

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Modernizing Unbundling and Resale)	WC Docket No. 19-308
Requirements in an Era of Next-Generation)	
Networks and Services)	

**REPLY COMMENTS OF USTELECOM –
THE BROADBAND ASSOCIATION**

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TABLE OF CONTENTS

EXECUTIVE SUMMARY ii

I. Introduction.....1

II. Discussion.....3

 A. Substantial Marketplace Competition Justifies a Simultaneous Finding of Non-Impairment and Forbearance3

 1. The Communications Marketplace is Highly Competitive3

 2. Competitors Will Continue to Have Access to Network Inputs in the Absence of UNEs.....9

 3. Based on the Highly Competitive Marketplace, the Statute Requires the Commission to Lift Unbundling Obligations Using All Available Mechanisms10

 B. The Record Overwhelmingly Supports Lifting DS1 and DS3 Loop Unbundling Obligations in All Competitive Markets Without Exemptions.....13

 1. The Commission May Properly and Lawfully Rely on the Competitive Market Test to Support Unbundling Relief.13

 2. The Commission Must Lift DS3 Loop Unbundling Obligations17

 3. The Commission Must Lift DS1 Loop Unbundling Obligations Without Exemptions for Residential Broadband or Small Business Broadband.....18

 C. Digital DS0 Loop Unbundling Obligations Must Be Lifted in All Urban Census Blocks21

 1. The Commission Can Confidently Rely on Form 477 Data in Support of Its Proposal to Limit Relief to Urban Census Blocks23

 2. Relief is Justified in All Urban Census Blocks.....30

 D. The Record Supports Removal of Additional Loop Obligations Nationwide32

 E. Dark Fiber Transport Unbundling Obligations Must Be Lifted34

 F. A Brief Transition With No New Ordering Should be Consistently Applied to the Removal of All Unbundling Obligations36

III. Conclusion39

EXECUTIVE SUMMARY

USTelecom supports the Federal Communications Commission (“Commission”) swiftly moving forward to remove outdated and unnecessary unbundling regulations. Doing so is consistent with the law and the facts. It is also good public policy that will ensure a faster transition to next-generation networks by both incumbents and competitors and will provide more and superior opportunities for consumers. The record developed in this proceeding demonstrates that competition has arrived and firmly supports the lifting of all unbundling requirements nationwide. At a minimum, the record presents strong support for the elimination of unbundling requirements in the specific competitive markets proposed in the *NPRM*.

Objections to removing these outdated, market distorting regulations arise from the desire of certain companies to continue benefitting from access to incumbent networks at below-market rates rather than legitimate concerns about competition. In light of the substantial investment that others have already made in facilities-based networks – without depending on unbundled network elements (UNEs) – these arguments hold no weight. A core responsibility of the Commission is to promote competition, but its job is not to promote the business models of individual competitors who prefer a regulatory subsidy over investment and competition on a level playing field. Consistent with the Commission’s network modernization agenda, it is time to eliminate these 20th Century obligations to make way for increased 21st Century network investment.

DS1/DS3 Loops. The record overwhelmingly supports lifting DS1 and DS3 loop unbundling obligations nationwide, and especially in all competitive markets without any exemptions. When eliminating the requirements for DS1 and DS3 loops, the Commission is on firm ground to follow its own precedent by relying on its competitive market test. Not only is there extensive intermodal competition in the provision of DS3 loops, but demand for these loops is minimal and the record supports the Commission’s proposal to lift unbundling requirements specific to these loops. As with DS3 loops, there is no separate justification for retaining unbundling mandates for DS1 loops – including for the tiny fraction of residential consumers that might be served via a DS1 loop. As reflected in the record, the marginal benefits gained by supporting unbundling requirements for DS1 loops that are used to provide residential broadband do not outweigh the costs of such a difficult-to-administer exemption.

DS0 Loops. As demonstrated by the record, digital DS0 loop unbundling obligations must be lifted in urban census blocks, if not nationwide. These loops predominately serve residential and small and medium business voice and broadband markets – where cable and other companies provide significant competition, particularly in urban census blocks. The Commission’s own Form 477 data demonstrate that there is widespread cable deployment in urban census blocks, in addition to other competitors, and USTelecom’s analysis of a variety of independent data sources support that conclusion. With this widespread competition in urban census blocks, there is no merit to suggestions that the Commission needs to assign a population threshold to provide relief from unbundling obligations in urban census blocks.

Additional Loop and Other Obligations. The Commission must bring an end to the mandatory unbundling of the remaining voice grade loops, copper subloops, and multitenant subloops. Due to the intense competition in the voice market, there is no justification to maintain

these obligations. The record demonstrates that barely any, if any at all, of these types of loops are sold on a stand-alone basis, practically rendering the obligations moot. Further, the record shows that there is no need for OSS access to be regulated as part of the unbundling regime, as long as the deregulation does not disrupt legitimate public safety interests.

Dark Fiber Transport. The Commission’s prior findings, the negligible role dark fiber UNEs play in the marketplace, and the number of alternatives that competitive providers can avail themselves of all warrant nationwide relief from dark fiber transport unbundling obligations. Further, arguments in the record opposing the Commission’s proposal on dark fiber do nothing to rebut the central fact that the presence of competitive alternatives means that competitive LECs are not impaired and therefore that unbundling mandates are not just unnecessary, but that they are harmful and must be eliminated by law.

