18,207
Grant County	11,670	46.9%	97.3%	46.5%	24.446	\$21,705

	Populati on Evaluate d	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
Greenbrier County	35,287	69.4%	95.8%	69.0%	34.610	\$23,777
Hampshire	23,469	27.4%	98.4%	27.2%	36.656	\$21,771
Hancock County	29,448	94.7%	100.0%	94.7%	356.473	\$25,157
Hardy County	13,717	87.1%	92.7%	80.8%	23.556	\$23,446
Harrison County	67,811	100.0%	99.2%	99.2%	163.004	\$27,162
Jackson	28,976	65.5%	99.5%	65.5%	62.402	\$23,246
Jefferson County	56,338	98.1%	100.0%	98.1%	268.744	\$33,241
Kanawha	183,293	94.8%	99.5%	94.4%	203.300	\$28,201
Lewis County	16,226	100.0%	91.4%	91.4%	42.157	\$21,513
Lincoln County	20,825	78.0%	69.1%	57.2%	47.650	\$19,321
Logan County	32,925	71.1%	89.1%	65.0%	72.564	\$21,074
Marion County	56,337	100.0%	99.5%	99.5%	182.477	\$25,205
Marshall	31,190	79.3%	97.0%	77.4%	102.118	\$24,043
Mason County	26,801	57.0%	98.3%	56.7%	62.220	\$21,094
McDowell	18,456	83.4%	51.3%	46.0%	34.597	\$13,985
Mercer County	59,753	96.1%	99.7%	95.9%		\$21,698
Mineral County	27,222	68.4%	100.0%	68.4%	83.037	\$21,888
Mingo County	24,127	68.1%	71.0%	51.9%	57.023	\$19,272
Monongalia County	105,029	98.1%	99.2%	97.3%	291.697	\$29,285
Monroe	13,402	86.3%	91.8%	85.3%	28.349	\$22,830
Morgan County	17,686	68.9%	98.3%	68.9%	77.207	\$24,026
Nicholas	25,043	55.4%	95.0%	52.0%	38.717	\$22,101
Ohio County	42,035	94.9%	100.0%	94.9%	397.231	\$29,769
Pendleton	6,996	25.2%	52.9%	23.3%	10.051	\$23,697
Pleasants County	7,512	59.2%	93.2%	57.4%	57.739	\$24,605
Pocahontas County	8,456	42.2%	22.4%	19.4%	8.993	\$23,219

	Populati on Evaluate d	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
Preston County	33,679	57.5%	_	57.3%	51.909	\$22,540
Putnam	56,792	85.2%	99.8%	85.2%	164.296	\$30,690
Raleigh County	75,022	93.7%	96.4%	90.4%	123.931	\$23,435
Randolph	28,785	100.0%	90.6%	90.6%	27.686	\$23,642
Ritchie County	9,774	16.5%	78.7%	16.5%	21.624	\$21,533
Roane County	14,043	37.3%	90.9%	36.3%	29.041	\$20,723
Summers County	12,993	57.6%	100.0%	57.6%	36.046	\$20,142
Taylor County	16,930	86.8%	100.0%	86.8%	97.991	\$23,683
Tucker County	6,915	54.1%	95.1%	54.0%	16.507	\$22,385
Tyler County	8,795	30.9%	90.4%	30.9%	34.316	\$24,599
Upshur County	24,465	100.0%	95.1%	95.1%	68.986	\$21,279
Wayne County	40,153	81.1%	92.2%	76.4%	79.357	\$20,582
Webster County	8,372	64.3%	79.0%	59.2%	15.126	\$20,314
Wetzel County	15,437	45.5%	75.3%	44.9%	43.113	\$22,088
Wirt County	5,794	46.7%	81.8%	46.6%	24.919	\$19,747
Wood County	85,104	93.3%		93.3%	232.360	\$26,717
Wyoming County	21,210	93.2%	67.3%	64.4%	42.466	\$20,474
Wisconsin	5,795,27 6	91.3%	99.7%	91.2%	107.007	•
Adams County	19,973	57.3%	100.0%	57.3%	30.935	\$24,874
Ashland	15,500	69.9%	97.2%	69.1%	14.832	\$22,983
Barron County	45,251	68.6%	99.9%	68.6%	52.452	\$26,935
Bayfield	15,008	85.2%	96.0%	83.2%	10.155	\$28,272
Brown County	262,021	100.0%	100.0%	100.0%	494.651	\$29,874
Buffalo County	13,167	90.9%		85.7%	19.604	\$28,286
Burnett County	15,351	52.8%	100.0%	52.8%	18.679	\$26,308
Calumet	50,057	100.0%	100.0%	100.0%	157.295	\$32,713
Chippewa County	63,810	85.0%	100.0%	85.0%	63.280	\$27,020
Clark County	34,676	47.1%	99.4%	46.9%	28.662	\$23,437

	Populati on	% of Pop. with Fixed 25	% of Pop. with Mobile 5	% of Pop. with	Populati	Per Capita
	Evaluate d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	on Density	Income (\$2017)
Columbia County	57,244	65.5%	99.9%	65.5%	74.777	\$31,290
Crawford	16,214	75.6%	93.6%	72.7%	28.413	\$24,391
Dane County	536,397	96.2%	100.0%	96.2%	448.028	\$37,193
Dodge County	87,786	92.3%	100.0%	92.3%	100.255	\$27,000
Door County	27,483	68.6%	99.7%	68.6%	57.021	\$34,253
Douglas	43,284	79.6%	100.0%	79.6%	33.190	\$27,844
Dunn County	44,693	73.2%	100.0%	73.2%	52.573	\$26,354
Eau Claire	103,667	91.3%	100.0%	91.3%	162.492	\$27,780
Florence County	4,371	87.7%	93.3%	84.0%	8.953	\$28,211
Fond du Lac Countv	102,543	97.6%		97.6%	142.509	\$29,431
Forest County	8,970	54.6%	97.4%	54.1%	8.846	\$23,936
Grant County	51,999	82.4%		82.1%	45.341	\$23,753
Green County	36,851	87.0%	100.0%	87.0%	63.106	\$30,208
Green Lake County	18,759	67.3%		67.3%	53.684	\$26,372
Iowa County	23,715	76.7%	98.0%	76.3%	31.098	\$31,717
Iron County	5,671	57.8%	97.1%	56.8%	7.480	\$26,689
Jackson County	20,529	53.8%	95.8%	53.6%	20.784	\$24,740
Jefferson	84,831	92.2%		92.2%	152.444	\$28,819
Juneau County	26,576	69.8%	99.7%	69.7%	34.653	\$24,376
Kenosha	168,516	100.0%		100.0%	619.566	\$28,996
Kewaunee County	20,445	99.1%	100.0%	99.1%	59.690	\$28,767
La Crosse	118,271	96.2%	99.6%	95.9%	261.843	\$29,495
Lafayette County	16,741	68.0%	100.0%	68.0%	26.423	\$27,023
Langlade	19,160	91.9%		91.6%	22.007	\$25,142
Lincoln County	27,838	75.6%	99.6%	75.6%	31.671	\$28,603
Manitowoc	79,175	100.0%		100.0%		\$27,777
Marathon County	135,731	93.1%	99.9%	93.0%	87.853	\$30,151
Marinette	40,310	82.4%	98.7%	81.7%	28.806	\$25,778

	Populati on Evaluate	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile 5 Mbps/	% of Pop. with Fixed &	Populati on	Per Capita Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Marquette County	15,308	70.5%	99.8%	70.5%	33.600	\$26,050
Menominee County	4,615	94.4%	97.0%	91.4%	12.905	\$17,197
Milwaukee County	952,079	100.0%	100.0%	100.0%	3,943.953	\$26,933
Monroe	45,624	70.4%	98.9%	69.9%	50.650	\$26,724
Oconto County	37,553	98.6%	99.9%	98.4%	37.629	\$28,437
Oneida County	35,254	69.6%	99.7%	69.6%	31.676	\$30,550
Outagamie County	186,024	99.5%	100.0%	99.5%	291.792	\$30,858
Ozaukee	88,428	100.0%	100.0%	100.0%	379.394	\$45,820
Pepin County	7,254	96.0%	100.0%	96.0%	31.269	\$27,901
Pierce County	41,893	85.1%	100.0%	85.1%	73.016	\$31,109
Polk County	43,450	59.8%	100.0%	59.8%	47.540	\$27,993
Portage	70,474	88.2%	100.0%	88.2%	88.018	\$28,363
Price County	13,442	40.3%	94.9%	39.4%	10.716	\$27,161
Racine County	196,062	100.0%	100.0%	100.0%	589.659	\$29,582
Richland County	17,516	50.9%	96.6%	50.3%	29.883	\$24,941
Rock County	162,305	96.1%	100.0%	96.1%	226.007	\$26,954
Rusk County	14,151	48.8%	99.4%	48.8%	15.490	\$23,574
Sauk County	63,981	82.8%	99.9%	82.8%	77.002	\$28,331
Sawyer County	16,417	75.3%	97.7%	74.7%	13.057	\$29,712
Shawano County	40,935	99.4%	100.0%	99.4%	45.837	\$26,627
Sheboygan	115,344	100.0%	100.0%	100.0%	225.605	\$28,849
St. Croix	88,697	48.9%		48.9%		\$36,561
Taylor County	20,321	45.1%	96.6%	44.2%	20.845	\$26,290
Trempealeau Countv	29,472	65.2%	97.7%	64.5%	40.209	\$26,654
Vernon County	30,759	51.1%	89.4%	49.5%	38.858	\$25,314
Vilas County	21,680	44.9%		44.4%		\$29,058
Walworth County	103,082	95.7%		95.7%	185.691	\$29,192
Washburn	15,756	55.4%	100.0%	55.4%	19.766	\$28,232

		0/ o f	% of			
		% of Pop.	% 01 Pop.	% of		
	Populati	with	with	Pop.		Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate	Mbps/	Mbps/	Fixed &	on	Income
	d	3 Mbps	1 Mbps	Mobile	Density	(\$2017)
Washington	135,092	100.0%	100.0%	100.0%	313.655	\$36,177
County						
Waukesha	400,602	99.9%		99.9%		\$42,094
Waupaca County	51,225	82.0%	99.9%	82.0%	68.509	\$29,423
Waushara	24,363	42.8%	99.9%	42.8%	38.909	\$25,838
Winnebago	170,409	95.7%	100.0%	95.7%	392.207	\$29,763
County						
Wood County	73,125	84.8%		84.8%	92.200	\$29,039
Wyoming	579,313	81.3%	98.8%	80.7%	5.967	•
Albany County	38,332	95.3%	98.8%	95.2%	8.969	\$26,034
Big Horn	11,906	31.9%	98.8%	31.4%	3.795	\$23,724
Campbell	46,242	90.4%	99.7%	90.3%	9.628	\$33,200
County						
Carbon County	15,303	75.0%		74.7%		
Converse County	13,809	89.6%	99.3%	89.6%	3.245	\$31,948
Crook County	7,410	38.2%	97.2%	38.0%	2.596	\$34,186
Fremont	39,803	60.9%	94.2%	55.9%	4.334	\$27,220
County	·					, ,
Goshen County	13,378	97.8%		96.9%	6.012	\$27,253
Hot Springs	4,696	76.7%	99.1%	76.7%	2.343	\$30,939
County						
<u>Johnson</u>	8,476					
Laramie	98,327	88.4%	100.0%	88.4%	36.608	\$31,554
County	40.004	07.004	04.004	00.007	4.500	+00 =40
Lincoln County	19,264	67.2%		62.8%		
Natrona County	79,547	92.0%	99.7%	92.0%	14.895	\$31,900
Niobrara	2,397	84.9%	98.4%	84.9%	0.913	\$23,370
Park County	29,567	68.1%		68.0%	4.259	\$32,557
Platte County	8,562	72.7%	99.9%	72.7%	4.108	\$31,242
Sheridan	30,210	88.1%	99.9%	88.1%	11.969	\$31,643
County						
Sublette	9,799	18.8%	99.3%	18.8%	2.005	\$32,175

	Populati on Evaluate d	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
Sweetwater County	43,534	93.1%	99.5%	93.1%	4.175	\$31,700
Teton County	23,265	94.2%	97.6%	92.9%	5.823	\$49,200
Uinta County	20,495	65.5%	99.8%	65.5%	9.847	\$27,115
Washakie	8,064	76.2%	99.5%	76.1%	3.602	\$27,345
Weston County	6,927	34.1%	97.7%	34.1%	2.889	\$30,955
American Samoa	51,504	0.0%	0.0%	0.0%	673.643	•
Eastern District	21,365	0.0%	0.0%	0.0%	831.596	
Manu'a	1,060	0.0%	0.0%	0.0%		
Swains Island	16	0.0%	0.0%			
Western District	29,063	0.0%	0.0%	0.0%	1,056.592	
Guam	167,358	1.6%	99.6%	1.6%	797.688	•
Commonwealth of the Northern Mariana Islands	52,263	1.5%	99.6%	1.5%	286.639	•
Rota	2,451	0.2%	94.5%	0.2%	74.596	•
Saipan Municipality	46,770	1.7%	100.0%	1.7%	1,019.178	
Tinian Municipality	3,042	0.0%	98.2%		72.791	
Puerto Rico	3,337,17 7	92.3%	99.9%	92.2%	974.707	•
Adjuntas Municipio	17,971	56.2%	100.0%	56.2%	269.472	\$7,117
Aguada	38,118	99.1%	100.0%		1,235.543	\$9,001
Aguadilla Municipio	53,164	100.0%	100.0%	100.0%	1,455.407	\$10,872
Aguas Buenas Municipio	25,850	56.1%	100.0%	56.1%		\$10,615
Aibonito Municipio	23,108	77.2%	100.0%	77.2%	738.021	\$10,224

		% of	% of	0/ 6		
	Populati	Pop. with	Pop. with	% of Pop.		Per
	on	Fixed 25	Mobile 5	with	Populati	Capita
	Evaluate d	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Fixed & Mobile	on Density	Income (\$2017)
Arecibo	86,066	94.6%	99.9%	94.5%	683.352	\$9,954
Municipio						
Arroyo	17,881	97.9%			1,191.465	\$7,639
Añasco	27,059	92.0%				\$9,344
Barceloneta Municipio	24,240	99.9%	100.0%	99.9%	1,296.746	\$8,762
Barranquitas Municipio	28,511	72.4%	100.0%	72.4%	832.373	\$7,716
Bayamón Municipio	179,565	91.0%	100.0%	91.0%	4,051.193	\$14,138
Cabo Rojo Municipio	48,824	97.7%	100.0%	97.7%	693.783	\$9,523
Caguas Municipio	129,604	99.2%	100.0%	99.2%	2,211.773	\$13,904
Camuy	31,732	89.0%	100.0%	89.0%	684.546	\$9,738
Canóvanas Municipio	45,823	93.6%	100.0%	93.6%	1,394.276	\$11,094
Carolina Municipio	154,489	99.5%	100.0%	99.5%	3,408.803	\$16,188
Cataño Municipio	24,374	100.0%	100.0%	100.0%	5,031.216	\$11,627
Cavev	44,027	92.5%	100.0%	92.5%	847.744	\$12,594
Ceiba Municipio	11,602	98.4%	100.0%	98.4%	399.583	\$11,840
Ciales	16,627	87.2%	98.7%	87.0%	249.920	\$8,049
Cidra Municipio	39,813	82.4%	100.0%	82.4%	1,105.264	\$10,965
Coamo	39,071	93.0%	100.0%	93.0%	500.831	\$10,307
Comerío Municipio	19,343	67.0%	100.0%	67.0%	681.078	\$7,047
Corozal	33,694	68.6%	100.0%	68.6%	791.444	\$7,887
Culebra Municipio	1,769	0.0%	100.0%	0.0%	152.187	\$11,450
Dorado	37,026	99.0%	100.0%	99.0%	1,603.646	\$15,495
Fajardo Municipio	31,324	99.7%	100.0%	99.7%	1,048.888	\$10,900
Florida	11,775	93.8%	100.0%	93.8%	774.205	\$7,837

	Populati on Evaluate d	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
Guayama	41,281	93.6%	99.3%	93.6%	J	\$9,183
Municipio Guayanilla Municipio	18,611	84.6%	99.3%	84.6%	440.286	\$8,347
Guaynabo Municipio	87,328	87.6%	100.0%	87.6%	3,166.514	\$24,264
Gurabo Municipio	47,109	99.1%	100.0%	99.1%	1,689.254	\$16,559
Guánica Municipio	16,363	99.1%	100.0%	99.1%	441.643	\$7,207
Hatillo	40,111	95.6%	100.0%	95.6%	960.037	\$10,360
Hormigueros Municipio	16,032	100.0%	100.0%	100.0%	1,413.259	\$11,588
Humacao Municipio	52,771	99.8%	100.0%	99.8%	1,179.117	\$11,682
Isabela Municipio	41,949	94.3%	100.0%	94.3%	758.521	\$8,798
Javuva	14,625	93.5%	95.3%	91.6%	328.407	\$7,179
Juana Díaz Municipio	46,400	99.0%	100.0%	99.0%	769.777	\$10,244
Juncos	39,101	98.7%	100.0%	98.7%	1,476.138	\$9,017
Lajas Municipio	22,929	96.3%	100.0%	96.3%	382.452	\$7,229
Lares	25,772	84.6%	99.1%	83.7%	419.396	\$8,212
Las Marías Municipio	8,402	52.5%	100.0%	52.5%	181.234	\$7,154
Las Piedras Municipio	37,659	90.9%	100.0%		1,111.547	\$10,342
Loíza Municipio	25,926	100.0%	100.0%	100.0%	1,338.723	\$8,729
Luquillo Municipio	18,311	100.0%	100.0%	100.0%		\$10,434
Manatí Municipio	39,103	98.2%	100.0%	98.2%	866.488	\$10,559
Maricao	5,665	63.1%	97.7%	60.7%	154.686	\$5,943
Maunabo Municipio	10,808	91.5%	100.0%	91.5%	513.047	\$8,830

	Populati on Evaluate d	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
Mayagüez Municipio	75,525	98.9%	100.0%	98.9%	972.693	\$10,656
Moca Municipio	36,328	99.0%	99.6%	98.5%	721.600	\$7,881
Morovis	31,092	85.1%	100.0%	85.1%	799.874	\$8,816
Naguabo Municipio	26,177	99.0%	100.0%	99.0%	506.711	\$10,016
Naranjito Municipio	28,306	64.7%	100.0%	64.7%	1,033.015	\$8,996
Orocovis Municipio	21,109	60.3%	97.0%	59.4%	331.801	\$7,326
Patillas	17,004	94.8%	92.7%	87.5%	364.116	\$8,679
Peñuelas Municipio	20,447	89.5%	100.0%	89.5%	458.274	\$7,983
Ponce	140,859	98.5%	100.0%		1,227.400	\$10,775
Quebradillas Municipio	23,734	95.7%	100.0%	95.7%	1,046.351	\$9,287
Rincón	14,128	100.0%	100.0%	100.0%	988.815	\$10,220
Río Grande Municipio	50,128	97.8%	100.0%	97.8%	826.887	\$10,804
Sabana Grande	22,690	93.8%	100.0%	93.8%	633.220	\$9,158
Salinas Municipio	28,216	85.9%	100.0%	85.9%	406.775	\$8,738
San Germán Municipio	31,654	83.1%	100.0%	83.1%	580.832	\$9,563
San Juan Municipio	337,288	100.0%	100.0%	100.0%	7,049.311	\$18,160
San Lorenzo Municipio	37,379	62.1%	100.0%	62.1%	703.836	\$10,497
San Sebastián Municipio	37,306	84.6%	100.0%	84.6%	529.741	\$8,072
Santa Isabel Municipio	21,863	98.6%	100.0%	98.6%	642.589	\$10,478
Toa Alta Municipio	73,217	66.7%	100.0%	66.7%	2,710.093	\$14,162
Toa Baja Municipio	78,092	96.8%	100.0%	96.8%	3,360.125	\$12,240

	Populati on Evaluate d	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile	Populati on Density	Per Capita Income (\$2017)
Trujillo Alto Municipio	66,675	100.0%	100.0%	100.0%	3,211.062	\$15,703
Utuado	28,791	85.9%	99.1%	85.8%	253.599	\$8,140
Vega Alta Municipio	37,566	95.5%	100.0%	95.5%	1,354.797	\$10,492
Vega Baja Municipio	52,436	95.6%			1,143.490	\$10,197
Vieques Municipio	8,669	17.1%	100.0%	17.1%	170.757	\$11,136
Villalba	22,528	90.4%	99.6%	90.4%	632.158	\$10,449
Yabucoa Municipio	33,629	84.2%	100.0%	84.2%	609.060	\$8,672
Yauco	35,635	88.4%	98.8%	87.2%	522.571	\$8,124
United States Virgin Islands	107,268	100.0%	99.4%	99.4%	798.588	•
St. Croix Island	51,011	100.0%	99.3%	99.3%	612.230	•
St. John Island	4,204	100.0%	93.2%	93.2%	213.496	
St. Thomas Island	52,053	100.0%	100.0%	100.0%	1,662.460	

APPENDIX 6

Americans with Access to Fixed 25 Mbps/3 Mbps and Mobile LTE 5 Mbps/1 Mbps Services By County - Segmented by Urban and Rural Areas (Data as of December 31, 2017)

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Alabama	2,864,8 32	97.7%	100.0%	97.7%	2,009,8 46	69.7%	99.8%	69.7%
Autauga County	31,769	100.0%	100.0%	100.0%	23,735	55.4%	100.0%	55.4%
Baldwin	117,970	92.7%	100.0%	92.7%	94,658	81.4%	99.7%	81.4%
Barbour County	8,474	100.0%	100.0%	100.0%	16,796	38.4%	99.6%	38.4%
Bibb County	7,144	23.0%	100.0%	23.0%	15,524	32.2%	99.5%	32.2%
Blount County	5,777	95.9%	100.0%	95.9%	52,236	65.7%	100.0%	65.7%
Bullock County	4,716	2.1%	100.0%	2.1%	5,593	8.6%	99.7%	8.6%
Butler County	5,650	100.0%	100.0%	100.0%	14,175	69.2%	99.0%	68.5%
Calhoun	76,469	98.0%	100.0%	98.0%	38,259	81.5%	99.9%	81.5%
Chambers County	17,173	99.9%	100.0%	99.9%	16,540	63.2%	100.0%	63.2%
Cherokee	3,624	100.0%	100.0%	100.0%	22,233	98.5%	100.0%	98.5%
Chilton County	5,800	79.9%	100.0%	79.9%	38,267	63.7%	100.0%	63.7%
Choctaw				•	12,945	22.8%	99.6%	22.8%
Clarke County	5,885	99.3%	100.0%	99.3%	18,198	50.8%	97.9%	49.8%
Clay County	•	•	•	•	13,367	40.4%	99.2%	40.4%
Cleburne County	•	•	•	•	14,900	12.9%	98.3%	12.9%
Coffee County	26,793		100.0%				100.0%	
Colbert County	30,552	97.9%	100.0%	97.9%	23,948	57.3%	100.0%	57.3%
Conecuh	1,902	96.7%	100.0%	96.7%			99.8%	29.8%
Coosa County	•	•	•		10,754	76.2%	100.0%	76.2%
Covington	11,225	99.2%	100.0%	99.2%	25,867	77.8%	100.0%	77.8%
Crenshaw County	•	•		•	13,871	75.4%	99.4%	75.4%

		Urban	Areas			Rural	Areas	
State, County	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile	Pop. Evalua	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile
or County Equivalent	ted	3 Mbps	1 Mbps	LTE	ted	Mbps/ 3 Mbps	_	
Cullman	22,031	99.8%	100.0%	99.8%	60,724	69.2%	100.0%	69.2%
Dale County	23,850	100.0%	100.0%	100.0%	25,376	86.6%	100.0%	86.6%
Dallas County	21,281	99.8%	100.0%	99.8%	17,934	48.4%	99.7%	48.4%
DeKalb County	6,981	100.0%	100.0%	100.0%	64,636	97.7%	100.0%	97.7%
Elmore County	37,034	99.8%	100.0%	99.8%	44,643	86.3%	100.0%	86.3%
Escambia County	13,640	97.9%	100.0%	97.9%	23,807	60.6%	99.4%	60.6%
Etowah County	64,010	99.1%	100.0%	99.1%	38,745	89.8%	100.0%	89.8%
Fayette County	2,917	89.5%	100.0%	89.5%	13,551	26.7%	99.1%	26.7%
Franklin	9,335	99.9%	100.0%	99.9%	22,160		99.7%	48.8%
Geneva County	2,762	100.0%	100.0%	100.0%	23,659	48.7%	100.0%	48.7%
Greene County	•	•		•	8,330			0.2%
Hale County	1,499	100.0%	100.0%	100.0%	13,313	48.5%	100.0%	48.5%
Henry County	2,096			94.8%		54.2%	99.6%	
Houston County	68,584	99.5%	100.0%	99.5%	35,762	63.5%	100.0%	63.5%
Jackson	11,546						1	78.7%
Jefferson County	594,243	99.8%	100.0%	99.8%	64,954	91.1%	100.0%	91.1%
Lamar County					13,946		99.3%	34.1%
Lauderdale County	46,587	97.5%	100.0%	97.5%	45,949	59.4%	99.8%	59.3%
Lawrence	2,510							
Lee County	113,062			99.8%	48,540			
Limestone	38,645	99.6%	100.0%	99.6%	55,728		1	
Lowndes County					10,076	12.6%	100.0%	12.6%
Macon County	7,333							
Madison County	295,754	96.6%	100.0%	96.6%	65,270	94.3%	100.0%	94.3%
Marengo	5,595			0.3%				
Marion County	3,195	67.3%	100.0%	67.3%	26,638	45.9%	100.0%	45.9%
Marshall	44,454	99.6%	100.0%	99.6%	51,094	91.3%	100.0%	91.3%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Mobile County	330,516	97.1%	100.0%	97.1%	83,439	86.6%	100.0%	86.6%
Monroe County Montgomery County	4,247 202,334		100.0% 100.0%			50.8% 79.0%		50.8% 79.0%
Morgan	72,699	99.6%	100.0%	99.6%	46,119	76.6%	100.0%	76.6%
Perry County	•	•	•	•	9,339	0.0%	99.7%	0.0%
Pickens County					20,176	27.0%	99.4%	27.0%
Pike County	15,487	99.7%	100.0%	99.7%	17,780	85.3%	97.5%	83.6%
Randolph	4,119	100.0%	100.0%	100.0%	18,551	38.7%	99.2%	38.7%
Russell County	34,889	100.0%	100.0%	100.0%	22,156	72.5%	99.6%	72.5%
Shelby County	159,865	99.7%	100.0%	99.7%	53,734	81.6%	100.0%	81.6%
St. Clair	23,576	83.3%	100.0%	83.3%	64,619	76.7%	100.0%	76.7%
Sumter County					12,687	43.8%		
Talladega County	34,773	99.8%	100.0%	99.8%	45,292	58.1%	100.0%	58.1%
Tallapoosa	10,519			100.0%	30,162	88.5%	100.0%	88.5%
Tuscaloosa County	152,015	95.5%	100.0%	95.5%	55,796	81.3%	99.9%	81.3%
Walker County	16,448	99.8%	100.0%	99.8%		67.1%		
Washington County		•	•	•	16,531	30.4%	98.2%	29.8%
Wilcox County					10,719	41.6%	100.0%	
Winston County	3,478	67.5%	100.0%	67.5%	20,244	46.0%	99.8%	46.0%
Alaska	476,90 8	96.4%	97.6%	96.3%	262,60 7	51.6%	74.5%	49.7%
Aleutians East Borough		•	•	٠	3,370	0.0%	0.0%	0.0%
Aleutians West Census Area		•	•	•	5,763	0.0%		
Anchorage Municipality	281,475	99.9%	100.0%	99.9%		88.4%	96.1%	84.5%
Bethel Census Area	4,567	0.0%	0.0%	0.0%	13,509	0.0%	0.0%	0.0%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Bristol Bay Borough					867	0.0%	0.0%	0.0%
Denali			•	•	2,074	36.6%	81.6%	30.5%
Dillingham Census Area	•		•	•	4,932	0.0%	0.0%	0.0%
Fairbanks North Star	68,221	98.4%	100.0%	98.4%	·	65.6%	98.6%	65.6%
Haines Borough	•	•	•	•	2,526	92.2%	77.3%	74.0%
Hoonah- Angoon Census	•				2,145	25.1%	18.9%	17.8%
Juneau City and Borough	25,153	100.0%	100.0%	100.0%	6,941	96.7%	98.8%	96.5%
Kenai Peninsula	11,731	96.0%	100.0%	96.0%	46,886	52.7%	96.1%	50.1%
Ketchikan Gateway Borough	10,583	100.0%	99.9%	99.9%	3,273	95.6%	98.5%	94.6%
Kodiak Island Borough	9,080	100.0%	100.0%	100.0%	4,368	53.8%	79.0%	53.8%
Kusilvak Census Area					7,996	0.0%	7.5%	0.0%
Lake and Peninsula Borough	•			•	1,620	0.0%	0.0%	0.0%
Matanuska- Susitna	48,834	99.4%	100.0%	99.4%	57,698	77.3%	98.4%	76.3%
Nome Census Area	3,321	0.0%	0.0%	0.0%	6,600	0.0%	29.2%	0.0%
North Slope Borough	3,846		100.0%	0.0%	·	0.0%	56.0%	0.0%
Northwest Arctic Borough	3,251	0.0%	0.0%	0.0%	4,433	0.0%	0.0%	0.0%
Petersburg Borough					3,281	80.2%	58.9%	55.6%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Prince of Wales-Hyder Census Area					6,369	0.0%	39.7%	0.0%
Sitka City and Borough	6,846	100.0%	95.4%	95.4%	1,843	89.4%	91.3%	89.1%
Skagway Municipality			•		1,157	97.8%	80.0%	79.9%
Southeast Fairbanks Census Area	•		•	٠	6,888	36.9%	83.2%	35.6%
Valdez- Cordova Census Area					9,278	86.5%	95.0%	84.4%
Wrangell City and Borough					2,521	89.7%	70.2%	67.0%
Yakutat City and Borough			•		605	0.0%	0.0%	0.0%
Yukon- Koyukuk Census Area					5,365	0.0%	12.6%	0.0%
Arizona	6,184,1 27	93.3%	100.0%	93.3%	832,07 9	39.8%	97.1%	39.8%
Apache County	17,204	0.0%	100.0%	0.0%	54,402	0.3%	82.7%	0.3%
Cochise	78,975					28.0%		
Coconino County	92,346	79.5%	100.0%	79.5%	48,430	29.6%	98.3%	29.5%
Gila County	31,441	84.3%						
Graham County	19,997	94.6%	100.0%	94.6%	17,469	37.5%	99.5%	37.5%
Greenlee	4,547	98.0%						
La Paz County	8,846	66.0%	100.0%	66.0%	11,755	32.7%	100.0%	32.7%
Maricopa	4,123,9		100.0%		183,045	51.7%	99.9%	51.7%
Mohave County	155,541	94.4%	100.0%	94.4%	51,657	31.7%	99.1%	31.7%
Navajo County	48,230		97.7%				79.1%	23.5%
Pima County	933,544	95.2%	100.0%	95.2%	89,219	56.0%	99.8%	56.0%

		Urban	Areas			Rural	Areas	
State, County	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &
or County Equivalent	Evalua ted	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile LTE	Evalua ted	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile LTE
Pinal County	308,560	-	-		121,677	29.2%	_	
Santa Cruz County	33,252	97.0%	100.0%	97.0%	12,960	46.1%	99.8%	
Yavapai County	145,994	97.5%	100.0%	97.5%	82,173	68.3%	99.9%	68.3%
Yuma County	181,717	97.7%	100.0%	97.7%	25,817	32.3%	99.9%	32.3%
Arkansas	1,672,8 50	94.4%	100.0%	94.4%	1,331,2 66	55.9%	99.5%	55.9%
Arkansas County	11,284	2.3%	100.0%	2.3%	6,683	22.9%	100.0%	22.9%
Ashley County	9,590			74.5%				
Baxter County	13,910	99.3%	100.0%	99.3%	27,445	65.6%	99.0%	65.5%
Benton County	190,159					86.6%		
Boone County	14,043	99.3%	100.0%	99.3%	23,337	53.7%	100.0%	53.7%
Bradley County	5,474	98.2%	100.0%	98.2%	5,390	25.7%	100.0%	25.7%
Calhoun County	•	•	•	•	5,247	6.9%	100.0%	6.9%
Carroll County	7,462					100.0%		100.0%
Chicot County	4,406	96.3%	100.0%	96.3%	6,230	23.7%	100.0%	23.7%
Clark County	9,799			99.5%				
Clay County	5,771	82.9%	100.0%	82.9%	9,149	54.5%	100.0%	54.5%
Cleburne	6,036	99.9%	100.0%	99.9%	19,012	38.3%		
Cleveland County	•	•	•		8,202	83.1%	100.0%	83.1%
Columbia	9,556	97.7%	100.0%	97.7%		48.1%		
Conway County	6,168	99.9%	100.0%	99.9%	14,748	22.5%	99.6%	22.5%
Craighead	70,184	97.3%		97.3%	36,912	64.9%	100.0%	64.9%
Crawford County	29,895	98.8%	100.0%	98.8%	33,101	74.0%	99.9%	74.0%
Crittenden	37,960					17.4%		
Cross County	7,492	81.5%	100.0%	81.5%	9,371	37.5%	100.0%	37.5%
Dallas County	3,371	34.3%	100.0%	34.3%	4,022	40.5%	97.3%	40.0%
Desha County	7,675	96.5%	100.0%	96.5%	4,089	19.5%	100.0%	19.5%
Drew County	9,490	96.1%	100.0%	96.1%	9,057	38.9%	100.0%	38.9%

		Urban	Areas			Rural	Areas	
State, County	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &
or County	Evalua	Mbps/	Mbps/	Mobile	Evalua	Mbps/	Mbps/	Mobile
Equivalent	ted	3 Mbps	1 Mbps	LTE	ted	3 Mbps	1 Mbps	LTE
Faulkner County	73,837	99.6%	100.0%	99.6%	49,810	80.3%	100.0%	80.3%
Franklin	2,622	52.7%	100.0%	52.7%	15,267	16.0%	99.8%	16.0%
Fulton County	861	85.1%	100.0%	85.1%	11,194	22.2%	99.5%	22.2%
Garland	61,791	99.7%	100.0%	99.7%	36,866	92.9%	99.5%	92.9%
Grant County	4,473	49.1%	100.0%	49.1%	13,690	41.2%	100.0%	41.2%
Greene County	25,420	100.0%	100.0%	100.0%	19,628	38.0%	100.0%	38.0%
Hempstead County	9,404	78.2%	100.0%	78.2%	12,457	52.7%	100.0%	52.7%
Hot Spring	11,285	86.6%	100.0%	86.6%	22,285	40.1%	99.7%	40.1%
Howard County	4,186	0.0%	100.0%	0.0%	9,292	24.0%	99.3%	24.0%
Independence County	11,648	99.7%	100.0%	99.7%	25,853	50.4%	99.9%	50.4%
Izard County		•	•	•	13,685	44.4%	99.4%	44.4%
Jackson	5,832	97.4%	100.0%	97.4%	11,303	67.6%	99.6%	67.2%
Jefferson County	48,144	71.3%	100.0%	71.3%	20,971	22.7%	100.0%	22.7%
Johnson	6,934	98.2%	100.0%	98.2%	19,617	37.5%	98.5%	37.5%
Lafayette County		•	•	•	6,862	13.7%	100.0%	13.7%
Lawrence	6,035		100.0%					
Lee County	3,329	61.9%	100.0%	61.9%	5,847	11.5%	100.0%	11.5%
Lincoln County		•	•	•	13,646	17.2%	100.0%	17.2%
Little River County	3,668	97.6%	100.0%	97.6%	8,691	40.8%	100.0%	40.8%
Logan County	6,388		100.0%	48.7%	15,334	11.1%	100.0%	11.1%
Lonoke County	39,115	81.1%	100.0%	81.1%	33,779	72.0%	100.0%	72.0%
Madison		•	•	•	16,339	34.0%	99.7%	34.0%
Marion County		•	•		16,428	42.2%	98.9%	41.4%
Miller County	26,192				17,788		100.0%	81.2%
Mississippi County	26,136	86.8%	100.0%	86.8%	16,023	48.9%	100.0%	48.9%
Monroe County	2,260	4.1%	100.0%	4.1%	4,825	16.9%	100.0%	16.9%

		Urban	Areas			Rural	Areas	
State, County or County	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile
Equivalent Montgomery	ted	3 Mbps	1 Mbps	LTE	ted 8,917	42.9%	1 Mbps 99.2%	42.8%
County	•	•		•	3,517	12.0 70	00.270	12.070
Nevada County	2,344	88.5%	100.0%	88.5%		30.3%		30.3%
Newton County	•	•	•	•	7,828	1.0%	91.0%	1.0%
Ouachita	9,968	80.7%	100.0%	80.7%	13,900			41.0%
Perry County	•	•	•	•	10,346	65.8%	97.3%	65.1%
Phillips County	9,605	98.8%	100.0%	98.8%	8,967	68.7%	100.0%	68.7%
Pike County	•	•	•	•	10,726	42.4%	98.6%	42.3%
Poinsett	6,876	96.9%	100.0%	96.9%	17,278	49.2%	100.0%	49.2%
Polk County	5,279	99.6%	100.0%	99.6%	14,839	50.0%	99.6%	50.0%
Pope County	28,508	98.6%	100.0%	98.6%	35,327	77.7%	98.5%	77.0%
Prairie County	•	•	•	•	8,248	36.4%	100.0%	36.4%
Pulaski County	344,544	97.9%	100.0%	97.9%	49,404	89.1%	100.0%	89.1%
Randolph County	5,662	99.9%	100.0%	99.9%	11,895	45.6%	95.4%	45.3%
Saline County	73,919	99.2%	100.0%	99.2%	45,393	78.4%	100.0%	78.4%
Scott County	2,755	87.1%	100.0%	87.1%	7,681	33.9%	98.7%	33.9%
Searcy County	•	•	•	•	7,938	31.8%	93.8%	31.4%
Sebastian	100,724	99.0%	100.0%	99.0%	27,381	77.4%	100.0%	77.4%
Sevier County	5,854	98.8%	100.0%	98.8%	11,261	61.5%	100.0%	61.5%
Sharp County	3,408	100.0%	100.0%	100.0%	13,985	26.5%	98.9%	26.5%
St. Francis	11,911							16.3%
Stone County					12,537	0.7%	94.4%	0.7%
Union County	17,587	98.8%	100.0%	98.8%	21,862	51.2%	100.0%	51.2%
Van Buren County	•	•	•	•	16,506	39.0%	96.9%	39.0%
Washington County	164,298	98.7%	100.0%	98.7%	67,673	77.9%	100.0%	77.9%
White County	35,745	88.0%	100.0%	88.0%	43,271	43.5%	99.8%	43.5%
Woodruff					6,571	37.3%	100.0%	37.3%
Yell County	4,578	98.8%	100.0%	98.8%	16,945	74.9%	98.8%	74.3%
California	37,189, 761		100.0%	98.9%	2,346,6 33	67.3%	98.9%	67.1%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Alameda County	1,649,8 66	98.9%	100.0%	98.9%	13,321	92.0%	96.5%	88.5%
Alpine County Amador County	14,571	99.5%	100.0%	99.5%	1,120 24,052	9.1% 49.3%	96.1% 99.7%	7.4% 49.3%
Butte County Calaveras County	182,968 11,023		100.0% 100.0%	100.0%	34,646	86.2%	97.3% 99.3%	
Colusa County Contra Costa County	14,593 1,128,0 12	47.6% 98.8%	100.0%	98.8%	7,207 19,424	7.4% 39.0%	99.0% 99.5%	7.4% 39.0%
Del Norte El Dorado County	18,332 121,103	99.9% 99.7%	100.0% 100.0%	99.9% 99.7%		81.6% 96.5%	87.3% 99.9%	
Fresno County Glenn County	862,036 16,482	91.5%	100.0%	91.5%		90.4% 38.3%	99.8%	38.3%
Humboldt Imperial County	94,868 146,089	98.7% 97.0%	100.0% 100.0%	98.7% 97.0%		46.2% 20.6%	95.8% 99.9%	46.2% 20.6%
Inyo County Kern County	9,604 769,479	99.6%		99.6%	123,629	68.5%	99.7%	68.4%
Kings County Lake County	133,128 42,391	90.8%	100.0% 100.0%	90.8%		70.2%	100.0% 99.0%	70.2%
Lassen County Los Angeles County	10,246 10,072, 357	90.5% 99.8%	100.0% 100.0%			27.5% 57.2%	99.9% 98.8%	
Madera County Marin County Mariposa	102,740 242,908	99.3%	100.0%	100.0% 99.3%		67.6%	99.9% 99.8% 96.6%	67.6%
Mendocino County	47,804	96.4%	100.0%	96.4%	40,214	50.2%	92.1%	50.0%
Merced County Modoc County	226,962 2,550		100.0% 100.0%				99.9% 98.7%	

		Urban	Areas			Rural	Areas	
State, County or County	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile
Equivalent	ted	3 Mbps	1 Mbps	LTE	ted	3 Mbps	_	
Mono County	7,276					55.1%	i	
Monterey County	384,389	100.0%	100.0%	100.0%	53,512	90.5%	96.5%	88.0%
Napa County	121,198			97.3%		68.5%	1	
Nevada County	57,053	94.1%	100.0%	94.1%	42,761	51.2%	99.6%	51.2%
Orange County	3,180,8		100.0%	98.3%				
Placer County	322,110	98.7%	100.0%	98.7%		86.7%	99.7%	86.7%
Plumas County	4,872	31.7%	100.0%	31.7%	-			
Riverside County	2,258,5 76	98.9%	100.0%	98.9%	164,661	57.9%	99.7%	57.9%
Sacramento County	1,493,1 67	97.9%	100.0%	97.9%	·	74.4%		
San Benito County	43,060	100.0%	100.0%	100.0%	17,249	97.0%	98.7%	96.3%
San Bernardino	2,002,5 60	98.8%	100.0%		154,830	34.5%		
San Diego County	3,188,3 27	98.0%	100.0%	98.0%	149,354	87.9%		87.8%
San Francisco County	884,355	98.7%	100.0%	98.7%		50.0%		
San Joaquin County	675,783	100.0%	100.0%	100.0%	69,626	98.6%	99.9%	98.6%
San Luis Obispo County	230,528			99.5%	·	87.0%		
San Mateo County	753,787	99.4%	100.0%	99.4%	17,621	87.5%	94.9%	82.7%
Santa Barbara County	417,613		100.0%	95.4%	·	38.3%		
Santa Clara County	1,906,9 04	100.0%	100.0%	100.0%	31,218	98.5%	98.9%	97.4%
Santa Cruz Countv	239,751	100.0%	100.0%		·	99.8%	99.3%	
Shasta County	126,126	98.6%	100.0%	98.6%	53,794	19.4%	99.4%	19.4%
Sierra County	9	100.0%	100.0%	100.0%	2,990	11.2%	74.7%	11.2%

		Urban	Areas			Rural	Areas	
State, County or County	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile
Equivalent Siskiyou	ted 14,072	3 Mbps 19.5%	1 Mbps 100.0%	LTE 19.5%	ted 29,781	3 Mbps 17.1%	1 Mbps 95.4%	
County	14,072	13.570	100.070	13.570	23,701	17.170	33.470	17.170
Solano County	419,658							
Sonoma County	435,775	98.7%	100.0%	98.7%	68,442	75.2%	99.0%	75.2%
Stanislaus	501,579							95.3%
Sutter County	81,434	99.3%	100.0%	99.3%	15,214	44.5%	100.0%	44.5%
Tehama	30,629	83.6%	100.0%	83.6%			99.1%	
Trinity County		•	•	•	12,709	20.8%	85.4%	20.8%
Tulare County	385,794		100.0%		78,681	83.0%	98.9%	
Tuolumne County	27,455	99.7%	100.0%	99.7%	26,793	83.4%	98.9%	82.6%
Ventura	821,214							
Yolo County	199,149	99.7%	100.0%	99.7%	19,966	64.5%	100.0%	64.5%
Yuba County	54,610			99.3%	22,420		97.8%	
Colorado	4,737,8 35	98.4%	100.0%	98.4%	868,53 3	63.2%	98.9%	62.9%
Adams County	473,966	99.7%	100.0%	99.7%	29,093	69.7%	100.0%	69.7%
Alamosa	10,002	98.0%	100.0%	98.0%	6,543	32.7%	100.0%	32.7%
Arapahoe County	627,622	99.9%	100.0%	99.9%	15,373	58.6%	100.0%	58.6%
Archuleta	5,125	38.6%	100.0%	38.6%	8,190	33.1%	98.9%	33.1%
Baca County		•	•	•	3,562	53.9%	99.7%	53.8%
Bent County	3,604	61.3%	100.0%	61.3%	2,329	28.7%	99.9%	28.7%
Boulder County	289,358	98.2%	100.0%	98.2%	33,143	67.7%	99.9%	67.7%
Broomfield	67,253	97.3%	100.0%	97.3%	1,027	65.3%	100.0%	65.3%
Chaffee County	11,844	86.7%	100.0%	86.7%	7,794	43.0%	97.3%	40.6%
Chevenne					1,845	82.0%		
Clear Creek County		•	•	•	9,574	76.6%	100.0%	76.6%
Conejos				•	8,183	9.9%	99.2%	9.9%
Costilla County		•	•	•	3,775	59.0%	99.5%	59.0%