Transition. The Commission should not only act quickly to provide relief from unbundling obligations, but it should also ensure a prompt and consistent transition. While precedent supports an 18-month transition, a transition date of August 2, 2022, aligns with the date when other unbundling obligations will expire. Such a transition period not only provides ample time for the embedded base to transition, but streamlines the processes and eases confusion for all parties.

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USTelecom – the Broadband Association (“USTelecom”) submits these Reply Comments in response to the Federal Communications Commission’s (“Commission’s”) *Notice of Proposed Rulemaking* (“NPRM”).¹ The record demonstrates that the Commission must, with appropriate transition periods, eliminate obligations for each unbundled network element (“UNE”), as proposed in the *NPRM*. Doing so is consistent with the law and congressional intent, supported by the facts, and an important policy decision that will accelerate facilities-based investment in modern networks.

I. INTRODUCTION

The record overwhelmingly demonstrates just how much the communications marketplace has changed since the 1996 Act: incumbent local exchange carriers (“ILECs”) who once held monopoly positions in their respective markets retain only 7 percent of the market for voice service and declining.² Similarly, over two-thirds of fixed residential broadband

¹ *Modernizing Unbundling and Resale Requirements in an Era of Next-Generation Networks and Services*, Notice of Proposed Rulemaking, 34 FCC Rcd 11290 (2019) (“NPRM”).

² Industry Analysis Division, Office of Economics and Analytics, *Voice Telephone Services: Status as of December 31, 2018*, FCC (March 2020), <https://docs.fcc.gov/public/attachments/DOC-362882A1.pdf> (*FCC Voice Services Report*). The Report shows that there were 459 million mobile and fixed voice connections as of the end of 2018, with legacy ILEC switched connections only making up 34 million. *See id* at 8. There were also 13 million ILEC Voice over IP connections, which would add only three percent to ILEC share, if included. *Id.*

connections are now provided by cable companies, not ILECs.³ Competition has arrived, and—as recognized by Congress, the courts, and the Commission— these regulations were never intended to remain in place after the arrival of such competition. Further, these same institutions have repeatedly emphasized that forced market-opening mechanisms will harm consumers if they remained in place once a market became competitive. The facts firmly support the lifting of all unbundling requirements nationwide. At a minimum, the record presents strong support for the elimination of unbundling requirements in the specific competitive markets proposed by the Commission in the *NPRM*.

While some commenters raise objections about the potential impact of eliminating access to UNEs, the objections stem not from any absence of competition, but from the desire of certain companies to continue benefitting from access to incumbent networks at below-market rates rather than investing in their own infrastructure.⁴ The desire is understandable, but it is not defensible in the face of the substantial investment that others have already made in facilities-based networks without access to UNEs. A core responsibility of the Commission is to promote competition, but its job is not to promote the business models of individual competitors who prefer a regulatory subsidy over investment and competition on a level playing field.⁵ The time for the Commission to eliminate market-distorting regulations has arrived. USTelecom supports the Commission in swiftly moving forward to remove these outdated regulations where they are no longer necessary and in so doing, ensuring a faster transition to next-generation networks by both incumbents and competitors providing more and superior opportunities for consumers.

³ See Leichtman Research Group, *2.5 Million Added Broadband in 2019* (Mar. 5, 2020), <https://www.leichtmanresearch.com/2-5-million-added-broadband-in-2019/>.

⁴ See AT&T Comments at 10 (“[E]liminating UNEs would produce substantial benefits in terms of regulatory burdens and increased investment incentives.”).

⁵ See, e.g., USTelecom Comments at 18-21; AT&T Comments at 6; Verizon Comments at 8.

II. DISCUSSION

A. Substantial Marketplace Competition Justifies a Simultaneous Finding of Non-Impairment and Forbearance

1. *The Communications Marketplace is Highly Competitive*

The record developed in this proceeding confirms that the overall state of the communications marketplace is highly competitive. USTelecom and others have repeatedly demonstrated this fact.⁶ Not only does the record show significant intermodal competition for voice and broadband service from cable,⁷ fixed and mobile wireless,⁸ and other fiber-based wireline competitors, but new technologies continue to come online and successfully compete with the services provided by ILECs.⁹ Just as one example, a new Cisco analysis projects that in just three short years— approximately the same period as the Commission’s proposed transition — the average fifth generation (“5G”) wireless download speed in the United States will be 882 Megabits per second (“Mbps”), and the average fourth generation (“4G”) wireless download

⁶ See USTelecom Comments at 12-17; CenturyLink Comments at 4 (“Even a cursory review of communications markets reveals that requesting carriers are not impaired without access to UNEs in most, if not all, situations. Further, the downstream services CLECs provide via these UNEs are sufficiently competitive without reliance on UNEs, thereby independently justifying these proposed updates.”).

⁷ See, e.g., USTelecom Comments at 13-15 (“cable broadband deployment at higher speed tiers, including cutting-edge near-gigabit speeds, is rapidly growing and service is now available to similar portions of U.S. households at these higher speeds”); *Id.* at 33-35; AT&T Comments at 18-20 (“The ubiquitous deployment of these faster next-generation competitive facilities-based networks is well documented”); Verizon Comments at 11-14 (“[T]he vast majority of residential customers in rural census blocks are located in areas where cable broadband is available.”).

⁸ USTelecom Comments at 15-17 (“The explosive growth in 5G and other fixed wireless deployments portends even more robust competition...”); CenturyLink Comments at 19 (“mobile wireless services are a growing competitive factor in business markets.”); Verizon Comments at 10 (“At the time of the BDS Order, moreover, 5G deployment had not yet begun. Today, by contrast, 5G deployment is well underway.”).

⁹ R Street Comments at 3-5 (“[N]ew technologies and network operators increasingly and successfully compete in markets that were once dominated by ILECs and switched access networks. With this new competition already present in the market for these services—and with even more intermodal broadband competition on the horizon in the form of Low Earth Orbit satellite constellations—the need for mandatory access to specific parts of ILECs’ end-user switched access is diminished.”)

speed will be 70 Mbps.¹⁰ This, combined with the expectation for explosive growth of 5G fixed wireless networks across the country, demonstrates the strong emergence of wireless broadband competition.¹¹ Moreover, as others have noted, “[i]n view of vigorous competition in the voice services market from wireless and VoIP, singling out incumbents for extra regulatory burdens is unjustifiable.”¹²

Most rural markets have, and even more urban markets have, multiple communications providers for consumers to select from. As the Commission’s recent Voice Telephone Service Report shows, multiple voice providers offer service in urban markets ensuring that all areas have at least three providers – an ILEC, at least one 4G wireless provider (and typically many more), and at least one cable provider.¹³ Further, as USTelecom highlighted in its opening comments and discusses in detail below, cable providers compete ferociously with ILECs in the vast majority of local markets, offering service at 25/3 Mbps or better.¹⁴

Even markets where cable is the only competitive alternative to an ILEC for broadband service are sufficiently competitive to support the elimination of UNEs. As economists have pointed out, a competitive market in a high-fixed-cost industry might only be able to support two

¹⁰ Cisco, *Annual Internet Report (2018-2023)*, White Paper, (Mar. 9, 2020), <https://www.cisco.com/c/en/us/solutions/collateral/executive-perspectives/annual-internet-report/white-paper-c11-741490.html>.

¹¹ See USTelecom Comments at 15-17 (discussing the “explosive growth in 5G” and deployment plans of major wireless carriers including AT&T, C-Spire, T-Mobile, and Verizon).

¹² Seth Cooper, *FCC Should Go Full Speed Ahead in Removing Unbundling Regulations*, Free State Foundation (Feb. 13, 2020), <https://myemail.constantcontact.com/FCC-Should-Go-Full-Speed-Ahead-in-Removing-Unbundling-Regulations.html?soid=1102207134565&aid=3TJJqCFiwQ0>; (discussing how unbundling regulation poses harm to investment in next-generation IP-based network technologies).

¹³ See generally *FCC Voice Services Report*.

¹⁴ USTelecom Comments at ii, 4, 12; See *infra* Section II.C.

profitable firms, and the “non-collusive duopoly price is the ‘competitive price.’”¹⁵ To find effective competition in the communications market, the Commission does not need to point to a specific number of competitors.¹⁶ Rather, as the Commission has previously done, it can find effective competition exists wherever cable competes against the service provided by the ILEC.¹⁷

INCOMPAS and NWTa incorrectly argue that the Commission should discount the relevance of cable competition. They assert that cable entry “does not itself show that independent entry of other providers is feasible” because “cable has unique advantages from being an historical monopoly,” whereas wireline competitors “remain impaired without access to the ILEC’s existing copper network.”¹⁸ In fact, and contrary to the claims of INCOMPAS and its brethren,

¹⁵ George S. Ford, *How (and How Not) to Measure Market Power Over Business Data Services*, Phoenix Center Policy Paper Number 50 (Sept. 2015) at 10 (discussing how prices and quantities can be at competitive Nash equilibrium levels where, with free entry, demand and technology only support two firms with a given number of products each) (citing Louis Phlips in *Competition Policy: A Game Theoretic Perspective*).

¹⁶ *Contra* Letter from Angie Kronenberg, Chief Advocate and General Counsel, INCOMPAS, to Marlene H. Dortch, FCC, WC Docket No. 19-308, at 2 (filed March 6, 2020) (INCOMPAS March 6 *ex parte*) (asserting that “the Commission should not view either a monopoly or a duopoly as effective competition.”).

¹⁷ *See, e.g., Qwest Corp. v. FCC*, 689 F.3d 1214, 1232 (10th Cir. 2012) (accepting the Commission’ view of a cable provider as a competitor in the provision of special access services); *EarthLink, Inc. v. FCC*, 462 F.3d 1, 11 (D.C. Cir. 2006) (“[I]t is reasonable to conclude that the BOCs’ secondary market position relative to cable internet providers tends to mitigate the impact of forbearance on the state of competition in the broadband market, especially where cable internet providers themselves are not required to unbundle.”); *USTelecom Ass’n v. FCC*, 359 F.3d 554, 582 (D.C. Cir. 2004) (agreeing with the Commission there is evidence in the record of “robust intermodal competition from the cable providers”).