		Urban	Areas			Rural	Areas	
		% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed		% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed
State, County	Pop.	25	LTE 5	&	Pop.	25	LTE 5	&
or County	Evalua	Mbps/	Mbps/	Mobile	Evalua	Mbps/	Mbps/	Mobile
Equivalent	ted	3 Mbps	1 Mbps	LTE	ted		1 Mbps	
Crowley	•		•	•	5,809	66.7%		66.7%
Custer County		•	•		4,874	27.6%	99.1%	27.2%
Delta County	11,281	99.4%	100.0%	99.4%		87.6%	99.6%	87.4%
Denver County	700,657	100.0%	100.0%	100.0%	3,679	99.6%	100.0%	99.6%
Dolores County	•	•	•	•	2,067	11.1%	83.4%	10.9%
Douglas County	288,307	99.6%	100.0%	99.6%	46,977	89.2%	100.0%	89.2%
Eagle County	42,100	88.6%	100.0%	88.6%	12,670	67.0%	98.2%	67.0%
El Paso County	614,985	97.9%	100.0%	97.9%	84,210	65.9%	100.0%	65.9%
Elbert County	•	•	•	•	25,632	79.5%	100.0%	79.5%
Fremont County	33,963	93.8%	100.0%	93.8%	13,596	58.8%	97.9%	58.8%
Garfield	43,360	92.6%	100.0%	92.6%	15,758	46.2%	96.5%	46.2%
Gilpin County					6,013	38.8%	100.0%	38.8%
Grand County	2,425	99.1%	100.0%	99.1%	12,896	64.6%	99.7%	64.6%
Gunnison County	6,522	100.0%	100.0%	100.0%	10,417	83.0%	88.0%	79.4%
Hinsdale	ē	·	ē	ē	794	44.5%	3.1%	0.0%
Huerfano County	2,872	99.6%	100.0%	99.6%	3,790	21.9%	98.5%	21.9%
Iackson	ē	ē	ē	ē	1,385	77.8%	97.5%	77.8%
Jefferson County	526,279	99.9%	100.0%	99.9%	48,332	83.9%	100.0%	83.9%
Kiowa County	•	ē	•	ē	1,376	53.1%	98.6%	51.9%
Kit Carson County	2,927	100.0%	100.0%	100.0%	4,231	87.5%	100.0%	87.5%
La Plata County	21,369	92.1%	100.0%	92.1%	34,220	76.0%	100.0%	76.0%
Lake County	5,174	98.5%	100.0%	98.5%	2,604	69.4%	99.5%	69.4%
Larimer	287,669	95.5%	100.0%			48.9%	98.6%	
Las Animas County	8,518	97.0%	100.0%	97.0%	5,720	23.0%	98.7%	22.3%
Lincoln County					5,546	19.4%	100.0%	19.4%

		Urban	Areas			Rural	Areas	
State, County or County	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile
Equivalent	ted	3 Mbps	1 Mbps	LTE	ted	3 Mbps	1 Mbps	
Logan County	14,911	100.0%	100.0%		r	77.9%	100.0%	77.9%
Mesa County Mineral County	131,263	99.3%	100.0%	99.3%	20,353 701	42.7% 82.0%	96.3% 71.3%	42.6% 60.1%
Moffat County	9,340	100.0%	100.0%	100.0%	3,791	84.0%	94.2%	83.1%
Montezuma County	8,192	91.9%	100.0%	91.9%	17,948	43.1%	99.7%	43.0%
Montrose	22,482						99.1%	
Morgan County	18,764		100.0%		9,428	58.7%	100.0%	58.7%
Otero County	11,906	99.4%	100.0%	99.4%			99.5%	
Ouray County					4,794	99.9%	100.0%	99.9%
Park County		•	•		17,905	59.2%	98.5%	58.7%
Phillips County		•	•		4,291	99.8%	100.0%	99.8%
Pitkin County	9,848					76.7%	93.1%	74.3%
Prowers County	7,224	100.0%	100.0%		4,845	30.6%	100.0%	30.6%
Pueblo County	140,182	96.0%	100.0%	96.0%		63.7%	99.7%	63.7%
Rio Blanco County		•	•		6,420	70.1%	91.4%	70.1%
Rio Grande County	4,294	99.1%	100.0%	99.1%	7,007	66.6%	99.6%	66.6%
Routt County	12,795	100.0%	100.0%	100.0%	12,425	92.0%	98.7%	91.6%
Saguache					6,626	70.6%	88.4%	69.8%
San Juan County		•	•		715	39.9%	94.8%	39.6%
San Miguel County		•	•		7,967	65.6%	97.1%	
Sedgwick County		•	•		2,344	77.9%	100.0%	77.9%
Summit	22,452					72.1%	99.2%	
Teller County	8,846	98.2%	100.0%	98.2%	15,798	67.0%	100.0%	67.0%
Washington County		•	•	•	4,937	80.5%	100.0%	80.5%

		Urban	Areas			Rural	Areas	33.0% 96.6% 99.4% 99.9% 99.4% 99.5% 99.2% 99.2% 99.5% 99.2% 99.5% 94.1%	
State, County or County	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	Pop. with Fixed & Mobile	
Equivalent	ted	3 Mbps	1 Mbps	LTE	ted	3 Mbps	1 Mbps		
Weld County	224,724	94.7%	100.0%	94.7%	·				
Yuma County Connecticut	3,430 3,155,0 48		100.0% 100.0%			96.6% 99.5%	100.0% 100.0%		
Fairfield County	904,674	99.8%			,	99.9%			
Hartford Litchfield County	846,369 104,445	98.7% 99.9%	100.0% 100.0%	98.7% 99.9%		99.4% 99.6%	100.0% 100.0%	99.4% 99.5%	
Middlesex New Haven County	122,629 828,656	99.1% 99.3%	100.0% 100.0%	99.1% 99.3%	-	99.4% 99.8%			
New London County	197,919		100.0%		·				
Tolland County	92,897	95.3%	100.0%	95.3%	·	99.5%			
Windham Delaware	57,459 791,71 2	98.9% 98.5%				99.2% 93.8%			
Kent County	127,821	97.5%	100.0%	97.5%	49,002	91.9%	100.0%	91.9%	
New Castle	532,616	98.5%	100.0%	98.5%		95.9%	100.0%		
Sussex County	131,275	99.0%	100.0%	99.0%	94,011	94.1%	100.0%	94.1%	
District of Columbia	693,88 1		100.0%			•	•		
Florida	18,952, 277		100.0%		2,031,5 80	77.9%	99.8%		
Alachua County	204,881	90.0%	100.0%	90.0%	62,054	65.9%	100.0%	65.9%	
Baker County	11,280		100.0%						
Bay County	157,729	98.6%	100.0%						
Bradford Brevard County	6,932 555,461	100.0% 100.0%	100.0% 100.0%	100.0% 100.0%		100.0% 100.0%	100.0% 100.0%		
Broward	1,934,9	98.2%	100.0%	98.2%	884	19.3%	100.0%	19.3%	

		Urban	Areas			Rural	Areas	
State, County	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &	Pop. Evalua	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &
or County Equivalent	Evalua ted	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile LTE	ted	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile LTE
Calhoun County	4,666	99.8%	100.0%	99.8%	9,817	55.5%	100.0%	55.5%
Charlotte	162,936	93.2%	100.0%	93.2%	19,091	65.5%	100.0%	65.5%
Citrus County	94,603	98.8%	100.0%	98.8%	51,044	86.0%	100.0%	86.0%
Clay County	174,564	100.0%	100.0%	100.0%	37,640	100.0%	100.0%	100.0%
Collier County	329,352	98.3%	100.0%	98.3%	43,518	71.2%	100.0%	71.2%
Columbia	26,223	83.5%	100.0%					
DeSoto County	19,258	71.2%	100.0%	71.2%	17,596	62.7%	100.0%	62.7%
Dixie County	3,736					1.0%	99.7%	
Duval County	908,013	100.0%	100.0%	100.0%	29,912	100.0%	100.0%	100.0%
Escambia	285,558	98.4%	100.0%	98.4%	27,954	69.3%	100.0%	69.3%
Flagler County	94,665	99.9%	100.0%	99.9%	15,842	74.2%	100.0%	74.2%
Franklin	3,733					94.1%	99.5%	93.6%
Gadsden County	15,337	94.0%	100.0%	94.0%	30,733	86.5%	99.5%	86.0%
Gilchrist	2,758			0.0%		27.5%		27.5%
Glades County	3,866	86.2%	100.0%	86.2%	9,888	67.8%	100.0%	67.8%
Gulf County	3,661	99.9%						
Hamilton County	3,881	43.0%	100.0%	43.0%	10,303	65.6%	100.0%	65.6%
Hardee County	14,368		100.0%				100.0%	
Hendry County	24,716	93.1%	100.0%	93.1%	15,624	51.0%	100.0%	51.0%
Hernando	148,498		100.0%				100.0%	88.9%
Highlands County	79,667	92.6%	100.0%	92.6%	23,209	68.2%	100.0%	68.2%
Hillsborough County	1,352,1 13	99.9%	100.0%		·		100.0%	
Holmes County	4,002	98.0%	100.0%	98.0%	15,556	25.8%	100.0%	25.8%
Indian River County	143,604	100.0%	100.0%	100.0%	·	100.0%	100.0%	
Jackson County	11,530	82.4%	100.0%	82.4%	36,800	44.2%	99.9%	44.2%
Jefferson					14,144	28.6%	100.0%	28.6%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Lafayette County					8,451	50.8%	99.9%	50.7%
Lake County	275,471					100.0%		
Lee County Leon County	687,576 251,807	92.5% 96.5%	100.0%	92.5% 96.5%	ŕ	82.7% 88.4%	99.4%	82.1% 88.4%
Levy County	3,158		100.0%	59.4%		16.2%	99.9%	16.2%
Liberty County Madison County	3,621	99.2%	100.0%	99.2%	8,242 14,826	32.5% 53.8%	96.4% 100.0%	30.1% 53.8%
Manatee Marion County	356,812 241,575	99.6% 96.1%	100.0% 100.0%		28,746 112,767	91.3% 81.6%	100.0% 99.8%	91.3% 81.4%
Martin County Miami-Dade County	143,924 2,727,7 58	96.7%	100.0% 100.0%	100.0% 96.7%		100.0% 58.3%	100.0% 100.0%	100.0% 58.3%
Monroe County Nassau County	69,531 41,506	95.9% 94.7%	100.0% 100.0%	95.9% 94.7%	7,482 41,215	91.1% 87.8%	99.7% 100.0%	91.1% 87.8%
Okaloosa Okeechobee County	174,272 25,638	95.3% 97.1%	100.0% 100.0%	95.3% 97.1%		71.3% 55.4%	98.4% 100.0%	71.3% 55.4%
Orange County Osceola County	1,303,8 305,972	100.0% 100.0%				100.0% 100.0%	100.0% 100.0%	
Palm Beach County	1,439,9 72		100.0%	98.0%	31,171	50.2%	100.0%	50.2%
Pasco County	472,908		100.0%	99.4%	·	91.1%	100.0%	91.1%
Pinellas Polk County	967,852 584,019		100.0% 100.0%		2,774 102,418	99.5% 73.7%	100.0% 100.0%	99.5% 73.7%
Putnam Santa Rosa County	32,290 131,208		100.0% 100.0%	93.0% 98.8%		72.2% 69.7%	99.9% 97.7%	72.2% 69.7%
Sarasota Seminole County	397,745 446,164		100.0% 100.0%			75.9% 100.0%	100.0% 100.0%	

		Urban	Areas			Rural	Areas	100.0% 100.0% 86.4% 78.9% 50.3% 59.2% 100.0% 89.2% 63.5% 25.0% 77.5% 27.4% 59.2% 51.0% 91.1% 69.0% 97.2% 87.0%	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	Pop. with Fixed & Mobile	
St. Johns	177,818		100.0%	100.0%		100.0%	100.0%		
County									
St. Lucie	295,603					100.0%			
Sumter County	69,973						100.0%		
Suwannee County	7,191	93.5%	100.0%	93.5%	36,992	78.9%	100.0%	78.9%	
Taylor County	6,913	98.1%	100.0%	98.1%	14,920	50.3%	100.0%	50.3%	
Union County	4,880	31.9%	100.0%	31.9%	10,637	59.2%	100.0%	59.2%	
Volusia County	480,282	100.0%	100.0%	100.0%	58,407	100.0%	100.0%	100.0%	
Wakulla County	12,031	98.9%	100.0%	98.9%	20,089	89.3%	99.2%	89.2%	
Walton County	22,598	99.1%	100.0%	99.1%	45,774	63.5%	100.0%	63.5%	
Washington County	3,813	100.0%	100.0%	100.0%	20,754	25.0%	100.0%	25.0%	
Georgia	7,870,5 47	97.3%	100.0%	97.3%	2,558,4 40	77.6%	99.8%	77.5%	
Appling County	5,260	100.0%	100.0%	100.0%	13,261	27.4%	99.6%	27.4%	
Atkinson				·	8,342	59.2%	100.0%	59.2%	
Bacon County	3,426	100.0%	100.0%	100.0%		51.0%	99.7%		
Baker County					3,200	1.8%	100.0%	1.8%	
Baldwin County	28,867	94.5%	100.0%	94.5%	16,039	91.1%	100.0%	91.1%	
Banks County	1,141	71.6%	100.0%	71.6%	17,487	69.0%	100.0%	69.0%	
Barrow County	54,637	99.2%	100.0%	99.2%	24,423	97.2%	100.0%	97.2%	
Bartow County	67,187	99.2%	100.0%	99.2%	37,867	87.0%	100.0%	87.0%	
Ben Hill County	11,197	96.4%	100.0%	96.4%	5,799	77.5%	100.0%	77.5%	
Berrien County	4,510	98.6%	100.0%	98.6%	14,675	77.0%	100.0%	77.0%	
Bibb County	131,399	97.0%	100.0%	97.0%	21,463	96.3%	100.0%	96.3%	
DIDD Courty	101,000								
Bleckley	6,163		100.0%	49.7%	6,667	37.3%	100.0%	37.3%	
		49.7%	100.0% 100.0%	49.7% 100.0%		37.3% 99.5%	100.0% 100.0%	37.3% 99.5%	

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Bryan County	16,388		100.0%	94.0%	20,672	97.4%	100.0%	97.4%
Bulloch County		96.8%	100.0%	96.8%	39,167	99.6%	100.0%	99.6%
Burke County	5,369	99.0%		99.0%	17,153	64.1%		64.1%
Butts County	5,254	100.0%	100.0%	100.0%	18,802	71.8%	100.0%	71.8%
Calhoun County	٠	•	•	•	6,454	42.0%	100.0%	42.0%
Camden	34,922	97.0%		97.0%		89.2%		89.2%
Candler County	3,484	100.0%	100.0%	100.0%	7,313	100.0%	100.0%	100.0%
Carroll County	67,406			99.7%			100.0%	80.8%
Catoosa County	47,673	99.7%	100.0%	99.7%	18,877	97.5%	100.0%	97.5%
Charlton	5,544	64.9%		64.9%		56.0%		56.0%
Chatham County	275,929	95.8%	100.0%	95.8%	14,572	91.8%	100.0%	91.8%
Chattahoochee County	5,691	99.6%	100.0%	99.6%	4,652	5.1%	100.0%	5.1%
Chattooga County	10,405	100.0%	100.0%	100.0%	14,365	94.0%	97.8%	92.9%
Cherokee	201,856			98.5%	45,709	92.1%		92.1%
Clarke County	118,947	99.8%	100.0%	99.8%	8,105	93.2%	100.0%	93.2%
Clay County					2,962			
	282,134	98.4%	100.0%	98.4%	3,007	98.1%	100.0%	98.1%
Clinch County	2,611	81.1%		81.1%	4,116	51.6%		51.6%
Cobb County	753,757	97.9%		97.9%	1,990	95.8%		95.8%
Coffee County	14,227	96.1%		96.1%	28,785	85.8%		85.8%
Colquitt County	18,553	98.3%	100.0%	98.3%	27,279	80.4%		80.4%
Columbia	123,558			99.2%	27,989	94.1%		94.1%
Cook County	6,823	97.2%		97.2%	10,454	74.6%		74.6%
Coweta County	93,725	96.8%	100.0%	96.8%	49,382	93.4%		93.4%
Crawford County	•	•	•		12,295	92.8%	100.0%	92.8%

		Urban	Areas			Rural	Areas	
		% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed		% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed
State, County	Pop.	25	LTE 5	&	Pop.	25	LTE 5	&
or County Equivalent	Evalua ted	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile LTE	Evalua ted	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile LTE
Crisp County	11,937	99.3%	100.0%	99.3%		62.1%	_	
Dade County	4,528		100.0%	99.8%	11,757	87.4%		
Dawson County	4,623		100.0%	89.5%	19,756	77.3%		
DeKalb County	751,006			98.6%		98.0%		
Decatur County	11,607	98.6%	100.0%	98.6%	15,109	43.8%		43.8%
Dodge County	5,687	98.4%	100.0%	98.4%	15,041	50.8%	100.0%	50.8%
Dooly County	6,062	96.8%	100.0%	96.8%	7,675	41.3%	99.9%	41.3%
Dougherty County	76,703	97.1%	100.0%	97.1%	12,799	97.0%	100.0%	97.0%
Douglas	120,546			97.4%		96.7%		96.7%
Early County	3,462	52.1%	100.0%	52.1%	6,834	31.3%	99.9%	31.2%
Echols County	•	•	•	•	3,936	0.0%		0.0%
Effingham County	19,001	98.7%	100.0%	98.7%	40,981	91.3%	100.0%	91.3%
Elbert County	5,654	99.9%		99.9%		53.5%		53.5%
Emanuel County	7,359	100.0%	100.0%	100.0%	15,171	91.2%	99.6%	90.8%
Evans County	4,023	94.6%	100.0%	94.6%				
Fannin County	•	•	•	•	25,322	82.9%	97.6%	81.2%
Favette County	91,945	98.5%		98.5%	20,602	96.6%		96.6%
Floyd County	61,498	96.6%	100.0%	96.6%	36,111	90.1%	99.9%	90.1%
Forsyth County	203,752	99.1%	100.0%	99.1%	24,200	98.3%	100.0%	98.3%
Franklin County	2,497	88.6%	100.0%	88.6%	20,320	56.4%	100.0%	56.4%
Fulton County	1,027,4	96.7%	100.0%	96.7%	13,933	77.2%	100.0%	77.2%
Gilmer County	3,669	81.6%	100.0%	81.6%	27,002	81.5%	97.9%	79.6%
Glascock	•				3,062	1.0%	97.7%	1.0%
Glynn County	66,827	97.2%	100.0%	97.2%	18,455	93.2%	100.0%	93.2%
Gordon County	27,522	97.7%	100.0%	97.7%	29,567	81.0%	100.0%	81.0%
Grady County	9,209	98.6%	100.0%	98.6%	15,610	70.1%	100.0%	70.1%
Greene County	2,865	99.7%	100.0%	99.7%	14,416	60.5%	99.6%	60.3%

		Urban	Areas			Rural	Areas	
		% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed		% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed
State, County	Pop.	25	LTE 5	&	Pop.	25	LTE 5	&
or County	Evalua	Mbps/	Mbps/	Mobile	Evalua	Mbps/	Mbps/	Mobile
Equivalent	ted	3 Mbps	1 Mbps		ted	3 Mbps	1 Mbps	LTE
Gwinnett County	914,928	99.0%	100.0%	99.0%	5,323	95.8%	100.0%	95.8%
Habersham County	18,151	59.3%	100.0%	59.3%	26,415	79.4%	100.0%	79.4%
Hall County	156,572	99.5%	100.0%	99.5%	42,754	91.6%	100.0%	91.6%
Hancock	2,863	7.9%	100.0%	7.9%	5,698	8.3%	98.9%	8.3%
Haralson County	6,489	100.0%	100.0%	100.0%	22,766	100.0%	99.9%	99.9%
Harris County	1,101	99.8%	100.0%	99.8%	32,812	88.4%	100.0%	88.4%
Hart County	6,454	78.1%	100.0%	78.1%	19,339	64.5%	100.0%	64.5%
Heard County		•	•	•	11,730	58.0%	98.8%	58.0%
Henry County	193,323	99.8%	100.0%	99.8%	32,474	97.7%	100.0%	97.7%
Houston	134,768	97.5%	100.0%	97.5%	18,709	98.7%	100.0%	98.7%
Irwin County	3,014	96.1%	100.0%	96.1%	6,395	38.6%	100.0%	38.6%
Jackson	26,436	76.6%	100.0%	76.6%	41,070	82.6%	100.0%	82.6%
Jasper County	2,514	84.8%	100.0%	84.8%	11,450	55.2%	99.9%	55.2%
Jeff Davis	4,565	90.4%	100.0%	90.4%	10,457	57.9%	100.0%	57.9%
Jefferson County	2,908	0.0%	100.0%	0.0%	12,740	10.9%	100.0%	10.9%
Jenkins County	2,711	98.1%	100.0%	98.1%	6,056	35.1%	99.1%	35.1%
Johnson County	3,304	0.0%	100.0%	0.0%	6,483	45.3%	98.2%	43.5%
Jones County	9,053	97.0%	100.0%	97.0%	19,417	77.7%	99.0%	76.8%
Lamar County	7,144	97.3%	100.0%	97.3%	11,455	53.5%	100.0%	53.5%
Lanier County	2,984	94.8%	100.0%	94.8%	7,441	77.7%	100.0%	77.7%
Laurens County	20,329	98.7%	100.0%	98.7%	27,001	31.1%	99.9%	31.1%
Lee County	18,405	98.0%	100.0%	98.0%	11,063	81.4%	100.0%	81.4%
Liberty County	44,511	96.8%	100.0%	96.8%	16,875	86.3%	100.0%	86.3%
Lincoln County				•	7,880	100.0%	95.6%	95.6%
Long County	3,029	92.4%	100.0%	92.4%	15,976	80.4%	100.0%	80.4%
Lowndes	82,819	93.1%	100.0%	93.1%	32,666	77.2%	100.0%	77.2%

		Urban	Areas			Rural	Areas	% Mobile LTE 72.8% 62.4% 80.3% 61.0% 75.1% 96.5% 40.9% 11.9%		
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	Pop. with Fixed & Mobile		
Lumpkin	5,033	55.2%	100.0%	55.2%	27,832	72.9%	99.8%			
County										
Macon County	5,820		100.0%	63.5%	7,494	62.4%		62.4%		
Madison County	2,331	99.4%	100.0%	99.4%	26,969	80.3%	100.0%	80.3%		
Marion County					8,450	64.4%				
McDuffie	8,436	99.3%		99.3%	13,062	75.1%				
McIntosh County	3,670	99.7%	100.0%	99.7%	10,436	96.5%	100.0%	96.5%		
Meriwether County	3,578	99.9%	100.0%	99.9%	17,471	40.9%	100.0%	40.9%		
Miller County	•	•		•	5,838	11.9%	100.0%	11.9%		
Mitchell County	9,766	83.9%	100.0%	83.9%	12,526	45.4%	100.0%	45.4%		
Monroe County	5,286	71.8%	100.0%	71.8%	21,827	35.9%	100.0%	35.9%		
Montgomery County	118	0.0%	100.0%	0.0%	8,913	32.9%	100.0%	32.9%		
Morgan	4,087	99.8%	100.0%	99.8%	14,322	26.4%	100.0%	26.4%		
Murray County	11,905	99.8%	100.0%	99.8%	27,874	97.1%	99.9%	97.0%		
Muscogee	187,504	98.8%	100.0%	98.8%	6,554	93.2%	100.0%	93.2%		
Newton County	73,735	99.9%	100.0%	99.9%	34,340	89.9%	100.0%	89.9%		
Oconee County	18,530	99.8%	100.0%	99.8%	19,495	83.1%	100.0%	83.1%		
Oglethorpe County	113	97.3%	100.0%	97.3%	14,764	68.9%	99.6%	68.7%		
Paulding	126,212	99.2%	100.0%	99.2%	33,226	97.3%	100.0%	97.3%		
Peach County	16,363	93.3%	100.0%	93.3%	10,733	68.3%	100.0%	68.3%		
Pickens County	8,334	96.3%		96.3%	23,251	86.0%	100.0%	86.0%		
Pierce County	3,961	100.0%	100.0%	100.0%	15,346	66.2%	99.9%	66.2%		
Pike County	191		100.0%	100.0%	18,021	28.8%		28.8%		
Polk County	20,258	99.8%	100.0%	99.8%	21,827	94.2%	100.0%	94.2%		
Pulaski County	3,954	100.0%	100.0%	100.0%	7,247	57.0%	100.0%	57.0%		
Putnam County	4,124	100.0%	100.0%	100.0%	17,606	85.0%	100.0%	85.0%		

		Urban	Areas			Rural	Areas	49.1% 85.4% 64.0% 96.8% 99.4% 76.2% 100.0% 66.7% 92.6% 86.5% 256.2% 42.9% 82.3% 90.0% 70.9% 85.6% 56.0% 53.9% 75.9% 74.2% 30.3% 92.4%	
State County	Don	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &	Don	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	Pop. with Fixed	
State, County or County	Pop. Evalua	Mbps/	Mbps/	Mobile	Pop. Evalua	Mbps/	Mbps/		
Equivalent	ted	_	1 Mbps		ted		1 Mbps		
Quitman	638	100.0%	100.0%	100.0%	1,720	49.4%	99.3%	49.1%	
Rabun County	3,367	95.9%	100.0%	95.9%	13,234	85.4%	100.0%	85.4%	
Randolph	3,214	98.3%	100.0%	98.3%	3,861	64.0%	99.0%	64.0%	
Richmond County	182,904	95.9%	100.0%	95.9%	18,895	96.8%	100.0%	96.8%	
Rockdale	76,564	98.1%	100.0%	98.1%	13,745		100.0%		
Schley County	•	•		•	5,213	76.2%	100.0%	76.2%	
Screven	2,897	92.8%			11,056	100.0%			
Seminole County	2,578	92.7%	100.0%	92.7%	5,714	66.7%	100.0%	66.7%	
Spalding	37,945		100.0%				100.0%		
Stephens County	10,573	94.5%	100.0%	94.5%	15,317	86.5%	100.0%	86.5%	
Stewart County		•	•		5,984	56.2%			
Sumter County	16,785	96.5%	100.0%	96.5%	13,062	42.9%	100.0%	42.9%	
Talbot County	377	97.3%	100.0%	97.3%	5,872	82.3%	100.0%		
Taliaferro County					1,628	91.1%	98.9%	90.0%	
<u>Tattnall</u>	7,921	70.6%	100.0%	70.6%		70.9%			
Taylor County	•	•	•	•	8,142	85.9%	99.6%		
Telfair County	8,086		100.0%			56.0%			
Terrell County	4,241	96.4%			ŕ				
Thomas	23,938		100.0%			75.9%			
Tift County	23,505		100.0%			74.2%			
Toombs	13,190	58.7%	100.0%	58.7%	13,809	30.3%			
Towns County		10.004	100.004	10.007	11,505	92.7%	l		
Treutlen Troup County	2,616 38,604		100.0% 100.0%			8.3% 81.4%			
Turner County Twiggs County	3,719	99.3%	100.0%	99.3%	4,242 8,174	49.2% 37.3%		49.2% 37.3%	
	•	•	•	•	23,459	92.1%	 	91.9%	
Union County Upson County	13,444	100.0%	100.0%	100.0%	12,691	92.1% 84.4%		84.4%	
	·								
Walker County	38,350	99.0%	100.0%	99.0%	30,587	91.0%	99.6%	90.6%	

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Walton County	51,712	89.2%	100.0%	89.2%	39,885	89.8%	100.0%	89.8%
Ware County	25,321	93.1%	100.0%	93.1%	10,550	57.2%	99.8%	57.2%
Warren County		•	•	•	5,303	0.1%	99.7%	0.1%
Washington County	6,893	100.0%	100.0%	100.0%	13,420	50.3%		49.9%
Wayne County	12,290	82.7%	100.0%	82.7%	17,527	76.9%	100.0%	76.9%
Webster					2,605	43.4%	99.3%	43.4%
Wheeler County		•	•	•	7,952	43.3%	100.0%	43.3%
White County	4,588	85.9%		85.9%	24,863			82.2%
Whitfield County	74,138	100.0%	100.0%	100.0%	30,520	100.0%	100.0%	100.0%
Wilcox County					8,800	60.1%		60.1%
Wilkes County	3,130	100.0%	100.0%	100.0%	6,762	100.0%	98.9%	98.9%
Wilkinson					8,959	54.9%		54.9%
Worth County	6,368			96.9%	14,165	57.8%		57.7%
Hawaii	1,295,6 12	98.6%	100.0%	98.6%	131,92 6	71.5%	99.2%	71.2%
Hawaii County	119,205	95.4%	100.0%	95.4%	81,176	74.4%	99.5%	74.0%
Honolulu	977,538	99.1%	100.0%	99.1%	11,112	78.5%	100.0%	78.5%
Kalawao County		•	•	•	88	5.7%	87.5%	5.7%
Kauai County	61,310		100.0%	96.4%				62.2%
Maui County	137,559	99.3%	100.0%	99.3%	28,701	64.4%	98.2%	63.9%
Idaho	1,186,0 61	97.3%	100.0%	97.3%	530,73 1	58.6%	97.6%	57.9%
Ada County	422,533	99.3%	100.0%	99.3%	34,279	67.8%	99.9%	67.8%
Adams County					4,145	34.5%	96.2%	34.5%
Bannock County	70,533	97.0%	100.0%	97.0%	14,732	56.8%	99.7%	56.8%
Bear Lake					6,028			80.7%
Benewah County	2,541	0.0%	100.0%	0.0%	6,643	37.7%	78.9%	36.5%

		Urban	Areas			Rural	Areas	
		% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed		% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed
State, County	Pop.	25	LTE 5	&	Pop.	25	LTE 5	&
or County	Evalua	Mbps/	Mbps/	Mobile	Evalua	Mbps/	Mbps/	Mobile
Equivalent	ted	_	1 Mbps	LTE	ted		1 Mbps	
Bingham Blaine County	19,518 14,513	98.6% 91.3%	100.0% 100.0%	98.6% 91.3%	26,403 7,511	57.5% 63.6%	99.8% 94.4%	57.5% 59.2%
	14,515	91.570	100.076	91.570				
Boise County	11,424	100.0%	100.0%	100.0%	7,290	29.3% 98.6%	71.3% 99.5%	22.7%
Bonner County	·				32,133			98.1%
Bonneville	94,885			98.4%		50.9% 93.0%	97.4%	49.2% 87.7%
Boundary County	2,744	100.0%	100.0%	100.0%	9,178	93.0%	93.4%	87.7%
Butte County	•	•	•	•	2,599	46.8%	98.0%	46.0%
Camas County	•	•	•	•	1,102	0.0%	98.6%	0.0%
Canyon County	164,780	97.5%	100.0%	97.5%	51,888	69.9%	100.0%	69.9%
Caribou County	2,604	99.8%	100.0%	99.8%	4,430	51.6%	96.5%	49.9%
Cassia County	11,186	98.7%	100.0%	98.7%	12,476	55.3%	99.8%	55.3%
Clark County		•	•	•	873	93.0%	98.5%	93.0%
Clearwater	3,526	0.0%	100.0%	0.0%	5,020	0.0%	84.6%	0.0%
Custer County		•	•	•	4,172	59.4%	86.9%	50.1%
Elmore County	18,616	91.5%	100.0%	91.5%	8,206	46.1%	98.7%	46.1%
Franklin County	4,375	96.6%	100.0%	96.6%	9,188	38.2%	97.7%	37.3%
Fremont	3,594	94.0%	100.0%	94.0%	9,499	24.9%	99.9%	24.9%
Gem County	9,273	98.8%	100.0%	98.8%	8,104	65.4%	99.8%	65.4%
Gooding	6,309	97.5%	100.0%	97.5%	8,815	24.0%	100.0%	24.0%
Idaho County	3,172	0.0%	100.0%	0.0%	13,197	1.1%	92.5%	1.1%
Jefferson	8,970	95.6%	100.0%	95.6%	19,460	50.3%	100.0%	50.3%
Jerome County	11,019	97.9%	100.0%	97.9%	12,600	35.0%	100.0%	35.0%
Kootenai	113,941	100.0%	100.0%	100.0%	43,691	96.6%	99.0%	96.2%
Latah County	24,287	100.0%	100.0%	100.0%	15,046	47.1%	88.5%	41.4%
Lemhi County	2,552	65.1%	100.0%	65.1%	5,323	20.6%	90.8%	20.3%
Lewis County	•	•	•	•	3,887	21.5%	99.8%	21.5%
Lincoln County				•	5,317	32.6%	100.0%	32.6%
Madison County	26,973	94.5%	100.0%	94.5%	12,167	47.2%	100.0%	47.2%
Minidoka	11,245	95.5%	100.0%	95.5%	9,484	25.4%	100.0%	25.4%

		Urban	Areas			Rural	Areas	
		% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed		% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed
State, County	Pop.	25	LTE 5	&	Pop.	25	LTE 5	&
or County	Evalua ted	Mbps/	Mbps/	Mobile LTE	Evalua ted	Mbps/	Mbps/ 1 Mbps	Mobile
Equivalent		3 Mbps	1 Mbps			3 Mbps		
Nez Perce County	32,192	99.5%	100.0%	99.5%	8,191	24.8%	93.6%	23.8%
Oneida County		•			4,427	81.6%	99.7%	81.3%
Owyhee County	2,579	98.5%	100.0%	98.5%	9,049	31.9%	98.7%	31.9%
Payette County	12,972	97.9%		97.9%		73.6%		
Power County	4,325	97.5%	100.0%	97.5%	3,275	59.2%	100.0%	59.2%
Shoshone	5,504	53.8%	100.0%	53.8%	7,038		92.0%	58.8%
Teton County	•	•	•	•	11,381	84.7%	100.0%	84.7%
Twin Falls	58,038	97.6%	100.0%	97.6%		51.8%	99.7%	
Valley County	•	•		•	10,687	71.0%	99.4%	71.0%
Washington County	5,338	98.8%	100.0%	98.8%	4,783	44.9%	99.8%	44.8%
Illinois	11,328, 965	99.0%	100.0%	99.0%	1,472,8 73	61.1%	99.9%	61.1%
Adams County	44,503	99.7%	100.0%	99.7%	21,731	64.8%	99.9%	64.8%
Alexander	2,535	0.6%	100.0%	0.6%	3,780	0.0%	99.1%	0.0%
Bond County	6,193	96.5%	100.0%	96.5%	10,753	11.3%	100.0%	11.3%
Boone County	43,022	99.7%	100.0%	99.7%	10,491	82.5%	100.0%	82.5%
Brown County	3,943	48.9%	100.0%	48.9%	2,773	43.9%	99.1%	43.7%
Bureau County	13,663	98.0%	100.0%	98.0%	19,580	48.7%	100.0%	48.7%
Calhoun County				•	4,833	0.6%	95.6%	0.6%
Carroll County	2,469	98.9%	100.0%	98.9%	12,049	69.9%	100.0%	69.9%
Cass County	6,198	96.1%	100.0%	96.1%	6,307	60.6%	99.9%	60.6%
Champaign County	180,377	98.4%	100.0%	98.4%	29,012	52.5%	100.0%	52.5%
Christian County	18,177	98.9%	100.0%	98.9%	14,925	68.7%	100.0%	68.7%
Clark County	6,289		100.0%	97.9%		52.6%	99.9%	52.6%
Clay County	4,524	100.0%	100.0%	100.0%	8,745	78.9%	100.0%	78.9%
Clinton County	19,139	99.9%	100.0%	99.9%	18,475	43.0%	100.0%	43.0%
Coles County	38,953	94.2%	100.0%	94.2%	13,026	52.3%	100.0%	52.3%
Cook County	5,208,7	99.3%	100.0%	99.3%	2,502	95.9%	100.0%	95.9%

		Urban	Areas			Rural	Areas	
State, County or County	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile
Equivalent	ted	3 Mbps	1 Mbps		ted	3 Mbps	1 Mbps	LTE
Crawford County	7,227	99.3%	100.0%	99.3%	11,734	46.4%	100.0%	46.4%
Cumberland County	•	•	•	•	10,907	44.0%		
De Witt County	8,024	95.6%	100.0%					
DeKalb County	83,000	99.7%	100.0%	99.7%	21,731	86.9%	100.0%	86.9%
Douglas County	7,486	97.0%	100.0%	97.0%	12,261	61.0%	100.0%	61.0%
DuPage County		99.6%			534	66.9%		
Edgar County	8,312	98.7%	100.0%	98.7%	9,016	78.7%	100.0%	78.7%
Edwards	•	•	•	•	6,486	67.4%	100.0%	67.4%
Effingham County	13,592	98.8%	100.0%	98.8%	20,540	45.2%	100.0%	45.2%
Fayette County	6,913	80.8%	100.0%	80.8%	14,871	36.7%	100.0%	36.7%
Ford County	7,436	98.8%	100.0%	98.8%	5,844	20.8%	100.0%	20.8%
Franklin	19,788	95.9%	100.0%	95.9%	19,251	59.3%	100.0%	59.3%
Fulton County	13,096	89.3%	100.0%	89.3%	22,014	53.7%	100.0%	53.7%
Gallatin				•	5,080	67.1%	100.0%	67.1%
Greene County	3,762	97.7%	100.0%	97.7%	9,411	35.8%	99.7%	35.8%
Grundy County	38,148	100.0%	100.0%	100.0%	12,429	100.0%	100.0%	100.0%
Hamilton County	2,439	99.3%	100.0%	99.3%	5,750	43.5%	100.0%	43.5%
Hancock	4,886	95.0%	100.0%	95.0%	13,134	64.6%	100.0%	64.6%
Hardin County	•	•	•	•	4,046	100.0%	97.3%	97.3%
Henderson	26	0.0%	100.0%	0.0%	6,769	40.9%	99.6%	40.6%
Henry County	24,506	98.9%	100.0%	98.9%	24,822	74.3%	100.0%	74.3%
Iroquois	7,747	61.5%	100.0%	61.5%	20,129	40.4%	100.0%	40.4%
Jackson County	35,481	90.9%	100.0%	90.9%	22,803	90.8%	99.7%	90.8%
Jasper County	2,468	98.3%	100.0%	98.3%	7,110	7.1%	100.0%	7.1%
Jefferson County	15,355	100.0%	100.0%	100.0%	22,824	30.6%	100.0%	30.6%
Jersey County	8,912	98.9%	100.0%	98.9%	13,029	21.8%	98.1%	21.8%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Jo Daviess County	5,734	98.6%	100.0%	98.6%	15,860	65.1%	100.0%	65.1%
Johnson Kane County	514,055	99.1%	100.0%	99.1%	12,900 20,588	13.3% 91.1%	99.9% 100.0%	13.2% 91.1%
Kankakee Kendall County	81,802 109,575	98.9% 99.5%	100.0% 100.0%	98.9% 99.5%		83.2% 93.9%	100.0% 100.0%	83.2% 93.9%
Knox County LaSalle County	37,738 77,163	99.8%		99.7% 99.8%	32,904		100.0%	
Lake County Lawrence County	694,437 6,711	94.4%	100.0%	94.4%	•	99.3% 27.4%	100.0%	99.3%
Lee County Livingston	15,526 20,638	88.6% 98.0%	100.0% 100.0%	88.6% 98.0%		45.6% 60.5%		45.6% 60.5%
County Logan County	17,158 88,902			97.2%		51.7% 52.8%	100.0%	
Macon County Macoupin County	18,789	99.5% 98.4%	100.0% 100.0%	99.5% 98.4%	16,899 26,657	54.5%		52.8% 54.5%
Madison Marion County	229,530 20,267	99.9% 99.9%	100.0% 100.0%	99.9% 99.9%	35,898 17,635	83.7% 45.1%	100.0% 100.0%	83.7% 45.1%
Marshall Mason County	2,996	99.4%	100.0%	99.4%	11,730 10,718	66.1% 55.1%		66.1% 55.1%
Massac County McDonough County	7,146 21,180			96.8% 98.7%				
McHenry McLean County	277,920 141,673	100.0% 96.3%	100.0% 100.0%	100.0% 96.3%		98.4% 56.6%	100.0% 100.0%	
Menard County Mercer County	2,927 3,540		100.0%	96.1%	•			
Monroe County	19,769 16,574	100.0%			14,328	80.8%	99.6%	
Montgomery County	10,3/4	91.0%	100.0%	91.0%	12,210	30.5%	99.9%	30.3%

		Urban	Areas			Rural	Areas	
		% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed		% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed
State, County	Pop.	25	LTE 5	&	Pop.	25	LTE 5	&
or County	Evalua	Mbps/	Mbps/	Mobile	Evalua	Mbps/	Mbps/	Mobile
Equivalent	ted	3 Mbps	1 Mbps	LTE	ted	3 Mbps	1 Mbps	
Morgan County	20,848	96.7%	100.0%	96.7%	12,950	24.1%	100.0%	24.1%
Moultrie	4,460	98.6%	100.0%	98.6%	10,228	56.0%	100.0%	56.0%
Ogle County	26,413	97.6%	100.0%	97.6%	24,650	55.8%	100.0%	55.8%
Peoria County	155,060	99.0%	100.0%	99.0%	27,951	69.0%	100.0%	69.0%
Perry County	11,945	98.4%	100.0%	98.4%	9,340	62.1%	100.0%	62.1%
Piatt County	5,191	98.1%	100.0%	98.1%	11,254	61.3%		
Pike County	4,121	99.3%	100.0%	99.3%	11,700	28.7%	100.0%	28.7%
Pope County	•	•	•	•	4,325	77.4%	100.0%	77.4%
Pulaski County	•	•	•	•	5,509	28.8%	100.0%	28.8%
Putnam	•	•	•	•	5,726	54.8%	100.0%	54.8%
Randolph County	18,101	97.9%	100.0%	97.9%	14,322	69.3%	100.0%	69.3%
Richland	8,873	99.5%	100.0%	99.5%	7,028	45.3%	100.0%	45.3%
Rock Island County	128,621	98.6%	100.0%	98.6%	16,186	81.0%	100.0%	81.0%
Saline County	13,465	96.9%	100.0%	96.9%	10,637	46.9%	100.0%	46.9%
Sangamon	168,116	94.8%	100.0%	94.8%	28,336	65.7%	100.0%	65.7%
Schuyler County	3,031	99.7%	100.0%	99.7%	4,003	19.7%	98.5%	18.9%
Scott County					5,002	50.4%	100.0%	50.4%
Shelby County	4,631	97.8%	100.0%	97.8%	17,088	36.9%	100.0%	36.9%
St. Clair	236,128	99.8%	100.0%	99.8%	26,351	88.3%	100.0%	88.3%
Stark County				•	5,434		100.0%	
Stephenson County	26,204	99.2%	100.0%	99.2%	18,850	56.8%	100.0%	56.8%
Tazewell	105,576		100.0%	97.6%				
Union County	5,630	93.2%	100.0%	93.2%	11,370	36.7%	100.0%	36.7%
Vermilion	52,539		100.0%	96.9%	25,370	68.2%		
Wabash County	6,864	98.1%	100.0%	98.1%	4,625	18.3%	100.0%	18.3%
Warren County	8,912	98.9%	100.0%	98.9%	8,255	37.8%	100.0%	37.8%

		Urban	Areas			Rural	Areas	34.7% 71.5% 50.8% 58.8% 96.5% 60.6% 66.1% 72.1% 67.4% 87.8% 71.7% 71.8% 17.4% 69.6% 48.5% 74.7% 54.1% 65.5%	
State, County or County	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	Pop. with Fixed &	
Equivalent	ted	3 Mbps	1 Mbps		ted		1 Mbps		
Washington County	3,510	84.3%	100.0%	84.3%	10,520	34.7%	100.0%	34.7%	
Wayne County	4,875	99.6%		99.6%	11,620			71.5%	
White County	5,072	98.0%	100.0%	98.0%	8,866	50.8%	100.0%	50.8%	
Whiteside	35,084	97.3%	100.0%	97.3%	21,034			58.8%	
Will County	664,141	99.8%	100.0%	99.8%	28,473	96.5%	100.0%	96.5%	
Williamson County	43,708	96.9%	100.0%	96.9%	23,620	60.6%	100.0%	60.6%	
Winnebago County	261,990	99.1%	100.0%	99.1%	22,788	66.1%	100.0%	66.1%	
Woodford	17,185		100.0%	97.7%			100.0%	72.1%	
Indiana	4,825,6 43	98.5%	100.0%	98.5%	1,840,8 35	67.4%	100.0%	67.4%	
Adams County	16,263	99.9%	100.0%	99.9%	19,222	87.8%	100.0%	87.8%	
Allen County	327,376	99.3%	100.0%	99.3%	45,479	71.7%	100.0%	71.7%	
Bartholomew County	53,233	97.3%	100.0%	97.3%	28,803	71.8%	100.0%	71.8%	
Benton County		•	•	•	8,613	17.4%	100.0%	17.4%	
Blackford County	5,607	99.1%	100.0%	99.1%	6,369	69.6%	100.0%	69.6%	
Boone County	40,450	99.7%	100.0%	99.7%	25,415		100.0%		
Brown County		•	•	•	15,035	74.7%	100.0%	74.7%	
Carroll County	3,722	99.7%	100.0%	99.7%	16,317	54.1%	100.0%	54.1%	
Cass County	20,750	98.9%	100.0%	98.9%	17,243	65.5%	100.0%	65.5%	
Clark County	91,105	100.0%		100.0%	25,860	76.6%		76.6%	
Clay County	10,080	98.9%	100.0%	98.9%	16,118	61.5%	100.0%	61.5%	
Clinton County	16,012	98.3%	100.0%	98.3%	16,305	42.0%		42.0%	
Crawford County					10,566	0.1%	99.5%	0.1%	
Daviess County	12,890	98.8%	100.0%	98.8%	20,223	41.0%	100.0%	41.0%	
DeKalb County	24,594	97.5%	100.0%	97.5%	18,238	58.0%	100.0%	58.0%	
Dearborn County	23,137	97.8%	100.0%	97.8%	26,604	87.7%	99.9%	87.7%	