¹⁸ INCOMPAS and Northwest Telecommunications Ass’n Comments at 3-4. U.S. TelePacific et al. agree. *See* U.S. TelePacific et al. Comments at 11-12.

courts have found repeatedly that the Commission must fully consider intermodal competition from cable and other providers.¹⁹

INCOMPAS and NWTa misstate market history, claiming that cable providers' advantages include "existing customer relationships with many households and having pole attachments and access to rights-of-way and conduit, and associated agreements already in place."²⁰ However, when cable providers began to provide voice and broadband services, they did *not* have existing relationships with customers for those offerings. Rather, they had to develop such relationships and to win customers away from their existing voice and broadband providers. Moreover, while cable providers do enjoy access to poles and rights-of-way, any competitive LEC providing the same service offerings would assume the very same access rights; like other providers, such an entity would be entitled to access such facilities to the extent (and only to the extent) that it offered cable and/or telecommunications services.²¹ Further, the fact that a new entrant would need to reach agreements in connection with access to poles and rights-of-way does not give rise to impairment – if it did, then *any* new entrant would

¹⁹ See *USTA I*, 290 F.3d at 428-29 (rejecting FCC's determination that ILECs must offer "line-sharing" in which the high-frequency portion of the loop is unbundled, which was based on view that CLECs could not offer xDSL service without access to that facility, and vacating due to fact that the FCC had "completely failed to consider the relevance of competition in broadband services coming from cable (and to a lesser extent satellite)"); *USTA II*, 359 F.3d at 572-73 ("[W]e reaffirm *USTA I*'s holding that the Commission cannot ignore intermodal alternatives."). The Commission, of course, has acknowledged and implemented the court's directives in this regard. See *TRRO* at paras. 9 ("The [*USTA I*] court also vacated and remanded the Commission's line sharing requirements because the Commission had not considered the impact of intermodal competition before requiring unbundling."), 10 ("The Commission's impairment analysis set forth in the *Triennial Review Order* accounts for intermodal alternatives...."); 95 (explaining role of intermodal competition in triggers for DS1 and DS3 transport), 215 (citing intermodal competition in support of finding non-impairment with respect to local circuit switching).

²⁰ INCOMPAS and Northwest Telecommunications Ass'n Comments at 3-4.

²¹ See 47 U.S.C. § 224(a)(4) (defining "pole attachment" to mean "any attachment by a cable television system or provider of telecommunications service to a pole, duct, conduit, or right-of-way owned or controlled by a utility"); *id.* § 224(b) (affording FCC authority over rates for "pole attachments" in states that have not established independent pole-attachment frameworks); *id.* § 224(f) (affording nondiscriminatory pole, duct, conduit, and right-of-way access rights to "a cable television system or any telecommunications carrier"); *2018 Accelerating Wireline Broadband Deployment Order* ¶ 167 ("[W]e have authority over infrastructure that can be used for the provision of both telecommunications and other services on a commingled basis.").

automatically be impaired without access to UNEs, because a provider that has not entered the market by definition has not entered into such agreements.

Ultimately, competitive LECs' attempt to minimize cable providers' market entry and growth is premised on the mistaken view that the Commission should ensure the success of competitors relying on traditional wireline facilities, irrespective of intermodal competition. Time and again, however, this view has been rejected, by the Commission and the courts alike. First, as the *TRRO* made very clear, Section 251(d)(2)(B) does not concern itself with a specific "carrier's impairment with reference to that carrier's particular business strategy," because "such an approach could reward those carriers that are less efficient or whose business plans simply call for greater reliance on UNEs."²² Instead, the impairment analysis asks whether a reasonably efficient competitor *has* duplicated the ILECs' facilities, *could* do so, or could economically obtain the element on the market. As the *NPRM* recognized, that analysis must account for the existence of intermodal competition, as "[t]he fact that an entrant has deployed its own facilities – regardless of the technology chosen – may provide evidence that any barriers to entry can be overcome."²³

Second, competitive LECs' focus on cable providers elides the success of yet another class of market participants – namely, wireless companies in the midst of the transition to 5G. As USTelecom noted in its opening comments,²⁴ wireless offerings have become increasingly popular substitutes for DS1 and DS3s, even over the two short years that have passed since the release of the *BDS Order*, with leading providers offering services offering speeds of between 50

²² *TRRO*, 20 FCC Rcd at 2547-48 para. 25 (internal quotations, citation omitted).

²³ *NPRM* at para. 7 (quoting *TRRO*, 20 FCC Rcd at 2547 para. 24, 2549 para. 28; *TRO*, 18 FCC Rcd at 17045 para. 97) (internal citations omitted).

²⁴ USTelecom Comments at 15-17.

Mbps and almost 1 Gbps. Needless to say, these offerings are also robust substitutes for any broadband provisioned over DS0 loops.

Third, competitive LECs have not explained why they cannot obtain needed wholesale inputs or last-mile carriage from the cable providers, facilities-based competitive LECs, fixed wireless carriers, or others.²⁵ Even if a competitive LEC with an uneconomic business plan cannot successfully deploy its own facilities to a particular location, it *can* obtain carriage under commercial wholesale arrangements – not only from ILECs but also from competitive intermodal providers. Just as ILECs face incentives to enter into such agreements, so too do cable and wireless providers. The rationale is in each case the same: In an industry characterized by high fixed costs, providers would rather retain some revenue by wholesaling carriage than lose all revenue when a customer moves to a competitor using its own facilities or those of another provider. This, of course, is the reason why facilities-based mobile providers offer carriage to mobile virtual network operators (“MVNOs”) long after the Commission eliminated wireless resale mandates. The same logic governs the marketplace here.

Thus, contrary to some competitive LEC claims, the success of cable providers in the markets at issue here is highly relevant to the Commission’s current inquiry. Such success both demonstrates that reasonably efficient competitors can prosper in the marketplace and provides another potential provider of commercial wholesale inputs on which competitive LECs can rely in lieu of unbundled network elements.

²⁵ See, e.g., CenturyLink Comments at 52-53 (indicating that some cable companies also have wholesale offerings).

2. *Competitors Will Continue to Have Access to Network Inputs in the Absence of UNEs*

Robust competition in all segments of the market also ensures that competitive LECs will retain access to critical network inputs at competitive market rates. Not only are competitive choices available for consumers, but competitive LECs also have alternative options available for service inputs outside of UNEs.²⁶ ILECs have a strategic business interest in negotiating with and retaining their competitive LECs as customers. USTelecom and others have stated that relevant facilities and services will remain available to competitive LECs on a commercial basis, even after any transition determined by the Commission.²⁷ But the record makes abundantly clear, that in the face of widespread competition, it is no longer appropriate for competitive LECs to gain access to ILEC networks at government-mandated below-market rates that were often set over 20 years ago.

While it is true that ILEC commercial replacement offerings alone are not a determinative factor in the impairment analysis,²⁸ the Commission has previously found the presence of alternative commercial agreements important in rejecting arguments from

²⁶ *See id.* (illustrating how cable provides competition for commercial alternatives to unbundled network elements).

²⁷ *See, e.g.*, Letter from Patrick Halley, Senior Vice President, Policy & Advocacy, USTelecom, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-141, at 1 (filed July 19, 2019) (“ILECs will continue to offer resold service on commercial terms. . . .”); Letter from Frederick Moacdieh, Executive Director, Federal Regulatory and Legal Affairs, Verizon, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-141, at 4 (filed June 26, 2019) (Verizon June 26 *ex parte*) (describing the ease of migrating customers to alternative services with minimal disruption or operational effect); Letter from AJ Burton, Vice President, Federal Regulatory, Frontier to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-141, at 1 (filed June 28, 2019) (“Frontier continues to have the resale obligation that all LECs have, and it has the shared incentive with resellers to ensure end user customers purchasing TDM continue to get their TDM service.”).

²⁸ U.S. TelePacific et al. Comments at 33.

competitive LECs concerned with losing access to inputs as UNEs.²⁹ Again, the core inquiry is whether a hypothetical reasonably efficient competitor could compete economically – whether through self-provisioning *or* relying on other parties’ offerings. While the evidence shows that reasonably efficient competitors have been able to enter the market without depending on UNEs to do so, the commitments incumbent providers have already made to provide access to their networks through commercial agreements (and the logical economic incentives for them to do so) serves as an additional guarantee that competition will endure.³⁰

3. *Based on the Highly Competitive Marketplace, the Statute Requires the Commission to Lift Unbundling Obligations Using All Available Mechanisms*

As USTelecom has previously observed, the Commission not only should, but *must* eliminate unbundling regulations when nearly ubiquitous competition is present.³¹ Congress made it abundantly clear in the 1996 Act that these regulations should not remain in place in perpetuity, providing the Commission with multiple mechanisms to sunset the unbundling mandates, either through impairment or forbearance.³² We previously have explained at length

²⁹ *Petition of USTelecom for Forbearance Pursuant to 47 U.S.C. § 160(c) to Accelerate Investment in Broadband and Next-Generation Networks*, WC Docket No. 18-141, Memorandum Opinion and Order, 34 FCC Rcd 6503, 6522, at para. 36 (2019) (*UNE Analog Loop and Avoided-Cost Resale Forbearance Order*) (“Even after forbearance, WorldNet will still be able to make voice services available to its customers via alternative arrangements such as commercial agreements with the incumbent LECs or other providers and section 251(b)(1) resale”); *Id.* at 6530, para. 54 (“We also disagree with competitive LEC claims that they may lose access to certain features and functionalities associated with TDM services if they are required to purchase them through commercial agreements, or that they may not be able to purchase those services at all.”).

³⁰ Some allege that incumbents have not offered commercial replacements for DS0s. INCOMPAS March 6 *ex parte* at 3 (citing concerns from Allstream); U.S. TelePacific et al. Comments at 34. To the extent this is true, it is only because, for elements recently removed from UNE eligibility, a six-month period in which new orders could still be placed just concluded a few short weeks ago.

³¹ USTelecom Comments at 2.

³² Telecommunications Act of 1996, Pub. L. 104-104, 110 Stat. 56, 56 (Preamble) (“1996 Act” and “1996 Act Preamble”).

why competitive LECs are no longer impaired or why the three-part forbearance test is met for each of the network elements in question.

The fact that the copper retirement rules provide an *additional* mechanism whereby incumbent LECs can eliminate loop unbundling obligations in areas that they overbuild with fiber does not change this analysis.³³ U.S. TelePacific and others argue that “[i]ncumbent LECs can eliminate their DS0 loop unbundling obligation by retiring copper loops and investing in fiber,”³⁴ and suggest— along with other competitive LECs—that this option somehow frees the Commission to ignore both Section 251(d)(2)(B)’s impairment test and Section 10’s forbearance test. It does not.

As CenturyLink previously noted, the Commission has “never suggested that copper retirement was the only means of eliminating unbundling obligations on legacy loop facilities.”³⁵ Nor could it: It is well established that the Commission *must* grant relief from these legacy obligations where it is warranted, whether under a forbearance analysis,³⁶ an impairment

³³ See, e.g., INCOMPAS and the Northwest Telecommunications Association Comments at 33; U.S. TelePacific et al. Comments at 38-39.