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Decatur	12,110	99.2%	100.0%	99.2%	14,622	32.2%	100.0%	32.2%
Delaware	88,291	98.5%	100.0%	98.5%	26,893	71.1%	100.0%	71.1%
Dubois County	21,352	99.4%	100.0%	99.4%	21,206	39.2%	100.0%	39.2%
Elkhart County	162,415	95.7%	100.0%	95.7%	42,609	90.6%	100.0%	90.6%
Fayette County	14,466	98.7%	100.0%	98.7%	8,743	40.0%	100.0%	40.0%
Floyd County	61,279	100.0%	100.0%	100.0%	15,791	89.1%	100.0%	89.1%
Fountain County	5,377	99.3%	100.0%	99.3%	11,128	62.9%	100.0%	62.9%
Franklin	2,479	64.3%	100.0%	64.3%	20,140	34.1%	100.0%	34.1%
Fulton County	6,611	100.0%	100.0%	100.0%	13,448	100.0%	100.0%	100.0%
Gibson County	15,487	99.5%	100.0%	99.5%	18,089	47.2%	100.0%	47.2%
Grant County	46,357	96.0%	100.0%	96.0%	20,134	47.9%	100.0%	47.9%
Greene County	8,191	99.5%	100.0%	99.5%	23,986	71.9%	100.0%	71.9%
Hamilton County	299,722	98.8%	100.0%	98.8%	23,955	55.2%	100.0%	55.2%
Hancock	51,705	99.6%	100.0%	99.6%	23,250	97.5%	100.0%	97.5%
Harrison County	5,615	99.2%	100.0%	99.2%	34,283	76.5%	100.0%	76.5%
Hendricks	132,414	97.3%	100.0%	97.3%	31,238		100.0%	82.5%
Henry County	27,327	99.9%	100.0%	99.9%	21,149	82.0%	100.0%	82.0%
Howard County	64,531	97.6%	100.0%	97.6%	17,832	69.2%	100.0%	69.2%
Huntington County	17,662	100.0%	100.0%	100.0%	18,675	57.1%	100.0%	57.1%
Jackson	24,359	99.7%	100.0%	99.7%	19,525	48.0%	100.0%	48.0%
Jasper County	10,660	99.6%	100.0%	99.6%	22,784	73.0%	100.0%	73.0%
Jay County	9,059	99.9%	100.0%	99.9%	11,886	68.6%	100.0%	68.6%
Jefferson County	17,351	99.9%	100.0%	99.9%	14,738	31.4%	100.0%	31.4%
<u>Jennings</u>	10,582	99.6%	100.0%	99.6%	17,044	44.0%		
Johnson County	128,646	99.0%	100.0%	99.0%	25,238	74.6%	100.0%	74.6%
Knox County	23,539	99.9%	100.0%	99.9%	13,969	62.8%	100.0%	62.8%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Kosciusko County	42,046	99.5%	100.0%	99.5%	37,160	97.1%	100.0%	97.1%
LaGrange	3,272	93.1%	100.0%	93.1%	36,029	44.9%	100.0%	44.9%
LaPorte	70,079	99.7%	100.0%	99.7%	39,950	99.6%	100.0%	99.6%
Lake County	465,561	99.6%	100.0%	99.6%	20,079	99.6%	100.0%	99.6%
Lawrence County	19,108	99.7%	100.0%	99.7%	26,558	63.8%	100.0%	63.8%
Madison	98,924	96.6%	100.0%	96.6%	30,574	63.6%	100.0%	63.6%
Marion County	944,071	98.3%	100.0%	98.3%	5,958	97.5%	100.0%	97.5%
Marshall	16,917	100.0%	100.0%	100.0%	29,581	100.0%	100.0%	100.0%
Martin County	2,670	99.7%	100.0%	99.7%	7,545	45.2%	100.0%	45.2%
Miami County	18,997	83.0%	100.0%	83.0%	16,848	61.4%	100.0%	61.4%
Monroe County		93.2%	100.0%	93.2%	32,451	96.8%		
Montgomery County	17,919	98.8%	100.0%	98.8%	20,601	29.5%	100.0%	29.5%
Morgan County	35,442	98.8%	100.0%	98.8%	34,269	76.3%	100.0%	76.3%
Newton County	•	•	•	•	14,125	87.2%	100.0%	87.2%
Noble County	15,010	99.5%	100.0%	99.5%	32,442	58.5%	100.0%	58.5%
Ohio County					5,828	65.8%	99.5%	65.8%
Orange County	3,009	99.9%	100.0%	99.9%	16,417	75.9%	99.9%	75.9%
Owen County					20,838	78.1%	100.0%	78.1%
Parke County	4,078	98.8%	100.0%	98.8%	12,807	63.8%	99.8%	63.8%
Perry County	8,657	99.1%	100.0%	99.1%	10,424	80.0%	99.9%	79.9%
Pike County					12,365	57.8%		57.8%
Porter County	133,286	99.3%	100.0%	99.3%	35,116	99.2%	100.0%	99.2%
Posey County	8,452	90.5%	100.0%			56.5%		
Pulaski County	2,211	100.0%	100.0%	100.0%	10,323	72.9%	100.0%	72.9%
Putnam County	13,080			98.8%	24,619	59.8%		
Randolph	9,044	99.5%	100.0%	99.5%	15,878	47.4%	100.0%	47.4%
Ripley County	4,552			86.4%		48.1%		
Rush County	6,245	99.8%	100.0%	99.8%	10,400	24.8%	100.0%	24.8%

		Urban	Areas			Rural	Areas	
State, County or County	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile
Equivalent	ted	_	1 Mbps	LTE	ted		1 Mbps	
Scott County	11,076	100.0%	100.0%	100.0%	12,791	59.7%	100.0%	59.7%
Shelby County	21,088	97.1%	100.0%	97.1%	23,307	54.9%	100.0%	54.9%
Spencer					20,394	48.8%		48.8%
St. Joseph County	245,915	100.0%	100.0%	100.0%	24,519	100.0%	100.0%	100.0%
Starke County	3,946	100.0%	100.0%	100.0%	18,947	95.4%	100.0%	95.4%
Steuben	11,126			97.5%	23,351	63.0%	100.0%	63.0%
Sullivan County	4,298	100.0%	100.0%	100.0%	16,448	44.5%	100.0%	44.5%
Switzerland County	•		٠	•	10,694	38.2%	100.0%	38.2%
Tippecanoe County	159,588	95.4%	100.0%	95.4%	30,977	59.1%	100.0%	59.1%
Tipton County	5,449	98.4%	100.0%	98.4%				
Union County	•	•	•	•	7,200	48.1%	100.0%	48.1%
Vanderburgh County	164,793	100.0%	100.0%	100.0%	16,822	84.3%	100.0%	84.3%
Vermillion County	6,063	98.9%	100.0%	98.9%	9,442	93.6%	100.0%	93.6%
Vigo County	81,307	100.0%	100.0%	100.0%	26,209		100.0%	75.1%
Wabash County	15,043	100.0%	100.0%	100.0%	16,400	42.6%	100.0%	42.6%
Warren County	1,724		100.0%		6,477	15.2%		
Warrick County	43,531	99.9%	100.0%	99.9%	18,999	42.1%	100.0%	42.1%
Washington County	6,313	100.0%	100.0%	100.0%	21,514	87.5%	100.0%	87.5%
Wayne County	43,408	99.2%	100.0%	99.2%	22,777	59.9%	100.0%	59.9%
Wells County	13,796			97.9%	14,185	46.2%		46.2%
White County	7,557			97.4%	16,624	78.7%		78.7%
Whitley County	9,655		100.0%	97.9%		59.9%		59.9%
Iowa	2,009,3 43	98.1%	100.0%	98.1%	1,136,1 55	77.5%	99.6%	77.3%
Adair County	•	•	•	•	7,054	79.3%	100.0%	79.3%

		Urban	Areas			Rural	Areas	
State, County	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &
or County	Evalua	Mbps/	Mbps/	Mobile	Evalua	Mbps/	Mbps/	Mobile
Equivalent	ted	3 Mbps	1 Mbps	LTE	ted	3 Mbps	1 Mbps	LTE
Adams County					3,686			
Allamakee County	3,463	100.0%	100.0%	100.0%	10,419	69.4%	95.7%	
Appanoose	4,930	99.7%	100.0%	99.7%	7,422	59.4%		
Audubon County	•	•	•	•	5,578	72.9%	100.0%	72.9%
Benton County	4,796	98.0%		98.0%	20,846			
Black Hawk County	114,197	99.9%	100.0%	99.9%	18,451	96.1%	100.0%	96.1%
Boone County	12,991	100.0%	100.0%	100.0%	13,493	93.0%	100.0%	
Bremer County	8,733	100.0%	100.0%	100.0%	16,175	99.7%	100.0%	99.7%
Buchanan	6,559	99.3%	100.0%	99.3%	14,636	55.8%	100.0%	55.8%
Buena Vista County	11,022	95.8%	100.0%	95.8%	9,088	52.4%	100.0%	52.4%
Butler County	•	•	•	•	14,606	83.5%	100.0%	83.5%
Calhoun County	•	•	•	•	9,738	78.1%	100.0%	78.1%
Carroll County	9,635	100.0%	100.0%	100.0%	10,685	89.2%	100.0%	89.2%
Cass County	5,929	98.2%	100.0%	98.2%	7,216	88.3%	100.0%	88.3%
Cedar County	3,062	95.9%	100.0%	95.9%	15,480	82.4%	100.0%	82.4%
Cerro Gordo County	33,991	100.0%	100.0%	100.0%	9,015	100.0%	100.0%	100.0%
Cherokee	4,197		100.0%	97.5%	7,119		i	
Chickasaw County	3,004	100.0%	100.0%	100.0%	9,001	100.0%	100.0%	100.0%
Clarke County	4,737		100.0%	95.8%	4,632	66.4%		
Clay County	10,471	99.9%	100.0%	99.9%	5,699	57.9%	100.0%	57.9%
Clayton County	595	98.8%		98.8%	17,042	71.8%		71.2%
Clinton County	31,702	99.1%	100.0%	99.1%	15,308	85.5%	100.0%	85.5%
Crawford	7,895	96.0%		96.0%	9,153			44.1%
Dallas County	54,251	96.5%	100.0%	96.5%	32,959	81.4%	99.9%	81.3%
Davis County					8,966	77.4%	93.7%	74.0%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Decatur					7,950	85.6%	100.0%	85.6%
County								
Delaware	4,731	98.4%					98.5%	87.5%
Des Moines County	28,501	98.1%	100.0%	98.1%	10,916	87.3%	99.9%	87.3%
Dickinson	11,008						100.0%	83.1%
Dubuque County	70,080	99.2%	100.0%	99.2%	26,960	97.0%	99.9%	96.9%
Emmet County	5,374							98.2%
Fayette County	5,774	98.9%	100.0%	98.9%	14,022	84.6%	99.4%	84.1%
Flovd County	7,265		100.0%					100.0%
Franklin County	3,901	100.0%	100.0%	100.0%	6,263	92.4%	100.0%	92.4%
Fremont	1	0.0%	100.0%			66.2%	100.0%	66.2%
Greene County	3,613	100.0%	100.0%	100.0%	5,368	90.6%	100.0%	90.6%
Grundy County		•	•		12,332	78.7%	100.0%	78.7%
Guthrie County		•	•	•	10,669	83.5%	100.0%	83.5%
Hamilton	7,280						100.0%	71.9%
Hancock County	3,039	100.0%	100.0%	100.0%	7,732	92.6%	100.0%	92.6%
Hardin County	4,787		100.0%			85.6%		
Harrison County	2,578	88.5%	100.0%	88.5%	11,558	63.4%	100.0%	63.4%
Henry County	8,177	97.2%	100.0%	97.2%	11,684	86.2%	99.8%	86.1%
Howard County	3,373	100.0%	100.0%	100.0%	5,855	100.0%	98.6%	98.6%
Humboldt	5,015	98.2%	100.0%	98.2%	4,546	43.6%	100.0%	43.6%
Ida County					6,865	34.5%	100.0%	34.5%
Iowa County	2,695		100.0%			73.8%	99.8%	73.6%
Jackson County	8,872	98.2%	100.0%	98.2%	10,494	73.8%	99.9%	73.8%
Jasper County	15,474	97.5%	100.0%	97.5%	21,488	78.9%	100.0%	78.9%
Jefferson County	10,772	100.0%	100.0%	100.0%	7,649	99.8%	99.0%	98.8%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Johnson	116,111	98.1%	100.0%	98.1%	33,054	78.9%	100.0%	78.9%
Jones County	8,494	99.4%	100.0%	99.4%	12,040	84.9%	99.7%	84.8%
Keokuk County Kossuth County	5,088	99.6%	100.0%	99.6%	10,153 9,911	64.9% 60.5%		64.3% 60.5%
Lee County	20,086	98.9%	100.0%	98.9%	14,209	80.8%	100.0%	80.8%
Linn County	192,658	98.8%	100.0%	98.8%	31,443	86.4%	100.0%	86.4%
Louisa County			•	•	11,184	70.3%	100.0%	70.3%
Lucas County	3,654	99.8%	100.0%	99.8%	4,880	46.0%	97.1%	44.8%
Lyon County		•	•	ē	11,790	84.7%	100.0%	84.7%
Madison County	4,935	97.4%	100.0%	97.4%	11,072	73.3%	99.9%	73.2%
Mahaska	12,290							
Marion County	16,819	99.5%	100.0%	99.5%	16,286	75.7%	98.3%	74.9%
Marshall	26,239		100.0%			94.7%		94.7%
Mills County	5,941	92.0%	100.0%	92.0%	9,127	60.6%	100.0%	60.6%
Mitchell	3,382		100.0%			100.0%		
Monona County	2,412	96.8%	100.0%	96.8%	6,328	42.5%	100.0%	42.5%
Monroe County								50.6%
Montgomery County	5,077	98.1%	100.0%	98.1%	5,060	82.4%	100.0%	82.4%
Muscatine	31,811	92.9%	100.0%	92.9%		76.8%		76.8%
O'Brien County	4,302	94.2%	100.0%	94.2%	9,499	83.2%		83.2%
Osceola	2,381		100.0%			70.5%		70.5%
Page County	9,932		100.0%			65.8%		65.8%
Palo Alto	3,235					37.2%		
Plymouth County	9,249	99.9%	100.0%	99.9%	15,971	49.0%	100.0%	49.0%
Pocahontas County		•	•		6,846	67.8%	100.0%	67.8%
Polk County	453,270	97.7%	100.0%	97.7%	28,508	86.5%	100.0%	86.5%

		Urban	Areas			Rural	Areas	
State, County or County	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile
Equivalent	ted	3 Mbps	1 Mbps		ted		1 Mbps	
Pottawattamie County	68,360	97.8%	100.0%	97.8%	25,026	61.8%	100.0%	61.8%
Poweshiek County	8,506	99.4%	100.0%	99.4%	9,808	49.3%	100.0%	49.3%
Ringgold					5,034	58.0%	100.0%	58.0%
Sac County		•			9,817	50.1%	100.0%	50.1%
Scott County	148,072	97.4%	100.0%	97.4%	24,437	90.3%	100.0%	90.3%
Shelby County	4,431	97.7%	100.0%	97.7%	7,197	88.5%	100.0%	88.5%
Sioux County	16,803	99.8%	100.0%	99.8%	18,057	64.6%	100.0%	64.6%
Story County	77,943	97.2%	100.0%	97.2%	19,551	82.2%	100.0%	82.2%
Tama County	4,653	96.6%	100.0%	96.6%	12,405	74.8%	100.0%	74.8%
Taylor County	•		•		6,178	67.6%	100.0%	67.6%
Union County	7,499	99.5%	100.0%	99.5%	4,951	67.5%	100.0%	67.5%
Van Buren County	•	•	•		7,157	79.1%	93.9%	73.8%
Wapello	24,184	97.1%	100.0%	97.1%	10,860	68.7%	97.9%	68.7%
Warren County	28,057	97.6%	100.0%	97.6%	22,096	77.4%	98.0%	75.8%
Washington County	6,713	99.9%	100.0%	99.9%	15,568	83.5%	99.6%	83.1%
Wayne County	•	•	•		6,474	86.0%	100.0%	86.0%
Webster	23,847		100.0%					
Winnebago County	3,385	100.0%	100.0%	100.0%	7,202	98.2%	100.0%	98.2%
Winneshiek County	7,823	100.0%	100.0%	100.0%	12,378	82.5%	98.6%	82.4%
Woodbury County	84,271	97.3%	100.0%	97.3%	18,158	53.5%	100.0%	53.5%
Worth County	•	•	•		7,469	100.0%	100.0%	100.0%
Wright County	5,524	98.2%	100.0%	98.2%	7,260	72.4%	100.0%	72.4%
Kansas	2,157,1 35		100.0%	97.9%	755,81 8	71.8%	100.0%	71.8%
Allen County	5,010	100.0%	100.0%	100.0%	7,509	92.8%	100.0%	92.8%
Anderson	2,906	100.0%	100.0%	100.0%	4,927	96.7%	100.0%	96.7%

		Urban	Areas			Rural	Areas	
		% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed	1	% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed
State, County or County	Pop. Evalua	25 Mbps/	LTE 5 Mbps/	& Mobile	Pop. Evalua	25 Mbps/	LTE 5 Mbps/	& Mobile
Equivalent	ted	3 Mbps	1 Mbps		ted	_	1 Mbps	LTE
Atchison County	10,568	98.0%	100.0%	98.0%	5,764	38.2%	100.0%	38.2%
Barber County	•	•	•	•	4,586	81.1%		
Barton County	18,089	99.1%	100.0%	99.1%	8,387	70.1%	100.0%	70.1%
Bourbon	7,508	99.9%	100.0%	99.9%	7,243	77.5%	98.9%	76.4%
Brown County	2,909	100.0%	100.0%	100.0%	6,732	59.6%	100.0%	59.6%
Butler County	39,060	98.4%	100.0%	98.4%	27,818	35.1%	100.0%	35.1%
Chase County	•				2,682	13.0%	100.0%	13.0%
Chautauqua County					3,363	18.1%	96.3%	18.1%
Cherokee County	10,069	89.2%	100.0%	89.2%	10,046	75.9%	100.0%	75.9%
Chevenne	•	•	•	•	2,683	1.8%		1.8%
Clark County	•	•	•	•	2,004	0.5%	100.0%	0.5%
Clay County	4,021		100.0%		3,937	84.1%		84.1%
Cloud County	4,808	99.8%	100.0%	99.8%	4,183	86.5%	100.0%	86.5%
Coffey County	2,379	100.0%	100.0%	100.0%	5,845	99.2%	100.0%	99.2%
Comanche County	•	•	•	•	1,790	52.0%	100.0%	52.0%
Cowley County	23,968	97.2%	100.0%	97.2%	11,393			58.0%
Crawford County	25,293	98.4%	100.0%	98.4%	13,741	83.3%	100.0%	83.3%
Decatur	•	•	•	•	2,884	16.9%	99.8%	16.9%
Dickinson County	6,495	68.8%	100.0%	68.8%	12,407	57.9%	100.0%	57.9%
Doniphan	2,209	100.0%	100.0%	100.0%	5,518	74.4%	100.0%	74.4%
Douglas County	103,992	100.0%	100.0%	100.0%	16,785	100.0%	100.0%	100.0%
Edwards					2,893	69.9%	100.0%	69.9%
Elk County	•	•	•		2,498	58.9%	99.7%	58.9%
Ellis County	20,979	100.0%	100.0%	100.0%	7,710	91.6%	100.0%	91.6%
Ellsworth County	2,811	57.9%	100.0%	57.9%	3,519	68.3%	100.0%	68.3%

		Urban	Areas			Rural	Areas	
State, County or County	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile
Equivalent	ted	3 Mbps	1 Mbps	LTE	ted	3 Mbps	1 Mbps	
Finney County	29,816	100.0%	100.0%	100.0%	7,263	96.4%	100.0%	96.4%
Ford County	26,848	93.2%	100.0%	93.2%	7,529	31.4%	100.0%	31.4%
Franklin	11,902	100.0%	100.0%	100.0%	13,830	100.0%	100.0%	100.0%
Geary County	28,350	86.5%	100.0%	86.5%	5,505	58.1%	100.0%	58.1%
Gove County					2,631	72.4%	100.0%	72.4%
Graham County		•	•	•	2,495	98.6%	100.0%	98.6%
Grant County	5,721	100.0%	100.0%	100.0%	1,805	100.0%	100.0%	
Gray County		•	•		5,958	7.0%	100.0%	7.0%
Greeley County				•	1,249	92.1%	100.0%	92.1%
Greenwood County	2,251	100.0%	100.0%	100.0%	3,872	45.6%	99.8%	45.6%
Hamilton		•	•		2,637	100.0%		
Harper County		•	•	•	5,590	47.7%	99.9%	47.6%
Harvey County	23,487	98.3%	100.0%	98.3%	11,057	55.4%	100.0%	55.4%
Haskell County					4,049	98.4%	100.0%	98.4%
Hodgeman		•	•	•	1,842	40.7%	100.0%	40.7%
Jackson County	3,161	100.0%	100.0%	100.0%	10,155	50.2%	100.0%	50.2%
Jefferson	227	100.0%	100.0%	100.0%	18,770	97.0%	100.0%	97.0%
Jewell County					2,850	89.5%	100.0%	89.5%
Johnson	563,640	100.0%	100.0%	100.0%	27,503	100.0%	100.0%	100.0%
Kearny County		•	•	•	3,959	100.0%	100.0%	100.0%
Kingman	2,658	98.4%	100.0%	98.4%	4,702	20.9%	100.0%	20.9%
Kiowa County		•	•	•	2,485	0.1%	99.4%	0.1%
Labette County	9,129	98.8%	100.0%	98.8%	11,016	38.5%	100.0%	38.5%
Lane County		•	•	•	1,559	98.0%	100.0%	98.0%
Leavenworth County	56,067	100.0%	100.0%	100.0%	·	100.0%	100.0%	
Lincoln County		•	•	•	3,043	34.1%	100.0%	34.1%
Linn County					9,725	100.0%	100.0%	100.0%
Logan County	<u> </u>	•	•	•	2,821	89.4%	100.0%	89.4%
Lyon County	24,319	100.0%	100.0%	100.0%	9,073	92.4%	100.0%	92.4%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Marion County	2,357	_	-	55.0%		50.8%	_	50.8%
Marshall County	2,710		100.0%	0.0%		60.4%		60.4%
McPherson County	15,496	98.5%	100.0%	98.5%	13,212	47.1%	100.0%	47.1%
Meade County	•	•		•	4,303	0.0%		0.0%
Miami County	16,030	100.0%	100.0%	100.0%	17,421	100.0%	100.0%	100.0%
Mitchell	3,210					92.7%		92.7%
Montgomery County	17,928	99.5%	100.0%	99.5%	14,628	72.5%	100.0%	72.5%
Morris County	•	•		•	5,455		100.0%	
Morton County		•			2,740	100.0%		100.0%
Nemaha	2,408							52.4%
Neosho County	8,640	100.0%	100.0%	100.0%	7,375	63.1%		63.1%
Ness County					2,869		100.0%	73.2%
Norton County	2,729		100.0%	100.0%		74.2%	100.0%	74.2%
Osage County	2,399	100.0%	100.0%	100.0%		100.0%		
Osborne County	•	•	•	•	3,610	97.8%		97.8%
Ottawa County					5,863		100.0%	
Pawnee County	4,504	86.7%	100.0%	86.7%	2,176	39.9%		39.9%
Phillips County	2,415					45.8%		
Pottawatomie County	9,204	96.6%		96.6%		93.0%	99.9%	93.0%
Pratt County	6,382	96.7%	100.0%	96.7%				
Rawlins County					2,497	46.5%	99.8%	46.3%
Reno County	41,780	97.5%	100.0%	97.5%	20,730	45.0%		45.0%
Republic County		•			4,691	68.2%	100.0%	68.2%
Rice County	3,320			97.8%		64.3%		64.3%
Riley County	60,692	88.6%	100.0%	88.6%	13,458	79.8%	100.0%	79.8%
Rooks County					5,043	86.3%	100.0%	86.3%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Rush County					3,099	79.5%	-	79.5%
Russell County	4,018	100.0%	100.0%	100.0%	·	96.8%		
Saline County	46,582		100.0%	98.3%		19.3%		19.3%
Scott County	3,557	100.0%	100.0%	100.0%		99.9%	100.0%	99.9%
Sedgwick County	471,909		100.0%	97.7%		58.8%		58.8%
Seward County							100.0%	
Shawnee County	149,762	100.0%	100.0%	100.0%	28,422	100.0%	100.0%	100.0%
Sheridan		•		•	2,527	76.1%	100.0%	
Sherman County	4,425	100.0%	100.0%	100.0%	1,505	42.7%	100.0%	42.7%
Smith County		•	•	•	3,666	84.8%	100.0%	84.8%
Stafford County	-	•	•	•	4,207	29.0%	100.0%	29.0%
Stanton		•		•	2,059	100.0%	100.0%	
Stevens County	3,774	100.0%	100.0%	100.0%	1,838	96.2%	100.0%	96.2%
Sumner	8,470	100.0%	100.0%	100.0%	14,689	100.0%	100.0%	100.0%
Thomas County	5,303	100.0%	100.0%	100.0%	2,485	69.2%	100.0%	69.2%
Trego County		•	•	•	2,884		100.0%	
Wabaunsee County		•	•	•	6,874	65.8%	100.0%	65.8%
Wallace		•	•	•	1,521	47.5%	99.7%	47.4%
Washington County				•	5,485	55.5%	100.0%	55.5%
Wichita County				•	2,124	95.2%	100.0%	95.2%
Wilson County	2,278	100.0%	100.0%	100.0%	6,397	59.4%	100.0%	59.4%
Woodson					3,147	72.4%	99.9%	72.3%
Wyandotte County	154,652	100.0%	100.0%	100.0%	10,619	100.0%	100.0%	100.0%
Kentucky	2,624,2 95	98.7%	100.0%	98.7%	1,829,8 33	79.7%	97.0%	77.4%

		Urban	Areas			Rural	Areas	
State, County	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &
or County Equivalent	Evalua ted	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile LTE	Evalua ted	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile LTE
Adair County	4,669	99.4%	100.0%	99.4%	14,815	67.9%	94.2%	65.6%
Allen County	4,404	100.0%	100.0%	100.0%	16,529	98.6%	99.6%	98.3%
Anderson County	12,868	100.0%	100.0%	100.0%	9,674	54.8%	100.0%	54.8%
Ballard County	•				8,039	100.0%	100.0%	100.0%
Barren County	15,830	89.2%	100.0%	89.2%	27,971	76.6%	98.6%	76.3%
Bath County					12,378			80.0%
Bell County	10,609	100.0%	100.0%	100.0%	16,285	97.4%	97.7%	95.7%
Boone County	111,530	99.5%	100.0%	99.5%	19,196		100.0%	97.0%
Bourbon County	11,041	100.0%	100.0%	100.0%	8,988	72.4%	100.0%	72.4%
Boyd County	35,770	99.3%		99.3%	12,209	85.2%		84.5%
Boyle County	19,233	100.0%	100.0%	100.0%	10,691	96.1%	99.1%	95.6%
Bracken	ē	•	•	ē	8,267	73.6%		73.6%
Breathitt County	2,431	46.2%	100.0%	46.2%	10,515	55.0%	77.2%	50.1%
Breckinridge County					20,111	65.5%		65.5%
Bullitt County	55,079	100.0%	100.0%	100.0%	25,166	97.1%	100.0%	97.1%
Butler County					12,831	52.2%	99.9%	52.2%
Caldwell County	5,635	99.9%	100.0%	99.9%	7,004	55.8%	100.0%	55.8%
Calloway	19,474	99.8%		99.8%	19,439			96.3%
Campbell County	78,012	100.0%	100.0%	100.0%	14,476	95.1%	100.0%	95.1%
Carlisle County	•	•	•	•	4,846			94.1%
Carroll County	5,036	100.0%	100.0%	100.0%	5,677	49.8%	100.0%	49.8%
Carter County	5,674	57.1%	100.0%	57.1%	21,470	79.9%	94.1%	76.9%
Casey County	•		•	•	15,750	90.7%	95.7%	87.4%
Christian	48,457	97.0%		97.0%	21,959	69.2%		69.2%
Clark County	25,928	99.9%	100.0%	99.9%	10,118	34.5%	100.0%	34.5%
Clay County	4,453	86.9%	100.0%	86.9%	15,913			77.0%
Clinton County	•	•	•		10,276	92.4%	100.0%	92.4%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Crittenden	2,657	99.4%	_		6,427	53.8%	_	53.8%
Cumberland County		•	•	•	6,706			
Daviess County	72,685	100.0%	100.0%	100.0%	27,688	74.6%	100.0%	74.6%
Edmonson County					12,226	85.2%	97.2%	82.4%
Elliott County		•	•	•	7,523			
Estill County	3,443	98.6%	100.0%	98.6%	10,834	95.7%	96.0%	91.9%
Favette County	310,126	100.0%	100.0%	100.0%	11,821	86.7%	100.0%	
Fleming County	2,799	98.2%	100.0%	98.2%	11,647	74.8%	100.0%	74.8%
Floyd County	6,343		100.0%	96.3%	29,928			
Franklin County	36,419	99.8%	100.0%	99.8%	14,066	91.6%	100.0%	91.6%
Fulton County	2,327	96.9%	100.0%	96.9%	3,865	38.8%	100.0%	38.8%
Gallatin County					8,776	73.1%	100.0%	73.1%
Garrard	3,778							
Grant County	8,636	100.0%	100.0%	100.0%	16,348	88.7%	100.0%	88.7%
Graves County	11,064	99.4%	100.0%	99.4%	26,056	92.8%	100.0%	92.8%
Grayson County	6,889	97.9%	100.0%	97.9%	19,469	86.0%	98.5%	84.4%
Green County		•	•	•	11,065	82.7%	99.2%	82.1%
Greenup County	21,531	99.5%	100.0%	99.5%	13,987	81.8%	88.8%	74.4%
Hancock	935		100.0%					
Hardin County	69,957	99.8%	100.0%	99.8%	38,113	98.2%	99.6%	97.8%
Harlan County	12,843	93.7%	95.8%	90.1%	13,870	75.6%	69.8%	54.2%
Harrison County	6,355	100.0%	100.0%	100.0%	12,424	19.5%	100.0%	19.5%
Hart County	2,400	99.5%	100.0%	99.5%	16,357	88.4%	100.0%	88.4%
Henderson County	28,234	99.9%	100.0%	99.9%	17,694	85.2%	100.0%	85.2%
Henry County					16,006	65.9%	100.0%	65.9%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Hickman County	•	•	•	•	4,520	32.5%	100.0%	32.5%
Hopkins	23,389	99.7%	100.0%	99.7%	22,158	71.1%	100.0%	71.1%
Jackson County					13,431	100.0%	91.0%	91.0%
Jefferson	759,657	100.0%	100.0%	100.0%	11,499	96.8%	100.0%	96.8%
Jessamine County	38,729	99.8%	100.0%	99.8%	14,639	90.5%	100.0%	90.5%
Johnson	6,137	96.5%	100.0%	96.5%	16,457	81.2%	91.1%	72.3%
Kenton County	153,337	100.0%	100.0%	100.0%	12,062	92.8%	100.0%	92.8%
Knott County				•	15,291	60.1%	90.8%	52.7%
Knox County	11,479	83.0%	100.0%	83.0%	19,748	84.6%	97.8%	82.4%
Larue County	3,392	97.4%	100.0%	97.4%	10,805	80.3%	99.7%	80.1%
Laurel County	26,095	99.5%	100.0%	99.5%	34,079	96.9%	99.5%	96.5%
Lawrence	3,611	100.0%	100.0%	100.0%	12,108	100.0%	76.0%	76.0%
Lee County	•	•	•	•	6,570	26.8%	99.0%	26.1%
Leslie County	•	•	•	•	10,334	48.2%	76.8%	31.5%
Letcher County	•	•	•	•	22,339	89.7%	86.3%	78.9%
Lewis County	•	•		•	13,339	71.8%	97.0%	70.6%
Lincoln County	4,512	100.0%	100.0%	100.0%	19,944	83.6%	100.0%	83.6%
Livingston	421		100.0%		8,848	68.4%		68.4%
Logan County	6,687	100.0%	100.0%	100.0%	20,373	76.6%	100.0%	76.6%
Lyon County					8,082	26.2%	100.0%	26.2%
Madison	54,832	99.7%	100.0%	99.7%	36,394			
Magoffin County		•	٠	•	12,538	100.0%	89.4%	89.4%
Marion County	5,407	100.0%		100.0%	13,985		97.0%	80.3%
Marshall County	4,432	99.9%	100.0%	99.9%	26,950	97.6%	100.0%	97.6%
Martin County					11,452	77.9%	97.7%	75.7%
Mason County	7,631	15.6%	100.0%	15.6%	9,543	59.3%	100.0%	59.3%
McCracken County	46,969	98.6%	100.0%	98.6%	18,415	96.5%	100.0%	96.5%

		Urban	Areas			Rural	Areas	
		% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed		% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed
State, County	Pop.	25	LTE 5	&	Pop.	25	LTE 5	& Mala:1a
or County Equivalent	Evalua ted	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile LTE	Evalua ted	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile LTE
McCreary	tou	о про	1 1-10P3		17,465	100.0%		96.6%
McLean County					9,201	48.8%	100.0%	48.8%
Meade County	4,040	99.3%	100.0%	99.3%	24,114	83.0%	99.5%	83.0%
Menifee County	٠	•	•	•	6,455	100.0%	100.0%	
Mercer County	8,752	100.0%	100.0%	100.0%				
Metcalfe County	•			•	10,107	74.4%	96.8%	71.5%
Monroe County					10,659			
Montgomery County	11,189	99.0%	100.0%	99.0%	16,739	88.3%	100.0%	88.3%
Morgan					13,188			
Muhlenberg County	9,724	97.5%	100.0%	97.5%	21,092	72.1%	99.8%	72.0%
Nelson County	19,344	79.4%	100.0%	79.4%			99.9%	55.5%
Nicholas County	•			•	7,130	43.5%	100.0%	43.5%
Ohio County	6,351		100.0%				100.0%	
Oldham County	52,229	99.8%	100.0%	99.8%	14,186	92.5%	100.0%	92.5%
Owen County					10,764	60.7%	001-70	0 0 1 1 7 0
Owsley County	•	•	•		4,435	100.0%	94.9%	94.9%
Pendleton					14,573		100.0%	71.9%
Perry County	7,169		99.3%		·	95.1%	73.8%	71.5%
Pike County	7,844	73.5%	100.0%	73.5%		72.2%	91.4%	65.7%
Powell County	4,123		100.0%		·	28.8%	100.0%	28.8%
Pulaski County	29,431	99.9%	100.0%	99.9%		94.8%	99.7%	94.5%
Robertson County	•			•	2,134			
Rockcastle	2,773		100.0%			92.1%	99.5%	91.6%
Rowan County	7,265	100.0%	100.0%	100.0%	•	97.4%	97.8%	95.2%
Russell County					17,775	87.2%	100.0%	87.2%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Scott County	35,435	99.8%	100.0%	99.8%	19,437	53.8%	100.0%	53.8%
Shelby County	23,994	99.9%	100.0%	99.9%	23,426	70.6%	100.0%	70.6%
Simpson County	9,753	97.7%	100.0%	97.7%	8,355	31.4%		31.4%
Spencer					18,506	79.8%	100.0%	79.8%
Taylor County	12,121	99.4%	100.0%	99.4%	13,345	83.0%	98.4%	81.5%
Todd County	•		•	•	12,243	57.4%	97.8%	56.3%
Trigg County	2,956	93.4%	100.0%	93.4%	11,488	73.3%	100.0%	73.3%
Trimble	465	98.7%	100.0%	98.7%	8,096	80.7%	100.0%	80.7%
Union County	4,887	99.6%	100.0%	99.6%	9,781	71.6%	100.0%	71.6%
Warren County	86,262	100.0%	100.0%	100.0%	42,583	78.7%	100.0%	78.7%
Washington County	•	•	•	•	12,126	78.6%	99.6%	78.6%
Wayne County	6,753	65.1%	100.0%	65.1%	13,962	79.1%	89.7%	72.8%
Webster County			•		13,018	60.8%	100.0%	60.8%
Whitley County	12,590	99.9%	100.0%	99.9%	23,624	94.6%		
Wolfe County	•	•			7,264	100.0%	100.0%	100.0%
Woodford	16,574	99.9%	100.0%	99.9%	9,794	94.5%	100.0%	94.5%
Louisiana	3,428,4 36	96.5%	100.0%	96.5%	1,255,8 50	63.3%	100.0%	63.3%
Acadia Parish	30,195	97.2%	100.0%	97.2%	32,395	48.4%	100.0%	48.4%
Allen Parish	7,830	100.0%	100.0%	100.0%	17,791	46.9%	100.0%	46.9%
Ascension Parish	104,411	99.7%	100.0%	99.7%	18,536	92.8%	100.0%	92.8%
Assumption	12,443	100.0%	100.0%	100.0%	10,083	97.4%	100.0%	97.4%
Avoyelles Parish	14,616	99.6%	100.0%	99.6%	26,364	60.7%	100.0%	60.7%
Beauregard	12,093							29.7%
Bienville Parish	2,524	0.0%	100.0%	0.0%	11,114	5.5%	99.0%	5.5%
Bossier Parish	93,071	99.4%	100.0%	99.4%	34,559	67.3%	100.0%	
Caddo Parish	210,334	98.7%	100.0%	98.7%	36,247	80.9%	100.0%	80.9%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Calcasieu	159,837	97.5%	100.0%	97.5%	42,602	69.9%	100.0%	69.9%
Caldwell Parish		•	•	•	9,950	51.4%	100.0%	51.4%
Cameron			•	·	6,912		100.0%	
Catahoula Parish			•		9,875	26.2%	100.0%	26.2%
Claiborne	2,766		100.0%		13,203			27.9%
Concordia Parish	12,931	100.0%	100.0%	100.0%	6,935	47.0%	100.0%	47.0%
De Soto Parish	6,127	97.4%		97.4%		61.6%	99.8%	61.6%
East Baton Rouge Parish	415,408	100.0%	100.0%	100.0%	30,860	100.0%	100.0%	100.0%
East Carroll Parish	4,661	84.6%	100.0%	84.6%	2,465	22.2%	100.0%	22.2%
East Feliciana Parish					19,412	17.7%	100.0%	17.7%
Evangeline	13,144	41.5%		41.5%	20,564		100.0%	
Franklin Parish	5,173	98.7%	100.0%	98.7%	15,087	33.2%	100.0%	33.2%
Grant Parish	3,210			99.7%	19,126			26.7%
Iberia Parish	51,659	96.5%	100.0%	96.5%	20,517	86.3%	100.0%	86.3%
Iberville Parish	13,595	90.9%		90.9%	19,432		100.0%	73.7%
Jackson Parish	5,453	88.0%	100.0%	88.0%	10,393	42.0%	100.0%	42.0%
Jefferson Davis Parish	15,462	98.8%	100.0%	98.8%	16,015	53.5%	100.0%	53.5%
Jefferson	433,811	98.1%	100.0%	98.1%	5,224	70.4%	100.0%	70.4%
LaSalle Parish	3,938		100.0%	100.0%		25.7%		25.7%
Lafayette	221,166		100.0%	97.8%			100.0%	93.4%
Lafourche Parish	74,287	69.5%	100.0%	69.5%	24,131	79.9%	100.0%	79.9%
Lincoln Parish	28,167	99.5%	100.0%	99.5%	19,577	57.5%	100.0%	57.5%
Livingston	78,845	99.1%	100.0%	99.1%	59,383	97.5%	100.0%	97.5%
Madison Parish	8,429	87.5%	100.0%	87.5%	2,887	13.7%	100.0%	13.7%

		Urban	Areas			Rural	Areas	
	-	% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed	ı	% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed
State, County or County	Pop. Evalua	25 Mbps/	LTE 5 Mbps/	& Mobile	Pop. Evalua	25 Mbps/	LTE 5 Mbps/	& Mobile
Equivalent	ted	_	1 Mbps	LTE	ted		1 Mbps	
Morehouse	13,312	100.0%	100.0%	100.0%	12,329	82.7%	100.0%	82.7%
Natchitoches Parish	19,388	99.8%	100.0%	99.8%	19,633	36.7%	99.8%	36.7%
Orleans Parish	389,655	92.5%	100.0%	92.5%	3,629	65.9%	100.0%	65.9%
Ouachita Parish	117,665	98.0%	100.0%	98.0%	38,209	94.3%	99.7%	94.3%
Plaquemines Parish	18,582		100.0%		ŕ			
Pointe Coupee Parish	9,424	82.4%	100.0%	82.4%	12,844	53.6%	100.0%	53.6%
Rapides Parish	79,810	98.6%	100.0%	98.6%				
Red River Parish			•		8,536	21.1%	100.0%	21.1%
Richland	6,868						100.0%	
Sabine Parish	2,711	51.3%	100.0%	51.3%		0.5%	100.0%	0.5%
St. Bernard	43,346					79.6%	i	79.6%
St. Charles Parish	46,586	98.7%	100.0%	98.7%	ŕ	86.4%		86.4%
St. Helena					10,363		100.0%	
St. James Parish	15,446	99.8%	100.0%	99.8%	5,921	98.6%	100.0%	98.6%
St. John the Baptist Parish		100.0%					100.0%	
St. Landry Parish	43,155	99.0%	100.0%	99.0%	40,342	63.4%	100.0%	63.4%
St. Martin	27,025	96.8%		96.8%	27,145	90.5%	100.0%	90.5%
St. Mary Parish	44,801	94.7%	100.0%	94.7%	6,172	52.8%	100.0%	52.8%
St. Tammany Parish	191,226		100.0%	99.9%	65,099	94.6%	100.0%	94.6%
Tangipahoa Parish	76,275	99.8%	100.0%	99.8%	56,214	73.5%	100.0%	73.5%
Tensas Parish					4,615	0.5%	100.0%	0.5%
Terrebonne Parish	88,576	99.8%	100.0%	99.8%	23,510	99.1%	100.0%	99.1%

		Urban	Areas			Rural	Areas	
State, County	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &
or County Equivalent	Evalua ted	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile LTE	Evalua ted	Mbps/	Mbps/ 1 Mbps	Mobile LTE
Union Parish	3,746	_	_			_	_	
Vermilion Parish	27,144	98.4%	100.0%					
Vernon Parish	22,562	94.7%	100.0%	94.7%	28,163	49.6%	100.0%	49.6%
Washington Parish	15,736	61.9%	100.0%	61.9%	30,897	25.2%	100.0%	25.2%
Webster Parish			100.0%				100.0%	54.8%
West Baton Rouge Parish	17,742	91.7%	100.0%	91.7%	8,520	80.6%	100.0%	80.6%
West Carroll Parish					10,981	31.5%	100.0%	31.5%
West Feliciana Parish				•	15,380	32.1%	100.0%	32.1%
Winn Parish	4,802		100.0%					
Maine	507,12 5	99.4%	100.0%	99.4%	828,77 9	89.6%	97.6%	87.6%
Androscoggin County	60,854	100.0%	100.0%	100.0%	46,797	99.6%	100.0%	99.6%
Aroostook	13,277							
Cumberland County	184,360	99.9%	100.0%	99.9%	108,139	99.2%	99.9%	99.1%
Franklin	4,951		100.0%			73.8%		
Hancock County	5,361	100.0%	100.0%	100.0%	49,136	83.9%	98.3%	82.6%
Kennebec	44,585							99.2%
Knox County	12,739	100.0%	100.0%	100.0%	27,051	96.4%	99.6%	96.1%
Lincoln County			•		34,204			95.1%
Oxford County	9,682	100.0%	100.0%		47,757	86.2%		
Penobscot	63,650	97.5%	100.0%	97.5%		86.7%	99.6%	86.6%
Piscataquis County		•		•	16,773	42.4%	99.8%	42.4%
Sagadahoc	13,041	99.4%				94.1%		
Somerset County	9,853	99.5%	100.0%	99.5%	40,773	79.6%	99.2%	79.6%

		Urban	Areas			Rural	Areas	68.7% 47.8% 98.4% 94.8% 77.4% 98.5% 97.4%	
State, County	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	Pop. with Fixed &	
or County Equivalent	Evalua ted	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile LTE	Evalua ted	Mbps/ 3 Mbps	Mbps/ 1 Mbps		
Waldo County	3,425	100.0%	100.0%	100.0%	36,406	68.9%	99.8%	68.7%	
Washington County	2,416	100.0%	100.0%	100.0%	29,177	80.4%	58.2%	47.8%	
York County	78,931	99.3%	100.0%	99.3%	125,259	98.4%	100.0%	98.4%	
Maryland	5,250,2 27	98.0%	100.0%	98.0%	801,89 7	94.8%	100.0%	94.8%	
Allegany County	52,300	92.7%	100.0%	92.7%	19,315	77.4%	99.8%	77.4%	
Anne Arundel County	541,272	97.4%	100.0%	97.4%	31,960	98.5%	100.0%	98.5%	
Baltimore County	773,921	97.8%	100.0%	97.8%	58,542	97.4%	100.0%	97.4%	
Baltimore city	611,648	99.2%				•			
Calvert County	55,603								
Caroline County	7,775	100.0%	100.0%	100.0%	25,415	96.3%	100.0%	96.3%	
Carroll County							100.0%		
Cecil County	59,125	98.1%	100.0%	98.1%	43,621	97.2%	100.0%	97.1%	
Charles County		97.9%					100.0%	79.8%	
Dorchester County	13,892	100.0%	100.0%	100.0%	18,270	99.9%	99.9%	99.9%	
Frederick	183,217		100.0%				100.0%		
Garrett County	4,739	98.9%	100.0%	98.9%	24,494	68.3%	100.0%	68.3%	
Harford	205,644	99.3%	100.0%	99.3%		94.4%		94.4%	
Howard County	286,336	96.5%	100.0%	96.5%	34,776	99.4%	100.0%	99.4%	
Kent County	4,831					98.6%		98.6%	
Montgomery County	1,029,9 65	98.5%	100.0%	98.5%	28,825	95.9%	100.0%	95.9%	
Prince George's	889,680	97.1%	100.0%		·	89.6%	100.0%		
Queen Anne's County	22,260	100.0%	100.0%	100.0%	27,498	99.2%	100.0%	99.2%	
Somerset County	13,716	100.0%	99.9%	99.9%	12,202	96.9%	99.9%	96.8%	