³⁴ U.S. TelePacific et al. Comments at 38.

³⁵ CenturyLink Comments at 51.

³⁶ See, e.g., *AT&T Corp. v. FCC*, 236 F.3d 729, 731 (D.C. Cir. 2001) (rejecting the argument that “the mere availability of relief under the *Pricing Flexibility Order* was itself sufficient to forestall a claim under § 10.”).

analysis,³⁷ or other governing law.³⁸ It does not enjoy discretion to forego relief mandated under one provision simply because relief is separately available under another.³⁹ Here, the record clearly does mandate such relief. Given the state of competition in these markets, unbundling mandates are not just unnecessary, they are affirmatively harmful and should be eliminated, no matter which analytic framework is applied.

As the Commission moves to modernize its rules to reflect the current communications marketplace and establish a level competitive playing field, it should use *all* of the avenues available to it in order to lift the relevant obligations nationwide. Specifically, when providing relief from outdated unbundling regulations, the Commission can and should both find that competitors are not impaired without access to the UNEs at issue and forbear from the statute. The Commission could adopt a joint finding of non-impairment and forbearance by first amending the rules to effectuate the modified impairment findings/unbundling obligations and then additionally finding that, “in the alternative,” the Commission is forbearing from Section 251(c)(3) to the extent it otherwise requires ILECs to unbundle specific elements under certain

³⁷ *TRRO*, 20 FCC Rcd at 2599 n.323; *See also id.* at 2645 para. 207 (“D.C. Circuit precedent instructs us to infer the absence of impairment [and therefore not unbundle] where the element in question – though not literally ubiquitous – is significantly deployed on a competitive basis.”) (internal quotations, citation omitted); *USTA II*, 359 F.3d at 576 (“[T]he purpose of the Act is not to provide the widest possible unbundling, or to guarantee competitors access to network elements at the lowest price that government may lawfully mandate. Rather, its purpose is to stimulate competition – preferably genuine, facilities-based competition. Where competitors have access to necessary inputs at rates that allow competition not only to survive but to flourish, it is hard to see any need for the Commission to impose the costs of mandatory unbundling.”).

³⁸ *See* USTelecom Comments at Section III.A.3; *USTA I*, 290 F.3d at 422 (declaring it unlawful to mandate unbundling in “markets where there is no reasonable basis for thinking that competition is suffering”); *See also USTA II*, 359 F.3d at 574 (“In *USTA I* we expressed skepticism regarding whether there could be impairment in markets ‘where the element in question – though not literally ubiquitous – is significantly deployed on a competitive basis.’” (citation omitted)); *Id.* at 575 (noting that the Commission must determine whether “competition is possible” without unbundling).

³⁹ *See AT&T Corp. v. FCC*, 236 F.3d at 738 (“[T]he availability of the *Pricing Flexibility Order* as an alternative route for seeking pricing flexibility does not diminish the Commission’s responsibility to fully consider petitions under § 10.”).

conditions. This will allow the Commission to forbear from a statutory provision that will continue to exist even when the rules change, rather than forbearing from a rule that no longer exists. Both individually and together, these complementary analytic frameworks compel the Commission to eliminate “unbundled access to any element in areas where facilities-based competition already exists, or in any standardized area or portion of such area where a reasonably efficient competitor could extend such competition.”⁴⁰

B. The Record Overwhelmingly Supports Lifting DS1 and DS3 Loop Unbundling Obligations in All Competitive Markets Without Exemptions

1. The Commission May Properly and Lawfully Rely on the Competitive Market Test to Support Unbundling Relief.

The Commission should reject claims by opponents of reform that the competitive market test (“CMT”) originally developed in the *BDS Order* is inapplicable in the unbundling context or otherwise flawed.⁴¹ Such arguments notwithstanding, any area deemed competitive under the CMT by definition is suited for competition, which precludes continued access to unbundled network elements. Moreover, to the extent competitors simply rehash tired criticisms of the CMT, those complaints are mooted by the Eighth Circuit’s affirmance of that test.

Competitive LECs criticize use of the CMT in the unbundling context, but nowhere explain why application of that test is less appropriate with respect to impairment than with respect to *ex ante* rate regulation in the BDS context. In fact, there is no reason it would be. To the contrary, a county that satisfies the CMT will necessarily be one in which competitors are not impaired without access to DS1 and DS3 loops. The *USTA II* court made clear that the core question under Section 251(d)(2) is whether “competition is possible” without unbundling.⁴²

⁴⁰ AT&T Comments at 9.

⁴¹ See generally INCOMPAS Comments at 15-20; U.S. TelePacific et al. Comments at 11; Uniti Comments at 13.

⁴² *USTA II*, 359 F.3d at 575.

Meanwhile, “[t]he competitive market test is used to determine which counties served by a price cap local exchange carrier ... *are deemed competitive* and therefore warrant relief from price cap regulation and detariffing of DS1 and DS3 end user channel terminations, and certain other business data services, sold by such carriers.”⁴³ There are various means by which a county might satisfy the CMT, but each requires the presence of significant competitive facilities. Thus, the CMT addresses precisely the question implicated by the impairment test, and its use is appropriate here.

Unable to explain why the CMT could be appropriate for evaluating BDS but irrelevant to the unbundling analysis, critics instead trot out their familiar criticisms of the CMT itself, apparently forgetting that the Eighth Circuit has rejected their position.⁴⁴ In upholding the bulk of the *BDS Order* and the entirety of the CMT, that court repudiated the core arguments that competitive LECs attempt to resuscitate here. The court made four rulings particularly relevant here:

- The Commission was not obligated to apply the market power framework set out in the DOJ/FTC Horizontal Merger Guidelines.⁴⁵
- The Commission did not act arbitrarily or capriciously in adopting the CMT’s first criterion, which removed *ex ante* regulation in locations served over the facilities of a competitive provider as reported in the Commission’s data collection.⁴⁶

⁴³ 47 C.F.R. § 69.803.

⁴⁴ *Citizens Telecomms. Co. v. FCC*, 901 F.3d 991, 1011 (8th Cir. 2018) (“*Citizens Telecomms.*”); *See also NPRM* at para. 28.

⁴⁵ *Citizens Telecomms.*, 901 F.3d at 1007-08.

⁴⁶ *Id.* at 1009.

- The Commission did not act arbitrarily or capriciously in adopting the CMT’s second criterion, which removed *ex ante* regulation in census blocks served by a cable operator according to Form 477 data.⁴⁷
- The Commission “receives deference” and “is not acting arbitrarily and capriciously when it makes [] predictions in choosing how to regulate [a] market under its jurisdiction.”⁴⁸

Ultimately, the court concluded, the Commission “may rationally choose which evidence to believe among conflicting evidence in its proceedings, especially when predicting what will happen in the markets under its jurisdiction,” and its reliance on evidence supporting adoption of the CMT “was not arbitrary and capricious.”⁴⁹ In the wake of these conclusions, competitive LEC arguments that the CMT is itself fundamentally flawed are specious.

In their attack on the CMT, the competitive LECs reprise the former bases for their criticism. As USTelecom anticipated,⁵⁰ they aim much of their fire at a recurring nemesis – the Commission’s Form 477 data. This time, they pounce on cherry-picked and out-of-context statements from the Commission and USTelecom regarding limitations in that data *in other settings*.⁵¹ While USTelecom generally welcomes consensus and seeks common ground with competitive LECs wherever possible, their attempts to manufacture a united front on this issue are grossly misplaced. The Commission’s occasional acknowledgement of context-dependent “limitations” on its Form 477 data in no way reflects agreement with critics’ much broader

⁴⁷ *Id.* at 1009-10.

⁴⁸ *Id.* at 1011.

⁴⁹ *Id.* at 1011.

⁵⁰ USTelecom Comments at 4 n.3.

⁵¹ *See, e.g.*, Uniti Comments at 13 (asserting that Form 477 data “is widely recognized as being severely flawed and therefore cannot serve as a rational basis for making critical policy decisions” like a decision to end unbundling); INCOMPAS Comments at 3 (claiming that “the evidence has become indisputable that the Form 477 data ... provide an inaccurate, overly optimistic picture of the state of broadband”); U.S. TelePacific Comments at 12-13 (arguing that “the Commissioners have admitted” and ILECs “have argued” that Form 477 data “is insufficient and inaccurate”).

claims. Indeed, in the October 2019 *Fifteenth Broadband Deployment Report Notice of Inquiry* that competitive LECs uniformly cite as some sort of fatal and long-overdue admission about the “limitations” of Form 477 data, the Commission reiterated that this data nonetheless “remains the most thorough and accurate data available” for analyzing broadband deployment, even as the Commission separately undertakes efforts to improve it.⁵² Likewise, in calling for more accurate deployment data in certain contexts, such as universal service, USTelecom has not categorically rejected Form 477 data, but has instead observed its continued utility.⁵³ There is no intolerable cognitive dissonance in simultaneously recognizing both that Form 477 data is the best available data and is particularly reliable in urban areas and that it can still be further enhanced.

Indeed, Congress, in the recently passed Broadband DATA Act required the prioritization of the development of a Broadband Serviceable Location Fabric (“BSLF” or “Fabric”) in rural areas because of an explicit recognition that the data is far more accurate in urban areas.⁵⁴ This finding is consistent with numerous filings in the Commission’s Digital Opportunity Data Collection (“DODC”) by cable companies that serve predominantly urban areas and make clear that there is a high degree of accuracy in Form 477 data in urban areas as compared to rural areas.⁵⁵ As described in Section II.C.1 below, the Commission is on strong ground relying on

⁵² *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, Notice of Inquiry, 34 FCC Rcd 10092 para. 18 & n.29 (2019) (*Fifteenth Broadband Deployment Report Notice of Inquiry*) (citing the establishment of the Digital Opportunity Data Collection).

⁵³ See, e.g., USTelecom Comments at 4 n.3, 13-14 & n.31, 32. If anything, reliance on Form 477 data would result in a *conservative* estimate of competition, as USTelecom has noted and the Commission has acknowledged. See, e.g., USTelecom Comments at 11, 13; *BDS Order*, 32 FCC Rcd at 3507 para. 106.

⁵⁴ See *Broadband DATA Act* Section 802(b)(1)(C) (“IMPLEMENTATION PRIORITY.—The Commission shall prioritize implementing the Fabric for rural and insular areas of the United States.”).

⁵⁵ See, e.g., Comments of NCTA – The Internet & Television Association, WC Docket Nos. 19-95; 100-10 (filed Sept. 23, 2019) at 22-23 (explaining that the problems stemming from Form 477 data is in rural census blocks).