		Urban	Areas			Rural	Areas	
State, County	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &
or County Equivalent	Evalua ted	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile LTE	Evalua ted	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile LTE
St. Mary's	54,752	96.3%	100.0%	96.3%	57,915	97.2%	100.0%	97.2%
Talbot County	16,557	84.9%	100.0%	84.9%	20,546	97.8%	100.0%	97.8%
Washington County	105,396	100.0%	100.0%	100.0%	45,181	96.4%	100.0%	96.4%
Wicomico	75,327	100.0%	100.0%	100.0%	27,596	97.4%	100.0%	97.4%
Worcester County	33,200	100.0%	100.0%	100.0%	18,489	99.1%	100.0%	99.1%
Massachusetts	6,309,1 37	98.4%	100.0%		550,60 5	92.3%	99.9%	92.3%
Barnstable County	197,419	98.6%	100.0%	98.6%	16,025	98.7%	100.0%	98.7%
Berkshire	86,134	99.9%		99.9%		74.6%		
Bristol County	505,735	98.3%	100.0%	98.3%	55,733	99.5%	100.0%	99.5%
Dukes County	10,244	88.9%		88.9%		95.3%		
Essex County	750,500	98.8%	100.0%	98.8%	34,700	99.0%	100.0%	99.0%
Franklin	31,794	98.7%	100.0%	98.7%	38,907	64.4%	99.7%	64.4%
Hampden County	428,915	100.0%	100.0%	100.0%	40,901	100.0%	100.0%	100.0%
<u>Hampshire</u>	116,740	87.3%		87.3%				
Middlesex County	1,552,2 94	98.6%	100.0%	98.6%	50,641	99.5%	100.0%	99.5%
Nantucket	8,803		100.0%	99.5%			100.0%	
Norfolk County	691,449	97.8%	100.0%	97.8%	8,868	98.7%	100.0%	98.7%
Plymouth	460,564	98.0%		98.0%		97.6%	100.0%	97.6%
Suffolk County	797,278	98.5%	100.0%	98.5%	629	0.8%	100.0%	0.8%
Worcester	671,268	99.4%	100.0%		154,846		100.0%	94.5%
Michigan	7,406,4 42	98.6%	100.0%	98.6%	2,555,5 46		99.8%	73.0%
Alcona County	99	100.0%	100.0%	100.0%	10,252	65.5%	100.0%	65.5%
Alger County	2,838	99.8%	100.0%	99.8%	6,283	62.9%	84.8%	54.6%
Allegan County	40,809	98.9%	100.0%	98.9%	75,623	67.9%	100.0%	67.9%
Alpena County	13,806	100.0%	100.0%	100.0%	14,656	84.3%	100.0%	84.3%
Antrim County		-	•	-	23,292	92.7%	100.0%	92.7%

		Urban	Areas			Rural	Areas	
State, County	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &
or County Equivalent	Evalua ted	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile LTE	Evalua ted	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile LTE
Arenac County			•	•	15,045	54.4%	100.0%	54.4%
Baraga County		•	•	•	8,441	62.4%	94.3%	62.4%
Barry County	13,761	99.1%	100.0%	99.1%	46,807	49.9%	100.0%	49.9%
Bay County	71,753	100.0%	100.0%	100.0%	32,486	75.8%	99.8%	75.7%
Benzie County					17,573	80.2%	100.0%	80.2%
Berrien County	102,873	97.3%	100.0%	97.3%	51,384	85.4%	100.0%	85.4%
Branch County	15,084			99.5%		53.7%		53.7%
Calhoun County	91,800	97.7%	100.0%	97.7%	42,328	68.4%	100.0%	68.4%
Cass County	14,477	96.0%	100.0%	96.0%	36,904	92.2%	100.0%	92.2%
Charlevoix County	7,555	100.0%	100.0%	100.0%	18,584	89.0%	99.9%	89.0%
Cheboygan	4,296		100.0%	100.0%	21,073	54.8%	100.0%	54.8%
Chippewa County	18,824	100.0%	100.0%	100.0%	18,885	54.1%	98.6%	53.5%
Clare County	8,630						100.0%	67.4%
Clinton County	36,546	96.2%	100.0%	96.2%	41,890	69.8%	100.0%	69.8%
Crawford	3,653		100.0%	99.3%		36.6%	100.0%	36.6%
Delta County	20,155	100.0%	100.0%	100.0%	15,810	63.7%	94.7%	62.0%
Dickinson	17,234		100.0%	83.5%		49.8%	97.5%	49.8%
Eaton County	67,449		100.0%	96.9%	41,578	75.6%	100.0%	75.6%
Emmet County	8,210						100.0%	
Genesee County	336,377	99.2%	100.0%	99.2%	71,008	96.0%	100.0%	96.0%
Gladwin	2,647					61.3%		61.3%
Gogebic County	5,120	99.9%	100.0%	99.9%	10,222	77.0%	98.8%	76.5%
Grand Traverse County	·		100.0%		·	94.9%	100.0%	94.9%
Gratiot County	15,619	100.0%	100.0%	100.0%	25,399	100.0%	100.0%	100.0%
Hillsdale	13,668	97.6%	100.0%	97.6%	32,211	47.9%	100.0%	47.9%
Houghton County	22,529	99.2%	100.0%	99.2%	13,776	69.5%	98.5%	69.5%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Huron County	2,787	98.9%	100.0%	98.9%	28,493	65.9%	99.7%	65.6%
Ingham County	250,918	96.6%	100.0%	96.6%	39,253	78.9%	100.0%	78.9%
Ionia County	25,297	98.8%	100.0%	98.8%	38,994	83.0%	100.0%	83.0%
Iosco County	10,162	99.9%	100.0%	99.9%	15,000	77.0%	99.4%	76.4%
Iron County	3,197	0.0%	100.0%	0.0%	7,927	21.9%	96.9%	21.9%
Isabella County	37,184	100.0%	100.0%	100.0%	33,879	96.8%	100.0%	96.8%
Jackson	91,618	93.2%		93.2%	67,021	71.4%	100.0%	71.4%
Kalamazoo County	215,688	99.3%	100.0%	99.3%	47,291	93.5%	100.0%	93.5%
Kalkaska	2,631					79.7%		79.7%
Kent County	541,475	98.4%	100.0%	98.4%	107,084	88.1%	100.0%	88.1%
Keweenaw	•		•	•	2,105	77.5%	87.1%	69.4%
Lake County	•	•	•	•	12,013	4.9%	100.0%	4.9%
Lapeer County	19,907	100.0%	100.0%	100.0%		69.9%	100.0%	69.9%
Leelanau County	1,868	100.0%	100.0%	100.0%	19,789	85.9%	100.0%	85.9%
Lenawee	47,006					71.5%		
Livingston County	118,985	99.3%	100.0%	99.3%	70,647	95.6%	100.0%	95.6%
Luce County	3,079	0.0%		0.0%		0.0%	94.9%	0.0%
Mackinac County	2,358	99.6%	100.0%	99.6%	8,354	36.2%	99.2%	36.2%
Macomb	846,049		100.0%					
Manistee County	9,358	100.0%	100.0%	100.0%	15,069	54.1%	100.0%	54.1%
Marquette	38,120		100.0%			77.4%	99.0%	
Mason County	10,793	100.0%	100.0%	100.0%	18,280	77.4%	100.0%	77.4%
Mecosta	14,043					78.5%		
Menominee County	8,275	100.0%	100.0%	100.0%	14,771	55.2%	98.0%	54.9%
Midland	47,470	99.9%	100.0%	99.9%	35,941	90.2%	100.0%	90.2%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Missaukee					14,998	25.5%	100.0%	25.5%
County								
Monroe County								
Montcalm County	9,649	100.0%	100.0%	100.0%	53,897	91.7%	100.0%	91.7%
Montmorency County		•			9,250	0.5%	99.8%	0.5%
Muskegon County	132,598	98.8%	100.0%	98.8%	41,095	77.4%	100.0%	77.4%
Newaygo	7,722	99.5%	100.0%	99.5%	40,507	27.6%	100.0%	27.6%
Oakland County	1,189,9 27	99.4%	100.0%	99.4%	60,858	98.8%	100.0%	98.8%
Oceana County	2,655	93.5%	100.0%	93.5%	23,783			41.2%
Ogemaw County		•	•	•	20,981	72.2%	100.0%	72.2%
Ontonagon		•			5,881	65.0%	89.3%	57.1%
Osceola County		•	•	•	23,259	28.1%	100.0%	28.1%
Oscoda County		•	•		8,287	1.6%	100.0%	1.6%
Otsego County	8,347	100.0%	100.0%	100.0%	16,190	55.6%	100.0%	55.6%
Ottawa County	225,369	99.8%	100.0%	99.8%	60,976	87.7%	100.0%	87.7%
Presque Isle County	2,420	100.0%	100.0%	100.0%	10,371	12.7%	100.0%	12.7%
Roscommon County	8,107	100.0%	100.0%	100.0%	15,785	89.6%	100.0%	89.6%
Saginaw County	129,327	99.8%	100.0%	99.8%	62,607	86.1%	100.0%	86.1%
Sanilac County	3,662	65.2%	100.0%	65.2%	37,607	40.6%	100.0%	40.6%
Schoolcraft County	3,267	100.0%	100.0%	100.0%	4,781	26.8%	95.7%	26.8%
Shiawassee	29,920	100.0%	100.0%	100.0%	38,526	74.6%	100.0%	74.6%
St. Clair	96,475	98.7%	99.9%	98.7%	62,875	62.6%	100.0%	62.6%
St. Joseph County	27,574	97.0%	100.0%	97.0%	33,372	67.9%	100.0%	67.9%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Tuscola County	7,454	99.9%	100.0%	99.9%	45,310	61.1%	99.9%	61.1%
Van Buren	21,699	97.8%	100.0%	97.8%	53,653	64.5%	100.0%	64.5%
Washtenaw County	303,984	96.0%		96.0%	63,619			74.2%
Wayne County	1,741,1	98.9%	100.0%	98.9%	12,420	99.0%	100.0%	99.0%
Wexford County	11,767	99.8%	100.0%	99.8%	21,505	45.7%	100.0%	45.7%
Minnesota	4,091,6 65	98.9%	100.0%	98.9%	1,484,5 95	83.7%	99.8%	83.6%
Aitkin County	•		•	•	15,826	48.1%	100.0%	48.1%
Anoka County	300,880	98.6%	100.0%	98.6%	50,462	95.5%	100.0%	95.5%
Becker County	8,069	100.0%	100.0%	100.0%	26,028	85.0%	99.9%	84.9%
Beltrami	14,884	100.0%	100.0%	100.0%	31,621	99.2%	98.5%	97.8%
Benton County	23,392	100.0%	100.0%	100.0%	16,545	73.0%	100.0%	73.0%
Big Stone				•	5,026	87.9%	100.0%	87.9%
Blue Earth County	47,835	100.0%	100.0%	100.0%	19,129	100.0%	100.0%	100.0%
Brown County	16,114	99.9%	100.0%	99.9%	9,080		100.0%	87.6%
Carlton County	15,682	96.4%	100.0%	96.4%	19,816	64.3%	100.0%	64.3%
Carver County	79,680	98.0%	100.0%	98.0%	22,423	96.5%	100.0%	96.5%
Cass County	•		•	•	29,354	77.4%	100.0%	77.4%
Chippewa	5,795	100.0%	100.0%	100.0%	6,185	100.0%	100.0%	100.0%
Chisago County	24,233	96.9%	100.0%	96.9%	31,071	58.4%	100.0%	58.4%
Clay County	43,945	99.0%	100.0%	99.0%	19,620	88.2%	100.0%	88.2%
Clearwater County					8,878	99.8%	99.3%	99.1%
Cook County	•				5,398	91.8%	92.1%	85.0%
Cottonwood County	4,051	100.0%	100.0%	100.0%	7,244	100.0%	100.0%	100.0%
Crow Wing County	23,686	100.0%	100.0%	100.0%	40,736		100.0%	89.6%
Dakota County	399,075	99.3%	100.0%	99.3%	22,669	96.4%	100.0%	96.4%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Dodge County	9,851	_	_			-	-	
Douglas County	16,908		100.0%	97.9%		79.4%	100.0%	79.4%
Faribault	2,825	100.0%	100.0%	100.0%	10,959	100.0%	100.0%	100.0%
Fillmore County	1,394	100.0%	100.0%	100.0%	19,586	92.5%	98.5%	91.7%
Freeborn	17,186	100.0%					100.0%	
Goodhue County	24,291	100.0%	100.0%	100.0%	22,013	99.6%		99.6%
Grant County					5,941		100.0%	89.1%
Hennepin County	1,221,3 03	98.8%	100.0%	98.8%		89.3%	100.0%	89.3%
Houston		100.0%						
Hubbard County	3,400	100.0%	100.0%	100.0%	17,615	94.7%	100.0%	94.7%
Isanti County	14,560	97.2%	100.0%	97.2%	25,016	65.2%	100.0%	65.2%
Itasca County	9,231	100.0%	100.0%	100.0%	35,906	79.4%	99.9%	79.3%
Jackson	2,821	100.0%	100.0%	100.0%	7,125	100.0%	100.0%	100.0%
Kanabec County	3,329	95.7%	100.0%	95.7%	12,693	68.1%	100.0%	68.1%
Kandiyohi	23,485	100.0%	100.0%	100.0%		100.0%		
Kittson County	•	•	•	•	4,250	46.6%	98.9%	46.6%
Koochiching County	6,608	96.3%	100.0%	96.3%	5,920	50.7%	99.1%	50.7%
Lac qui Parle County	•	•	•	•	6,685	99.3%	100.0%	99.3%
Lake County	3,514	99.9%	100.0%	99.9%	7,010			
Lake of the Woods County					3,744	51.3%	98.2%	51.3%
Le Sueur	10,456	100.0%	100.0%	100.0%		100.0%		
Lincoln County	•	•	•	•	5,678	93.9%	100.0%	93.9%
Lvon Countv	13,136	100.0%	100.0%	100.0%	12,693	99.2%	100.0%	99.2%
Mahnomen County		•	•		5,595	80.3%	99.5%	80.0%

		Urban	Areas			valua ted Mbps/ 3 Mbps Mbps/ 1 Mbps Mobile LTE 9,356 53.4% 99.8% 53.4%		
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	Pop. with Fixed 25 Mbps/	Pop. with Mobile LTE 5 Mbps/	Pop. with Fixed & Mobile
Marshall						_		
County								
Martin County	8,880		100.0%					
McLeod County	19,002	79.4%	100.0%	79.4%	16,882	90.9%	100.0%	90.9%
Meeker County	7,837	99.4%	100.0%	99.4%	15,292	86.7%	100.0%	86.7%
Mille Lacs	7,406	97.9%	100.0%	97.9%	18,466	44.2%	100.0%	44.2%
Morrison County	8,811	99.2%	100.0%	99.2%	24,248	73.5%	100.0%	73.5%
Mower County	25,155	100.0%	100.0%	100.0%	14,404	100.0%	100.0%	100.0%
Murray County	•	•	•		8,346	91.6%	100.0%	91.6%
Nicollet	24,334	100.0%	100.0%	100.0%	9,628	100.0%	100.0%	100.0%
Nobles County	12,592	100.0%	100.0%	100.0%	9,349	92.8%	100.0%	92.8%
Norman Olmsted County	125,854	100.0%	100.0%	100.0%	6,597 29,062	90.4% 100.0%		90.4% 100.0%
Otter Tail	15,238	100.0%	100.0%	100.0%	43,106	91.2%	100.0%	91.2%
Pennington County	8,935	99.2%	100.0%	99.2%	5,301	80.1%	99.6%	79.8%
Pine County	3,081	96.3%	100.0%	96.3%	26,117	45.1%	100.0%	45.1%
Pipestone County	3,724	100.0%	100.0%	100.0%	5,363	96.5%	100.0%	96.5%
Polk County	16,057	96.5%	100.0%	96.5%		93.0%		
Pope County	•	•	•	•	10,970	69.5%	100.0%	69.5%
Ramsey County	546,751	98.7%	100.0%	98.7%	1,159	97.6%	100.0%	97.6%
Red Lake County	•	•	•	•	4,029	100.0%	100.0%	100.0%
Redwood	4,325	98.4%	100.0%	98.4%		99.7%		
Renville County					14,645	98.9%	100.0%	98.9%
Rice County	48,225	100.0%	100.0%			98.7%		98.7%
Rock County	4,394	99.4%	100.0%	99.4%	5,096	100.0%	100.0%	100.0%
Roseau County	2,508	100.0%	100.0%	100.0%	12,819	52.7%	99.7%	52.7%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Scott County	118,732	_	_			86.1%	_	
Sherburne County	52,054		100.0%			76.9%		76.9%
Sibley County		•			14,868	99.7%	100.0%	99.7%
St. Louis County	125,413	99.0%	100.0%	99.0%	74,587	65.4%	99.6%	65.4%
Stearns County	97,394	99.8%	100.0%	99.8%	60,415	74.4%	100.0%	74.4%
Steele County	25,339							
Stevens County	4,975	99.7%	100.0%	99.7%	4,659	96.2%	100.0%	96.2%
Swift County	2,918							
Todd County	4,861	100.0%	100.0%	100.0%	19,649	53.6%	100.0%	53.6%
Traverse		•		•	3,319	63.2%		
Wabasha County	7,501	100.0%	100.0%	100.0%	14,105	100.0%	99.0%	99.0%
Wadena	4,396	96.5%	100.0%	96.5%		87.9%	100.0%	87.9%
Waseca County	9,314	100.0%	100.0%	100.0%	9,473	100.0%	100.0%	100.0%
Washington County	215,295	98.6%	100.0%	98.6%	·	91.0%		91.0%
Watonwan County	4,314	100.0%	100.0%	100.0%	6,526	100.0%	100.0%	100.0%
Wilkin County	3,012		100.0%				100.0%	
Winona County	33,337	100.0%	100.0%	100.0%	17,536	97.8%	97.8%	95.8%
Wright County	88,552					71.2%		71.2%
Yellow Medicine County	1,660	100.0%	100.0%	100.0%	8,207	99.9%	100.0%	99.9%
Mississippi	1,469,3 32	97.0%	100.0%	97.0%	1,514,7 38	62.6%	99.8%	62.6%
Adams County	19,698	99.3%	100.0%	99.3%	11,305	63.6%	100.0%	63.6%
Alcorn County	12,524	100.0%	100.0%	100.0%	24,686	100.0%	100.0%	100.0%
Amite County	•	•	•		12,447	22.5%	99.9%	22.5%
Attala County	5,986	98.3%	100.0%	98.3%	12,491	29.7%	100.0%	29.7%
Benton County		•	•	•	8,312	92.4%	100.0%	92.4%

		Urban	Areas			Rural	Areas	
State, County	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &
or County	Evalua	Mbps/	Mbps/	Mobile	Evalua	Mbps/	Mbps/	Mobile
Equivalent	ted	3 Mbps	1 Mbps	LTE	ted	3 Mbps	1 Mbps	LTE
Bolivar County	13,875	98.0%	100.0%	98.0%				
Calhoun County	•	•	•	•	14,492	76.3%	100.0%	76.3%
Carroll County		•	•	ē	10,139	34.9%		
Chickasaw County	2,534	99.5%	100.0%	99.5%	14,612	48.4%	100.0%	48.4%
Choctaw		•	•	•	8,277	26.9%	100.0%	26.9%
Claiborne County	•	•	•	•	8,950	51.6%	98.1%	51.6%
Clarke County		•	•	•	15,828	60.4%	91.8%	60.3%
Clay County	8,527	99.3%	100.0%	99.3%	11,113	41.1%	99.9%	41.1%
Coahoma	15,737	97.7%	100.0%	97.7%	7,417	28.4%	100.0%	28.4%
Copiah County	9,500	80.7%	100.0%	80.7%	19,016	39.6%	99.8%	39.6%
Covington					19,079	22.6%	99.5%	22.6%
DeSoto County	139,816	98.7%	100.0%	98.7%	38,925	85.9%	100.0%	85.9%
Forrest County	52,507	96.4%	100.0%	96.4%	22,964	71.9%	100.0%	71.9%
Franklin County		•	•	•	7,765	27.6%	99.6%	27.6%
George County	2,718	99.4%	100.0%	99.4%	21,374	74.2%	100.0%	74.2%
Greene County	•	•	•	•	13,345	22.8%	100.0%	22.8%
Grenada	10,048	99.3%	100.0%	99.3%	11,039	70.1%	100.0%	70.1%
Hancock County	26,437	95.8%	100.0%	95.8%	20,616	69.6%	100.0%	69.6%
Harrison	156,718							
Hinds County	201,773	97.5%	100.0%	97.5%	37,724	69.9%	100.0%	69.9%
Holmes County	2,160				15,579	62.8%		62.8%
Humphreys County	4,071	100.0%	100.0%	100.0%	4,271	73.0%	100.0%	73.0%
Issaguena					1,339			
Itawamba County	3,206	95.9%	100.0%	95.9%	20,302	75.2%	100.0%	75.2%
Jackson	103,313	98.2%	100.0%	98.2%	38,836			
Jasper County	•				16,582	60.3%	100.0%	60.3%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Jefferson					7,262	54.5%	99.5%	54.5%
Jefferson Davis County	٠	٠	٠	٠	11,314	51.6%	99.6%	51.6%
Iones County	25,716	94.8%	100.0%	94.8%	42,214	67.4%	100.0%	67.4%
Kemper County	•				9,883	11.6%	99.7%	11.6%
Lafavette	27,905	94.9%	100.0%	94.9%	26,469	71.7%	100.0%	71.7%
Lamar County	29,294	99.1%	100.0%	99.1%	32,078	54.7%	100.0%	54.7%
Lauderdale County	38,612	96.1%	100.0%	96.1%	37,543	83.1%	99.9%	83.1%
Lawrence County	•	•	•	•	12,643	4.1%	100.0%	4.1%
Leake County	4,046	90.3%	100.0%	90.3%	18,669	39.1%	100.0%	39.1%
Lee County	45,822	98.7%	100.0%	98.7%	39,111	93.6%	100.0%	93.6%
Leflore County	23,827	99.8%	100.0%	99.8%	5,396	43.9%	100.0%	43.9%
Lincoln County	10,406	98.8%	100.0%	98.8%	23,941	51.2%	100.0%	51.2%
Lowndes	33,884	97.9%	100.0%	97.9%	25,302	75.8%	100.0%	75.8%
Madison County	72,553	96.9%	100.0%	96.9%	32,065	82.6%	100.0%	82.6%
Marion County	6,561	100.0%	100.0%	100.0%	18,508	41.4%	99.6%	41.4%
Marshall County	5,726	81.7%	100.0%	81.7%	29,893	65.4%	100.0%	65.4%
Monroe County	10,596	98.7%	100.0%	98.7%	25,276	52.9%	99.9%	52.9%
Montgomery County	3,919	99.1%	100.0%	99.1%	6,254	66.2%	99.6%	66.2%
Neshoba	7,663	98.2%	100.0%	98.2%	21,706	49.7%	100.0%	49.7%
Newton County	2,790	95.4%	100.0%	95.4%	18,395		99.8%	34.8%
Noxubee	2,786	76.3%	100.0%	76.3%	7,956	32.4%	100.0%	32.4%
Oktibbeha County	30,922	88.8%	100.0%	88.8%	18,877	61.8%	100.0%	61.8%
Panola County	7,000	96.0%	100.0%	96.0%	26,994	64.9%	100.0%	64.9%
Pearl River County	16,554	99.7%						
Perry County					12,032	23.4%	97.2%	23.4%

		Urban	Areas			Rural	Areas	
State, County	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &
or County Equivalent	Evalua ted	Mbps/ 3 Mbps	Mbps/	Mobile LTE	Evalua ted	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile LTE
Pike County	15,878		100.0%		23,590	54.0%	100.0%	54.0%
-					·			
Pontotoc Prentiss County	4,943 5,988		100.0% 100.0%		26,697 19,273	51.7% 100.0%		51.7% 100.0%
Quitman	3,107	96.6%	100.0%	96.6%	4,162	34.9%	100.0%	34.9%
Rankin County	98,509	96.8%	100.0%	96.8%	53,568	86.3%	100.0%	86.3%
Scott County	7,743	98.4%	100.0%	98.4%	20,677	33.2%	99.9%	33.2%
Sharkey County	٠			٠	4,435	42.6%	100.0%	42.6%
Simpson	3,737	89.7%	100.0%	89.7%	23,210			47.3%
Smith County	•	•	•	•	16,078	16.3%	98.6%	16.3%
Stone County	3,793				•			60.1%
Sunflower County	14,681	99.5%	100.0%	99.5%	11,300	43.6%	100.0%	43.6%
Tallahatchie County	2,498		100.0%		11,627	42.8%		42.8%
Tate County	6,346		100.0%	90.3%	22,090	65.0%	100.0%	65.0%
Tippah County Tishomingo County	<u>3,531</u>	<u>29.5%</u>	100.0%	<u>29.5%</u>	18,438 19,542	72.4% 97.6%	99.4% 100.0%	71.8% 97.6%
Tunica County	3,483	93.9%	100.0%	93.9%	6,541	51.5%	100.0%	51.5%
Union County	6,866	95.8%	100.0%	95.8%	21,689	75.7%	100.0%	75.7%
Walthall			•		14,499	24.9%	99.8%	24.9%
Warren County	27,850	96.3%	100.0%	96.3%	18,918	91.2%	99.4%	91.2%
Washington County	37,275	99.9%	100.0%	99.9%	8,946	59.3%	100.0%	59.3%
Wayne County	4,132	99.7%	100.0%	99.7%	16,314	50.6%	96.9%	50.3%
Webster					9,765	46.1%	99.9%	46.1%
Wilkinson County					8,804	36.4%	99.0%	36.4%
Winston	4,214					55.7%	99.9%	55.7%
Yalobusha County	2,520	98.2%	100.0%	98.2%	9,977	57.0%	99.8%	57.0%
Yazoo County	14,508	97.4%	100.0%	97.4%	12,549	24.1%	99.5%	24.1%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Missouri	4,285,7 07	98.8%	100.0%	98.8%	1,827,6 43	65.1%	99.5%	64.9%
Adair County	15,680	93.9%	100.0%	93.9%	9,697	58.5%	98.8%	58.5%
Andrew County	6,664	100.0%	100.0%	100.0%	10,890	80.5%	100.0%	80.5%
Atchison County					5,275	76.2%	100.0%	76.2%
Audrain	14,644	88.7%	100.0%	88.7%			99.9%	
Barry County	9,502		100.0%	100.0%	·	100.0%	100.0%	
Barton County	3,358		100.0%	92.2%		65.2%		65.2%
Bates County	3,414	97.1%	100.0%	97.1%	·			39.5%
Benton County	2,561	26.2%	100.0%	26.2%			99.8%	
Bollinger County	•	•	•	•	12,302	21.2%	100.0%	21.2%
Boone County	139,615	96.9%						
Buchanan County	76,853	99.9%	100.0%	99.9%	12,212	59.6%	100.0%	59.6%
Butler County	20,372	98.7%	100.0%	98.7%			100.0%	
Caldwell County				•	9,099	42.2%	100.0%	42.2%
Callaway	16,871	98.8%				91.9%		
Camden County	11,617	99.9%	100.0%	99.9%	34,013	91.6%	98.9%	91.2%
Cape Girardeau	53,456	99.8%	100.0%	99.8%	ŕ	54.5%	100.0%	
Carroll County	3,050	97.4%	100.0%	97.4%	5,746	50.2%	100.0%	50.2%
Carter County					6,169		99.7%	7.3%
Cass County	68,991	100.0%	100.0%		·	100.0%	100.0%	
Cedar County	3,406	99.9%	100.0%	99.9%		38.3%		38.3%
Chariton County	•	•	•	•	7,480	39.2%	99.7%	39.1%
Christian	45,129	100.0%	100.0%	100.0%		100.0%	99.5%	99.5%
Clark County	•				6,723		99.9%	31.2%
Clay County	215,977	100.0%	100.0%	100.0%	26,879	100.0%	100.0%	100.0%

		Urban	Areas			Rural	Areas	
State, County	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &
or County Equivalent	Evalua ted	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile	Evalua ted	Mbps/	Mbps/ 1 Mbps	Mobile
Clinton County	4,822	100.0%	100.0%	100.0%	15,732	59.1%	100.0%	59.1%
Cole County	54,145	98.9%	100.0%	98.9%	22,563	62.8%	100.0%	62.8%
Cooper County	8,170	100.0%	100.0%	100.0%	9,474	100.0%	100.0%	100.0%
Crawford	6,541	100.0%	100.0%	100.0%	17,561	75.5%	97.4%	75.5%
Dade County	•	•	•	•	7,588	42.2%	100.0%	42.2%
Dallas County	2,841	100.0%	100.0%	100.0%	13,829	100.0%	99.4%	99.4%
Daviess County	•	•	•	•	8,357	54.3%	100.0%	54.3%
DeKalb County	4,659	69.1%	100.0%	69.1%	7,929	72.9%	100.0%	72.9%
Dent County	4,798	100.0%	100.0%	100.0%	10,679	34.6%	93.2%	34.6%
Douglas	2,628	100.0%	100.0%	100.0%	10,672	100.0%		
Dunklin County	14,667	99.5%	100.0%	99.5%	15,452	66.9%	100.0%	66.9%
Franklin	45,372	98.5%	100.0%	98.5%	57,958	56.5%	99.7%	
Gasconade County	2,809	8.1%	100.0%	8.1%	11,917	31.3%	99.3%	31.3%
Gentry County					6,665	77.8%	100.0%	77.8%
Greene County	245,787	100.0%	100.0%	100.0%	44,014	100.0%	100.0%	100.0%
Grundy County	5,167	32.0%	100.0%	32.0%		45.3%		
Harrison County	2,254	100.0%	100.0%	100.0%	6,270	43.2%	99.6%	43.2%
Henry County	10,673	76.9%	100.0%	76.9%	11,044	8.1%	100.0%	8.1%
Hickory County		•	•	•	9,475	10.5%	99.9%	10.5%
Holt County					4,413	33.7%	100.0%	
Howard County	3,505	47.0%	100.0%	47.0%	6,634	12.4%	100.0%	12.4%
Howell County	11,030		100.0%				i	
Iron County	2,604	99.2%	100.0%	99.2%	7,620	26.3%	96.5%	26.3%
Jackson	670,087		100.0%			100.0%		
Jasper County	89,795	99.6%	100.0%	99.6%	30,398	77.8%	100.0%	77.8%
<u>Jefferson</u>	155,068		100.0%			80.1%		
Johnson County	25,775	99.7%	100.0%	99.7%	28,122	20.2%	100.0%	20.2%
Knox County					3,976	3.7%	99.7%	3.7%

		Urban	Areas		Rural Areas				
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	
Laclede County	13,873	100.0%	100.0%	100.0%	21,570	100.0%	99.9%	99.9%	
Lafayette	13,810	43.4%	100.0%	43.4%	18,831	17.3%	100.0%	17.3%	
Lawrence County	15,576	100.0%	100.0%	100.0%	22,858	100.0%	100.0%	100.0%	
Lewis County	•				9,967	29.6%	99.8%	29.4%	
Lincoln County	13,642	99.9%	100.0%	99.9%	42,537	58.6%	100.0%	58.6%	
Linn County	3,972	21.8%		21.8%	8,221	73.9%		73.9%	
Livingston County	9,398	91.5%	100.0%	91.5%	5,775	42.0%	100.0%	42.0%	
Macon County	4,654	100.0%	100.0%	100.0%	10,596	63.3%	97.8%	62.8%	
Madison	4,102	100.0%	100.0%	100.0%	8,141	34.6%	99.7%	34.6%	
Maries County	•	•	•	•	8,867	31.9%	100.0%	31.9%	
Marion County	21,425	100.0%	100.0%	100.0%	7,209	35.6%	98.7%	35.6%	
McDonald	3	0.0%	100.0%	0.0%	22,824	71.4%		71.4%	
Mercer County	•	•	•	•	3,678	48.4%	99.9%	48.3%	
Miller County Mississippi County	5,031 9,073	99.7% 99.9%		99.7% 99.9%	20,197 4,513	50.4% 62.2%		50.4% 62.2%	
-	7.400	100.00/	100.00/	100.00/	0.000	07.00/	100.00/	07.00/	
Moniteau Monroe County	7,463	100.0%	100.0%	100.0%	8,600 8,612	97.6% 52.6%		97.6% 52.6%	
Montgomery County	2,191	100.0%	100.0%	100.0%					
Morgan County					20,145	95.9%	99.6%	95.5%	
New Madrid County	7,243	99.6%	100.0%	99.6%	10,339	69.3%	100.0%	69.3%	
Newton County	20,489	99.1%	100.0%	99.1%	37,801	74.8%	100.0%	74.8%	
Nodaway	12,327	100.0%	100.0%	100.0%	10,145	75.8%	100.0%	75.8%	
Oregon County	2,063	84.0%	100.0%	84.0%	8,495	22.2%	88.3%	18.9%	
Osage County					13,662	34.3%	1	34.3%	
Ozark County	•		•	•	9,186	10.2%	98.3%	10.2%	
Pemiscot	8,056	98.3%		98.3%	8,770		1	53.1%	
Perry County	8,386	99.2%	100.0%	99.2%	10,839	28.4%	99.9%	28.4%	

		Urban	Areas			Rural	Areas	
State, County	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &
or County Equivalent	Evalua ted	Mbps/	Mbps/ 1 Mbps	Mobile LTE	Evalua ted	Mbps/	Mbps/ 1 Mbps	Mobile
Pettis County	26,241	95.4%	100.0%	95.4%	16,310	20.9%	100.0%	20.9%
Phelps County	23,789	100.0%	100.0%	100.0%	20,954	72.9%	99.7%	72.9%
Pike County	8,298	37.2%	100.0%	37.2%	10,269	27.2%	100.0%	27.2%
Platte County	82,589	99.2%	100.0%	99.2%	18,568	47.7%	100.0%	47.7%
Polk County	9,609	100.0%	100.0%	100.0%	22,175	100.0%	100.0%	100.0%
Pulaski County	28,609	99.3%	100.0%	99.3%	23,450	89.0%	99.8%	89.0%
Putnam		•			4,811	71.3%	99.8%	71.1%
Ralls County	404	98.0%	100.0%	98.0%	9,820	77.7%	100.0%	77.7%
Randolph	13,330	100.0%	100.0%	100.0%	11,615	41.2%	99.5%	40.9%
Ray County	5,664	97.7%	100.0%	97.7%	17,190	51.3%	100.0%	51.3%
Reynolds	•	•	•	•	6,275	24.5%	80.7%	23.3%
Ripley County	•	•	•	•	13,564	31.8%	95.6%	30.8%
Saline County	11,801	100.0%	100.0%	100.0%	10,859	14.3%	100.0%	14.3%
Schuyler	•			•	4,508	0.3%	100.0%	0.3%
Scotland County	•	•	•	•	4,961	80.4%	99.6%	80.4%
Scott County	22,439	100.0%	100.0%	100.0%	16,102	70.1%	100.0%	70.1%
Shannon County	•		•	•	8,249	25.1%	90.4%	25.1%
Shelby County	•	•	•	•	6,021	37.3%	96.7%	37.2%
St. Charles	366,866	99.7%	100.0%	99.7%			100.0%	
St. Clair County	•	•	•	•	9,362	28.0%	99.9%	28.0%
St. Francois County	39,759	99.9%	100.0%	99.9%	26,946	67.5%	100.0%	67.5%
St. Louis	985,139	99.8%	100.0%	99.8%	11,587	91.5%	100.0%	91.5%
St. Louis city	308,625	100.0%	100.0%	100.0%	1	100.0%	100.0%	100.0%
Ste. Genevieve	4,220	100.0%	100.0%	100.0%	13,623	36.5%	100.0%	36.5%
Stoddard County	8,805	99.2%	100.0%	99.2%	20,564	56.5%	100.0%	56.5%
Stone County	3,441	100.0%	100.0%	100.0%	28,254	100.0%	100.0%	100.0%

County 29,965 99.9% 100.0% 99.9% 25,390 95.3% 99.9% 95.2% Texas County 205 100.0% 100.0% 100.0% 25,530 76.7% 96.2% 73.2% Vernon County 8,023 100.0% 100.0% 100.0% 12,414 48.2% 100.0% 48.2% Warren County 12,222 96.2% 100.0% 96.2% 22,114 66.9% 100.0% 66.9% Washington 4,809 11.2% 100.0% 11.2% 20,213 30.2% 99.7% 30.2% Webster 9,635 100.0% 100.0% 100.0% 29,028 100.0% 99.9% 99.9% 99.9% 99.9% 99.9% 90.9%			Urban	Areas			Rural	Areas	
County 29,965 99.9% 100.0% 99.9% 25,390 95.3% 99.9% 95.2% Texas County 205 100.0% 100.0% 100.0% 25,530 76.7% 96.2% 73.2% Vernon County 8,023 100.0% 100.0% 100.0% 12,414 48.2% 100.0% 48.2% Warren County 12,222 96.2% 100.0% 96.2% 22,114 66.9% 100.0% 66.9% Washington 4,809 11.2% 100.0% 11.2% 20,213 30.2% 99.7% 30.2% Webster 9,635 100.0% 100.0% 100.0% 29,028 100.0% 99.9% 99.9% 99.9% 99.9% 99.9% 90.9%	or County	Evalua	Pop. with Fixed 25 Mbps/	Pop. with Mobile LTE 5 Mbps/	Pop. with Fixed & Mobile	Evalua	Pop. with Fixed 25 Mbps/	Pop. with Mobile LTE 5 Mbps/	Pop. with Fixed & Mobile
Texas County 205 100.0% 100.0% 100.0% 25,530 76.7% 96.2% 73.2% Vernon County 8,023 100.0% 100.0% 102.0% 12,414 48.2% 100.0% 48.2% Warren County 12,222 96.2% 100.0% 96.2% 22,144 66.9% 100.0% 66.9% Washington County 4,809 11.2% 100.0% 11.2% 20,213 30.2% 99.7% 30.2% Wayne County .		•	•	•	٠	6,229	64.3%	100.0%	64.3%
Warren County 12,222 96.2% 100.0% 96.2% 22,144 66.9% 100.0% 66.9% Washington County 4,809 11.2% 100.0% 11.2% 20,213 30.2% 99.7% 30.2% Wayne County .									95.2% 73.2%
County . </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>48.2% 66.9%</th>									48.2% 66.9%
Webster 9,635 100.0% 100.0% 29,028 100.0% 99.9% 99.9% Worth County 2,057 56.3% 99.8% 56.3% Wright County 4,086 100.0% 100.0% 100.0% 14,245 100.0% 97.0% 97.0% Montana 570,02 97.5% 99.6% 97.2% 480,43 73.0% 95.1% 70.7% Beaverhead County 4,514 99.2% 100.0% 99.2% 4,920 56.5% 89.0% 47.0% Big Horn 3,464 100.0% 100.0% 100.0% 9.895 75.0% 88.1% 70.5% Blaine County . . . 6,708 96.3% 78.3% 75.6% Broadwater County . <th>County</th> <th>4,809</th> <th>11.2%</th> <th>100.0%</th> <th>11.2%</th> <th>·</th> <th></th> <th></th> <th></th>	County	4,809	11.2%	100.0%	11.2%	·			
Wright County 4,086 100.0% 100.0% 14,245 100.0% 97.0% 97.0% Montana 570,02 97.5% 99.6% 97.2% 480,43 73.0% 95.1% 70.7% Beaverhead County 4,514 99.2% 100.0% 99.2% 4,920 56.5% 89.0% 47.0% Big Horn 3,464 100.0% 100.0% 100.0% 9,895 75.0% 88.1% 70.5% Blaine County .	Webster	9,635	100.0%	100.0%	100.0%	29,028	100.0%	99.9%	99.9%
Beaverhead County 4,514 99.2% 100.0% 99.2% 4,920 56.5% 89.0% 47.0% Biq Horn 3,464 100.0% 100.0% 100.0% 9,895 75.0% 88.1% 70.5% Blaine County 6,708 96.3% 78.3% 75.6% Broadwater County 5,934 28.9% 99.4% 28.9% Carter County 10,696 95.6% 99.8% 95.5% Cascade County 1,222 47.8% 14.7% 6.8% County 5,765 98.2% 96.5% 94.7% County 5,765 98.2% 96.5% 94.7% Chouteau 5,765 98.2% 96.5%	Wright County					14,245	100.0%	97.0%	97.0%
Big Horn 3,464 100.0% 100.0% 100.0% 9,895 75.0% 88.1% 70.5% Blaine County 6,708 96.3% 78.3% 75.6% Broadwater County 5,934 28.9% 99.4% 28.9% Carbon County 10,696 95.6% 99.8% 95.5% Carter County 1,222 47.8% 14.7% 6.8% Cascade County 16,594 98.0% 99.1% 97.7% Chouteau 5,765 98.2% 96.5% 94.7% Custer County 9,321 100.0% 100.0% 100.0% 2,400 54.9% 81.5% 52.7% Daniels County <th>Montana</th> <th></th> <th>97.5%</th> <th>99.6%</th> <th>97.2%</th> <th>_</th> <th>73.0%</th> <th>95.1%</th> <th>70.7%</th>	Montana		97.5%	99.6%	97.2%	_	73.0%	95.1%	70.7%
Blaine County . . 6,708 96.3% 78.3% 75.6% Broadwater County 5,934 28.9% 99.4% 28.9% County .		4,514	99.2%	100.0%	99.2%	4,920	56.5%	89.0%	47.0%
Broadwater County .		3,464	100.0%	100.0%	100.0%				
County . <th>Blaine County</th> <th>•</th> <th>•</th> <th>•</th> <th></th> <th>6,708</th> <th></th> <th>78.3%</th> <th></th>	Blaine County	•	•	•		6,708		78.3%	
Carter County . . 1,222 47.8% 14.7% 6.8% Cascade County 65,059 100.0% 100.0% 100.0% 16,594 98.0% 99.1% 97.7% Chouteau 5,765 98.2% 96.5% 94.7% Custer County 9,321 100.0% 100.0% 100.0% 2,400 54.9% 81.5% 52.7% Daniels County 1,737 98.4% 74.0% 73.5% Dawson County 6,061 100.0% 100.0% 100.0% 2,889 57.0% 85.2% 45.3% Deer Lodge 6,138 99.3% 100.0% 99.3% 2,968 34.1% 96.0% 30.3% Fallon County 3,009 61.1% 94.1% 59.8%	County	•	•	•	•	·			
Cascade County 65,059 100.0% 100.0% 100.0% 16,594 98.0% 99.1% 97.7% Chouteau 5,765 98.2% 96.5% 94.7% Custer County 9,321 100.0% 100.0% 100.0% 2,400 54.9% 81.5% 52.7% Daniels County 1,737 98.4% 74.0% 73.5% Dawson County 6,061 100.0% 100.0% 100.0% 2,889 57.0% 85.2% 45.3% Deer Lodge County 6,138 99.3% 100.0% 99.3% 2,968 34.1% 96.0% 30.3% Fallon County 3,009 61.1% 94.1% 59.8%	5	•	•	•	•				
Custer County 9,321 100.0% 100.0% 100.0% 2,400 54.9% 81.5% 52.7% Daniels County 1,737 98.4% 74.0% 73.5% Dawson County 6,061 100.0% 100.0% 100.0% 2,889 57.0% 85.2% 45.3% Deer Lodge County 6,138 99.3% 100.0% 99.3% 2,968 34.1% 96.0% 30.3% Fallon County 3,009 61.1% 94.1% 59.8%	Cascade	65,059	100.0%	100.0%	100.0%				
Dawson County 6,061 100.0% 100.0% 100.0% 2,889 57.0% 85.2% 45.3% Deer Lodge County 6,138 99.3% 100.0% 99.3% 2,968 34.1% 96.0% 30.3% Fallon County 3,009 61.1% 94.1% 59.8%		9,321	100.0%	100.0%	100.0%				94.7% 52.7%
Deer Lodge County 6,138 99.3% 100.0% 99.3% 2,968 34.1% 96.0% 30.3% Fallon County 3,009 61.1% 94.1% 59.8%	Daniels County	•	100.0%	100.0%	100.0%			74.0%	73.5%
Fallon County . . . 3,009 61.1% 94.1% 59.8%	Deer Lodge	·							30.3%
Fergus County 6,047 100.0% 100.0% 100.0% 5,244 58.9% 92.4% 51.8%		6,047	100.09/				61.1% 58.9%		

		Urban	Areas		Rural Areas			
		% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed		% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed
State, County	Pop.	25	LTE 5	&	Pop.	25	LTE 5	&
or County Equivalent	Evalua ted		Mbps/ 1 Mbps	Mobile LTE	Evalua ted	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile LTE
Flathead	46,289	_	100.0%			82.3%	99.2%	82.3%
County	40,203	100.070	100.070	100.070	55,700	02.570	33.270	02.570
Gallatin	65,755	100.0%	100.0%	100.0%	42,053	80.2%	98.7%	79.9%
Garfield	•	•	•	•	1,293	43.3%	73.4%	35.2%
County								
Glacier County	7,453	38.9%	100.0%	38.9%		9.5%	99.0%	9.5%
Golden Valley County	•	•		•	822	55.2%	99.5%	55.2%
Granite County			•	•	3,358	15.5%	95.2%	14.3%
Hill County	9,693	99.9%	100.0%	99.9%	6,770	90.6%	99.3%	90.0%
<u>Iefferson</u>			•		11,891	80.8%	99.7%	80.6%
Judith Basin County					1,960	83.1%	96.5%	80.3%
Lake County	4,857	99.6%	100.0%	99.6%	25,414	59.6%	99.1%	59.2%
Lewis and Clark County	46,155	100.0%	100.0%	100.0%	21,618	97.7%	98.7%	97.0%
Liberty County					2,425	83.4%	85.6%	70.1%
Lincoln County	3,861	0.0%	100.0%	0.0%	15,579	28.2%	89.2%	26.3%
Madison County					8,174	83.3%	95.9%	80.0%
McCone	•	•	•	•	1,718	45.6%	83.5%	43.9%
Meagher	•	•	•	•	1,851	97.0%	93.9%	91.3%
Mineral County					4,255	18.2%	97.9%	18.2%
Missoula	88,511	100.0%	100.0%	100.0%	28,921	72.7%	95.2%	72.1%
Musselshell County					4,639	50.2%	98.1%	49.2%
Park County	8,277	100.0%	100.0%	100.0%	8,075	97.6%	96.9%	96.4%
Petroleum County		•			523	39.6%	89.3%	39.4%
Phillips County			•	•	4,119	82.2%	92.8%	80.4%
Pondera County	2,388	0.1%	100.0%	0.1%	3,572	32.4%	99.5%	32.3%

		Urban	Areas			Rural	Areas	
State, County or County	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile
Equivalent	ted	3 Mbps	1 Mbps	LTE	ted		1 Mbps	
Powder River County					1,752	36.6%	60.6%	28.3%
Powell County	3,164	99.8%	100.0%	99.8%	3,631	14.2%	93.3%	14.1%
Prairie County	•	•		•	1,109		95.9%	61.2%
Ravalli County	6,329	100.0%	100.0%	100.0%	36,232	96.5%	96.9%	95.1%
Richland	5,063					58.8%	85.7%	53.4%
Roosevelt County	6,171	81.1%	59.4%	57.4%	4,927	58.4%	82.9%	49.5%
Rosebud				•	9,248		73.0%	32.1%
Sanders County	•	•	•	•	11,711	14.4%	92.6%	13.0%
Sheridan	•	•	•	•	3,469	83.9%	80.3%	67.9%
Silver Bow County	30,128	98.8%	100.0%	98.8%	4,473	49.5%	98.9%	48.4%
Stillwater	•	•	•	•	9,419	94.1%	97.3%	92.2%
Sweet Grass County	•	•	•	•	3,691	92.7%	98.5%	91.8%
Teton County	•	•	•	•	6,085	32.8%	99.1%	32.7%
Toole County	2,862	38.8%	100.0%	38.8%	2,024	14.8%	95.3%	14.8%
Treasure	•	•	•	•	679	53.3%	97.6%	53.3%
Valley County	3,202	98.4%	100.0%	98.4%	4,231	66.4%	79.1%	52.7%
Wheatland	•	•	•	•	2,140		99.8%	
Wibaux County	•	•	•	•	1,020	8.5%	73.5%	5.8%
Yellowstone County	129,264				ŕ	97.1%	99.9%	97.0%
Nebraska	1,406,4 01	97.9%	100.0%	97.9%	513,50 4	58.0%	99.6%	57.9%
Adams County	24,242	100.0%	100.0%	100.0%	7,436	64.6%	99.8%	64.6%
Antelope	•		•	•	6,361	55.7%	99.9%	55.7%
Arthur County	•	•	•	•	457	72.4%	97.8%	70.2%
Banner County	•				742	19.0%	99.7%	19.0%
Blaine County	<u>.</u>	•		•	482	35.3%	94.6%	31.3%
Boone County			•		5,352	54.0%	100.0%	54.0%

		Urban	Areas			Rural	Areas	
State, County	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &
or County Equivalent	Evalua ted	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile LTE	Evalua ted	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile LTE
Box Butte County	8,096		100.0%	100.0%	2,790	88.1%	100.0%	88.1%
Boyd County	•	•	•	•	1,977	99.2%	99.4%	98.6%
Brown County	•	•	•	•	3,014	80.2%	97.1%	79.1%
Buffalo County	32,233	100.0%	100.0%	100.0%	17,493	75.2%	99.9%	75.2%
Burt County	•	•	•	•	6,535	74.8%	100.0%	74.8%
Butler County	2,601	100.0%	100.0%		5,452	44.8%	100.0%	44.8%
Cass County	6,880	98.7%	100.0%	98.7%	19,007	64.5%	100.0%	64.5%
Cedar County		•	•	•	8,530			
Chase County	•	•	•	•	3,971	83.9%	100.0%	83.9%
Cherry County	2,691	99.6%	100.0%	99.6%	3,127	29.0%	85.4%	24.8%
Cheyenne County	5,911	100.0%	100.0%	100.0%	3,765	79.6%	100.0%	79.6%
Clay County	•		•	•	6,204		99.8%	
Colfax County	6,059	34.9%	100.0%	34.9%	4,523	61.5%	99.8%	61.4%
Cuming	3,001	99.2%	100.0%	99.2%	6,041	48.3%	100.0%	48.3%
Custer County	3,438	95.3%	100.0%	95.3%	7,459	16.0%	99.6%	15.9%
Dakota County	15,726		100.0%	94.5%		76.4%		
Dawes County	5,277	86.7%	100.0%	86.7%	3,613	71.5%	100.0%	71.5%
Dawson County	17,269	100.0%	100.0%	100.0%			99.5%	33.9%
Deuel County	•			•	1,883	2.3%	100.0%	2.3%
Dixon County					5,754	86.0%		
Dodge County	27,206	98.9%	100.0%	98.9%	9,501	67.4%	100.0%	67.4%
Douglas	546,377	98.4%	100.0%	98.4%	15,166	71.5%	100.0%	
Dundy County	•		•	•	1,801	78.6%	99.4%	
Fillmore					5,582	60.7%	99.9%	
Franklin County	•	•	•	•	2,990	46.9%	99.2%	46.5%
Frontier					2,631	10.7%	98.5%	
Furnas County	•			•	4,780	25.3%	100.0%	25.3%
Gage County	11,461	100.0%	100.0%	100.0%	10,140	38.5%	100.0%	38.5%
Garden County	•		•		1,906	85.5%	98.0%	85.5%

		Urban	Areas		Rural Areas			
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
	tea	3 Mbps	1 Mbps	LIE		-	-	
Garfield Gosper County	•	•	•	•	2,016 2,026		98.8% 100.0%	0.6% 13.0%
	•	•	•	•				
Grant County Greeley County	•	•	•	•	649 2,374	25.4% 18.7%	99.5% 99.8%	25.1% 18.7%
5	F1 221		100.00/					
Hall County Hamilton County	51,221 4,417	0.0%	100.0% 100.0%	99.8% 0.0%	10,297 4,790	43.7% 18.3%		43.7% 18.3%
Harlan County					3,443	i		2.5%
Hayes County	•	•	•	•	893	33.0%	99.8%	32.8%
Hitchcock	•	•			2,834	67.2%	100.0%	67.2%
Holt County	3,470	100.0%	100.0%	100.0%	6,732	38.4%	99.0%	38.0%
Hooker County	•		•	•	674	21.1%	97.8%	19.1%
Howard County					6,437	43.8%	100.0%	43.8%
Jefferson	3,550	100.0%	100.0%	100.0%	3,628	28.1%	95.2%	27.6%
Johnson County	•	•	•	٠	5,184	48.6%	100.0%	48.6%
Kearnev	2,913	99.9%	100.0%	99.9%	3,617	76.3%	100.0%	
Keith County	4,287	100.0%	100.0%	100.0%	3,785	58.2%	99.9%	58.1%
Keya Paha	•	•			793	96.8%	94.3%	91.9%
Kimball County			•	•	3,619	94.4%	99.9%	94.4%
Knox County					8,472			
Lancaster County	281,281	99.6%	100.0%	99.6%	33,047	57.7%	100.0%	57.7%
Lincoln County	24,465	100.0%	100.0%	100.0%		53.3%		53.2%
Logan County	•	•	•		768	43.2%	100.0%	43.2%
Loup County					609	3.3%	98.2%	1.5%
Madison	25,121	98.8%	100.0%	98.8%		67.2%		67.2%
McPherson County	٠		•	•	499	43.3%	94.6%	43.3%
Merrick County	3,104	86.3%	100.0%	86.3%	4,776			38.5%
Morrill County					4,836	80.9%	99.5%	80.9%

		Urban	Areas			Rural	Areas	
State, County	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &
or County	Evalua	Mbps/	Mbps/	Mobile	Evalua	Mbps/	Mbps/	Mobile
Equivalent	ted	3 Mbps	1 Mbps	LTE	ted	3 Mbps	_	
Nance County	•	•			3,606	48.1%	99.8%	48.1%
Nemaha	3,280	99.9%	100.0%	99.9%		49.7%		
Nuckolls County	•	•	•	•	4,274	54.7%	100.0%	54.7%
Otoe County	7,088	99.9%	100.0%	99.9%	8,939		99.8%	
Pawnee County	•	•	•	•	2,641	54.4%	100.0%	54.4%
Perkins County		•		•	2,901	63.0%	99.4%	63.0%
Phelps County	5,215	99.8%	100.0%	99.8%	3,845	56.1%	100.0%	56.1%
Pierce County	•	•			7,138			
Platte County	22,371	99.3%	100.0%	99.3%	10,801	36.6%	99.8%	36.6%
Polk County	•		•		5,321	51.5%	100.0%	51.5%
Red Willow County	7,307	98.7%	100.0%	98.7%	3,421	67.0%	99.6%	66.6%
Richardson County	3,858	100.0%	100.0%	100.0%	ŕ	84.5%	99.7%	84.2%
Rock County	•	•			1,436	77.4%	95.8%	74.8%
Saline County	6,855			100.0%		58.6%	98.9%	
Sarpy County	167,898	95.8%	100.0%	95.8%	13,532	78.8%	100.0%	78.8%
Saunders	6,976		100.0%			60.7%	100.0%	
Scotts Bluff County	25,216	100.0%	100.0%	100.0%	11,147	95.0%	100.0%	94.9%
Seward County	6,582	99.9%	100.0%	99.9%			100.0%	
Sheridan County	•		•	•	5,289	61.1%	97.3%	60.9%
Sherman					3,085			
Sioux County	•	•	•	•	1,203	76.6%	97.4%	74.8%
Stanton	1,456	87.7%	100.0%	87.7%				
Thayer County	•	•	•	•	5,045	66.9%	99.9%	66.9%
Thomas					725	32.7%		
Thurston County					7,222	44.7%	100.0%	44.7%
Valley County					4,209	52.1%	99.9%	52.1%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Washington County	7,873	93.8%	100.0%	93.8%	12,847	53.9%	99.9%	53.9%
Wayne County Webster County	4,665	99.9%	100.0%	99.9%	4,653 3,524	42.8% 72.4%		42.8% 72.2%
Wheeler York County	7,464	100.0%	100.0%	100.0%	814 6,342	52.0% 57.8%		51.7% 57.8%
Nevada	2,790,2 85	96.1%	100.0%	96.1%	207,73 3	46.5%	96.3%	44.9%
Carson City	51,957	99.7%	100.0%	99.7%	2,788	92.0%	100.0%	92.0%
Churchill County	15,382	99.8%	100.0%	99.8%	8,848	70.2%	98.3%	70.2%
Clark County Douglas County	2,147,7 32,533	97.0% 99.9%	100.0% 100.0%	97.0% 99.9%	56,317 15,776	38.8% 82.7%	99.6%	38.8% 82.7%
Elko County Esmeralda	29,815	13.8%	100.0%	13.8%	22,834 850	1.7% 72.1%		1.7% 71.8%
County Eureka County Humboldt County	9,873	0.0%	100.0%	0.0%	1,961 6,953	28.3% 2.7%	97.9% 96.7%	28.3% 2.7%
Lander County Lincoln County	3,406	0.0%	100.0%	0.0%	2,287 5,223	12.7% 79.4%		11.6% 19.2%
Lyon County Mineral County	32,665 3,124		100.0% 100.0%			48.4% 40.8%	99.9%	48.4% 40.8%
Nye County Pershing County	28,127	98.7%	100.0%	98.7%	16,075 6,508	79.0% 27.0%		78.8% 27.0%
Storey County Washoe County	287 430,858	100.0% 99.7%	100.0% 100.0%	100.0% 99.7%	3,719 29,723			68.4% 61.3%
White Pine	4,509	88.7%	100.0%	88.7%	5,083	10.1%	97.4%	10.1%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
New Hampshire	809,52 0	98.3%	100.0%	98.3%	533,25 7	89.1%	99.8%	89.0%
Belknap County	20,384	97.0%	100.0%	97.0%	40,401	97.3%	100.0%	97.3%
Carroll County	4,647	100.0%	100.0%	100.0%	43,415	94.8%	100.0%	94.8%
Cheshire County	26,284	99.0%	100.0%	99.0%	49,676	55.5%	100.0%	55.5%
Coos County	10,214	100.0%	100.0%	100.0%	21,420			60.3%
Grafton County	27,436	95.1%	100.0%	95.1%	61,949	87.9%	99.4%	87.4%
Hillsborough County	321,398	98.6%	100.0%	98.6%	88,296	93.9%	100.0%	93.9%
Merrimack County	67,251	97.4%	100.0%	97.4%	81,962	96.0%	100.0%	96.0%
Rockingham County	230,161	99.1%	100.0%		76,193	98.9%	100.0%	98.9%
Strafford County	86,440	97.4%	100.0%	97.4%	42,173	97.9%	100.0%	97.9%
Sullivan	15,305	96.1%	100.0%	96.1%	27,772	75.8%	100.0%	75.8%
New Jersey	8,539,3 12	99.1%	100.0%	99.1%	466,09 8	97.9%	100.0%	97.9%
Atlantic County	234,920	97.6%	100.0%	97.6%	34,998	97.3%	100.0%	97.3%
Bergen County	947,330	99.9%	100.0%	99.9%	1,065	100.0%	100.0%	100.0%
Burlington County	418,492	97.9%	100.0%	97.9%	30,104	97.3%	100.0%	97.3%
Camden	502,569	98.4%	100.0%	98.4%	8,150	99.7%	100.0%	99.7%
Cape May County	77,231	98.8%	100.0%	98.8%	16,322	97.0%	100.0%	97.0%
Cumberland County	118,994	98.1%	100.0%	98.1%	33,544	88.6%	100.0%	88.6%
Essex County	808,127	99.0%	100.0%	99.0%	134	97.0%	100.0%	97.0%
Gloucester	267,751	99.0%	100.0%	99.0%	24,454	98.7%	100.0%	98.7%
Hudson County	691,606		100.0%			•	•	•
Hunterdon	62,731	98.3%	100.0%	98.3%	62,328	99.7%	100.0%	99.7%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Mercer County	361,354	97.9%	100.0%	97.9%	13,358	99.4%	100.0%	99.4%
Middlesex	836,803	99.1%	100.0%	99.1%	5,959	99.5%	100.0%	99.5%
Monmouth County	602,792	99.8%	100.0%	99.8%	23,558	99.8%	100.0%	99.8%
Morris County	465,541	100.0%	100.0%	100.0%	34,151	99.8%	100.0%	
Ocean County	580,057	98.4%	100.0%	98.4%	17,878	98.3%	100.0%	98.3%
Passaic County	499,740		100.0%		12,850		100.0%	
Salem County	33,879	97.9%	100.0%	97.9%	28,913	94.8%	100.0%	94.8%
Somerset	315,179	99.7%	100.0%	99.7%	20,232	98.7%	100.0%	98.7%
Sussex County	84,367	100.0%	100.0%	100.0%	57,315	99.9%	100.0%	99.9%
Union County	563,836	99.5%	100.0%	99.5%	•	•	•	
Warren County	66,013	99.6%	100.0%	99.6%	40,785	98.5%	100.0%	98.5%
New Mexico	1,586,3 50	94.8%	100.0%	94.8%	501,71 0	47.3%	98.0%	47.1%
Bernalillo County	644,884	99.7%	100.0%	99.7%	31,889	78.5%	99.9%	78.5%
Catron County					3,587	0.0%	65.9%	0.0%
Chaves County	48,837	98.5%	100.0%	98.5%	16,029	46.8%	99.9%	46.8%
Cibola County	11,364	3.8%	100.0%	3.8%	15,489	21.0%	96.3%	21.0%
Colfax County	5,926	15.8%	100.0%	15.8%	6,248	4.1%	100.0%	4.1%
Curry County	41,765	99.0%	100.0%	99.0%	8,047	60.9%	100.0%	
De Baca County	•	•	•	•	1,829	64.9%	100.0%	64.9%
Doña Ana	170,173		100.0%	92.2%	45,405	57.5%		
Eddy County	42,695	97.5%	100.0%	97.5%	14,302	47.4%	99.5%	47.4%
Grant County	15,948		100.0%				98.9%	
Guadalupe County	1,904	98.0%	100.0%	98.0%	2,525	18.0%	100.0%	18.0%
Harding				•	692	47.3%		
Hidalgo County	٠	•	•		4,305	3.0%	97.7%	2.4%
Lea County	50,913			97.5%				
Lincoln County	8,841	92.8%	100.0%	92.8%	10,554	66.6%	100.0%	66.6%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Los Alamos County	16,350	100.0%	100.0%	100.0%	2,388	96.7%	100.0%	96.7%
Luna County	13,624	91.9%	100.0%	91.9%	10,454	23.7%	99.9%	23.6%
McKinley	26,427	81.4%	100.0%	81.4%	46,137	10.8%	98.1%	10.8%
Mora County	•	•	•	•	4,551	30.3%	97.6%	30.3%
Otero County	44,846	87.7%	100.0%	87.7%	20,969	59.4%	94.2%	59.0%
Quay County	5,022	45.6%	100.0%	45.6%	3,284	39.0%	100.0%	39.0%
Rio Arriba	19,491	99.7%	100.0%	99.7%	19,668	66.6%	95.7%	64.7%
Roosevelt County	11,149	98.3%	100.0%	98.3%	7,698	40.9%	100.0%	40.9%
San Juan County	77,059	88.2%	100.0%	88.2%	49,861	31.3%	99.5%	31.3%
San Miguel County	14,647	63.1%	100.0%	63.1%	13,101	30.4%	97.5%	30.4%
Sandoval	112,596					56.4%		
Santa Fe County	109,603	100.0%	100.0%	100.0%	39,147	90.4%	100.0%	90.4%
Sierra County	7,477	93.6%	100.0%	93.6%	3,639	45.5%	94.4%	41.9%
Socorro County	8,106	4.2%	100.0%	4.2%	8,692	0.2%	85.0%	0.2%
Taos County	13,476					37.7%	86.1%	
Torrance County	200	100.0%	100.0%	100.0%	15,306	44.7%	100.0%	44.7%
Union County	•	•	•	•	4,187	71.5%	99.7%	71.5%
Valencia County	63,027	92.0%	100.0%	92.0%	12,913	57.8%	100.0%	57.8%
New York	17,494, 694	99.9%	100.0%	99.9%	2,354,4 84	87.1%	99.4%	86.8%
Albany County	278,968	100.0%	100.0%	100.0%	30,644	93.0%	99.8%	92.8%
Allegany	8,986	100.0%	100.0%	100.0%	37,908	66.4%	99.9%	66.4%
Bronx County	1,471,0 98	99.1%	100.0%	99.1%	42	16.7%	100.0%	16.7%
Broome	141,477	99.9%	100.0%	99.9%	52,162	86.3%	99.9%	86.2%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Cattaraugus County	28,715	99.8%	100.0%	99.8%		67.3%	99.9%	67.3%
Cayuga County	33.893	100.0%	100.0%	100.0%	43,710	62.0%	100.0%	62.0%
Chautauqua County	71,107		100.0%			79.8%		79.8%
Chemung	63,947	100.0%	100.0%	100.0%	21,610	79.0%	97.7%	77.1%
Chenango County	7,447	100.0%	100.0%	100.0%	40,416	72.5%	95.9%	70.9%
Clinton County	28,863	99.9%	100.0%	99.9%	52,117	87.9%	99.0%	87.7%
Columbia County	15,366	99.6%	100.0%	99.6%	45,238	92.0%	100.0%	92.0%
Cortland	26,019	100.0%			21,767	72.0%	99.8%	
Delaware County	8,402	100.0%	100.0%	100.0%	36,599	71.6%	97.9%	70.3%
Dutchess	219,459	99.9%		99.9%	76,109	99.6%	100.0%	99.6%
Erie County	837,493	100.0%	100.0%	100.0%	88,032	98.3%	100.0%	98.3%
Essex County	9,405					84.1%	95.9%	
Franklin County	18,153	100.0%	100.0%	100.0%	32,962	84.6%	97.3%	83.1%
Fulton County		100.0%						
Genesee County	22,225	100.0%	100.0%	100.0%	35,731	91.5%	100.0%	91.5%
Greene County	11,839	98.9%	100.0%	98.9%	35,631	90.7%	99.3%	90.0%
Hamilton County	•	•	•	•	4,485	21.6%	89.9%	21.4%
Herkimer	29,008	100.0%	100.0%	100.0%	33,232	73.0%	98.8%	72.9%
Jefferson County	56,003	100.0%	100.0%	100.0%	58,182	82.3%	100.0%	82.3%
Kings County	2,648,5					41.1%		
Lewis County	3,257	100.0%	100.0%	100.0%	23,294	69.2%	98.3%	69.1%
Livingston	28,490		100.0%			77.4%	100.0%	
Madison County	28,649	100.0%				82.5%	100.0%	82.5%
Monroe County	698,951	100.0%	100.0%	100.0%	48,691	99.2%	100.0%	99.2%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Montgomery County	28,739	100.0%	100.0%	100.0%	20,519	82.1%	100.0%	82.1%
Nassau County New York County	1,366,7 1,664,7 27		100.0% 100.0%	100.0% 100.0%		98.5%	100.0%	98.5%
Niagara Oneida County	163,355 153,950	100.0%		100.0%	77,381	95.8% 87.1%	100.0% 100.0%	95.8% 87.1%
Onondaga Ontario County	406,245 57,449	100.0%	100.0%	100.0%	52,448		100.0%	89.6%
Orange County Orleans County	15,262	100.0%	100.0%	100.0%	25,721	94.9%	100.0%	94.9%
Oswego County Otsego County Putnam	43,376 16,346 78,774	100.0%	100.0%	100.0%	43,748	88.7% 68.8% 99.7%	100.0% 99.5% 100.0%	88.7% 68.6% 99.7%
Queens County	2,358,4 65		100.0%			75.0%	100.0%	75.0%
Rensselaer Richmond County	110,645 479,458		100.0% 100.0%			99.0%	100.0%	99.0%
Rockland Saratoga	159,938	100.0%	100.0% 100.0%	100.0%	69,931	99.6%		97.8%
Schenectady County			100.0%				100.0%	
Schoharie Schuyler County	4,648 3,319		100.0% 100.0%	100.0%		87.2% 71.2%		
Seneca County St. Lawrence County	14,198 40,164		100.0% 100.0%			67.2% 83.5%	100.0% 99.5%	
Steuben County Suffolk County	37,049		100.0%		·	69.8%	99.8%	

		Urban	Areas			Rural	Areas	
State, County	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &
or County Equivalent	Evalua ted	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile LTE	Evalua ted	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile LTE
Sullivan	18,620	100.0%	100.0%	100.0%		98.5%	99.7%	98.2%
County	10,020	100,00	100,070	10000				001270
Tioga County	15,931	100.0%	100.0%	100.0%	32,647	88.6%	99.9%	88.6%
Tompkins County	58,519	100.0%	100.0%	100.0%	46,281	91.1%	100.0%	91.1%
Ulster County	95,572		100.0%	99.6%		99.3%		
Warren County	42,395	100.0%	100.0%	100.0%	22,137	77.3%	93.5%	76.4%
Washington County	19,578		100.0%	100.0%	,	95.9%	99.5%	95.7%
Wayne County	34,555	100.0%	100.0%	100.0%	56,115	89.8%	100.0%	89.8%
Westchester County	946,387	100.0%	100.0%	100.0%	ŕ	99.9%	100.0%	99.9%
Wyoming County	13,589	100.0%	100.0%	100.0%	26,904	75.6%	100.0%	75.6%
Yates County	6,968		100.0%			59.9%	100.0%	
North Carolina	6,856,9 27	99.8%	100.0%	99.7%	3,416,1 95	84.8%	99.2%	84.1%
Alamance County	115,104	100.0%	100.0%	100.0%	47,276	95.3%	100.0%	95.3%
Alexander	10,144	99.9%	100.0%	99.9%	27,142	81.5%	100.0%	81.5%
Alleghany County		•	•	•	11,029	94.4%	63.8%	60.3%
Anson County	5,487	100.0%	100.0%	100.0%	19,504	78.2%	100.0%	78.2%
Ashe County	4,126	71.8%	28.5%	19.3%	22,831	96.3%	46.8%	44.8%
Avery County	1,974					95.5%	99.4%	
Beaufort County	15,964	99.8%	100.0%	99.8%	31,124	82.6%	99.8%	82.6%
Bertie County	2,610							
Bladen County	2,951	100.0%	100.0%	100.0%	30,527	67.2%	100.0%	67.2%
Brunswick	70,589							78.2%
Buncombe County	192,591	99.9%	100.0%	99.9%	65,016	95.4%	99.8%	95.2%
Burke County	51,437	99.9%	100.0%	99.9%	37,856	93.7%	100.0%	93.7%

		Urban	Areas			Rural	Areas	
State, County	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &
or County	Evalua	Mbps/	Mbps/	Mobile	Evalua	Mbps/	Mbps/	Mobile
Equivalent	ted		1 Mbps	LTE	ted	3 Mbps		
Cabarrus County	164,583	100.0%	100.0%	100.0%	42,281	96.6%	100.0%	96.6%
Caldwell	53,646	99.4%	100.0%	99.4%	28,335	93.6%	99.9%	93.5%
Camden County	47	85.1%	100.0%	85.1%	10,534	96.7%	100.0%	96.7%
Carteret	46,405							
Caswell County	190	92.1%	100.0%	92.1%	22,456	52.7%	99.2%	52.0%
Catawba	109,971	99.9%		99.9%		98.6%	100.0%	
Chatham County	23,471	98.9%	100.0%	98.9%	48,001	69.9%	100.0%	69.9%
Cherokee	•	•	•	•	28,087	71.3%		
Chowan County	4,345	99.0%	100.0%	99.0%	9,760	87.7%	100.0%	87.7%
Clay County					11,074	58.7%	98.0%	
Cleveland County	42,911	100.0%	100.0%	100.0%	54,423	91.2%	100.0%	91.2%
Columbus	9,517			94.2%				
Craven County	73,429	99.9%	100.0%	99.9%	29,149	80.7%	100.0%	80.7%
Cumberland County	286,634	100.0%	100.0%	100.0%	·	96.6%	100.0%	96.6%
Currituck County	443	97.7%	100.0%	97.7%	25,888	96.6%	100.0%	96.6%
Dare County	25,549	99.9%	100.0%	99.9%	10,550	97.8%	98.9%	96.7%
Davidson County	86,845	100.0%	100.0%	100.0%	78,618	99.1%	100.0%	99.1%
Davie County	12,570	100.0%		100.0%		99.1%	100.0%	99.1%
Duplin County	7,908	95.9%	100.0%	95.9%	51,131	59.8%	100.0%	59.8%
Durham	290,591	99.9%	100.0%	99.9%	21,006	88.6%		88.6%
Edgecombe County	28,148	99.8%	100.0%	99.8%	24,599	74.1%	100.0%	74.1%
Forsyth County	347,431	100.0%	100.0%	100.0%	28,879	99.7%	100.0%	99.7%
Franklin County	9,537	99.5%	100.0%	99.5%	56,629	82.5%	98.7%	82.1%
Gaston County	176,235	100.0%	100.0%	100.0%	43,946	99.2%	100.0%	99.2%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Gates County					11,544	60.7%	_	
Graham					8,541	46.3%	100.0%	46.3%
Granville County	26,042	99.5%	100.0%	99.5%		77.9%	100.0%	77.9%
Greene County	•	•		•	21,015			
Guilford County	456,789	100.0%	100.0%	100.0%	70,158	98.2%	100.0%	98.2%
Halifax County	24,102	99.9%	100.0%	99.9%	27,208	69.5%	100.0%	69.5%
Harnett County	57,788	99.8%	100.0%	99.8%	74,947	91.5%	100.0%	91.5%
Havwood	26,944	99.3%	100.0%	99.3%	34,140	65.6%	99.2%	65.6%
Henderson County	76,179	98.5%	100.0%	98.5%	39,519	76.0%	100.0%	76.0%
Hertford	7,369		100.0%				100.0%	
Hoke County	29,569	99.8%	100.0%	99.8%	24,535	74.2%	100.0%	74.2%
Hyde County	•	•		•	5,363		99.9%	20.9%
Iredell County	107,257	100.0%	100.0%	100.0%	68,442	94.1%	100.0%	94.1%
Jackson	11,001	97.3%	100.0%			14.0%		14.0%
Johnston County	92,952	100.0%	100.0%	100.0%	103,739	100.0%	100.0%	100.0%
Jones County	•	•		•	9,597	54.4%	100.0%	54.4%
Lee County	34,068	99.9%	100.0%	99.9%	26,361	92.6%	100.0%	92.6%
Lenoir County	30,917	98.2%		98.2%		76.0%		76.0%
Lincoln County	37,334	99.7%	100.0%	99.7%	45,067	97.8%	100.0%	97.8%
Macon County	6,839	99.9%	100.0%	99.9%	27,893	43.7%	100.0%	43.7%
Madison	1,965	100.0%	100.0%	100.0%	19,780	100.0%	89.4%	89.4%
Martin County	4,685	100.0%	100.0%	100.0%	18,104	74.1%	100.0%	74.1%
McDowell	13,351	99.6%	100.0%	99.6%			99.9%	66.4%
Mecklenburg County	1,061,8 96				·	99.8%		
Mitchell County	2,600	96.1%	100.0%	96.1%	12,472	88.5%	97.8%	86.8%
Montgomery County	6,319	69.4%	100.0%	69.4%	21,116	52.6%	100.0%	52.6%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Moore County	47,227	100.0%	100.0%	100.0%		78.0%	100.0%	78.0%
Nash County	48,159	99.9%	100.0%	99.9%	45,832	85.4%	100.0%	85.4%
New Hanover County	221,424		100.0%	100.0%		94.0%	100.0%	94.0%
Northampton County	2,176	99.5%	100.0%	99.5%	17,686	77.4%	100.0%	77.4%
Onslow County	136,208	100.0%	100.0%	100.0%	57,678	91.2%	100.0%	91.2%
Orange County	100,910	100.0%	100.0%	100.0%		80.0%		
Pamlico County		•	•	•	12,689	84.7%	99.8%	84.6%
Pasquotank County	23,515	100.0%	100.0%	100.0%	16,228	99.7%	100.0%	99.7%
Pender County	18,238	100.0%	100.0%	100.0%	42,713	69.1%	100.0%	69.1%
Perquimans County		•	•	•	13,473	92.1%	100.0%	92.1%
Person County	9,541	99.9%	100.0%	99.9%	29,829	88.3%		88.3%
Pitt County	131,889					84.9%		84.9%
Polk County	1,576				·	70.8%		70.8%
Randolph	62,643							
Richmond County	24,659		100.0%	100.0%	20,139	85.6%	100.0%	85.6%
Robeson	48,705		100.0%				100.0%	
Rockingham County	34,541	100.0%	100.0%	100.0%	56,408	94.9%	100.0%	94.9%
Rowan County		100.0%						
Rutherford County	24,816	94.2%	100.0%	94.2%	41,734	51.9%	99.2%	51.9%
Sampson	9,465							
Scotland County	17,949	100.0%	100.0%	100.0%	17,144	80.6%	100.0%	80.6%
Stanly County	19,853			100.0%				
Stokes County	10,849	100.0%	100.0%	100.0%	34,868	95.5%	100.0%	95.5%
Surry County	21,960	100.0%	100.0%	100.0%		97.8%	97.3%	95.2%
Swain County	•	•	•	•	14,294	45.9%	96.6%	45.9%

		Urban	Areas			Rural	Areas	
State, County	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &
or County Equivalent	Evalua ted	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile LTE	Evalua ted	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile LTE
Transylvania County	13,645	90.8%	100.0%	90.8%	20,311	67.6%	98.9%	67.0%
Tyrrell County					4,052	82.1%	99.2%	81.3%
Union County	166,217	100.0%	100.0%	100.0%	65,140	95.0%	100.0%	95.0%
Vance County	20,623	99.7%	100.0%	99.7%	23,588	92.8%	100.0%	92.8%
Wake County	997,083	100.0%	100.0%	100.0%	75,099			97.4%
Warren County		•	•	•	19,883	67.8%	99.8%	67.8%
Washington County	3,954	99.4%	100.0%	99.4%	8,058	88.3%	100.0%	88.3%
Watauga County	23,357	100.0%	100.0%	100.0%	31,763	95.9%	100.0%	95.9%
Wayne County	66,662	100.0%	100.0%	100.0%	57,508	93.0%	100.0%	93.0%
Wilkes County	18,398	99.9%	100.0%	99.9%	50,178	99.0%	94.7%	93.7%
Wilson County	49,814	99.1%	100.0%	99.1%	31,857	97.0%	100.0%	97.0%
Yadkin County	5,750	100.0%	100.0%	100.0%	32,023	99.1%	100.0%	99.1%
Yancey County				•	17,744	90.5%	96.7%	87.7%
North Dakota	420,28 1	97.6%	100.0%	97.6%	335,06 4	87.3%	99.4%	86.8%
Adams County		•	•	•	2,318	100.0%	98.2%	98.2%
Barnes County	6,135	100.0%	100.0%	100.0%	4,599	80.5%	99.9%	80.4%
Benson County		•	•	•	6,934	44.5%	100.0%	44.5%
Billings County					940	56.2%	93.1%	54.4%
Bottineau County					6,530	90.0%	100.0%	90.0%
Bowman				·	3,166	100.0%	98.6%	98.6%
Burke County		•	•	•	2,131	55.6%	98.8%	54.4%
Burleigh	70,245	98.6%	100.0%	98.6%	24,776	97.9%	100.0%	97.9%
Cass County	148,273	98.2%	100.0%	98.2%	29,479	70.7%	100.0%	70.7%
Cavalier					3,762	100.0%	100.0%	100.0%
Dickey County	•	•	•	•	4,861	99.8%	100.0%	99.8%
Divide County					2,288	94.4%	89.9%	86.2%
Dunn County		•	•	•	4,289	98.3%	99.2%	97.5%
Eddy County		•	•	•	2,316	84.5%	99.5%	84.0%

		Urban	Areas			Rural	Areas	
State, County or County	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile
Equivalent	ted	_	1 Mbps		ted		1 Mbps	
Emmons County					3,301	100.0%	100.0%	100.0%
Foster County		•	•		3,257	100.0%	100.0%	100.0%
Golden Valley County					1,789	3.0%	97.4%	1.7%
Grand Forks County	56,383	94.5%	100.0%	94.5%	ŕ	82.2%		
Grant County	•	•	•	•	2,376			
Griggs County	•			•	2,258			
Hettinger County					2,483	100.0%	99.8%	99.8%
Kidder County	•				2,482			
LaMoure County	•				4,087	100.0%	99.1%	99.1%
Logan County						100.0%		
McHenry County	•	•	•	•	5,900	77.4%	100.0%	77.4%
McIntosh	•			•		100.0%		
McKenzie County	•	•	•	•	12,724	73.5%	96.8%	70.8%
McLean	•			•	9,685	90.3%	99.7%	
Mercer County	·			100.0%	·	100.0%		
Morton County	19,025	98.5%	100.0%	98.5%	_	84.3%		
Mountrail County					10,265	86.2%	99.9%	86.2%
Nelson County					2,937	100.0%		
Oliver County	•	•	•	•	1,938	92.2%	99.9%	92.1%
Pembina	•				6,972	100.0%		
Pierce County	2,282	100.0%			1,817	95.0%		
Ramsey County	7,377	100.0%	100.0%	100.0%		99.9%		
Ransom County	•	•	•	•	5,297	99.3%		
Renville					2,463	88.9%	100.0%	88.9%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Richland County	7,718	86.9%	100.0%	86.9%	8,633	92.3%	100.0%	92.3%
Rolette County Sargent County					14,531 3,858	91.7%		
Sheridan Sioux County					1,353 4,376	94.5% 97.7%	99.2% 97.2%	93.6% 96.2%
Slope County Stark County	17,556	100.0%	100.0%	100.0%	·		99.7%	95.1%
Steele County Stutsman County	15,118	100.0%	100.0%	100.0%	1,917 5,969	70.2% 93.6%		69.7% 93.6%
Towner County Traill County					2,253 8,013	86.3%	100.0%	86.3%
Walsh County Walls County	3,968 49,117	97.4% 97.2%	100.0% 100.0%	97.4% 97.2%	6,887 19,829 4,022	87.2% 86.8% 96.7%	100.0% 99.9% 100.0%	87.2% 86.7% 96.7%
Wells County Williams County	14,299	97.6%	100.0%	97.6%	19,050	82.2%	98.3%	80.9%
Ohio	9,079,2 34	99.3%	100.0%	99.3%	2,579,1 31	78.4%	99.6%	78.3%
Adams County	2,855		100.0%			45.5%		
Allen County Ashland County	75,733 20,273	86.4%		100.0% 86.4%		84.0% 77.6%		84.0% 77.6%
Ashtabula Athens County	51,265 36,820	79.8%	100.0% 100.0%		29,777	66.3%	99.2%	65.9%
Auglaize Belmont County	27,750 31,151		100.0% 100.0%	93.7%	18,028 36,878		99.9%	83.9% 71.1%
Brown County Butler County	9,956 344,497	100.0%		83.7% 100.0%	33,620 36,073	96.3%	100.0%	60.5% 96.3%
Carroll County	7,463	100.0%	100.0%	100.0%	19,922	35.4%	99.7%	35.4%

		Urban	Areas			Rural	Areas	
State, County or County	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile
Equivalent	ted	3 Mbps	1 Mbps		ted	3 Mbps	_	
Champaign County	10,992	100.0%	100.0%	100.0%	27,848	75.3%	100.0%	75.3%
Clark County	102,453	100.0%		100.0%	32,104	96.8%	100.0%	96.8%
Clermont County	156,920	100.0%	100.0%	100.0%	47,294	97.1%	100.0%	97.1%
Clinton County	19,033							
Columbiana County	56,386	96.9%	100.0%	96.9%	46,691	61.6%	100.0%	61.6%
Coshocton	14,007		100.0%			47.4%	99.0%	
Crawford County	26,422	100.0%	100.0%	100.0%	15,324	97.3%	100.0%	97.3%
Cuyahoga	1,241,0			99.3%		100.0%		
Darke County	16,714	100.0%	100.0%		·	77.4%	100.0%	77.4%
<u>Defiance</u>	21,020							
Delaware County	159,766	100.0%	100.0%	100.0%	40,668	83.5%	100.0%	83.5%
Erie County	54,506		100.0%	98.3%			100.0%	
Fairfield County	99,920	99.9%	100.0%	99.9%	54,788	83.7%	100.0%	83.7%
Favette County	14,939		100.0%				100.0%	
Franklin County	1,272,9 64		100.0%	100.0%	18,983	98.9%	100.0%	98.9%
Fulton County	18,082		100.0%			96.2%	100.0%	96.2%
Gallia County	5,507	100.0%	100.0%	100.0%	24,466	82.5%	97.3%	81.3%
Geauga County	33,832		100.0%	99.6%		81.3%	100.0%	81.3%
Greene County	140,956		100.0%		·		100.0%	
Guernsev	14,970						99.5%	
Hamilton County	794,936	100.0%	100.0%	100.0%	18,880	99.8%	100.0%	99.8%
Hancock	51,643					86.1%		
Hardin County	13,627	99.5%	100.0%	99.5%	17,737	74.7%	100.0%	74.7%
Harrison	2,276	99.5%	100.0%	99.5%		40.2%	100.0%	40.2%
Henry County	7,882	100.0%	100.0%	100.0%	19,303	99.7%	100.0%	99.7%

		Urban	Areas			Rural	Areas	
		% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed		% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed
State, County	Pop.	25	LTE 5	&	Pop.	25	LTE 5	&
or County Equivalent	Evalua ted	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile LTE	Evalua ted	Mbps/ 3 Mbps	Mbps/ 1 Mbps	Mobile LTE
Highland	11,424	_	100.0%		31,547	60.5%	99.8%	60.5%
Hocking	7,894		100.0%		20,576	42.2%		42.2%
County	7,034	100.070	100.070	100.070	20,570	42.270	33.770	42.2 /0
Holmes County	3,018	99.9%	100.0%	99.9%	40,939	39.2%	99.8%	39.1%
Huron County	28,570	100.0%	100.0%	100.0%	29,924	90.4%	100.0%	90.4%
Jackson	11,553	99.4%	100.0%	99.4%	20,896	54.2%	99.7%	54.2%
Jefferson County	39,373	97.7%	100.0%	97.7%	26,986	69.5%	99.9%	69.5%
Knox County	26,551	100.0%	100.0%	100.0%	34,705	55.1%	100.0%	55.1%
Lake County	215,016	100.0%	100.0%	100.0%	15,100	98.0%	100.0%	98.0%
Lawrence	33,171	94.6%	100.0%	94.6%	27,078	74.8%		73.7%
Licking County	109,735	100.0%	100.0%	100.0%	63,708	85.2%	100.0%	85.2%
Logan County	19,255	100.0%	100.0%	100.0%	26,070	69.4%		69.4%
Lorain County	271,575	92.7%	100.0%	92.7%	36,331	72.1%	100.0%	72.1%
Lucas County	410,298	98.9%	100.0%	98.9%	20,589	98.1%	100.0%	98.1%
Madison County	21,915	99.8%	100.0%	99.8%	22,121	83.5%	100.0%	83.5%
Mahoning	193,857	99.1%	100.0%	99.1%	35,939	95.5%	100.0%	95.5%
Marion County	44,904	100.0%	100.0%	100.0%	20,063	86.6%	100.0%	86.6%
Medina County	124,871	99.7%	100.0%	99.7%	53,477	94.6%	100.0%	94.6%
Meigs County	4,283	99.1%	100.0%	99.1%	18,797	52.7%	97.5%	51.7%
Mercer County	15,723	100.0%	100.0%	100.0%	25,150	100.0%	100.0%	100.0%
Miami County	72,274	100.0%	100.0%	100.0%	32,844	87.0%	100.0%	87.0%
Monroe County	220		100.0%	0.0%	13,726	0.3%	98.0%	0.3%
Montgomery County	508,254	100.0%	100.0%	100.0%	23,285	95.5%	100.0%	95.5%
Morgan	2,670	100.0%	100.0%	100.0%	12,039	41.9%	96.0%	41.6%
Morrow County	3,906	100.0%	100.0%	100.0%	31,088	71.4%	100.0%	71.4%
Muskingum County	44,836		100.0%		41,313	75.4%	96.6%	75.1%
Noble County	5,282	100.0%	100.0%	100.0%	9,124	21.6%	98.2%	21.6%
Ottawa County	20,495	100.0%	100.0%	100.0%	20,162	100.0%	100.0%	100.0%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Paulding	3,263	_	100.0%	100.0%		92.2%	100.0%	92.2%
County	0,200	100.070	100.070	100.070	10,002	02.270	100.070	5 2.2 70
Perry County	8,892	99.9%	100.0%	99.9%	27,132	44.2%		44.2%
Pickaway County	28,641	99.8%	100.0%	99.8%	29,187	64.3%	100.0%	64.3%
Pike County	7,245							
Portage County	108,457	99.9%	100.0%	99.9%	53,818	89.3%	100.0%	89.3%
Preble County	12,715		100.0%					
Putnam County	4,929	100.0%	100.0%	100.0%	28,949	87.9%	100.0%	87.9%
Richland	80,798			97.1%		86.9%		
Ross County	31,734	100.0%	100.0%	100.0%	·	87.5%	99.9%	87.5%
Sandusky			100.0%			99.7%		
Scioto County	33,813	100.0%			·		97.3%	70.3%
Seneca County	28,518			100.0%				91.1%
Shelby County	23,567				·	84.8%	100.0%	84.8%
Stark County	321,536							
Summit County	520,107		100.0%			99.5%		99.5%
Trumbull	144,570		100.0%			89.7%	100.0%	
Tuscarawas County	53,881	99.9%	100.0%	99.9%	38,416	62.5%	100.0%	62.5%
Union County	27,426		100.0%					
Van Wert County	13,573	100.0%	100.0%	100.0%	14,644	98.3%	100.0%	98.3%
Vinton County					13,091	38.2%	99.9%	
Warren County	188,194	100.0%	100.0%	100.0%	40,665	84.6%	100.0%	84.6%
Washington County	26,033		100.0%	97.0%	·	65.3%	96.1%	64.4%
Wayne County	56,125		100.0%	99.1%		83.0%	100.0%	83.0%
Williams	13,240					97.5%		
Wood County	90,855	100.0%	100.0%	100.0%	39,633	100.0%	100.0%	100.0%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Wyandot	9,093	100.0%	100.0%	100.0%	12,936	47.6%	100.0%	47.6%
Oklahoma	2,582,1 35	95.0%	100.0%	95.0%	1,348,4 36	48.3%	99.6%	48.3%
Adair County	3,500	59.8%	100.0%	59.8%	18,409	5.8%	100.0%	5.8%
Alfalfa County		•	•	•	5,906	99.1%	100.0%	99.1%
Atoka County		•	•		13,887	30.0%	99.7%	30.0%
Beaver County		•	•		5,315	67.0%	98.2%	65.6%
Beckham County	13,449	95.2%	100.0%	95.2%	8,344	27.2%	100.0%	27.2%
Blaine County	2,658	62.9%	100.0%	62.9%	6,840	64.3%	99.4%	64.2%
Bryan County	17,065	97.0%	100.0%	97.0%	29,253	56.8%	100.0%	56.8%
Caddo County	5,780	1.2%	100.0%	1.2%	23,393	54.0%	100.0%	54.0%
Canadian County	99,232	95.4%	100.0%	95.4%	40,633	54.0%	100.0%	54.0%
Carter County	21,023		100.0%			51.0%		
Cherokee County	19,043	81.5%	100.0%	81.5%	29,844	46.4%	99.5%	46.2%
Choctaw	4,824	0.0%	100.0%	0.0%	10,039	0.0%	100.0%	0.0%
Cimarron County		•	•	•	2,154	69.5%	98.7%	69.0%
Cleveland	225,764	93.4%	100.0%	93.4%			100.0%	
Coal County					5,642	40.7%	100.0%	40.7%
Comanche	95,423	96.6%	100.0%	96.6%	26,095	54.7%	100.0%	54.7%
Cotton County	2,273	16.6%	100.0%	16.6%	3,550	61.4%	100.0%	61.4%
Craig County	5,263		100.0%	100.0%			100.0%	97.4%
Creek County	32,583	87.9%	100.0%	87.9%	39,114	47.3%	100.0%	47.3%
Custer County	18,870	98.0%	100.0%	98.0%	9,930	45.5%	100.0%	45.5%
Delaware County	7,897	96.2%	100.0%	96.2%	34,692	79.9%	100.0%	79.9%
Dewey County					4,877	20.6%		
Ellis County	•	•	•	•	3,966	56.0%	99.0%	56.0%
Garfield	47,016	99.3%	100.0%	99.3%	14,565	59.5%	100.0%	59.5%
Garvin County	8,201	98.2%	100.0%	98.2%	19,708	37.9%	100.0%	37.9%

		Urban	Areas			21.3% 100.0% 21.3% 9.8% 100.0% 9.8% 24.6% 100.0% 24.6%		
State, County or County	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile	Pop. Evalua	Pop. with Fixed 25 Mbps/	Pop. with Mobile LTE 5 Mbps/	Pop. with Fixed & Mobile
Equivalent	ted	3 Mbps	1 Mbps		ted		-	
Grady County	19,370	95.8%	100.0%	95.8%	35,565			
Grant County					4,395			
Greer County	2,782	98.8%	100.0%	98.8%	3,061			
Harmon County	•	•	•		2,689	59.2%	100.0%	59.2%
Harper County					3,805			76.5%
Haskell County	2,803	96.1%	100.0%	96.1%	9,960			
Hughes County	5,096	96.3%		96.3%	8,206			
Jackson County	18,599	99.1%	100.0%	99.1%	6,526	24.6%	100.0%	24.6%
Jefferson	•			•	6,183	27.3%	100.0%	27.3%
Johnston County	•	•	•	•	11,060	48.0%	100.0%	48.0%
Kay County	33,242	100.0%	100.0%	100.0%	11,302	99.7%	100.0%	99.7%
Kingfisher County	4,166	70.0%	100.0%	70.0%	11,503	53.9%	100.0%	53.9%
Kiowa County	3,326	97.5%	100.0%	97.5%	5,567	54.6%	100.0%	54.6%
Latimer County	2,743	90.0%	100.0%	90.0%	7,668	33.2%	92.1%	32.7%
Le Flore	13,461	82.4%	100.0%	82.4%	36,270	33.4%	99.5%	33.4%
Lincoln County	2,721	93.3%	100.0%	93.3%	32,418	37.3%	100.0%	37.3%
Logan County	19,545	94.1%	100.0%	94.1%	27,230	45.4%	100.0%	45.4%
Love County	•	•	•		10,034	30.9%	100.0%	30.9%
Major County					7,693	42.3%	99.9%	42.3%
Marshall	4,482	98.4%	100.0%	98.4%	11,950	63.1%	100.0%	63.1%
Mayes County	9,152	100.0%	100.0%	100.0%	31,768	84.5%	100.0%	84.5%
McClain	8,349	58.2%		58.2%		69.9%	100.0%	69.9%
McCurtain County	9,794	40.7%	100.0%	40.7%	23,014	3.4%	93.0%	3.4%
McIntosh	2,406	97.8%	100.0%	97.8%	17,336	26.4%	100.0%	26.4%
Murray County	7,417		100.0%					21.8%
Muskogee County	38,386	98.8%	100.0%	98.8%	30,700	34.5%	100.0%	34.5%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Noble County	4,842	99.8%	100.0%	99.8%	6,435	24.2%	100.0%	24.2%
Nowata County	4,216	100.0%		100.0%				74.4%
Okfuskee	3,081	97.4%	100.0%	97.4%	9,059	14.0%	100.0%	14.0%
Oklahoma County	728,950	96.6%	100.0%	96.6%	58,951	55.0%	100.0%	55.0%
Okmulgee	19,637	96.0%	100.0%	96.0%	19,293	25.2%	100.0%	25.2%
Osage County	18,554	84.3%	100.0%	84.3%	28,679	47.8%	99.5%	47.8%
Ottawa County	15,625	100.0%	100.0%	100.0%	15,687	98.4%	100.0%	98.4%
Pawnee County	3,034	0.0%	100.0%	0.0%	13,438	0.1%	100.0%	0.1%
Pavne County	52,335	93.6%	100.0%	93.6%	29,234	39.5%	100.0%	39.5%
Pittsburg County	20,547	94.9%	100.0%	94.9%	23,637	42.5%	100.0%	42.5%
Pontotoc	17,562		100.0%	98.8%			100.0%	
Pottawatomie County	34,824	96.8%	100.0%	96.8%	37,400	66.0%	100.0%	66.0%
Pushmataha County			•		11,173	0.1%		0.1%
Roger Mills County	•	•	•	•	3,714	13.3%	99.8%	13.3%
Rogers County	44,419	99.6%	100.0%	99.6%	47,025	95.1%	100.0%	95.1%
Seminole County	8,631	98.9%	100.0%	98.9%	16,247	18.0%	100.0%	18.0%
Seguoyah	13,204	37.6%		37.6%	28,048			28.0%
Stephens County	23,658	99.8%	100.0%	99.8%	19,674	38.3%	100.0%	38.3%
Texas County	10,793		100.0%	92.4%		71.8%		71.8%
Tillman County	3,551	99.7%	100.0%	99.7%	3,882	68.4%	100.0%	68.4%
Tulsa County	612,286	99.0%		99.0%	33,928	74.2%		74.2%
Wagoner County	46,145	99.4%	100.0%	99.4%	32,503	67.3%	100.0%	67.3%
Washington County	39,170		100.0%	98.7%	12,762	37.2%		37.2%
Washita County	2,829	98.4%	100.0%	98.4%	8,305	47.6%	100.0%	47.6%

		Urban	Areas			Rural	Areas	
State, County or County	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile
Equivalent	ted	3 Mbps	_		ted	3 Mbps	_	LTE
Woods County Woodward County	5,349 11,189	99.9% 0.0%	100.0% 100.0%	99.9% 0.0%	3,682 9,270	60.8% 27.6%		60.8% 27.6%
Oregon	3,307,1 48	98.3%	100.0%	98.3%	835,54 5	68.9%	97.9%	68.6%
Baker County	8,787	99.8%	100.0%	99.8%	7,267	35.0%	98.9%	34.4%
Benton County	71,468	100.0%	100.0%	100.0%	19,479	94.8%	98.9%	94.1%
Clackamas County	331,492	98.0%	100.0%	98.0%	81,165	76.4%	99.7%	76.1%
Clatsop County	23,072	100.0%	100.0%	100.0%	16,107	57.0%	99.1%	57.0%
Columbia County	28,432	90.7%	100.0%	90.7%	23,350	44.4%	99.5%	44.4%
Coos County	38,904	99.8%	100.0%	99.8%	24,984	71.1%	97.2%	70.8%
Crook County	11,048	100.0%	100.0%	100.0%	12,071	87.4%	98.2%	87.4%
Curry County	13,610	99.9%	100.0%	99.9%	9,059	84.6%		84.0%
Deschutes County	129,809	99.7%	100.0%	99.7%	57,058	88.1%	100.0%	88.1%
Douglas	62,989	100.0%	100.0%	100.0%				74.0%
Gilliam County					1,855	51.2%	96.8%	51.2%
Grant County					7,190	56.2%		55.9%
Harney County	4,070	26.5%	100.0%	26.5%	3,219	2.0%	96.3%	2.0%
Hood River County	10,982				ŕ	91.6%		
Jackson County	169,544	98.9%	100.0%	98.9%	47,934	64.2%	92.4%	62.7%
Jefferson	8,231	100.0%	100.0%	100.0%	15,523	73.3%	98.7%	73.3%
Josephine County	46,556	99.8%	100.0%	99.8%	39,795	49.3%	97.2%	49.3%
Klamath	40,229	100.0%	100.0%	100.0%	26,704	55.9%	99.7%	55.9%
Lake County	1,999	100.0%	100.0%	100.0%	5,864	28.1%	98.3%	27.9%
Lane County	302,101	96.3%	100.0%	96.3%	72,642	58.1%	96.0%	57.9%
Lincoln County	29,649	96.7%	100.0%	96.7%	19,270	77.0%	96.7%	75.8%
Linn County	82,260	99.8%	100.0%	99.8%	42,785	91.7%	98.9%	91.5%

		Urban	Areas			Rural	Areas	
		% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed		% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed
State, County	Pop.	25	LTE 5	&	Pop.	25	LTE 5	&
or County	Evalua	Mbps/	Mbps/	Mobile	Evalua	Mbps/	Mbps/	Mobile
Equivalent	ted		1 Mbps		ted		1 Mbps	
Malheur County	15,603	98.2%	100.0%	98.2%	14,877	56.7%	98.8%	56.2%
	289,579			99.3%	51,707	86.8%		
Morrow County	5,943	91.0%	100.0%	91.0%	5,223	25.8%	96.7%	25.8%
Multnomah Countv	795,274	97.9%	100.0%	97.9%	12,264	83.8%	100.0%	83.8%
Polk County	63,456	99.8%	100.0%	99.8%	20,240	83.2%	97.9%	83.0%
Sherman	•				1,758	30.8%	100.0%	30.8%
Tillamook County	7,693	99.1%	100.0%	99.1%	18,995	90.0%	95.3%	88.2%
Umatilla	53,570	97.3%	100.0%	97.3%	23,415	60.3%	99.1%	60.3%
Union County	13,718	99.9%	100.0%	99.9%	12,504	25.8%	97.8%	25.8%
Wallowa					7,051	90.8%	94.1%	88.3%
Wasco County	17,200	99.5%	100.0%	99.5%	9,236	41.8%	99.3%	41.8%
Washington County	550,520	99.2%	100.0%	99.2%	38,427	60.7%	100.0%	60.7%
Wheeler County					1,357	0.0%	55.3%	0.0%
Yamhill County	79,360	95.8%	100.0%	95.8%	26,360	40.2%	99.9%	40.2%
Pennsylvania	10,074, 358	98.3%	100.0%	98.3%	2,731,0 93	84.2%	99.6%	84.0%
Adams County	47,203	98.1%	100.0%	98.1%	55,131	90.4%	99.9%	90.4%
Allegheny	1,192,0	99.2%	100.0%	99.2%	30,971	98.4%	100.0%	98.4%
Armstrong County	21,741	99.0%	100.0%	99.0%	43,901	90.7%	99.7%	90.5%
Beaver County	122,428	99.3%	100.0%	99.3%	43,712	95.3%	100.0%	95.3%
Bedford County	7,945	96.9%	100.0%	96.9%	40,535	72.9%	98.2%	71.7%
Berks County	317,499	98.5%	100.0%	98.5%	100,354	95.7%	100.0%	95.7%
Blair County	94,562	95.9%	100.0%	95.9%	28,895	88.2%		
Bradford	16,371	99.4%	100.0%	99.4%	44,482	47.4%	97.1%	46.4%
Bucks County	572,389	98.4%	100.0%	98.4%	55,944	99.6%		
Butler County	108,181	98.1%	100.0%	98.1%	78,927	94.3%	100.0%	94.3%

		Urban	Areas			Rural	Areas	
State, County	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &
or County	Evalua	Mbps/	Mbps/	Mobile	Evalua	Mbps/	Mbps/	Mobile
Equivalent	ted	3 Mbps	1 Mbps	LTE	ted	3 Mbps	1 Mbps	LTE
Cambria County	89,506	96.1%	100.0%	96.1%	43,548	81.2%	99.4%	80.9%
Cameron	2,482						79.0%	
Carbon County	34,532	96.8%	100.0%	96.8%	29,321	98.3%	100.0%	98.3%
Centre County	107,399		100.0%	99.2%	55,261	76.7%	99.4%	76.6%
Chester County	448,648	99.1%	100.0%	99.1%	70,640	96.6%	100.0%	96.6%
Clarion County	8,010		100.0%	93.3%	30,448	81.0%	100.0%	81.0%
Clearfield County	35,922	89.8%	100.0%	89.8%	43,763	76.5%	98.9%	75.6%
Clinton County	20,863	95.9%	100.0%	95.9%	18,135	85.8%	99.3%	85.4%
Columbia County	38,421	87.0%	100.0%	87.0%	27,511	66.7%	99.9%	66.6%
Crawford	29,588					65.1%		
Cumberland County	192,089		100.0%	95.9%	,	94.3%	100.0%	94.3%
Dauphin	238,110				37,600		100.0%	93.9%
Delaware County	562,003	99.0%	100.0%	99.0%	2,689	99.6%	100.0%	99.6%
Elk County	12,892					90.8%	98.7%	89.7%
Erie County	218,090	99.7%	100.0%	99.7%	56,451	71.4%	100.0%	71.4%
Favette County	67,787	92.2%	100.0%	92.2%	63,717		100.0%	
Forest County		•	•	•	7,297	71.9%	99.6%	71.8%
Franklin	91,156	98.2%	100.0%	98.2%		84.6%	99.6%	84.6%
Fulton County					14,590	43.8%	100.0%	43.8%
Greene County	11,232		100.0%				94.2%	72.5%
Huntingdon County	14,155	97.0%	100.0%	97.0%	31,336	77.6%	97.2%	76.4%
Indiana County						65.8%	99.9%	65.8%
Jefferson County	16,365	95.2%	100.0%	95.2%	27,439	81.5%	98.4%	80.0%
Juniata County	4,334					74.4%	99.7%	74.4%
Lackawanna County	175,822	90.3%	100.0%	90.3%	34,939	81.6%	100.0%	81.6%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Lancaster	425,078	_	100.0%	99.1%	117,825	92.5%	100.0%	92.5%
Lawrence County	51,357	97.4%	100.0%		35,712	93.8%	100.0%	93.8%
Lebanon	101,825	98.7%	100.0%					94.4%
Lehigh County	336,684	100.0%	100.0%	100.0%	29,806	98.9%	100.0%	98.9%
Luzerne	253,602	98.7%	100.0%			88.4%	99.7%	88.2%
Lycoming County	71,401	99.4%	100.0%	99.4%		76.7%	97.7%	74.9%
McKean	15,051	98.2%		98.2%				
Mercer County	60,348	97.7%	100.0%	97.7%	51,402	80.8%	100.0%	80.8%
Mifflin County	23,025					78.5%		77.5%
Monroe County	104,137	99.7%	100.0%	99.7%	63,909	97.9%	100.0%	97.9%
Montgomery County	801,352	98.9%	100.0%	98.9%	24,686	99.3%	100.0%	99.3%
Montour County	8,437	91.8%	100.0%	91.8%	9,835	56.7%	100.0%	56.7%
Northampton County	264,230	100.0%	100.0%	100.0%	39,174	100.0%	100.0%	
Northumberla nd County	59,439	92.2%	100.0%	92.2%	32,590	71.4%	100.0%	71.4%
Perry County	5,324	100.0%	100.0%	100.0%	40,803	82.8%	100.0%	82.8%
Philadelphia County	1,580,8 43	98.9%	100.0%	98.9%	•	•	•	
Pike County	16,400	100.0%	100.0%	100.0%	39,291	98.4%	100.0%	98.4%
Potter County					16,802	68.7%	99.1%	68.5%
Schuylkill	88,863	95.3%	100.0%	95.3%	53,706	87.7%	100.0%	87.7%
Snyder County	13,246	83.6%	100.0%	83.6%	27,554	59.1%	100.0%	59.1%
Somerset	19,445	99.6%	100.0%	99.6%				76.8%
Sullivan County					6,089	32.0%	95.9%	31.7%
Susquehanna County	6,155	15.4%	100.0%		·	52.4%	99.2%	52.3%
Tioga County	3,117	100.0%	100.0%	100.0%	37,676	77.0%	99.2%	76.5%
Union County	24,724	68.7%	100.0%	68.7%	19,871	70.0%	100.0%	70.0%

		Urban	Areas			Rural	Areas	
State County	Don	% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed	Don	% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed
State, County or County	Pop. Evalua	25 Mbps/	LTE 5 Mbps/	& Mobile	Pop. Evalua	25 Mbps/	LTE 5 Mbps/	& Mobile
Equivalent	ted	3 Mbps	1 Mbps		ted		1 Mbps	
Venango County	23,044	98.4%	100.0%	98.4%	28,718	82.6%	100.0%	82.6%
Warren County	17,534	94.7%		94.7%				
Washington County	143,027	98.0%	100.0%	98.0%	64,271	86.0%	100.0%	86.0%
Wayne County	6,189	93.9%		93.9%	45,015			
Westmoreland County	260,188	98.4%	100.0%	98.4%	92,439	95.4%		
Wyoming	4,434		100.0%	99.0%				
York County	334,475	98.4%	100.0%	98.4%	111,601	92.2%	100.0%	92.2%
Rhode Island	961,67 5	98.3%	100.0%	98.3%	97,950	97.8%	100.0%	97.8%
Bristol County	48,349	100.0%	100.0%	100.0%	563	100.0%	100.0%	100.0%
Kent County	150,851	98.7%		98.7%	12,909	99.8%		
Newport County	73,372	95.7%	100.0%	95.7%	10,087	95.1%	100.0%	95.1%
Providence	601,898	98.4%		98.4%	35,446			
Washington County	87,205	98.6%	100.0%	98.6%	38,945	96.4%	100.0%	96.4%
South Carolina	3,317,5 03	98.2%	100.0%	98.2%	1,706,7 76	73.7%	100.0%	73.6%
Abbeville County	5,102	99.5%	100.0%	99.5%	19,620	93.3%	100.0%	93.3%
Aiken County	104,570	98.2%	100.0%	98.2%	63,609			
Allendale County	2,822	98.4%	100.0%	98.4%	6,180	21.5%	98.3%	21.1%
Anderson	122,539	99.5%		99.5%	76,218			
Bamberg County	6,036	93.7%	100.0%	93.7%	8,345	38.4%	100.0%	38.4%
Barnwell	3,799	98.3%		98.3%	17,546			
Beaufort County	146,185	93.5%	100.0%	93.5%	40,650	61.0%	100.0%	61.0%
Berkeley	145,298	97.4%	100.0%	97.4%	72,623	79.8%	100.0%	79.8%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Calhoun County					14,704	68.5%	100.0%	68.5%
Charleston Cherokee County	348,047 22,163	97.1% 99.6%	100.0% 100.0%	97.1% 99.6%	53,385 34,940	77.4% 79.1%		77.4% 79.1%
Chester County Chesterfield County	9,016 11,795		100.0% 100.0%	98.9% 74.0%	23,285 34,153			
Clarendon Colleton County	4,672 9,030		100.0% 100.0%	100.0% 99.2%	29,385 28,581	90.7% 75.1%	100.0% 100.0%	90.7% 75.1%
Darlington Dillon County	28,420 9,559		100.0% 100.0%	100.0% 99.3%	38,845 21,107	80.3% 64.9%	100.0% 100.0%	
Dorchester Edgefield County	120,685 7,050		100.0% 100.0%	99.9% 66.8%	35,748 19,643	66.5% 63.6%	100.0% 99.7%	66.5% 63.6%
Fairfield Florence County	4,920 84,652	96.6% 100.0%		96.6% 100.0%	17,687 53,914	47.8% 82.9%	100.0% 100.0%	47.8% 82.9%
Georgetown County	35,167	100.0%	100.0%	100.0%	26,440	72.6%	100.0%	
Greenville County Greenwood	436,974	99.4%	100.0%	99.4%	69,853 28,640	73.1%	100.0%	
County Hampton County	4,254	96.1%	100.0%	96.1%	15,348	40.5%		
Horry County Jasper County	226,982 8,764	100.0% 72.3%	100.0%	72.3%	106,285 19,694	62.7%	100.0%	
Kershaw Lancaster County	27,414 43,892	99.5% 99.8%	100.0% 100.0%	99.5% 99.8%	37,618 48,653	69.2% 76.3%		69.2% 76.3%
Laurens Lee County	23,922 3,964							

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Lexington	214,915	99.9%	100.0%	99.9%	75,723			
Marion County	12,237	100.0%	100.0%					
Marlboro County	10,954	0.0%	100.0%	0.0%	15,871	1.0%	100.0%	1.0%
McCormick County					9,545	40.4%	97.5%	38.2%
Newberry	12,341	99.4%					100.0%	
Oconee County	26,672	87.7%	100.0%	87.7%	50,598	73.3%	100.0%	73.3%
Orangeburg County	29,453	100.0%	100.0%	100.0%	58,023	35.7%	100.0%	35.7%
Pickens County	77,919	95.9%	100.0%	95.9%	45,560	88.8%	100.0%	88.8%
Richland	370,435		100.0%			73.8%		
Saluda County	3,911	86.5%	100.0%	86.5%	16,540	19.3%	100.0%	19.3%
Spartanburg County	221,221	99.7%	100.0%	99.7%	ŕ	83.4%	100.0%	83.4%
Sumter County	72,679	100.0%	100.0%	100.0%	34,168	87.7%	100.0%	87.7%
Union County	9,676		100.0%	99.8%		68.5%		
Williamsburg County	5,768		100.0%	99.9%	25,365	72.7%	100.0%	72.7%
York County	199,914		100.0%					
South Dakota	480,98 9	99.2%	100.0%	99.2%	388,38 2	76.1%	99.5%	75.8%
Aurora County	•	•	•	•	2,738	91.5%	100.0%	91.5%
Beadle County	12,479	98.1%	100.0%	98.1%	5,676	63.8%	100.0%	63.8%
Bennett County	•	•	•	•	3,454	90.6%	100.0%	90.6%
Bon Homme County	•	•	•	•	6,984	66.9%	100.0%	66.9%
Brookings County	23,114	99.9%	100.0%	99.9%	11,135	91.5%	100.0%	91.5%
Brown County	26,647	100.0%	100.0%	100.0%	12,526	81.1%	100.0%	81.1%
Brule County	<u> </u>	·	·	·	5,310	100.0%	100.0%	100.0%
Buffalo County					1,999	100.0%	100.0%	100.0%
Butte County	5,003	99.8%	100.0%	99.8%	5,104	99.0%	100.0%	99.0%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted		% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile LTE
Campbell	teu	3 Mbps	1 Mbps	LIE	1,378	_	1 Mbps 100.0%	
Charles Mix County					9,427	35.1%		73.5% 35.1%
Clark County					3,668	87.2%	100.0%	87.2%
Clay County	10,263	88.6%	100.0%	88.6%	3,727	44.4%	100.0%	44.4%
Codington	21,395	99.9%	100.0%	99.9%	6,703	42.7%	100.0%	42.7%
Corson County		•	•	•	4,202	81.2%	82.7%	67.7%
Custer County Davison	14,929	100.0%	100.0%	100.0%	8,691 4,775	55.4% 83.0%	97.7% 100.0%	54.9% 83.0%
County					F F21	74.60/	100.00/	74.60/
Day County Deuel County	•		•	•	5,521 4,280	74.6% 97.7%		74.6% 97.7%
Dewey County	1,969	92.8%	100.0%	92.8%		40.5%		40.5%
Douglas County					2,931	81.0%		81.0%
Edmunds			•		3,919	99.3%	100.0%	99.3%
Fall River County	3,246	99.8%	100.0%	99.8%	3,441	81.6%	99.5%	81.6%
Faulk County			•	•	2,329			
Grant County	3,050	100.0%	100.0%	100.0%	4,011	48.5%	100.0%	48.5%
Gregory			•	•	4,226	91.1%	99.7%	90.8%
Haakon County	•	•	•	•	1,943	95.3%	99.3%	94.6%
Hamlin County					5,948			
Hand County			•	•	3,277	82.5%		
Hanson County					3,423			
Harding County	•			•	1,242	100.0%	97.9%	97.9%
Hughes County	12,870	99.8%	100.0%	99.8%				
Hutchinson County	•		•	•	7,358	99.7%	100.0%	99.7%
Hyde County					1,318		100.0%	
Jackson County	•				3,289	72.9%	100.0%	72.9%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Jerauld County	•	•	•	•	2,026	100.0%		100.0%
Jones County	•	•	•	•	936	50.2%	100.0%	50.2%
Kingsbury	•		•	•	4,952	66.6%		
Lake County	6,478	100.0%	100.0%	100.0%	6,331	99.5%	100.0%	99.5%
Lawrence	15,401	99.9%	100.0%	99.9%	10,027	82.3%	99.7%	82.3%
Lincoln County	35,282	99.0%	100.0%	99.0%	21,353	62.4%	100.0%	62.4%
Lyman County	•	•		•	3,904	76.2%	100.0%	76.2%
Marshall County					4,804	84.5%	100.0%	84.5%
McCook County					5,499	76.9%	100.0%	76.9%
McPherson County					2,426	85.5%	100.0%	85.5%
Meade County	16,436	99.2%	100.0%	99.2%	11,580			82.0%
Mellette County	•	•	•	•	2,088	58.2%	100.0%	58.2%
Miner County	•		•	•	2,228	100.0%	100.0%	100.0%
Minnehaha County	157,401	99.3%	100.0%	99.3%	31,184	88.9%	100.0%	88.9%
Moody County	•	•	•	•	6,579	71.6%	100.0%	71.6%
Oglala Lakota Countv	2,750		100.0%	97.2%	11,405	62.2%	100.0%	62.2%
Pennington County	83,565	99.4%	100.0%	99.4%	26,575	70.5%	98.2%	70.4%
Perkins County		•			2,974	84.3%		
Potter County	•	•	•	•	2,231	100.0%	100.0%	100.0%
Roberts					10,278	66.6%		
Sanborn County	•	•	•	•	2,446	100.0%	100.0%	100.0%
Spink County	•	•	•	•	6,410	88.4%	100.0%	88.4%
Stanley County	1,691	99.7%	100.0%	99.7%	1,320	80.7%	98.5%	79.2%
Sully County	•	•	•	•	1,407	100.0%	100.0%	100.0%
Todd County	•	•	•	•	10,065	62.1%	99.0%	62.1%
Tripp County	2,701	100.0%	100.0%	100.0%		79.9%		

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Turner County		•			8,315	60.5%		60.5%
Union County	5,621	98.0%	100.0%	98.0%	9,408	76.4%	100.0%	76.4%
Walworth	3,348		100.0%			97.3%		97.3%
Yankton County	14,629	99.9%	100.0%	99.9%	8,032	59.5%	100.0%	59.5%
Ziebach	721	100.0%						80.7%
Tennessee	4,452,4 82	98.5%	100.0%	98.5%	2,263,3 77	77.0%	99.2%	76.5%
Anderson County	49,245	97.9%	100.0%	97.9%	27,011	95.5%	96.8%	92.3%
Bedford	20,840	100.0%	100.0%	100.0%	27,276	92.0%	100.0%	92.0%
Benton County	3,391	99.9%	100.0%	99.9%	12,595	19.7%	98.5%	19.7%
Bledsoe		•		•	14,717	39.3%	99.2%	39.2%
Blount County	86,942	99.7%	100.0%	99.7%	42,987	94.4%	98.9%	93.4%
Bradley County		99.8%		99.8%		92.6%		92.6%
Campbell County	17,929	98.7%	100.0%	98.7%	21,719	73.8%	99.2%	73.0%
Cannon County	2,623					99.4%		99.4%
Carroll County	4,371	100.0%	100.0%	100.0%	23,489	62.2%	100.0%	62.2%
Carter County	33,463	99.8%	100.0%	99.8%		92.5%	97.3%	90.9%
Cheatham County	6,865	98.6%	100.0%	98.6%	33,464	92.3%	100.0%	92.3%
Chester County						24.3%		24.3%
Claiborne County	8,708	98.4%	100.0%	98.4%	22,901	91.4%	100.0%	91.4%
Clay County					7,703		85.0%	
Cocke County	11,488	99.6%	100.0%	99.6%	24,068	64.3%	93.6%	64.2%
Coffee County	28,745	99.8%	100.0%	99.8%	26,288	64.6%	100.0%	64.6%
Crockett County	4,590	100.0%	100.0%	100.0%	9,883	53.3%	100.0%	53.3%
Cumberland County	22,707	98.3%	100.0%	98.3%	36,370	32.3%	99.3%	32.3%
Davidson County	666,271	97.2%	100.0%	97.2%	24,965	97.8%	100.0%	97.8%

		Urban	Areas			Rural	Areas	**Mobile LTE** 98.3% 58.8% 78.6% 80.1% 74.8% 96.4% 70.9% 62.9% 38.9% 65.1% 99.9% 78.4% 100.0% 95.9% 52.2%	
		% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed		% of Pop. with Fixed	% of Pop. with Mobile	Pop. with	
State, County or County Equivalent	Pop. Evalua ted	25 Mbps/ 3 Mbps	LTE 5 Mbps/ 1 Mbps	& Mobile LTE	Pop. Evalua ted	25 Mbps/ 3 Mbps	LTE 5 Mbps/ 1 Mbps	Mobile	
DeKalb County	4,172	100.0%	100.0%	100.0%	15,676	98.3%	100.0%	98.3%	
Decatur					11,751	58.8%	99.4%	58.8%	
Dickson	16,892	98.2%	100.0%	98.2%	35,961	78.6%	100.0%	78.6%	
Dyer County	21,271	98.9%	100.0%	98.9%	16,192	80.1%	100.0%	80.1%	
Fayette County	8,247	99.4%	100.0%	99.4%	31,789	74.8%	100.0%	74.8%	
Fentress County	•			•	18,136	98.7%	97.6%	96.4%	
Franklin	12,535								
Gibson County	25,067	84.6%	100.0%	84.6%	24,044	62.9%	100.0%	62.9%	
Giles County	7,628	100.0%	100.0%	100.0%	21,773		100.0%		
Grainger County	•	•	•	•	23,144	65.1%	100.0%	65.1%	
Greene County	23,478	100.0%	100.0%	100.0%					
Grundy County		•	•		13,361	78.5%	99.5%	78.4%	
Hamblen	49,943		100.0%			100.0%			
Hamilton County	323,740	99.2%	100.0%	99.2%	37,865	95.9%	100.0%	95.9%	
Hancock					6,600		94.5%		
Hardeman County	5,180	97.7%	100.0%	97.7%	20,267	39.6%	100.0%	39.6%	
Hardin County	7,957		100.0%						
Hawkins County	23,643	99.0%	100.0%	99.0%	32,816	54.9%	99.9%	54.9%	
Haywood	8,721		100.0%						
Henderson County	6,515	100.0%	100.0%	100.0%	,	52.0%	100.0%	52.0%	
Henry County	10,656	99.9%	100.0%	99.9%	21,793	77.5%	100.0%		
Hickman County	•	•	•	•	24,864	62.1%	98.8%	61.9%	
Houston					8,213				
Humphreys County	3,206	94.1%	100.0%	94.1%			98.8%	26.1%	
Jackson					11,677	93.4%	86.9%	82.2%	

		Urban	Areas			Rural	Areas	
State, County	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &
or County	Evalua	Mbps/	Mbps/	Mobile	Evalua	Mbps/	Mbps/	Mobile
Equivalent	ted	3 Mbps	1 Mbps	LTE	ted	3 Mbps	1 Mbps	LTE
Jefferson County	21,214	98.2%	100.0%	98.2%	32,587	59.9%	100.0%	59.9%
Johnson	2,641	99.8%	100.0%	99.8%	15,050	93.5%	98.4%	92.6%
Knox County	409,625	98.6%	100.0%	98.6%	52,227	95.8%	100.0%	95.8%
Lake County					7,468	62.9%	100.0%	62.9%
Lauderdale County	10,536	100.0%	100.0%	100.0%	14,738	57.2%	99.9%	57.2%
Lawrence	10,332	99.9%	100.0%	99.9%	33,062	61.7%	100.0%	61.7%
Lewis County	3,591	100.0%	100.0%	100.0%	8,441	82.3%	98.0%	82.2%
Lincoln County	9,251	99.7%	100.0%	99.7%	24,498	69.3%	100.0%	69.3%
Loudon County	30,172	99.5%	100.0%	99.5%	21,976	84.3%	100.0%	84.3%
Macon County	4,829	100.0%	100.0%	100.0%	19,250	87.3%	96.2%	84.0%
Madison County	71,962	99.8%	100.0%	99.8%	25,681	78.4%	99.7%	78.2%
Marion County	6,514	99.3%	100.0%	99.3%	21,911	80.3%	100.0%	80.3%
Marshall County	10,876	99.9%	100.0%	99.9%	22,050	86.2%	100.0%	86.2%
Maury County	51,825	100.0%	100.0%	100.0%		83.9%	100.0%	83.9%
McMinn	20,943					66.7%		
McNairy County	3,789	99.6%	100.0%	99.6%	22,215	78.7%	100.0%	78.7%
Meigs County		•	•	•	12,068	54.8%	100.0%	54.8%
Monroe County	10,937	99.0%	100.0%	99.0%	35,302	59.1%	95.0%	58.2%
Montgomery County	155,675	96.9%	100.0%	96.9%	44,501	79.1%	100.0%	79.1%
Moore County	8		100.0%	100.0%		44.4%	100.0%	
Morgan County	27	100.0%	100.0%	100.0%	21,609	100.0%	97.5%	97.5%
Obion County	11,296							
Overton County	3,497	99.9%	100.0%	99.9%	18,515	83.7%	98.9%	82.7%
Perry County					7,975	38.9%	96.0%	38.2%
Pickett County		•	<u> </u>	•	5,073	95.8%	95.3%	91.1%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Polk County	teu	2 MIDPS	1 Minh2	LIL	16,757	82.8%	92.2%	76.8%
Putnam County	49,690	98.9%	100.0%	98.9%		84.9%	100.0%	84.9%
Rhea County	10,286	100.0%	100.0%	100.0%	22,405	76.3%	100.0%	76.3%
Roane County	25,511	99.2%	100.0%	99.2%	27,525	86.3%	100.0%	86.3%
Robertson	32,285	99.1%	100.0%	99.1%	37,886	70.8%	100.0%	70.8%
Rutherford County	256,879	98.9%	100.0%	98.9%	60,258	92.3%	100.0%	92.3%
Scott County	4,269	100.0%	100.0%	100.0%	17,720	99.9%	96.8%	96.6%
Sequatchie County	3,802	66.0%	100.0%	66.0%	10,934	47.5%	98.5%	47.4%
Sevier County	40,942						99.8%	
Shelby County	910,582	98.7%	100.0%	98.7%	26,377	79.7%	100.0%	79.7%
Smith County	3,337	100.0%	100.0%	100.0%	16,299	84.9%	93.3%	78.3%
Stewart County	•		•	•	13,355	76.5%	99.0%	76.4%
Sullivan	116,870	100.0%	100.0%	100.0%	40,288	100.0%	100.0%	100.0%
Sumner County	128,876	98.6%	100.0%	98.6%	54,660	95.8%	99.9%	95.7%
Tipton County	27,508	98.9%	100.0%	98.9%				
Trousdale County	•		•	•	10,081	68.8%	98.8%	68.2%
Unicoi County	9,938	99.3%	100.0%	99.3%				
Union County	•	•	•	•	19,442	77.8%	100.0%	77.8%
Van Buren					5,742	48.6%	99.4%	48.5%
Warren County	15,524	99.5%	100.0%	99.5%	25,127	69.6%	99.9%	69.6%
Washington County	93,693	99.2%	100.0%	99.2%	·	94.3%	100.0%	
Wayne County	•		•		16,583	49.5%	97.3%	49.5%
Weakley	9,912	96.3%					99.6%	40.8%
White County	5,816	99.9%	100.0%	99.9%	20,937	58.0%	100.0%	58.0%
Williamson County	174,202	97.4%	100.0%	97.4%	52,048	79.4%	100.0%	79.4%
Wilson County	79,692	99.7%	100.0%	99.7%	56,744	88.9%	100.0%	88.9%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Texas	23,645, 434	97.4%	100.0%	97.4%	4,658,5 27	68.9%	99.9%	68.8%
Anderson County	19,106	86.5%	100.0%	86.5%	38,635	35.2%	99.4%	35.2%
Andrews	12,651	100.0%	100.0%	100.0%	5,071	40.5%	100.0%	40.5%
Angelina County	49,678	97.8%	100.0%	97.8%	38,127	67.9%	100.0%	67.9%
Aransas	18,377	100.0%	98.4%	98.4%	7,195	98.2%	99.8%	98.0%
Archer County	875	100.0%	100.0%	100.0%	7,934	86.2%	100.0%	86.2%
Armstrong	•	•	•	•	1,879	52.5%	99.3%	51.8%
Atascosa County	18,542	99.7%	100.0%	99.7%	30,438	91.2%	100.0%	91.2%
Austin County	9,718	99.2%						30.9%
Bailey County	4,751	97.2%	100.0%	97.2%	2,326	27.7%	100.0%	27.7%
Bandera	•			•	22,351	33.9%	95.3%	29.7%
Bastrop County	29,351	100.0%	100.0%	100.0%	55,408	99.7%	100.0%	99.7%
Baylor County	•				3,581	99.6%	100.0%	99.6%
Bee County	18,222	100.0%	100.0%	100.0%	14,341	100.0%	100.0%	100.0%
Bell County	284,493	99.7%	100.0%	99.7%	63,336	77.9%	100.0%	77.9%
Bexar County	1,844,8 10	100.0%	100.0%	100.0%	113,747	95.9%	100.0%	95.9%
Blanco County	•			•	11,626	24.0%	100.0%	24.0%
Borden County	•	•	•	•	673	29.9%	100.0%	29.9%
Bosque County	3,397	100.0%	100.0%	100.0%	14,929	99.9%	100.0%	99.9%
Bowie County	60,501	99.1%	100.0%	99.1%	33,511	76.2%	100.0%	76.2%
Brazoria	267,582	94.5%	100.0%			48.5%	100.0%	48.5%
Brazos County	188,501	100.0%	100.0%	100.0%	34,302	90.6%	100.0%	90.6%
Brewster	5,822	94.5%	100.0%	94.5%		18.9%	64.2%	11.7%
Briscoe County	•				1,528	68.9%	99.9%	68.9%
Brooks County	4,894		100.0%			97.2%	100.0%	97.2%
Brown County	22,272	100.0%	100.0%	100.0%	15,781	98.9%	100.0%	98.9%
Burleson	4,029	0.0%	100.0%	0.0%	13,982	7.9%	100.0%	7.9%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Burnet County	19,911	59.5%	100.0%	59.5%	26,893	39.5%	100.0%	39.5%
Caldwell	22,885	100.0%	100.0%	100.0%	19,447	100.0%	100.0%	100.0%
Calhoun County	11,761	99.4%	100.0%	99.4%	9,983	69.6%	100.0%	69.6%
Callahan	3,767	52.3%	100.0%	52.3%	10,179	61.4%	100.0%	61.4%
Cameron County	384,125	99.9%	99.9%	99.8%	39,587	95.5%	100.0%	95.5%
Camp County	4,852	98.3%	100.0%					21.6%
Carson County	302	53.6%	100.0%	53.6%	5,730	64.6%	100.0%	64.6%
Cass County	7,530	99.2%	100.0%	99.2%	22,482	35.7%	100.0%	35.7%
Castro County	3,893	64.7%	100.0%	64.7%	3,950	41.0%	100.0%	41.0%
Chambers	20,698	63.3%	100.0%	63.3%	20,735	55.0%		55.0%
Cherokee County	18,908	75.9%	100.0%	75.9%	33,332	21.0%	99.8%	21.0%
Childress	4,673	100.0%	100.0%	100.0%	2,394	83.2%	100.0%	83.2%
Clay County	2,708	28.8%	100.0%	28.8%	7,713	15.0%	100.0%	15.0%
Cochran		•	•	•	2,851	65.3%	100.0%	65.3%
Coke County		•	•	•	3,306	70.0%	99.7%	70.0%
Coleman	3,988	0.0%	100.0%	0.0%	4,442	51.3%	99.8%	51.3%
Collin County	896,368	99.4%	100.0%	99.4%	73,141	63.5%	100.0%	63.5%
Collingsworth County		٠		•	2,987	49.0%	100.0%	49.0%
Colorado County	7,724	100.0%	100.0%	100.0%	13,508	82.3%	100.0%	82.3%
Comal County	69,400	94.9%	100.0%	94.9%	71,603	96.9%	100.0%	96.9%
Comanche County	3,828	0.4%	100.0%	0.4%	9,745	41.4%	100.0%	41.4%
Concho County					2,717	14.3%	100.0%	14.3%
Cooke County	15,824	100.0%	100.0%	100.0%	24,071	92.7%	100.0%	92.7%
Corvell County	59,542	96.7%	100.0%	96.7%	15,371	83.4%	100.0%	83.4%
Cottle County		•	•	•	1,387	85.4%	100.0%	85.4%
Crane County	3,741	0.6%	100.0%	0.6%	999	0.9%	100.0%	0.9%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Crockett County	2,740	0.0%	100.0%	0.0%	824	0.1%	_	
Crosby County Culberson County					5,899 2,231	66.0% 82.8%	100.0% 100.0%	
Dallam County Dallas County	5,176 2,592,5 22	99.2% 99.9%	100.0% 100.0%	99.2% 99.9%	2,030 25,618		100.0% 100.0%	
Dawson County DeWitt County Deaf Smith County	10,322 9,620 15,334	54.5% 100.0% 99.9%	100.0% 100.0% 100.0%	54.5% 100.0% 99.9%	2,491 10,606 3,502			99.8%
Delta County Denton County Dickens	736,855	99.9%	100.0%	99.9%	5,298 99,326 2,209		100.0%	99.8%
Dimmit County Donley County	5,663	•	100.0%	•	3,311	40.1%	100.0%	40.1%
Duval County Eastland County	3,428 7,151	100.0%		100.0%	7,845 11,260	55.3% 88.1%	100.0%	88.1%
Ector County Edwards County	134,305	85.7%	100.0%	85.7%	22,782 1,953	16.1% 42.0%	99.6%	
El Paso County Ellis County Erath County	808,700 111,353 20,744		100.0% 100.0% 100.0%	99.5% 100.0% 100.0%	31,707 62,267 21,225	53.8% 100.0% 99.1%	100.0%	100.0%
Falls County Fannin County Fayette County	5,501 9,731 8,117	0.0% 99.7% 95.9%	100.0%		11,935 24,712 17,155	62.4%	100.0% 99.8%	62.4%
Fisher County Floyd County Foard County	2,680	99.8%	100.0%	99.8%	3,880 3,175 1,222	8.4% 5.5% 99.3%	100.0% 100.0%	8.4% 5.5%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Fort Bend	682,815	95.2%	100.0%	95.2%	81,984	44.5%	100.0%	44.5%
County								
Franklin –	3,279					56.0%		
Freestone County	6,563	31.5%	100.0%	31.5%	13,062	34.7%	100.0%	34.7%
Frio County	13,585							
Gaines County	6,718	98.3%	100.0%	98.3%	13,920	44.9%	100.0%	44.9%
Galveston	307,851	96.1%				67.2%		
Garza County	4,896	100.0%	100.0%	100.0%	1,632	54.7%	100.0%	54.7%
Gillespie	11,375	100.0%	100.0%	100.0%		78.1%	97.9%	78.1%
Glasscock County	•	•	•	•	1,348	77.9%	100.0%	77.9%
Goliad County		•	•	•	7,562			
Gonzales County	6,993	100.0%	100.0%	100.0%	13,900	99.9%	100.0%	99.9%
Gray County	17,797	98.9%	100.0%				100.0%	10.6%
Grayson County	71,906	100.0%	100.0%	100.0%	59,233	99.4%	100.0%	99.4%
Gregg County	106,328	95.5%	100.0%	95.5%	17,039	66.0%		
Grimes County	8,453	98.7%	100.0%	98.7%	19,629	76.4%	100.0%	76.4%
Guadalupe	110,313		100.0%				100.0%	
Hale County	25,660	97.9%	100.0%	97.9%	8,474		100.0%	58.0%
Hall County					3,071	55.7%		55.7%
Hamilton County	2,802	100.0%	100.0%	100.0%	5,620	94.9%	100.0%	94.9%
Hansford	3,166	100.0%	100.0%	100.0%		4.1%		
Hardeman County	•	•	•	•	3,994	12.5%	100.0%	12.5%
Hardin County	26,924							
Harris County	4,576,2 20	94.2%	100.0%	94.2%	76,747	84.1%	100.0%	84.1%
Harrison	29,117	99.5%				60.2%		
Hartley County	2,385	99.8%	100.0%	99.8%	3,306	81.2%	100.0%	81.2%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Haskell County	2,784	100.0%	100.0%	100.0%	2,962	92.1%	100.0%	92.1%
Hays County	134,429	99.3%	100.0%	99.3%	79,913	88.6%	100.0%	88.6%
Hemphill	2,644	0.0%	100.0%	0.0%	1,380	0.0%	99.4%	0.0%
Henderson County	31,808	91.6%	100.0%	91.6%	49,250	53.9%	100.0%	53.9%
Hidalgo	804,382	99.9%	100.0%	99.9%	56,270	91.6%		91.6%
Hill County	8,182	100.0%	100.0%	100.0%	27,667	100.0%	100.0%	100.0%
Hockley	13,346	44.5%	100.0%	44.5%		46.3%		46.3%
Hood County	37,100	100.0%	100.0%	100.0%	21,173	100.0%	100.0%	100.0%
Hopkins	14,453	99.8%	100.0%	99.8%	22,043	34.1%	100.0%	34.1%
Houston County	5,700	71.4%	100.0%	71.4%	17,321	50.8%	98.5%	50.7%
Howard County	27,486	99.9%	100.0%	99.9%	8,554	74.6%		74.6%
Hudspeth County	•	•	•	•	4,407	29.7%	99.3%	29.4%
Hunt County	38,823	82.5%		82.5%	55,049			16.3%
Hutchinson County	16,606	97.0%	100.0%	97.0%	4,769	62.4%	100.0%	62.4%
Irion County	•				1,516	0.0%	99.9%	0.0%
Jack County	4,050	100.0%		100.0%	4,782	98.8%	99.8%	98.6%
<u>Jackson</u>	5,454		100.0%	98.3%		38.7%	100.0%	
Jasper County	7,641	98.4%	100.0%	98.4%	27,920		100.0%	
<u>Jeff Davis</u>		•	•		2,280	28.3%	90.4%	28.3%
Jefferson County	233,671	97.2%	100.0%	97.2%	22,625	57.6%	100.0%	57.6%
<u>Jim Hogg</u>	4,048		100.0%					
Jim Wells County	24,058	100.0%	100.0%	100.0%	16,813	96.6%	100.0%	96.6%
<u>Johnson</u>	100,801		100.0%	100.0%	66,499			
Jones County	3,027	0.0%	100.0%	0.0%	16,956	53.2%	100.0%	53.2%
Karnes County	9,046			100.0%		99.9%		99.9%
Kaufman County	56,731	97.3%	100.0%	97.3%	66,148	40.3%	100.0%	40.3%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Kendall County	15,715	97.4%	100.0%	97.4%	28,309	84.1%	100.0%	84.1%
Kenedy County					417	6.5%	100.0%	
Kent County	•	•		•	763	79.4%	100.0%	79.4%
Kerr County	29,549	98.4%	100.0%	98.4%	22,171	78.7%	99.8%	78.6%
Kimble County	2,428	97.4%	100.0%	97.4%	1,982	9.8%	98.2%	9.8%
King County	•	•	•	•	296	43.9%	100.0%	43.9%
Kinney County	2,790	88.1%	100.0%	88.1%	955	45.7%	97.1%	45.7%
Kleberg County	24,935	100.0%	100.0%	100.0%	6,153	98.0%	100.0%	98.0%
Knox County	•	•	•	•	3,710	99.9%	100.0%	99.9%
La Salle	3,721			100.0%	3,863	50.8%	100.0%	50.8%
Lamar County	26,018	100.0%	100.0%	100.0%	23,569	39.2%	100.0%	39.2%
Lamb County	5,301	57.2%		57.2%		65.4%	100.0%	
Lampasas County	6,506	100.0%	100.0%	100.0%	14,520	99.7%	99.9%	99.6%
Lavaca County	3,618	100.0%	100.0%	100.0%	16,444	92.4%	100.0%	92.4%
Lee County	5,083	92.3%	100.0%	92.3%	12,100	36.2%	100.0%	36.2%
Leon County	•	•	·	•	17,243	55.8%	97.1%	54.1%
Liberty County	29,596	76.3%	100.0%	76.3%	54,060	48.7%	100.0%	48.7%
Limestone County	10,485	24.2%	100.0%	24.2%	13,042	25.6%	100.0%	25.6%
Lipscomb		•	•		3,378	74.6%	100.0%	74.6%
Live Oak County	•	•		•	12,174	100.0%	100.0%	100.0%
Llano County	10,933	0.5%	100.0%	0.5%	10,277	0.3%	100.0%	0.3%
Loving County	<u> </u>	•	•	•	134	18.7%	100.0%	18.7%
Lubbock	264,932	96.1%	100.0%	96.1%	40,293	57.4%	100.0%	57.4%
Lynn County	2,487	76.0%	100.0%	76.0%	3,372	75.8%	100.0%	75.8%
Madison County	4,536	0.0%	100.0%	0.0%	9,686	21.2%	100.0%	21.2%
Marion County	•				10,064	57.5%	100.0%	57.5%
Martin County					5,626			
Mason County	•	•		•	4,222	72.8%	99.9%	72.8%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Matagorda County	21,965	96.1%	100.0%	96.1%	14,875	35.2%	100.0%	35.2%
Maverick	50,268	100.0%	100.0%	100.0%	7,948	50.7%	100.0%	50.7%
McCulloch	5,064	0.1%	100.0%	0.1%	2,893	4.7%	100.0%	4.7%
McLennan County	189,952	100.0%	100.0%	100.0%	61,303	100.0%	100.0%	100.0%
McMullen	•	•	•	•	778	99.7%	100.0%	99.7%
Medina County	18,243	94.0%	100.0%	94.0%	31,820	63.8%	99.8%	63.5%
Menard County					2,124	1.9%	98.0%	1.9%
Midland County	140,165	98.6%	100.0%	98.6%		67.9%	100.0%	67.9%
Milam County	10,598	27.5%	100.0%	27.5%	14,455	24.0%	100.0%	24.0%
Mills County		•	•		4,921	60.6%	100.0%	60.6%
Mitchell	5,175	0.0%	100.0%	0.0%	3,293	18.6%	100.0%	18.6%
Montague County	7,813	100.0%	100.0%	100.0%	11,725	92.7%	99.6%	92.7%
Montgomery County	426,871	99.5%	100.0%		144,055	98.5%	100.0%	
Moore County	17,983	84.2%	100.0%	84.2%	4,114	74.0%	100.0%	74.0%
Morris County	2,761	98.7%	100.0%	98.7%	9,706	56.4%	100.0%	56.4%
Motley County		•	•	•	1,230	72.8%	99.8%	72.8%
Nacogdoches County	34,424	99.8%	100.0%	99.8%	31,156	62.0%	100.0%	62.0%
Navarro County	22,791	100.0%	100.0%	100.0%	25,910	89.2%	100.0%	89.2%
Newton County					13,952	23.6%	99.8%	23.6%
Nolan County	9,848	100.0%	100.0%	100.0%	4,922	31.6%	100.0%	31.6%
Nueces County	333,403	100.0%	100.0%	100.0%	27,818	98.8%	100.0%	98.8%
Ochiltree County	8,320	100.0%	100.0%	100.0%		22.9%	100.0%	22.9%
Oldham					2,114	49.9%	100.0%	49.9%
Orange County	54,801	99.2%	100.0%	99.2%	30,246	64.5%	100.0%	64.5%
Palo Pinto	13,911	100.0%	100.0%	100.0%	14,658	100.0%	100.0%	100.0%
Panola County	6,067	99.8%	100.0%	99.8%	17,176			31.2%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Parker County	56,602		100.0%	100.0%	76,860	100.0%	100.0%	
Parmer County	3,750	42.1%	100.0%	42.1%	6,092	54.2%	100.0%	54.2%
Pecos County	9,185	88.4%	100.0%	88.4%	6,449	43.1%	99.5%	43.1%
Polk County	10,731	54.0%	100.0%	54.0%	38,431	40.9%	100.0%	40.9%
Potter County	109,151	94.8%	100.0%	94.8%	11,307	59.6%	100.0%	59.6%
Presidio County	4,078	0.2%	100.0%	0.2%	3,078	36.4%	94.5%	36.2%
Rains County	782	0.0%		0.0%	10,980	9.2%	100.0%	9.2%
Randall County	110,961	99.7%	100.0%	99.7%	23,460	77.2%	100.0%	77.2%
Reagan County	2,867	0.0%	100.0%	0.0%	843	7.2%	99.8%	7.2%
Real County	•	•	•	•	3,429	65.5%	94.4%	60.4%
Red River	2,823	99.2%	100.0%	99.2%	9,406	62.5%	99.8%	62.3%
Reeves County	12,028	64.8%	100.0%	64.8%	3,253	50.8%	100.0%	50.8%
Refugio	2,844	100.0%	100.0%	100.0%	4,380	80.0%	100.0%	80.0%
Roberts County		•	•	•	938	62.7%	100.0%	62.7%
Robertson	4,167	42.6%	100.0%	42.6%	13,033	44.2%	100.0%	44.2%
Rockwall County	77,721	98.9%	100.0%	98.9%	19,022	77.0%	100.0%	77.0%
Runnels	5,923	99.4%	100.0%	99.4%	4,343	28.8%	100.0%	28.8%
Rusk County	17,776	99.6%	100.0%	99.6%	35,057	38.2%	100.0%	38.2%
Sabine County					10,461	57.1%	98.6%	57.1%
San Augustine County	•	•	•	•	8,253	13.3%	98.9%	13.3%
San Jacinto County					28,270		100.0%	
San Patricio County	53,020	100.0%	100.0%	100.0%	14,195	100.0%	100.0%	100.0%
San Saba	2,784	100.0%	100.0%	100.0%	3,175	47.3%	99.8%	47.3%
Schleicher County					3,001	0.0%	99.2%	0.0%
Scurry County	11,326	98.0%	100.0%	98.0%	5,724	34.7%	100.0%	34.7%

		Urban	Areas			Rural	Areas	
State, County or County	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile
Equivalent	ted	3 Mbps	1 Mbps	LTE	ted	3 Mbps	_	
Shackelford County	•	•	•	•	3,328	39.6%	100.0%	39.6%
Shelby County	5,058	5.8%	100.0%	5.8%	20,455	13.4%	99.0%	
Sherman County	•	•	•	•	3,067	40.1%	100.0%	40.1%
Smith County	153,471	99.6%	100.0%	99.6%				
Somervell County	•	•	•	•	8,845	100.0%	100.0%	100.0%
Starr County	47,579	98.6%	100.0%	98.6%	16,875	69.7%	100.0%	69.7%
Stephens County	5,616	100.0%	100.0%	100.0%	3,721	97.5%	100.0%	97.5%
Sterling	•	•	•	•	1,295	0.0%	99.6%	0.0%
Stonewall County	•		•	•	1,388	80.0%	100.0%	80.0%
Sutton County	2,786	0.0%	100.0%	0.0%	981	0.0%	98.5%	0.0%
Swisher County	4,434	91.6%	100.0%	91.6%	3,081	59.1%	100.0%	59.1%
Tarrant County	2,021,6	99.9%	100.0%	99.9%	32,858	100.0%	100.0%	100.0%
Taylor County	112,843	99.5%	100.0%	99.5%	23,447	84.5%	100.0%	84.5%
Terrell County			•	•	810	4.9%	96.7%	
Terry County	9,438	45.1%	100.0%	45.1%	3,277	52.5%	100.0%	52.5%
Throckmorton County	•				1,527			
Titus County	16,095	98.6%	100.0%	98.6%	16,809	33.3%	100.0%	33.3%
Tom Green County	96,033		100.0%	99.9%	21,985	34.6%	100.0%	
Travis County	1,132,8 97	100.0%	100.0%	100.0%	93,780	96.7%	100.0%	96.7%
Trinity County	3,354	61.7%	100.0%	61.7%	11,313	55.9%	100.0%	55.9%
Tyler County	4,678	99.4%	100.0%	99.4%	16,861	18.5%	100.0%	18.5%
Upshur County	8,456	91.2%	100.0%	91.2%	32,824	84.6%	100.0%	84.6%
Upton County	•	•	•		3,663	0.4%	100.0%	0.4%
Uvalde County	18,096	100.0%	100.0%	100.0%	9,036	94.8%	99.3%	94.8%

		Urban	Areas			Rural	Areas	
State, County or County	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile	Pop. Evalua	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile
Equivalent	ted	3 Mbps	1 Mbps	LTE	ted	3 Mbps	1 Mbps	LTE
Val Verde County	43,750	100.0%	100.0%	100.0%	5,455	71.8%	97.8%	71.8%
Van Zandt	13,401	48.0%		48.0%			100.0%	6.6%
Victoria County	65,406	100.0%	100.0%	100.0%	26,678	95.9%	100.0%	95.9%
Walker County	38,107					68.1%		68.1%
Waller County	18,781	59.6%	100.0%	59.6%	32,523	23.6%		23.6%
Ward County	7,553			40.6%		51.2%		51.2%
Washington County	15,859	94.9%	100.0%	94.9%	19,184	23.8%	100.0%	23.8%
Webb County	255,542					21.8%		21.8%
Wharton County	20,637	97.6%	100.0%	97.6%	21,329	26.4%	100.0%	26.4%
Wheeler					5,358		100.0%	
Wichita County	117,878	97.7%	100.0%	97.7%	14,122	53.4%	100.0%	53.4%
Wilbarger	9,796			89.1%		56.2%		56.2%
Willacy County	14,040	100.0%	100.0%	100.0%	7,544	99.9%	100.0%	99.9%
Williamson County	444,904	99.6%	100.0%		102,608	63.4%	100.0%	63.4%
Wilson County	6,406				· ·	100.0%		
Winkler	5,509	16.1%	100.0%	16.1%	2,065	40.2%	100.0%	40.2%
Wise County			100.0%				100.0%	
Wood County	11,177	92.3%			33,137	53.4%		53.4%
Yoakum County	4,920	99.8%		99.8%		36.2%		36.2%
Young County	12,017					96.4%		
Zapata County	9,803	100.0%	100.0%	100.0%		39.7%	100.0%	39.7%
Zavala County	7,110					25.6%		25.6%
Utah	2,719,1 80	98.5%	100.0%		3	64.0%	97.8%	63.7%
Beaver County	2,624	100.0%	100.0%	100.0%	3,762	86.8%	99.9%	86.8%
Box Elder	34,765		100.0%	99.6%		72.3%	100.0%	72.3%
Cache County	101,236	97.7%	100.0%	97.7%	23,200	72.6%	100.0%	72.6%

		Urban	Areas			Rural	Areas	
		% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed		% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed
State, County or County	Pop. Evalua	25 Mbps/	LTE 5 Mbps/	& Mobile	Pop. Evalua	25 Mbps/	LTE 5 Mbps/	& Mobile
Equivalent	ted	3 Mbps	1 Mbps	LTE	ted	3 Mbps		
Carbon County	13,178	_	100.0%			78.8%	_	
Daggett County					1,029		1	
Davis County	342,806	97.8%	100.0%	97.8%	4,829	69.2%	100.0%	69.2%
Duchesne County	4,411	99.1%	100.0%	99.1%	15,615	54.5%	99.5%	54.5%
Emery County	1,887	100.0%	100.0%	100.0%				
Garfield County	•	•	•	•	5,078	97.6%	97.7%	96.6%
Grand County	4,219		100.0%	99.8%		14.6%		
Iron County	36,137	100.0%	100.0%	100.0%	14,864	88.0%	99.6%	88.0%
Juab County	5,409		100.0%	99.6%		73.5%	i	
Kane County	3,062	100.0%	100.0%	100.0%	4,505	89.8%	99.4%	89.3%
Millard County	2,820	98.2%	100.0%	98.2%	10,043	39.7%	99.0%	39.7%
Morgan County	3,695	100.0%	100.0%	100.0%	8,176	81.1%	93.6%	74.8%
Piute County	•			•	1,420	100.0%		
Rich County	•				2,391	54.8%	99.2%	54.8%
Salt Lake	1,118,7	99.1%	100.0%			77.4%	100.0%	77.4%
San Juan County	2,280		100.0%	71.1%	13,076	6.3%	87.4%	6.3%
Sanpete	16,500		100.0%		13,535			
Sevier County	6,203	99.9%	100.0%	99.9%	15,113	81.3%	99.9%	81.3%
Summit	22,926			91.9%			ı	
Tooele County	49,035		100.0%	98.7%	·	42.4%		
Uintah County	14,540		100.0%	99.9%			i	
Utah County	547,059		100.0%	98.8%		36.0%	98.4%	35.8%
Wasatch	19,843		100.0%	94.4%			97.8%	
Washington County	130,498	98.2%	100.0%	98.2%	35,149	94.9%	100.0%	94.9%
Wayne County					2,719			
Weber County	235,337	96.9%	100.0%	96.9%	16,431	60.0%	99.4%	60.0%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Vermont	240,61 2	98.7%	100.0%	98.7%	383,04 3	83.4%	97.8%	82.2%
Addison County	7,883	99.5%	100.0%	99.5%	28,893	93.2%	99.2%	92.8%
Bennington County	12,123	99.6%	100.0%	99.6%	23,471	92.8%	96.7%	91.2%
Caledonia County	7,447	99.8%	100.0%	99.8%	22,717	69.7%	97.2%	68.3%
Chittenden	118,673	98.1%	100.0%	98.1%	43,698	97.6%	99.3%	96.9%
Essex County		•	•	•	6,230	42.5%	94.5%	42.4%
Franklin	13,661	99.8%	100.0%	99.8%	35,364	79.6%	97.3%	77.7%
Grand Isle County					6,997	63.1%	100.0%	63.1%
Lamoille		•	•		25,337	84.7%	98.4%	83.8%
Orange County	797	100.0%	100.0%	100.0%	28,177	65.1%	96.6%	64.4%
Orleans County			100.0%	99.9%	23,045	68.0%	94.6%	67.2%
Rutland County	22,343	99.7%	100.0%	99.7%	36,744	97.9%	97.4%	95.3%
Washington County	27,395	99.2%	100.0%	99.2%	30,895	86.4%	96.5%	83.7%
Windham County	13,291	99.6%	100.0%	99.6%	29,578	67.6%	99.4%	67.6%
Windsor	13,203	96.7%	100.0%			93.2%	99.0%	92.4%
Virginia	6,396,6 67	97.4%	100.0%	97.4%	2,078,4 99	74.1%	99.1%	73.5%
Accomack County	•		•	•	32,545	58.3%	100.0%	58.3%
Albemarle	55,926	99.0%	100.0%	99.0%	51,774	78.0%	100.0%	78.0%
Alexandria city	159,968		100.0%	98.2%		•		
Alleghany County	7,087	99.6%	100.0%	99.6%	8,035	85.2%	96.3%	82.1%
Amelia County					13,020	64.9%		64.9%
Amherst County	11,072	96.7%	100.0%	96.7%	20,522	93.2%	99.9%	93.2%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Appomattox County		•	•		15,678	70.5%	100.0%	70.5%
Arlington County	234,935	98.1%	100.0%	98.1%	•	•		
Augusta	24,633	99.2%	100.0%	99.2%	50,511	70.1%	99.0%	70.0%
Bath County		•	•		4,297	61.5%	90.6%	56.9%
Bedford	21,445	97.9%	100.0%	97.9%	62,133	57.6%	100.0%	57.6%
Bland County		•	•		6,350	100.0%	98.8%	98.8%
Botetourt	11,797	99.6%	100.0%	99.6%	21,395	65.2%	99.6%	65.2%
Bristol city	16,783	100.0%	100.0%	100.0%	7	100.0%	100.0%	100.0%
Brunswick County	3,394	60.3%	100.0%	60.3%	12,850	11.8%	99.9%	11.8%
Buchanan		•	•		21,514	100.0%	81.9%	81.9%
Buckingham County		•	•		17,065	42.0%	100.0%	42.0%
Buena Vista	6,078	98.7%	100.0%	98.7%	249	92.0%		92.0%
Campbell	21,341	98.1%	100.0%	98.1%	33,669	70.0%		70.0%
Caroline County	6,273	99.9%	100.0%	99.9%	24,185	56.7%		56.7%
Carroll County	809	99.6%	100.0%	99.6%	28,897	61.9%		
Charles City County		•	•		7,004	100.0%	100.0%	100.0%
Charlotte					12,119	29.4%	94.3%	27.1%
Charlottesville city	48,002	98.4%	100.0%	98.4%	•	•	•	•
Chesapeake	219,583	98.5%	100.0%	98.5%	20,804	93.6%	100.0%	93.6%
Chesterfield County	319,644	97.5%	100.0%	97.5%	23,943	95.2%	100.0%	95.2%
Clarke County	4,293	99.4%	100.0%	99.4%	10,214	49.2%	100.0%	49.2%
Colonial Heights city	17,830	98.2%	100.0%	98.2%				
Covington city	5,527	99.7%	100.0%	99.7%				
Craig County		•	•		5,062	69.2%	77.9%	61.4%
Culpeper	18,421	100.0%	100.0%	100.0%	32,857	96.8%	100.0%	96.8%

		Urban	Areas			Rural	Areas	
		% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed		% of Pop. with Fixed	% of Pop. with Mobile	% of Pop. with Fixed
State, County	Pop.	25	LTE 5	&	Pop.	25	LTE 5	&
or County	Evalua ted	Mbps/	Mbps/	Mobile LTE	Evalua ted	Mbps/ 3 Mbps	Mbps/	Mobile LTE
Equivalent		3 Mbps	1 Mbps				_	
Cumberland County	362	100.0%	100.0%	100.0%	9,448	16.7%	100.0%	16.7%
Danville city	39,299	99.2%	100.0%	99.2%	1,831	99.1%	100.0%	99.1%
Dickenson					14,782	97.6%	88.9%	86.5%
Dinwiddie County	7,932	91.4%	100.0%	91.4%	20,276	39.8%	100.0%	39.8%
Emporia city	4,918	97.0%	100.0%	97.0%	364	98.6%	100.0%	98.6%
Essex County	2,484	100.0%	100.0%	100.0%			100.0%	
Fairfax County	1,131,1 04	97.9%	100.0%	97.9%	17,314	99.2%	100.0%	99.2%
Fairfax city	24,097	97.2%	100.0%	97.2%				
Falls Church	14,554	98.5%	100.0%	98.5%				
Fauguier	28,384	100.0%	100.0%	100.0%				
Floyd County	•	•	•	•	15,752	50.2%	99.9%	50.2%
Fluvanna	9,626	99.9%	100.0%		16,823	67.0%	100.0%	67.0%
Franklin County	6,024	100.0%	100.0%	100.0%	50,420	83.6%	100.0%	83.6%
Franklin city	7,892	100.0%	100.0%	100.0%	284	100.0%	100.0%	100.0%
Frederick	45,152	96.7%	100.0%	96.7%	41,328	62.2%	100.0%	62.2%
Fredericksburg city	27,992	93.0%	100.0%	93.0%	368	97.6%		97.6%
Galax city	5,679	95.0%	100.0%	95.0%	946	99.0%	100.0%	99.0%
Giles County	5,708	100.0%	100.0%	100.0%	11,129	96.5%	99.4%	96.0%
Gloucester	13,089	98.8%	100.0%	98.8%	24,203	91.5%	100.0%	91.5%
Goochland County	647	99.7%	100.0%	99.7%	22,038	64.7%	100.0%	64.7%
Grayson	19		100.0%					
Greene County	9,240	99.5%	100.0%	99.5%	10,372	77.5%	99.3%	77.5%
Greensville	1,220	82.7%	100.0%	82.7%	10,459	18.6%	99.9%	18.6%
Halifax County	7,647	95.2%	100.0%	95.2%	26,916	38.5%	99.6%	38.3%
Hampton city	134,314	97.6%	100.0%	97.6%		100.0%	100.0%	100.0%
Hanover	62,629	99.4%	100.0%	99.4%	43,293	71.8%	100.0%	71.8%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Harrisonburg city	54,211	91.9%	100.0%	91.9%	•	•	•	
Henrico County	312,804	98.4%	100.0%	98.4%	15,094	94.9%	100.0%	94.9%
Henry County Highland County	19,139	99.3%	100.0%	99.3%	32,088 2,212	95.3% 0.0%	100.0% 81.7%	95.3% 0.0%
Hopewell city Isle of Wight County	22,609 15,311	98.3% 99.7%	100.0% 100.0%	98.3% 99.7%		41.7% 74.6%	100.0% 100.0%	41.7% 74.6%
James City County	61,895	95.1%	100.0%	95.1%	,			90.8%
King George County	6,837		100.0%	99.4%	,		100.0%	90.3%
King William County King and	2,734	98.9%	100.0%	98.9%	13,974 7,003	4.7% 17.3%	100.0%	4.7% 17.3%
Oueen County Lancaster County					10,788		99.9%	72.3%
Lee County	112			100.0%		88.2%	95.8%	85.9%
Lexington city Loudoun County	7,106 326,560		100.0%	97.7% 97.1%		84.4%	100.0%	84.4%
Louisa County Lunenburg County					35,858 12,235		100.0% 100.0%	
Lynchburg city Madison	78,498	•	100.0%	93.6%	13,277	97.3% 92.4%	100.0% 99.4%	97.3% 91.9%
Manassas Park city Manassas city	16,541 41,501		100.0%					
Martinsville city	13,142	99.1%	100.0%	99.1%		•		

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Mathews County		•	•		8,779	93.5%	100.0%	93.5%
Mecklenburg County	6,926	99.4%	100.0%	99.4%	23,760	30.9%	100.0%	30.9%
Middlesex County	•	•	•	•	10,679	87.4%	100.0%	87.4%
Montgomery County	72,788	86.8%	100.0%	86.8%	25,770	79.4%	99.9%	79.3%
Nelson County	•	•	•	•	14,943	95.3%	99.8%	95.2%
New Kent					21,679	76.9%	100.0%	76.9%
Newport News	179,319	97.9%	100.0%	97.9%	69	91.3%	100.0%	91.3%
Norfolk city	244,703	95.5%	100.0%	95.5%	•	•	•	•
Northampton County	•	•	•		11,846	67.9%	100.0%	67.9%
Northumberla nd County					12,274	82.8%	100.0%	82.8%
Norton city	3,818	97.2%	100.0%	97.2%	112	80.4%	100.0%	80.4%
Nottoway County	7,109	79.8%	100.0%	79.8%	8,325	35.6%	100.0%	35.6%
Orange County	14,542	99.4%	100.0%	99.4%	21,522	72.4%	100.0%	72.4%
Page County	4,749	99.6%	100.0%	99.6%	18,982	77.7%	100.0%	77.7%
Patrick County	•	•	•		17,665	48.2%	96.0%	45.8%
Petersburg city	31,062	98.2%	100.0%	98.2%	688	94.0%	100.0%	94.0%
Pittsylvania County	8,085	98.4%	100.0%	98.4%	53,173	61.0%	99.9%	61.0%
Poquoson city	11,272	99.1%	100.0%	99.1%	781	100.0%	100.0%	100.0%
Portsmouth city	94,572	97.8%	100.0%	97.8%	•	•	•	
Powhatan	97	97.9%	100.0%	97.9%	28,504	82.5%	100.0%	82.5%
Prince Edward County	7,829	99.8%	100.0%	99.8%	14,874	48.6%	100.0%	48.6%
Prince George County	16,524	91.8%	100.0%	91.8%	21,285	76.4%	100.0%	76.4%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Prince William County	436,246	97.5%	100.0%	97.5%	26,711	91.8%	100.0%	91.8%
Pulaski County	18,169	95.6%	100.0%	95.6%	16,015	78.6%	100.0%	78.6%
Radford city	17,086	99.6%	100.0%	99.6%	569	91.2%	100.0%	91.2%
Rappahannock County				•	7,320	81.9%	96.7%	81.0%
Richmond		•	•		8,939	62.6%	100.0%	62.6%
Richmond city	227,015	94.9%	100.0%	94.9%	·	<u> </u>	<u> </u>	•
Roanoke County	75,860	99.0%	100.0%	99.0%	17,870	90.2%	98.9%	90.2%
Roanoke city	99,824	98.3%	100.0%	98.3%	13	61.5%	100.0%	61.5%
Rockbridge County	1,890	98.1%	100.0%	98.1%	•	58.2%		
Rockingham County	31,723	98.8%	100.0%	98.8%	48,504	72.2%	99.9%	72.2%
Russell County	3,131	99.6%	100.0%	99.6%	23,917	86.4%	99.1%	85.5%
Salem city	25,854	96.1%	100.0%	96.1%				•
Scott County	3,769	93.1%	100.0%	93.1%	18,096	80.3%	98.0%	79.8%
Shenandoah County	14,267	98.6%	100.0%	98.6%	28,958	77.7%	100.0%	77.7%
Smyth County	7,766	94.7%	100.0%	94.7%	22,890	94.2%	94.6%	89.4%
Southampton County	376	100.0%	100.0%	100.0%	17,374	46.4%	100.0%	46.4%
Spotsylvania County	86,707	98.9%	100.0%	98.9%	46,325	94.8%	100.0%	94.8%
Stafford	114,826	99.4%	100.0%	99.4%	31,823	97.9%	100.0%	97.9%
Staunton city	23,573		100.0%	98.2%				
Suffolk city	69,067	99.5%	100.0%	99.5%	21,170	79.0%	100.0%	79.0%
Surry County					6,540	0.0%	100.0%	0.0%
Sussex County					11,373		1	
Tazewell County	20,101	99.9%	100.0%	99.9%	20,994	96.7%	98.5%	95.3%
Virginia Beach	442,867	97.5%	100.0%	97.5%	7,568	98.0%	100.0%	98.0%
Warren County			100.0%				100.0%	

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Washington	15,197	98.8%	100.0%	98.8%	39,189	99.1%	_	97.2%
County	ŕ				,			
Waynesboro city	21,706	97.9%	100.0%	97.9%	614	91.2%	100.0%	91.2%
Westmoreland County	3,702	99.3%	100.0%	99.3%	14,078	88.0%	100.0%	88.0%
Williamsburg	15,031	70.5%		70.5%				
Winchester city	27,929	99.1%	100.0%	99.1%				
Wise County	16,166	98.4%	100.0%	98.4%	22,420	92.9%		92.2%
Wythe County	7,048	100.0%		100.0%	21,834	85.5%		85.5%
York County	63,369	98.4%	100.0%	98.4%	4,370	96.2%		96.2%
Washington	6,136,7 51	99.0%	100.0%	99.0%	1,268,8 18	88.9%	98.7%	88.0%
Adams County	11,330	100.0%	100.0%	100.0%	8,168	100.0%	99.8%	99.8%
Asotin County	20,571	98.2%		98.2%	1,964	40.0%		40.0%
Benton County	168,999	100.0%	100.0%	100.0%	29,172	100.0%	100.0%	100.0%
Chelan County	54,267	99.3%		99.3%	22,265	81.3%		80.9%
Clallam County	47,289	93.3%	100.0%	93.3%	28,185	61.7%		61.7%
Clark County Columbia	401,887 2,524	100.0% 100.0%	100.0% 100.0%	100.0% 100.0%	72,752 1,523	100.0% 90.7%		100.0% 89.7%
County	_,				_,			
Cowlitz County	74,138			99.7%	32,770	76.0%		
Douglas County	28,998	100.0%	100.0%	100.0%	12,944	100.0%	99.4%	99.4%
Ferry County	•	•	•	•	7,594	99.9%		
Franklin County	74,810	100.0%	100.0%	100.0%	17,302	100.0%	98.2%	98.2%
Garfield			•		2,210		i	
Grant County	56,125	100.0%	100.0%	100.0%	39,024	100.0%		99.7%
Grays Harbor County	43,596	96.1%	100.0%	96.1%	29,099	71.5%	99.7%	71.4%
Island County	42,993	100.0%	100.0%	100.0%	40,166	100.0%	100.0%	100.0%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Jefferson	13,000	98.5%	100.0%	98.5%	18,234	73.6%	100.0%	73.6%
King County	2,085,8 80	98.4%	100.0%	98.4%	102,730	76.7%	97.4%	75.6%
Kitsap County	220,414	98.0%	100.0%	98.0%	45,994	94.0%	100.0%	94.0%
Kittitas County	25,570	100.0%	100.0%	100.0%	20,635	100.0%	98.8%	98.8%
Klickitat	8,226			59.0%		30.1%	90.3%	28.4%
Lewis County	29,752	93.7%	100.0%	93.7%	48,440	57.2%	98.1%	56.2%
Lincoln County				•	10,579	100.0%	99.0%	99.0%
Mason County	22,538	98.3%	100.0%	98.3%	41,164	83.7%	99.8%	83.7%
Okanogan	8,231	100.0%	100.0%			93.6%	93.9%	89.0%
Pacific County	7,443	99.4%	100.0%	99.4%	14,183	78.6%	99.5%	78.3%
Pend Oreille County	2,208		100.0%	100.0%	·	100.0%	98.8%	98.8%
Pierce County	808,621	99.2%	100.0%	99.2%	68,138	77.1%	99.7%	77.0%
San Juan					16,715	100.0%	100.0%	
Skagit County	87,038	100.0%	100.0%	100.0%	38,580	100.0%	99.3%	99.3%
Skamania		•	•	•	11,835	47.2%	97.3%	45.5%
Snohomish County	704,050	99.7%	100.0%	99.7%	97,557	97.2%	99.3%	96.5%
Spokane		100.0%		100.0%		100.0%		99.9%
Stevens County	8,891	100.0%	100.0%	100.0%	35,839	100.0%	97.6%	97.6%
Thurston	216,530	99.1%	100.0%	99.1%		93.0%		
Wahkiakum County		•	•	•	4,264	20.7%	94.0%	18.9%
Walla Walla County	49,395	100.0%	100.0%	100.0%	11,171	99.4%	99.7%	99.1%
Whatcom County	159,141	100.0%	100.0%	100.0%	62,259	99.6%	98.3%	98.0%
Whitman	33,166	100.0%	100.0%	100.0%	15,880	100.0%	98.9%	98.9%
Yakima County	188,682	100.0%	100.0%	100.0%	61,505	100.0%	97.2%	97.2%
West Virginia	889,56 3	97.2%	99.9%	97.1%	926,29 0	72.5%	90.6%	67.2%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Barbour	2,324	100.0%	100.0%	100.0%	14,173	100.0%	98.0%	98.0%
County								
Berkeley	76,909		100.0%	98.2%				
Boone County	4,565	90.2%	100.0%	90.2%	17,784	85.5%	79.3%	68.8%
Braxton	•		•	•	14,237	99.9%		94.9%
Brooke County	13,444	99.2%	100.0%	99.2%	8,999	69.7%	100.0%	69.7%
Cabell County	74,263	97.7%	100.0%	97.7%	20,695	84.6%		83.7%
Calhoun County	•		•	•	7,307	28.9%	80.3%	25.8%
Clay County	•		•	•	8,764	24.1%		14.5%
Doddridge County	•	•	•	•	8,559	70.8%	83.2%	56.4%
Favette County	18,986	94.2%	100.0%	94.2%	24,535	61.8%	96.2%	58.9%
Gilmer County	2,838	100.0%	100.0%	100.0%	5,167	100.0%	65.7%	65.7%
Grant County	2,475	99.9%	100.0%	99.9%	9,195	32.7%		32.1%
Greenbrier County	10,602	96.6%	100.0%	96.6%	24,685	57.6%	94.0%	57.1%
Hampshire	•	•	•	•	23,469	27.4%	98.4%	27.2%
Hancock County	20,531	98.8%	100.0%	98.8%	8,917	85.2%	100.0%	85.2%
Hardy County	2,627	100.0%	100.0%	100.0%	11,090	84.1%	91.0%	
Harrison County	42,840	100.0%	100.0%	100.0%	24,971	100.0%	97.9%	97.9%
Jackson	8,298	97.6%	100.0%	97.6%	20,678	52.6%	99.3%	52.6%
Jefferson County	28,804	99.0%	100.0%	99.0%	27,534	97.1%	100.0%	97.1%
Kanawha	136,757	98.2%	100.0%	98.2%	46,536	85.0%	98.0%	83.4%
Lewis County	5,035	100.0%	100.0%	100.0%	11,191	100.0%	87.5%	87.5%
Lincoln County					20,825			57.2%
Logan County	10,505	75.8%	93.4%	70.6%	22,420	68.9%	87.1%	62.4%
Marion County	32,886	100.0%	100.0%	100.0%	23,451	100.0%	98.7%	98.7%
Marshall	16,622	97.2%	99.8%	97.2%	14,568	58.9%	93.9%	54.9%
Mason County	9,376	84.5%	100.0%	84.5%	17,425	42.2%	97.4%	41.7%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/	% of Pop. with Mobile LTE 5 Mbps/	% of Pop. with Fixed & Mobile LTE
		3 Mbps 97.7%	_			_	1 Mbps	
McDowell Mercer County	2,449 35,089		100.0% 100.0%	97.7% 97.8%	16,007 24,664	81.3% 93.8%	43.8% 99.4%	38.1% 93.3%
Mineral County	9,690	90.5%	100.0%	90.5%	17,532	56.2%		56.2%
Mingo County	2,774	99.4%	100.0%	99.4%	21,353	64.0%	67.2%	45.7%
Monongalia County	74,876	97.3%	100.0%	97.3%	30,153	100.0%	97.2%	97.2%
Monroe County	1,542	98.2%	100.0%	98.2%	11,860	84.7%	90.7%	83.7%
Morgan County	•	•	•	•	17,686	68.9%	98.3%	68.9%
Nicholas	3,110				21,933			
Ohio County	32,319	98.4%	100.0%	98.4%	9,716	83.3%	100.0%	83.3%
Pendleton					6,996	25.2%	52.9%	23.3%
Pleasants County	3,356	81.7%	100.0%	81.7%	4,156	41.1%	87.7%	37.8%
Pocahontas County	•	•	•	•	8,456	42.2%		19.4%
Preston County	3,167	85.5%	100.0%	85.5%	30,512	54.6%	98.9%	54.3%
Putnam	36,114	96.7%	100.0%	96.7%	20,678	65.1%	99.5%	65.1%
Raleigh County	45,074	95.2%	100.0%	95.2%	29,948	91.3%	90.9%	83.2%
Randolph	10,844	100.0%	100.0%	100.0%	17,941	100.0%	84.9%	84.9%
Ritchie County	•	•	•	•	9,774	16.5%	78.7%	16.5%
Roane County	2,727	98.3%	100.0%	98.3%	11,316	22.6%	88.7%	21.4%
Summers County	3,528	76.2%	100.0%	76.2%	9,465	50.7%	100.0%	50.7%
Taylor County	6,721	97.1%	100.0%	97.1%	10,209	79.9%	100.0%	79.9%
Tucker County	<u> </u>	•	•	•	6,915	54.1%	95.1%	54.0%
Tyler County	824	100.0%	100.0%	100.0%	7,971	23.7%	89.4%	23.7%
Upshur County	8,664	100.0%	100.0%	100.0%	15,801	100.0%	92.3%	92.3%
Wayne County	14,188	89.8%	100.0%	89.8%	25,965	76.4%	87.9%	69.1%
Webster County	•			•	8,372	64.3%	79.0%	59.2%
Wetzel County	6,872	93.9%	100.0%	93.9%	8,565	6.6%	55.6%	5.6%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Wirt County					5,794	46.7%	81.8%	46.6%
Wood County	62,345	99.8%	100.0%	99.8%	22,759	75.5%	98.8%	75.5%
Wyoming County	2,603	99.6%	90.4%	90.0%	18,607	92.4%	64.1%	60.8%
Wisconsin	4,050,9 55	99.5%	100.0%	99.5%	1,744,3 21	72.1%	99.2%	71.9%
Adams County	•	•		•	19,973	57.3%	100.0%	57.3%
Ashland	6,705	99.7%	100.0%	99.7%	8,795	47.2%	95.1%	45.9%
Barron County	15,163	99.9%	100.0%	99.9%	30,088	52.8%	99.9%	52.8%
Bayfield					15,008	85.2%	96.0%	83.2%
Brown County	221,389	100.0%	100.0%	100.0%	40,632	100.0%	100.0%	100.0%
Buffalo County					13,167	90.9%	94.3%	85.7%
Burnett County		•			15,351	52.8%	100.0%	52.8%
Calumet	35,836	100.0%	100.0%	100.0%	14,221	100.0%	100.0%	100.0%
Chippewa County	33,946	100.0%	100.0%	100.0%	29,864	68.1%	100.0%	68.1%
Clark County	2,734	99.8%	100.0%	99.8%	31,942	42.5%	99.4%	42.3%
Columbia County	22,267	92.2%	100.0%	92.2%	34,977	48.5%	99.9%	48.4%
Crawford	6,062	98.6%	100.0%	98.6%	10,152	61.8%	89.8%	57.2%
Dane County	456,129	99.6%	100.0%	99.6%	80,268	76.5%	99.9%	76.5%
Dodge County	44,677	100.0%				84.3%	100.0%	84.3%
Door County	8,258	100.0%	100.0%	100.0%	19,225	55.1%	99.6%	55.1%
Douglas	26,427	99.8%	100.0%	99.8%	16,857	47.9%		47.9%
Dunn County	18,004	99.5%	100.0%	99.5%	26,689	55.4%	100.0%	55.4%
Eau Claire	78,959	99.9%	100.0%	99.9%	24,708	63.8%	99.9%	63.8%
Florence County	٠	•		•	4,371	87.7%	93.3%	84.0%
Fond du Lac County	66,230	100.0%	100.0%	100.0%	36,313	93.4%	100.0%	93.4%
Forest County					8,970	54.6%	97.4%	54.1%
Grant County	17,973	95.7%	100.0%	95.7%	34,026	75.4%	99.2%	75.0%

		Urban	Areas			Rural	Areas	
State, County	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &	Pop.	% of Pop. with Fixed 25	% of Pop. with Mobile LTE 5	% of Pop. with Fixed &
or County	Evalua	Mbps/	Mbps/	Mobile	Evalua	Mbps/	Mbps/	Mobile
Equivalent	ted	_	1 Mbps	LTE	ted	3 Mbps	-	
Green County	14,509	99.8%	100.0%	99.8%	22,342	78.7%	100.0%	78.7%
Green Lake County	4,807	100.0%	100.0%	100.0%	13,952	56.1%	100.0%	56.1%
Iowa County	4,682	100.0%	100.0%	100.0%	19,033	71.0%	97.6%	70.4%
Iron County	1,801	100.0%	100.0%	100.0%	3,870	38.2%	95.8%	36.6%
Jackson County	5,633	99.7%	100.0%	99.7%	14,896	36.4%	94.2%	36.2%
Jefferson	55,698	100.0%	100.0%	100.0%		77.3%	100.0%	77.3%
Juneau County	4,161	94.8%	100.0%	94.8%	22,415	65.1%	99.6%	65.0%
Kenosha	150,160		100.0%		18,356	99.9%	100.0%	99.9%
Kewaunee County	5,613	100.0%	100.0%	100.0%	14,832	98.8%	100.0%	98.8%
La Crosse	97,783	99.7%	100.0%	99.7%	20,488	79.4%		
Lafayette County		•	•	•	16,741	68.0%	100.0%	68.0%
Langlade	7,526	100.0%	100.0%	100.0%	11,634	86.7%	99.4%	86.1%
Lincoln County	12,532	97.6%	100.0%	97.6%	15,306	57.6%	99.3%	57.6%
Manitowoc	47,642	100.0%	100.0%	100.0%	31,533	100.0%	100.0%	100.0%
Marathon County	76,964	99.9%	100.0%	99.9%	58,767	84.1%	99.7%	83.9%
Marinette	15,006	100.0%	100.0%	100.0%		72.0%		
Marquette County	•	٠	•	•	15,308	70.5%	99.8%	70.5%
Menominee County					4,615	94.4%	97.0%	
Milwaukee County	950,221	100.0%	100.0%	100.0%	1,858	100.0%	100.0%	100.0%
Monroe County	19,112	100.0%	100.0%	100.0%	26,512		98.1%	48.3%
Oconto County	7,019	100.0%	100.0%	100.0%	30,534	98.2%	99.8%	98.1%
Oneida County	8,769		100.0%	99.9%	26,485	59.6%	99.6%	59.6%
Outagamie County	138,858	100.0%	100.0%	100.0%	47,166	98.1%	100.0%	98.1%
Ozaukee	66,252	100.0%	100.0%	100.0%	22,176	100.0%	100.0%	100.0%
Pepin County	•	•	•	•	7,254	96.0%	100.0%	96.0%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Pierce County	19,025	95.1%	100.0%	95.1%	22,868	76.8%	100.0%	
Polk County	5,947	99.8%	100.0%	99.8%	37,503	53.5%	100.0%	53.5%
Portage	44,927	99.9%	100.0%	99.9%	25,547	67.7%	100.0%	67.7%
Price County	•	•	•	•	13,442	40.3%	94.9%	39.4%
Racine County	171,727	100.0%	100.0%	100.0%	24,335	100.0%	100.0%	100.0%
Richland County	4,640	100.0%	100.0%	100.0%	12,876	33.2%	95.4%	32.4%
Rock County	128,804	99.9%	100.0%	99.9%	33,501	81.5%	100.0%	81.5%
Rusk County	3,121	99.9%	100.0%	99.9%	11,030	34.4%	99.3%	34.3%
Sauk County	33,886	98.9%	100.0%	98.9%	30,095	64.7%	99.7%	64.6%
Sawyer County	2,573	100.0%	100.0%	100.0%	13,844	70.7%	97.3%	70.1%
Shawano County	10,326	100.0%	100.0%	100.0%	30,609	99.2%	100.0%	99.2%
Sheboygan	82,564	100.0%	100.0%	100.0%	32,780	100.0%	100.0%	100.0%
St. Croix	40,882	76.3%	100.0%	76.3%	47,815	25.4%	100.0%	25.4%
Taylor County	3,820	99.2%	100.0%	99.2%	16,501	32.6%	95.8%	31.5%
Trempealeau Countv	2,988		100.0%	60.8%	26,484	65.7%	97.4%	64.9%
Vernon County	4,299	96.1%	100.0%	96.1%	26,460	43.8%	87.7%	41.9%
Vilas County	•				21,680	44.9%	98.9%	44.4%
Walworth County	67,329	99.2%	100.0%	99.2%	35,753	89.1%	100.0%	89.1%
Washburn	2,637			100.0%				
Washington County	93,087	100.0%	100.0%	100.0%	42,005	100.0%	100.0%	100.0%
Waukesha	360,529		100.0%		40,073	99.4%	100.0%	
Waupaca County	17,346	99.3%	100.0%	99.3%	33,879	73.2%	99.9%	73.1%
Waushara	2,356	99.9%	100.0%	99.9%	22,007	36.7%	99.9%	36.7%
Winnebago County	146,845	100.0%	100.0%	100.0%	23,564	69.1%	100.0%	69.1%
Wood County	45,790	99.9%	100.0%	99.9%	27,335	59.5%	99.9%	59.5%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Wyoming	359,50 0	98.7%	100.0%	98.7%	219,81 3	52.8%	96.8%	51.2%
Albany County	32,342	100.0%	100.0%	100.0%	5,990	70.2%	92.3%	69.1%
Big Horn			·	•	11,906	31.9%	98.8%	31.4%
Campbell County	31,454	99.2%	100.0%	99.2%	14,788	71.5%	99.0%	71.3%
Carbon County	8,550			99.9%			93.2%	
Converse County	6,028	100.0%	100.0%	100.0%	7,781	81.5%	98.7%	81.5%
Crook County		•			7,410		97.2%	
Fremont County	19,164	99.2%	100.0%	99.2%	20,639	25.3%	88.9%	15.7%
Goshen County	7,129						97.9%	
Hot Springs County	3,193	99.9%	100.0%	99.9%	1,503	27.3%	97.2%	27.3%
Johnson	4,266			99.8%			99.7%	
Laramie County	75,263	99.5%	100.0%	99.5%	23,064	52.1%	99.8%	52.1%
Lincoln County	3,157			33.5%			93.8%	
Natrona County	61,319	100.0%	100.0%	100.0%	18,228	65.0%	98.9%	65.0%
Niobrara	•	•	•	•	2,397	84.9%	98.4%	84.9%
Park County	15,902	100.0%	100.0%	100.0%	13,665	31.0%	95.8%	30.8%
Platte County	3,440	91.5%	100.0%	91.5%	5,122	60.0%	99.8%	60.0%
Sheridan County	19,060	99.8%	100.0%	99.8%	11,150	68.1%	99.6%	68.1%
Sublette					9,799	18.8%	99.3%	
Sweetwater County	37,792	99.8%	100.0%	99.8%	5,742	48.5%	96.5%	48.5%
Teton County	11,878			99.9%		88.3%	95.0%	85.6%
Uinta County	11,440	100.0%	100.0%	100.0%	9,055	21.9%	99.6%	21.9%
Washakie	5,002	100.0%	100.0%	100.0%	3,062	37.2%	98.8%	37.0%
Weston County	3,121	54.4%	100.0%	54.4%	3,806	17.4%	95.9%	17.4%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
American Samoa	43,763	0.0%	0.0%	0.0%	7,741	0.0%	0.0%	0.0%
Eastern District	18,247	0.0%	0.0%	0.0%	3,118	0.0%	0.0%	0.0%
Manu'a	•				1,060	0.0%	0.0%	0.0%
Swains Island			•		16	0.0%		
Western District	25,516	0.0%	0.0%	0.0%	3,547	0.0%	0.0%	0.0%
Guam	156,19 2	1.6%	99.6%	1.6%	11,166	1.3%	99.0%	1.3%
Commonwealth of the Northern Mariana Islands	46,479	1.7%	100.0%	1.7%	5,784	0.1%	96.7%	0.1%
Rota			•		2,451	0.2%	94.5%	0.2%
Saipan Municipality	43,922	1.8%	100.0%	1.8%	2,848	0.0%	100.0%	0.0%
Tinian Municipality	2,557		100.0%	0.0%		0.0%		
Puerto Rico	3,122,6 99	94.0%	100.0%	94.0%	214,47 8	67.5%	98.1%	66.2%
Adjuntas Municipio	9,892	74.1%	100.0%	74.1%	8,079	34.4%	100.0%	34.4%
Aguada	38,118	99.1%	100.0%	99.1%				
Aguadilla Municipio	53,121	100.0%	100.0%	100.0%	43	100.0%	100.0%	100.0%
Aguas Buenas Municipio	22,939	60.9%	100.0%	60.9%	2,911	17.6%	100.0%	17.6%
Aibonito Municipio	20,311	81.5%	100.0%	81.5%	2,797	46.0%	100.0%	46.0%
Arecibo Municipio	78,201	96.0%	99.9%	96.0%	7,865	80.2%	100.0%	80.2%
Arroyo	17,147	98.7%	99.9%	98.7%	734	78.9%	99.9%	78.9%
Añasco	23,374							

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Barceloneta Municipio	23,740	99.9%	100.0%	99.9%	500	99.4%	100.0%	99.4%
Barranquitas Municipio	27,613	72.0%	100.0%	72.0%	898	85.6%	100.0%	85.6%
Bayamón Municipio	179,541	91.0%	100.0%	91.0%	24	83.3%	100.0%	83.3%
Cabo Rojo Municipio	46,525	98.3%	100.0%	98.3%	2,299	85.6%	100.0%	85.6%
Caguas Municipio	128,421	99.3%	100.0%	99.3%	1,183	84.2%	100.0%	84.2%
Camuy	27,481	90.8%	100.0%	90.8%	4,251	77.0%	100.0%	77.0%
Canóvanas Municipio	44,756	94.5%	100.0%	94.5%	1,067	56.3%	100.0%	56.3%
Carolina Municipio	154,199	99.5%	100.0%	99.5%	290	100.0%	100.0%	100.0%
Cataño Municipio	24,370	100.0%	100.0%	100.0%	4	100.0%	100.0%	100.0%
Cayey	39,620	97.3%	100.0%	97.3%	4,407	49.1%	99.9%	49.1%
Ceiba Municipio	10,349	99.9%	100.0%	99.9%	1,253	86.0%	100.0%	86.0%
Ciales	9,913	98.6%	100.0%	98.6%	6,714	70.3%	96.9%	69.8%
Cidra Municipio	38,205	82.9%	100.0%	82.9%	1,608	71.4%	100.0%	71.4%
Coamo	31,626	96.2%	100.0%	96.2%	7,445	79.3%	100.0%	79.3%
Comerío Municipio	16,885	71.0%	100.0%	71.0%	2,458	39.6%	100.0%	39.6%
Corozal	31,761	70.7%	100.0%	70.7%	1,933	34.1%	100.0%	34.1%
Culebra Municipio					1,769	0.0%	100.0%	0.0%
Dorado	37,016	99.0%	100.0%	99.0%	10	90.0%	100.0%	90.0%
Fajardo Municipio	30,503	100.0%	100.0%	100.0%	821	90.3%	100.0%	90.3%
Florida	9,699	95.7%	100.0%	95.7%	2,076	85.0%	100.0%	85.0%
Guayama Municipio	37,157	97.1%	100.0%	97.1%	4,124	62.2%	92.7%	62.2%

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Guayanilla Municipio	16,372	90.3%	99.8%	90.3%	2,239	42.6%	95.2%	42.6%
Guaynabo Municipio	87,315	87.6%	100.0%	87.6%	13	0.0%	100.0%	0.0%
Gurabo Municipio	46,931	99.1%	100.0%	99.1%	178	100.0%	100.0%	100.0%
Guánica Municipio	14,859	100.0%	100.0%	100.0%	1,504	90.2%	100.0%	90.2%
Hatillo	35,854	97.4%	100.0%	97.4%	4,257	80.6%	100.0%	80.6%
Hormigueros Municipio	15,998	100.0%	100.0%	100.0%	34	100.0%	100.0%	100.0%
Humacao Municipio	52,489	99.8%	100.0%	99.8%	282	100.0%		
Isabela Municipio	39,136	95.9%	100.0%	95.9%	2,813	72.8%	100.0%	72.8%
Jayuya	9,697	93.4%	96.7%	93.4%	4,928	93.6%	92.5%	88.1%
Juana Díaz Municipio	43,692	99.6%	100.0%	99.6%	2,708	89.5%	99.8%	89.5%
Juncos	37,861	99.4%		99.4%	1,240			75.7%
Lajas Municipio	18,549	99.8%	100.0%	99.8%	4,380	81.9%	100.0%	81.9%
Lares	18,881	83.4%				87.7%		84.5%
Las Marías Municipio	2,803	79.0%	100.0%	79.0%	5,599	39.1%	100.0%	39.1%
Las Piedras Municipio	36,738		100.0%	91.7%	921	60.4%		
Loíza Municipio	25,705	100.0%	100.0%	100.0%	221	100.0%	100.0%	100.0%
Luquillo Municipio	16,574	99.9%	100.0%	99.9%	1,737	100.0%	100.0%	100.0%
Manatí Municipio	36,181	99.9%	100.0%	99.9%	2,922	77.3%	100.0%	77.3%
Maricao	2,401	49.0%	100.0%	49.0%	3,264	73.4%	95.9%	69.3%
Maunabo Municipio	8,189	94.0%	100.0%	94.0%	2,619	83.8%	100.0%	83.8%

		Urban	Areas		Rural Areas				
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	
Mayagüez Municipio	72,238	99.6%	100.0%	99.6%	3,287	83.0%	99.7%	83.0%	
Moca Municipio	31,728	99.2%	100.0%	99.2%	4,600	97.2%	96.5%	93.7%	
Morovis	27,556	92.2%	100.0%	92.2%	3,536	29.5%	100.0%	29.5%	
Naguabo Municipio	23,962	99.2%	100.0%	99.2%	2,215	96.8%	100.0%	96.8%	
Naranjito Municipio	28,306		100.0%	64.7%	•				
Orocovis Municipio	13,264	77.8%	100.0%	77.8%	7,845	30.8%	91.9%	28.2%	
Patillas	12,634	98.5%	100.0%	98.5%	4,370	84.1%	71.6%	55.7%	
Peñuelas Municipio	17,208	95.0%	100.0%	95.0%	3,239	59.8%	100.0%	59.8%	
Ponce	133,634	99.3%	100.0%	99.3%	7,225	84.2%	99.8%	84.1%	
Quebradillas Municipio	21,837	97.0%	100.0%	97.0%	1,897	79.9%	100.0%	79.9%	
Rincón	14,128	100.0%	100.0%	100.0%		•			
Río Grande Municipio	48,740	98.0%	99.9%	98.0%	1,388	90.7%	100.0%	90.7%	
Sabana Grande Municipio	20,709	97.9%	100.0%	97.9%	1,981	50.7%	100.0%	50.7%	
Salinas Municipio	24,389	91.6%	100.0%	91.6%	3,827	49.9%	100.0%	49.9%	
San Germán Municipio	28,533	86.4%	100.0%	86.4%	3,121	53.0%	100.0%	53.0%	
San Juan Municipio	337,288	100.0%	100.0%	100.0%					
San Lorenzo Municipio	33,066	69.3%	100.0%	69.3%	4,313	6.4%	100.0%	6.4%	
San Sebastián Municipio	32,364	88.0%	100.0%	88.0%	4,942	62.5%	100.0%	62.5%	
Santa Isabel Municipio	18,949	100.0%	100.0%	100.0%	2,914	89.1%	100.0%	89.1%	

		Urban	Areas			Rural	Areas	
State, County or County Equivalent	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE	Pop. Evalua ted	% of Pop. with Fixed 25 Mbps/ 3 Mbps	% of Pop. with Mobile LTE 5 Mbps/ 1 Mbps	% of Pop. with Fixed & Mobile LTE
Toa Alta Municipio	73,217	66.7%	100.0%	66.7%				
Toa Baja Municipio	78,092	96.8%	100.0%	96.8%	•	•	•	•
Trujillo Alto Municipio	66,675	100.0%	100.0%	100.0%	•	•		
Utuado	14,649	97.2%	100.0%	97.2%	14,142	74.1%	98.3%	73.9%
Vega Alta Municipio	36,873	95.4%	100.0%	95.4%	693	99.4%	100.0%	99.4%
Vega Baja Municipio	50,312	96.3%	100.0%	96.3%	2,124	79.6%	100.0%	79.6%
Vieques Municipio	7,626	13.9%	100.0%	13.9%	1,043	39.9%	100.0%	39.9%
Villalba	19,088	92.1%	99.5%	92.1%	3,440	80.9%	99.9%	80.9%
Yabucoa Municipio	28,490	84.9%	100.0%	84.9%	5,139	80.3%	100.0%	80.3%
Yauco	28,436			92.0%	7,199	74.1%	94.0%	68.4%
United States Virgin Islands	100,70 3	100.0%	100.0%	100.0%	6,565	99.9%	91.1%	91.0%
St. Croix Island	46,381	100.0%	100.0%	100.0%	4,630	100.0%	92.7%	92.7%
St. John Island	3,096	100.0%	98.8%	98.8%	1,108	100.0%	77.6%	77.6%
St. Thomas Island	51,226	100.0%	100.0%	100.0%	827	98.9%	100.0%	98.9%

Deployment (Millions) of Fixed Terrestrial 25 Mbps/3 Mbps Services and/or Mobile LTE with a Minimum Advertised Speed of 5 Mbps/1 Mbps by Tribal Lands and State (December 31, 2017)

APPENDIX 7

		Fixed 25 Mbps/3 Mbps		Mobile LTE 5 Mbps/1 Mbps		Fixed 25 Mbps & LTE 5 I	Mobile Mbps/1	Fixed 25 Mbps/3 Mbps or Mobile LTE 5 Mbps/1 Mbps	
	Total Pop	Pop. with Access	% of Pop.	Pop. with Access	% of Pop.	Pop. with Access	% of Pop.	Pop. with Access	% of Pop.
Tribal Lands	4.017	2.727	67.9%	3.896	97.0%	2.716	67.6%	3.907	97.3%
Alaskan Villages	0.265	0.154	58.0%	0.197	74.3%	0.151	57.0%	0.200	75.4%
Hawaiian Homelands	0.034	0.030	89.4%	0.034	99.9%	0.030	89.4%	0.034	99.9%
Lower 48 States	1.117	0.604	54.1%	1.069	95.7%	0.595	53.3%	1.078	96.5%
Alabama	0.000	0.000	51.9%	0.000	100.0%	0.000	51.9%	0.000	100.0%
Alaska	0.002	0.000	0.0%	0.001	56.6%	0.000	0.0%	0.001	56.6%
Arizona	0.198	0.020	10.3%	0.174	87.7%	0.020	10.3%	0.174	87.7%
California	0.072	0.050	68.7%	0.071	97.9%	0.050	68.6%	0.071	98.0%
Colorado	0.016	0.010	60.0%	0.016	99.9%	0.010	60.0%	0.016	99.9%
Connecticut	0.000	0.000	99.7%	0.000	100.0%	0.000	99.7%	0.000	100.0%
Florida	0.005	0.004	82.2%	0.005	100.0%	0.004	82.2%	0.005	100.0%
Idaho	0.034	0.008	24.7%	0.033	98.8%	0.008	24.5%	0.033	99.0%
Iowa	0.001	0.001	70.6%	0.001	100.0%	0.001	70.6%	0.001	100.0%
Kansas	0.006	0.004	61.9%	0.006	100.0%	0.004	61.9%	0.006	100.0%
Louisiana	0.001	0.000	28.3%	0.001	100.0%	0.000	28.3%	0.001	100.0%
Maine	0.002	0.002	79.0%	0.001	44.1%	0.001	43.3%	0.002	79.8%
Massachusetts	0.000	0.000	97.3%	0.000	100.0%	0.000	97.3%	0.000	100.0%
Michigan	0.035	0.034	97.6%	0.035	99.7%	0.034	97.6%	0.035	99.7%
Minnesota	0.039	0.032	81.4%	0.039	98.4%	0.032	80.4%	0.039	99.5%
Mississippi	0.007	0.005	67.8%	0.007	100.0%	0.005	67.8%	0.007	100.0%
Montana	0.070	0.038	54.7%	0.062	88.4%	0.034	48.1%	0.066	95.0%
Nebraska	0.009	0.004	44.7%	0.009	99.7%	0.004	44.7%	0.009	99.7%
Nevada	0.014	0.005	38.6%	0.014	98.7%	0.005	38.6%	0.014	98.7%
New Mexico	0.148	0.054	36.2%	0.144	97.3%	0.054	36.2%	0.144	97.3%
New York	0.014	0.011	81.6%	0.014	100.0%	0.011	81.6%	0.014	100.0%

		Fixed 25 Mbps/3 Mbps		Mobile Mbps/1		Fixed 25 Mbps & LTE 5 1	Mobile Mbps/1	Fixed 25 Mbps/3 Mbps or Mobile LTE 5 Mbps/1 Mbps	
	Total Pop	Pop. with Access	% of Pop.	Pop. with Access	% of Pop.	Pop. with Access	% of Pop.	Pop. with Access	% of Pop.
North Carolina	0.009	0.000	2.2%	0.009	94.8%	0.000	2.2%	0.009	94.8%
North Dakota	0.025	0.020	80.1%	0.025	99.3%	0.020	79.7%	0.025	99.7%
Oklahoma	0.090	0.063	69.3%	0.090	99.8%	0.063	69.3%	0.090	99.8%
Oregon	0.009	0.003	35.2%	0.009	99.8%	0.003	35.2%	0.009	99.8%
Rhode Island	0.000	0.000	33.3%	0.000	100.0%	0.000	33.3%	0.000	100.0%
South Carolina	0.001	0.001	100.0%	0.001	100.0%	0.001	100.0%	0.001	100.0%
South Dakota	0.065	0.042	63.9%	0.064	98.2%	0.041	62.6%	0.065	99.6%
Texas	0.002	0.001	74.0%	0.002	100.0%	0.001	74.0%	0.002	100.0%
Utah	0.037	0.017	47.4%	0.034	93.3%	0.017	47.2%	0.034	93.5%
Washington	0.139	0.128	92.2%	0.137	98.7%	0.127	91.3%	0.139	99.6%
Wisconsin	0.040	0.032	81.1%	0.040	99.2%	0.032	80.5%	0.040	99.8%
Wyoming	0.026	0.014	52.9%	0.026	98.8%	0.014	52.3%	0.026	99.5%
Tribal Statistical Areas	2.601	1.939	74.6%	2.596	99.8%	1.939	74.5%	2.596	99.8%
California	0.003	0.003	99.7%	0.003	100.0%	0.003	99.7%	0.003	100.0%
New York	0.003	0.001	53.7%	0.003	100.0%	0.001	53.7%	0.003	100.0%
Oklahoma	2.556	1.895	74.1%	2.551	99.8%	1.895	74.1%	2.551	99.8%
Washington	0.040	0.040	100.0%	0.040	100.0%	0.040	100.0%	0.040	100.0%

APPENDIX 8

Adoption Rate for Fixed Terrestrial Services in the United States and District of Columbia (As of December 31, 2017)²⁴¹

	10 Mbps/ 1 Mbps	25 Mbps/ 3 Mbps	50 Mbps/ 5 Mbps	100 Mbps/ 10 Mbps	250 Mbps/ 25 Mbps
United States	69.7%	60.2%	54.8%	29.6%	4.1%
Alabama	55.4%	45.7%	40.2%	16.9%	1.7%
Alaska	65.8%	*	*	*	*
Arizona	67.2%	61.0%	52.7%	30.5%	8.0%
Arkansas	49.0%	37.7%	33.5%	17.0%	4.2%
California	76.8%	64.5%	61.8%	34.3%	3.1%
Colorado	70.2%	67.8%	60.0%	28.1%	2.6%
Connecticut	77.3%	63.4%	55.8%	30.5%	*
Delaware	86.2%	83.9%	74.9%	32.6%	*
District of Columbia	79.9%	76.3%	*	*	*
Florida	82.9%	70.1%	64.8%	35.5%	4.4%
Georgia	68.2%	55.2%	50.7%	22.8%	4.5%
Hawaii	*	*	*	*	*
Idaho	47.5%	42.7%	16.6%	9.6%	0.4%
Illinois	68.5%	56.6%	52.7%	20.0%	1.0%
Indiana	61.5%	50.5%	45.8%	23.4%	1.3%
Iowa	51.4%	46.3%	39.5%	17.3%	0.8%
Kansas	60.4%	46.1%	43.0%	27.3%	10.1%
Kentucky	54.0%	41.0%	36.1%	30.6%	1.9%
Louisiana	58.0%	45.5%	42.7%	19.1%	6.1%
Maine	63.4%	44.6%	34.8%	27.1%	*
Maryland	81.4%	77.0%	68.3%	30.6%	*
Massachusetts	84.3%	81.6%	70.8%	33.3%	2.1%
Michigan	67.5%	57.6%	51.9%	18.0%	1.2%
Minnesota	62.3%	56.7%	50.7%	16.0%	1.0%
Mississippi	44.3%	31.7%	23.5%	9.7%	0.8%

²⁴¹ * Withheld to maintain confidentiality.

	10 Mbps/ 1 Mbps	25 Mbps/ 3 Mbps	50 Mbps/ 5 Mbps	100 Mbps/ 10 Mbps	250 Mbps/ 25 Mbps
Missouri	56.9%	47.0%	43.7%	19.9%	10.2%
Montana	55.9%	52.3%	53.4%	17.7%	*
Nebraska	59.7%	51.2%	46.5%	29.4%	8.5%
Nevada	75.1%	61.0%	58.4%	*	*
New Hampshire	76.6%	72.3%	61.7%	32.8%	*
New Jersey	86.2%	83.5%	76.5%	42.9%	*
New Mexico	44.7%	42.8%	36.4%	12.6%	0.8%
New York	78.0%	71.3%	66.3%	44.6%	*
North Carolina	66.1%	59.4%	57.1%	40.5%	5.6%
North Dakota	70.1%	61.9%	51.4%	16.9%	4.4%
Ohio	66.0%	48.1%	36.0%	28.4%	1.5%
Oklahoma	53.4%	41.5%	37.6%	19.9%	5.7%
Oregon	68.5%	64.3%	57.0%	24.7%	1.3%
Pennsylvania	70.4%	64.0%	54.6%	27.7%	2.9%
Rhode Island	*	*	*	*	*
South Carolina	67.9%	50.5%	43.0%	20.4%	5.8%
South Dakota	68.2%	64.4%	51.0%	8.8%	1.5%
Tennessee	63.2%	53.4%	50.8%	23.4%	6.0%
Texas	66.7%	53.8%	50.1%	32.5%	4.9%
Utah	68.5%	62.0%	55.9%	24.6%	6.4%
Vermont	66.0%	58.7%	47.2%	25.4%	*
Virginia	72.3%	68.4%	62.4%	31.0%	7.2%
Washington	71.7%	66.6%	64.1%	30.4%	1.8%
West Virginia	51.0%	46.3%	44.9%	25.1%	1.8%
Wisconsin	62.7%	48.9%	44.5%	20.3%	1.5%
Wyoming	59.4%	55.3%	47.8%	11.3%	0.7%

APPENDIX 9

Deployment (Millions) of Fixed Services at Different Speed Tiers (2014-2017)

	20	14	16	2017				
	Pop.	%	Pop.	%	Pop.	%	Pop.	%
	1 op.	70	-	s/1 Mbps	1 op.	70	1 op.	70
United States	317.953	100.0%	320.289	100.0%	322.518	100.0%	325.627	100.0%
Rural Areas	61.642	100.0%	62.261	100.0%	62.926	100.0%	63.710	99.9%
Urban Areas	256.312	100.0%	258.028	100.0%	259.592	100.0%	261.917	100.0%
U.S. Territories	3.549	90.9%	3.442	89.3%	3.462	91.4%	3.674	98.9%
Rural Areas	0.153	60.5%	0.146	58.2%	0.162	65.5%	0.237	96.6%
Urban Areas	3.396	93.0%	3.296	91.5%	3.299	93.3%	3.437	99.0%
			25 Mbps	s/3 Mbps				
United States	284.246	89.4%	287.853	89.9%	307.642	95.4%	325.616	100.0%
Rural Areas	37.174	60.3%	38.271	61.5%	51.001	81.0%	63.699	99.9%
Urban Areas	247.072	96.4%	249.582	96.7%	256.641	98.9%	261.917	100.0%
U.S. Territories	3.217	82.4%	2.368	61.5%	3.151	83.2%	3.448	92.8%
Rural Areas	0.135	53.5%	0.095	38.1%	0.143	57.9%	0.221	90.0%
Urban Areas	3.082	84.4%	2.273	63.1%	3.008	85.0%	3.227	93.0%
			50 Mbps	s/5 Mbps				
United States	270.740	85.2%	283.329	88.5%	291.380	90.3%	298.219	91.6%
Rural Areas	32.100	52.1%	35.316	56.7%	39.260	62.4%	42.428	66.5%
Urban Areas	238.640	93.1%	248.013	96.1%	252.119	97.1%	255.792	97.7%
U.S. Territories	3.151	80.7%	0.104	2.7%	3.027	80.0%	2.264	60.9%
Rural Areas	0.110	43.5%	0.000	0.1%	0.091	37.0%	0.040	16.3%
Urban Areas	3.041	83.2%	0.104	2.9%	2.936	83.0%	2.224	64.1%
			100 Mbps	3/10 Mbps				
United States	201.894	63.5%	215.582	67.3%	244.297	75.7%	288.378	88.5%
Rural Areas	16.472	26.7%	20.481	32.9%	25.925	41.2%	37.395	58.6%
Urban Areas	185.423	72.3%	195.101	75.6%	218.372	84.1%	250.983	95.8%
U.S. Territories	0.069	1.8%	0.096	2.5%	3.027	80.0%	0.191	5.1%
Rural Areas	0.000	0.0%	0.000	0.0%	0.091	37.0%	0.007	2.8%
Urban Areas	0.069	1.9%	0.096	2.7%	2.935	83.0%	0.184	5.3%
			250 Mbps	s/25 Mbps				

	2014		20	15	2016		20	17
	Pop.	%	Pop.	%	Pop.	%	Pop.	%
United States	15.692	4.9%	67.912	21.2%	140.795	43.7%	191.505	58.8%
Rural Areas	2.031	3.3%	5.460	8.8%	10.029	15.9%	18.564	29.1%
Urban Areas	13.662	5.3%	62.452	24.2%	130.766	50.4%	172.941	66.0%
U.S. Territories	0.067	1.7%	0.095	2.5%	0.093	2.5%	0.191	5.1%
Rural Areas	0.000	0.0%	0.000	0.0%	0.000	0.0%	0.007	2.8%
Urban Areas	0.067	1.8%	0.095	2.6%	0.093	2.6%	0.184	5.3%

STATEMENT OF COMMISSIONER MICHAEL O'RIELLY

Re: Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, GN Docket No. 18-238, 2019

Broadband Deployment Report.

This report fulfills our task mandated by Congress and I am pleased to support it. To be clear: according to our data collection, which has been rightfully criticized, approximately nine million Americans still lack access to even 10/1 Mbps service, and our finding here does not deny that point. However, our statutory mandate is not only to determine whether all Americans currently have access to advanced telecommunications capabilities, but also whether progress in deploying such services is proceeding at a reasonable and timely pace, and an affirmative response to the latter inquiry is completely consistent with the facts on the ground. I remain steadfast in my commitment to bringing access to those Americans currently without *any* broadband option at all and look forward to further actions by this Commission on this front, including, above all, the implementation of the Remote Areas Fund (RAF) auction in some form or fashion. At the same time, there is no doubt that rapid and robust progress in deployment, particularly in the wireless space, is evident according to the albeit imperfect data we have.

Notwithstanding my overall support, I remain dismayed by the report's reliance on purported "insufficient evidence" as a basis for maintaining—for yet another year in a row—an outdated siloed approach to evaluating fixed and mobile broadband, rather than examining both markets as one. Data shows that fixed and mobile service are undoubtedly substitutable for many Americans and that fixed and mobile providers are in fierce competition with one another for customers. According to a 2018 Pew Research study cited in this very record, one in five American adults have opted to subscribe exclusively to mobile service—a 7-point increase since 2015.¹ Beyond the existence of cross-platform competition, fixed providers are increasingly entering the wireless market, and integrating their wired and wireless technologies with each other. Given this new horizon of technological convergence, a siloed approach to fixed and mobile service makes even less sense.

Moreover, the report focuses shortsightedly on the limitations of mobile service, whereas, one could just as easily point to the limitations of fixed service in meeting the functionalities that customers value. For example, why do we focus on the shortcomings of mobile service with respect to bandwidth capacity—which is especially absurd given consumers' increasing reliance on mobile services for bandwidth-intensive applications like video-streaming—but ignore the shortcomings of fixed service with respect to flexibility and mobility? Whether mobile and fixed serve interchangeable functions for every American for every potential use is immaterial for purposes of this report, and we should be evaluating both services from a technology neutral standpoint.

Therefore, while I vote to approve, I express hope that by next year's report, the Commission will have the requisite data to finally recognize marketplace and technological reality with respect to mobile broadband and evaluate the state of deployment in a more comprehensive manner.

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¹ Aaron Smith, *Declining Majority of Online Adults Say the Internet Has Been Good for Society*, Pew Research Center (April 30, 2018), http://www.pewinternet.org/2018/04/30/declining-majority-of-online-adults-say-the-internet-has-been-good-for-society/.

STATEMENT OF COMMISSIONER BRENDAN CARR

Re: Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, GN Docket No. 18-238, 2019

Broadband Deployment Report

This year's Section 706 report contains more good news for American leadership in 5G. The FCC's policies are working.

Internet speeds in the U.S. have never been faster: they're up nearly 40%. The digital divide—the percentage of Americans without access to high-speed Internet access—narrowed by nearly 20%. Providers built fiber broadband out to more homes last year than ever before. The U.S. now has the largest commercial deployment of 5G in the world, and we're predicted to have more than two times the percentage of 5G connections as Asia. That is more broadband for more Americans.

But more than the numbers, the FCC's approach is benefiting everyday Americans in communities around the country. In Blue River Township, Indiana, I sat at a kitchen table with Linda Muegge. Her family runs a small farm in a community of 1,500 people. She talked about the difference a new broadband connection is making in her life and the lives of her children. Her son, Chris, went to graduate school at Purdue and earned an advanced degree in cattle nutrition. Rather than moving to a big city after graduating, Chris moved back home and launched a successful online consulting business, mostly for cattle owners, with clients as far away as Costa Rica. Chris uses the new broadband connection to see the cattle in HD and download large data sets to monitor their feeding and health. Without the high-speed connection, Chris would not be able to live in Blue River. Now, he can pitch in at the farm while continuing to pursue his own high-tech business.¹

In Sioux City, Iowa, I visited a plant that manufactures the poles and towers needed for new wireless deployments. Five hundred people now work there welding, galvanizing, and pressing the steel needed for broadband infrastructure. Tyler talked about the increased demand they're now seeing at the facility for small cell poles, which are the building blocks of 5G.²

In Lewisville, Texas, an infrastructure company just opened a new 26,000 square foot facility. They are using it to train and hire the tower crews that are now building out broadband networks across the country. Devin, a former combat engineer, showed me the ropes and just some of the skills that his crews are learning.³ Rick, who's been training tower hands and telecom crews for nearly two decades told me that his teams have never been busier. In fact, they are looking to hire more than 500 workers for good-paying, 5G jobs at this one facility. And more broadly, the tower industry is looking to add 20,000 workers as the construction of new 5G networks accelerates.

The FCC is working to encourage even more broadband infrastructure deployment. We updated federal rules regarding the placement of small cells and other wireless facilities. We built on common sense siting reforms adopted in states and cities across the country. And we freed up more spectrum than any other country in the world.

None of this is to say that our job at the FCC is done. As the Report makes clear, far too many Americans remain unable to access high-speed broadband, and we have much more work left to do. But the question Congress set out in Section 706 is "whether advanced telecommunications capability is being

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¹ https://twitter.com/BrendanCarrFCC/status/991762618028306434.

² https://twitter.com/BrendanCarrFCC/status/1001932141805137920.

³ https://twitter.com/BrendanCarrFCC/status/1092551275466633218.

deployed to all Americans in a reasonable and timely fashion." The data show that it is. I look forward to building on this good momentum and ensuring that even more Americans can benefit from the economic opportunity that broadband enables.

STATEMENT OF COMMISSIONER JESSICA ROSENWORCEL, DISSENTING

Re: Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, GN Docket No. 18-238, 2019
Broadband Deployment Report.

It is simply not credible for the Federal Communications Commission to clap its hands and pronounce our broadband job done—and yet that is exactly what it does in this report today. By determining that under the law broadband deployment is reasonable and timely for all Americans, we not only fall short of our statutory responsibility, we show a cruel disregard for those who the digital age has left behind.

Broadband is more than a technology—it's a platform for opportunity. No matter who you are or where you live in this country, you need access to advanced communications to have a fair shot at 21st century success. That is why our responsibility to offer an honest assessment with this report is so disappointing.

This report deserves a failing grade. It concludes that broadband deployment is reasonable and timely throughout the United States. This will come as news to millions and millions of Americans who lack access to high-speed service at home. It will come as news to communities across the country that are struggling to secure the broadband they need for economic revitalization and growth. It will come as news to rural households and tribal areas that fear without change they will forever be consigned to the wrong side of the digital divide. It will come as news to urban areas where redlining has led to broadband deserts. It also will come as news to millions of students who fall into the homework gap because they lack the internet access needed for nightly schoolwork.

Moreover, it will come as news to governors, mayors, and legislators across the country working overtime to extend high-speed service to those outside its reach. It will come as news to members of Congress who in hearing after hearing have chided this agency for its inability to deliver the promise of broadband to communities they represent. Is it infrastructure week yet? Because there is no conversation in Washington regarding infrastructure that does not give prominent place to the work we have yet to do to reach everyone, everywhere with high-speed service.

Instead of this report, we should be issuing a candid appraisal of the work we have to do to bring broadband everywhere. This requires three things.

First, we need to stop relying on data we know is wrong. Putting aside the embarrassing fumble of the FCC blindly accepting incorrect data for the original version of this report, there are serious problems with its basic methodology. Time and again this agency has acknowledged the grave limitations of the data we collect to assess broadband deployment. If a service provider claims that they serve a single customer in a census block, our existing data practices assume that there is service throughout the census block. This is not right. It means the claim in this report that there are only 21 million people in the United States without broadband is fundamentally flawed. Consider that another recent analysis concluded that as many as 162 million people across the country do not use internet service at broadband speeds. Adding insult to injury, the same flawed data we rely on here is used to populate FCC broadband maps. For those keeping track, one cabinet official has described those maps as "fake news" and one Senator has suggested they be shredded and thrown into a lake.

Second, we need high standards. The future belongs to the bold. History demonstrates that when we set audacious goals we can do big things. It is time to commit to broadband goals that reflect not just where we are but where we are going. It has been four years since the FCC updated its broadband standard from 4 Megabits to 25 Megabits per second. Technology changes fast. In fact, three years ago,

this country's largest broadband provider began rolling out Gigabit service to just shy of 60 million homes and businesses. This agency needs to keep up. It's time for the FCC to adopt a 100 Megabits per second standard and set Gigabit speeds in our sight.

Third, we need to be honest about the state of what we have found. We will never manage problems we do not measure. Our ability to address the challenge of uneven internet access across the country is only made more challenging by our inability to be frank about the state of deployment today. Moreover, we need to be thoughtful about how impediments to adoption, like affordability, are an important part of the digital equity equation and our national broadband challenge.

In other words, there is an honorable way forward. But in this report the FCC fails its statutory duty. It fails to use the accurate data we need. It fails to set ambitious standards. Worse, it fails the American public by proclaiming mission accomplished when our lived experience tells us that too may people in this country in too many communities are being left behind. The rest of the world is not grading their progress with infrastructure on a curve. We shouldn't either.

I dissent.

STATEMENT OF COMMISSIONER GEOFFREY STARKS, DISSENTING

Re: Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, GN Docket No. 18-238, 2019
Broadband Deployment Report.

The 2019 Broadband Deployment Report reaches the wrong conclusion. According to the report, the digital divide has narrowed substantially over the past two years and broadband is being deployed on a reasonable and timely basis. The rosy picture the report paints about the status of broadband deployment is fundamentally at odds with reality. While I would like to be able to celebrate along with the FCC's majority, our broadband deployment mission is not yet accomplished. If you are 10 steps away from your goal and you move a step-and-a -half forward, you don't have a victory party when your work isn't done. You give yourself a pat on the back and put your head down to achieve the remaining eight-and-a-half steps. And that's where we are – with over 21 million Americans without access to quality, affordable broadband, we are about eight-and-a-half steps behind and we must get back to work. The report masks the urgent need for continued and renewed action to address inequities in internet access in rural, tribal, and urban areas of the country.

The fundamental disconnect between the report and reality is reason enough for my dissent. But I am also compelled to speak out about the process that led to this report, which, when initially circulated, was based on massive, erroneous overstatements of high-speed internet deployment in the underlying data. The errors in the circulated report involved a broadband provider called Barrier Free that, in its first broadband service report to the FCC, reported that as of December 2017 it provided high-speed broadband service in an area where 62 million people live. If Barrier Free's reporting was correct (it was not – Barrier Free acknowledged the errors in its revised filing in March 2019) it would have gone from providing no service as of March 2017 to being the 4th largest ISP in the country as of December 2017. The fact that such a huge error was not flagged but instead was baked into the FCC's data underlying this report – the same data underlying much of the FCC's frequently criticized broadband mapping efforts – demonstrates the fundamental problems with the FCC's data analysis capabilities.

Let's briefly focus on the timeline at issue. Barrier Free's filing (which the Commission now admits contained erroneous data) was included in data due at the end of March 2018. In February 2019, the Chairman circulated a non-public draft broadband deployment report to the other Commissioners for their consideration. On the same day, the FCC issued a press release describing the draft report and stating that "the number of Americans lacking access to a fixed broadband connection meeting the FCC's benchmark speed of 25 Mbps / 3Mbps has dropped over 25%, from 26.1 million Americans at the end of 2016 to 19.4 million at the end of 2017." At this point in time, the FCC had been in possession of Barrier Free's erroneous data for nearly eleven months! On March 5, 2019, Free Press, a non-profit public interest entity, filed a letter with the Commission identifying Barrier Free's erroneous reporting and detailing how it impacted the broadband deployment claims made in the FCC's February Press Release.²

¹ See Report: America's Digital Divide Narrows Substantially, FCC News Release, February 19, 2019, https://docs.fcc.gov/public/attachments/DOC-356271A1.pdf.

² Letter from Derek Turner, Research Director, Free Press, to Marlene H. Dortch, Secretary, Federal Communications Commission, March 5, 2019. GN Docket 18,-238, https://www.freepress.net/sites/default/files/2019-03/free_press_706_report_form_477_erroneous_data_ex_parte.pdf ("Free Press Letter"). The Free Press letter (continued....)

The FCC did not issue another press release acknowledging the errors Free Press found and correcting statements about declines in the digital divide from its February press release. And, even after Barrier Free admitted that the data it reported to the FCC was wrong, the FCC neither removed the draft Broadband Deployment Report from circulation nor committed to revising it. Instead, nearly two months passed before the Chairman circulated a corrected version of the report. Surprisingly, the conclusion in the report didn't change. In fact, very little in the report changed. It's incredible to me that an error this large – approximately 62 million in overstated broadband connections – didn't materially change the report.

The fact that a 2019 Broadband Deployment Report with an error of over 62 million connections was circulated to the full Commission raises serious questions. Was the Chairman's office aware of the errors when it circulated the draft report? If not, why didn't an "outlier" detection function raise alarms with regard to Barrier Free? Also, once the report was corrected, the fact that such a large number of connections came out of the report's underlying data without changing the report's conclusion, and without resulting in a substantial charge to the report, calls into question the extent to which the report and its conclusions depend on and flow from data. These issues go to the core nature of the Deployment Report, and more broadly, our FCC mission – to determine where broadband service is and is not deployed, and to be grounded in and led by the actual facts and data.

The Commission's Data Processing

The facts surrounding Barrier Free's erroneous filing and the 2019 Broadband Deployment Report raise serious questions about the way the FCC evaluates data. Here's why the inability to spot this mistake is particularly troubling: the errors in the Barrier Free data are anomalous on multiple fronts. First, Barrier Free's growth rate, growing from no service to service in areas where 62 million people live is implausible. That anomaly alone should have resulted in Barrier Free's report being flagged for review. Second, Barrier Free claimed that it served 100% of the census blocks in every state in which it operated. Claims of 100% of nearly anything should flag a filing as an outlier. Third, the speeds Barrier Free reported providing, 940 Mbps upstream/880 Mbps downstream, don't track with the wireless technology reportedly used by the company. This mismatch should have further identified the company's data as an outlier requiring further review. And fourth, the combination of coverage and speeds claimed by Barrier Free – for example, covering the entire state of New York with fiber-to-the-home service – should have stuck out as an outlier on a "gut-check" level. Nobody familiar with broadband deployment in the U.S. would believe that the entire state of New York suddenly has fiber-to-the-home speed service available.

In the future, Commission staff must conduct data checks that would flag each of the issues listed above, ideally at the filing stage so that FCC analysts would never have had to grapple with Barrier Free's erroneous filing. And the FCC shouldn't stop at building in or perfecting checks. It should consider deploying machine learning models that can identify outliers and other patterns within the data that are likely to be anomalous. Such models could significantly reduce the manual data cleansing efforts currently built into the FCC's work with each data filing.

Issues With Data the Commission Collects to Inform Its Broadband Policy Decision-Making

Unfortunately, the Commission's problems with data simply don't end with the Barrier Free incident. One thing that members of Congress and nearly every industry stakeholder agree on is that the FCC's broadband mapping, and the data behind it, including the data used by the Commission to create its annual broadband deployment report, has serious flaws.³ We hear about these flaws frequently at a high level – but they are worth exploring in more detail. Three of the most frequently identified flaws are rooted in FCC interpretations of how to gather and use data. They are within our power to fix, and we must do so.

First, critics frequently attack the FCC's mapping for treating an entire census block as served if a service provider reports providing service at any location within the block. This methodology produces maps that overstate service deployment because it lumps together served and unserved locations in each census block. In fact, the FCC doesn't even provide a way for providers of fixed broadband service to report their service locations on a more granular basis. Here is what the instructions for the FCC's Form 477 direct fixed broadband service providers to report:

Report a list ... <u>of all census blocks in which the filer</u> (including affiliates) <u>makes</u> <u>broadband connections available</u> to end-user premises, along with the associated information on technology of transmission ..., [and] maximum upload and download speeds ...⁴

This direction does not require service providers to identify addresses within a census block where they provide service. Instead, providers must list census blocks where they make broadband connections available. To complicate matters, census blocks used in the 2010 census varied greatly in size. Generally, census blocks are small in area, for example, a city block bounded on all sides by streets. But census blocks in suburban and rural areas may be large and in remote areas may encompass hundreds of square miles. Large census blocks, combined with the FCC practice of considering an entire census block served if any single location within it is served, are the primary reasons why the FCC's maps based on its 477 data overstate the availability of broadband.

Another problem with the FCC's Form 477 data collection is that fixed broadband service providers may report areas as served if they "could" serve them, even if they do not actually provide service. Specifically, the Form 477 instruction for fixed broadband providers requires them to report, by census block, areas where they make service "available." The form defines "available" as follows:

For purposes of this form, fixed broadband connections are available in a census block if the provider does, or could, within a service interval that is typical for that type of connection—that is, without an extraordinary commitment of resources—provision two-way data transmission to and from the Internet with advertised speeds exceeding 200 kbps in at least one direction to end-user premises in the census block.⁶

³ See Eggerton, J, (2018, August 16). Sen. Tester: FCC's Broadband Maps 'Stink', https://www.multichannel.com/news/sen-tester-fccs-broadband-maps-stink; Implementing the Agriculture Improvement Act of 2018: Hearing Before the S. Committee on Agriculture, Nutrition, and Forestry, 116th Cong. At 1:24:25 (statement of Sonny Perdue, Secretary, United States Department of Agriculture), https://www.agriculture.senate.gov/hearings/implementing-the-agriculture-improvement-act-of-2018.

⁴ See FCC, FCC Form 477 Local Telephone Competition and Broadband Reporting Instructions, Section 5.3, "Fixed Broadband Deployment" at 17 (Dec. 5, 2016), https://transition.fcc.gov/form477/477inst.pdf (Form 477 Instructions).

⁵ See https://www.census.gov/prod/cen2010/doc/sf1.pdf at A-10.

⁶ See Form 477 Instructions at 17, Section 5.3, "Fixed Broadband Deployment" (emphasis added).

This instruction allows service providers to report, as served, census blocks that they could deploy service to, resulting in data that contains an indistinguishable jumble of census blocks where service is actually and hypothetically available. Obviously, this mixture directly impacts the reliability of any map purporting to show where broadband service is actually available.

A third problem with the FCC's Form 477 data—and with the maps based upon it—is rooted in mobile broadband service reporting. Service providers aren't required to report the speeds they are actually providing. Instead, they report "minimum advertised upload and download data speeds." Here are the Form 477 instructions that tell mobile broadband service providers what they must report:

[P]roviders shall submit polygons in a shapefile format representing geographic coverage nationwide ... for each mobile broadband transmission technology ... deployed in each frequency band ... The data associated with each polygon should indicate the minimum advertised upload and download data speeds associated with that network technology in that frequency band ..., and the coverage area polygon should depict the boundaries where, according to providers, users should expect to receive those advertised speeds.⁷

Requiring service providers to report minimum advertised speeds results in data and maps that may not show actual speeds customers are likely to experience. This information falls short of what the FCC needs to guide our policy efforts to close the digital divide.

These problems are all symptomatic of a much larger issue with the FCC's data collection: the FCC's Form 477 does not collect the right data. Take for example one of the primary uses of the Form 477 data collection – measuring the effectiveness of the FCC's Universal Service programs in closing the digital divide. The right data would allow the FCC to measure the progress of the Universal Service program, to evaluate the effectiveness of programs and related strategies, to identify barriers to progress in the program, and to understand where it should target resources. But that's not what the data the FCC collects does. Because the data reports entire census blocks as served if just one location is served, the FCC cannot answer relevant program evaluation questions like how many Americans have broadband in their homes, businesses, and community anchor institutions. Similarly, it does not give the FCC tools needed to measure progress in closing the digital divide. And, it does not identify with sufficient granularity areas where the FCC should direct its Universal Service Fund resources. Luckily, the FCC doesn't need additional authority to fix these problems – it can do so within its rulemaking authority.

The FCC should change its data collection policies, so service provider reporting is granular and accurate. The FCC should also ensure that its Form 477 data set complies with the Open Government Data Act which requires it to publish much of its non-confidential data in machine-readable format. The FCC should lead the way in making data open. Doing so will encourage academics, researchers, and other stakeholders to use this data in innovative ways.

Industry has advanced numerous proposals to improve the FCC's data collections and mapping and the FCC has an open rulemaking proceeding to consider changes to how it collects data. I'll consider the work produced within the rulemaking when it comes to me and to my colleagues. I'm hopeful that this work will enable to Commission to map, at an address level, where broadband is available in the U.S. That's the level of granularity we need in order to understand where broadband is and is not available.

That brings me back to the purpose of my dissenting vote: to strongly voice my position that the FCC's 2019 Broadband Data Report reached the wrong conclusion. As of now, I don't believe that we know what the state of broadband deployment is in the U.S. with sufficient accuracy. I'm aware that last

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⁷ See Form 477 Instructions at 24, Section 5.8 "Mobile Broadband Deployment" (emphasis added).

year's Broadband Progress Report engaged in legal gymnastics to change the standard the Commission uses to comply with its annual obligation to report to Congress on the state of broadband deployment in the U.S. I disagree with the majority's position that the statute requires the Commission to report on year-over-year provider deployment comparisons. Reading the test in this manner guarantees that the standard will be met if carriers report progress in meeting their deployment plans. More importantly, the test focuses on provider plans and how providers are meeting them, rather than whether any progress has been made bringing broadband to people who don't have it and who live outside of areas where service providers have, on their own, decided to deploy broadband. By reframing the test in this manner, the majority avoids the hardest question present in this debate — how to get broadband deployed to expensive and difficult to serve areas.

Regardless of the reporting standard here, the Commission's mission is to close the digital divide. And we must have accurate data about the problem we are trying to solve and the progress we are making toward solving it in order to make effective, data-driven decisions.

For all of these reasons I dissent.

Notwithstanding my dissent, I recognize the work of the staff of OEA, WCB, and WTB that went into creating this report and I appreciate their efforts.