Form 477 data as a basis for its determination that competition is sufficiently present in urban areas to justify UNE relief for DS0s in urban census blocks.

In short, competitive LECs' repetition of unfounded complaints about the CMT and the Form 477 data need not stand in the way of the Commission relying on those tools here, as it has done in several other contexts. Nor is there any reason to await a new data collection,⁵⁶ given the resources the Commission already has at hand and the fact that, as USTelecom has explained, it can lift unbundling obligations based on the current record and existing data.

2. *The Commission Must Lift DS3 Loop Unbundling Obligations*

The record supports lifting unbundling obligations on DS3 loops on a nationwide basis. Not only does extensive intermodal competition exist in the provision of DS3 loops that independently render unbundling obligations for those elements inappropriate,⁵⁷ but demand for these loops is minimal.⁵⁸ Further, nothing in the record undermines the Commission's proposal for lifting DS3-specific loop unbundling requirements or demonstrates enough DS3 loops being sold to maintain these obligations.⁵⁹ The scant discussion of any adverse impact to competitive LECs of removing unbundling obligations for DS3 loops demonstrates that such outdated DS3 unbundling obligations are simply unnecessary. This not only justifies the Commission granting relief from DS3 obligations in the BDS Competitive Counties and Study Areas, but demonstrates

⁵⁶ U.S. TelePacific Comments at 14-15; INCOMPAS Comments at 7.

⁵⁷ USTelecom Comments at 9-31.

⁵⁸ CenturyLink Comments at 37, n. 136 ("Demand for UNE DS3 loops is approaching zero in CenturyLink's ILEC service territory, with only 13 of these UNEs in service."); Verizon Comments at 12 ("Verizon's data also show that demand for unbundled DS1 and DS3 loops is declining. Since January 2015, for example, the number of DS1 and DS3 loops that Verizon provides has declined, in some cases by double digits.")

⁵⁹ *See, e.g.*, Allstream Comments at 4 ("Allstream [] purchase[s] a handful of DS3 Loops."); Socket Comments at 29-30; INCOMPAS Comments at 22-24. USTelecom notes that none of these comments opposing the Commission's proposal separately and specifically discuss the impacts from removal of DS3 unbundling obligations.

that relief from these unnecessary and unlawful unbundling obligations is justified on a nationwide basis.

When factoring in the aggregated circuit count numbers of several USTelecom members, it becomes apparent that very few DS3 Loops are actually being sold today – and there is little evidence that DS3s are being used as an input to offer service to residential customers.⁶⁰ Based on data provided by five USTelecom members, including the largest ILECs in the United States, in the aggregate, there are fewer than 200 DS3 UNE loops sold today. The number of loops remaining under the UNE rules after the Commission applies its proposed relief would be significantly smaller. Given the miniscule regulated volumes, it is clear that the costs associated with maintaining these DS3 UNE obligations anywhere outweigh the purported benefits of regulation.⁶¹

3. The Commission Must Lift DS1 Loop Unbundling Obligations Without Exemptions for Residential Broadband or Small Business Broadband

While USTelecom supports the Commission’s reasonable proposal to remove DS1 unbundling obligations in BDS Competitive Counties and Study Areas, the record makes clear that the Commission would be justified in deregulating unbundling obligations for DS1s nationwide.⁶² As with DS3 loops, there is barely any support for the continued existence of DS1

⁶⁰ See, e.g., Allstream Comments at 4 (noting they maintain only a “handful” of DS3 loops); CenturyLink Comments at 41, n. 150 (“a CLEC would never use this UNE to serve a residential customer.”).

⁶¹ See, e.g., CenturyLink Comments at 34 (“[C]osts associated with the current DS1/DS3 loop unbundling obligations vastly outweigh any benefit of maintaining them.”).

⁶² See, e.g., USTelecom Comments at 9-24. (discussing the availability of price cap BDS DS1s in non-competitive counties); AT&T Comments at 16 (“AT&T has confirmed that only about five percent of the DS1 UNE Loops it sells are even located in rural census blocks within BDS competitive counties, reaffirming there is little to be gained by maintaining DS1 UNE Loop regulation in those areas.”).

loops or claims of a negative impact from deregulation on DS1-specific loops.⁶³ There simply is no separate justification for the Commission to continue to make DS1 loops available to competitors at TELRIC rates.

Whether the Commission grants nationwide relief or limits relief to the BDS Competitive Counties, one thing remains clear; the Commission cannot justify an exemption for rural, residential broadband. There is no credible evidence that DS1s are used at a meaningful scale for residential service or that it even makes sense to use them to serve residential consumers.⁶⁴ USTelecom data from four ILECs representing 93 percent of DS1 UNEs shows that approximately 5 percent of DS1 UNEs are used in rural census blocks. The record shows that even fewer of these UNE loops are also used in competitive BDS counties—one of the exemption requirements—and also fewer are used to provide residential broadband service in these rural areas in these counties.⁶⁵ These *de minimis* amounts do not justify such a burdensome exemption.⁶⁶

⁶³ See, e.g., U.S. TelePacific et al. Comments at 38 (noting commercial alternatives are currently available for DS1s “[f]or DS1 UNE loops, the only comparable option is for competitive providers to purchase unregulated DS1s from incumbent LECs as BDS”); INCOMPAS Comments at 41.

⁶⁴ AT&T Comments at 3 (“There are few if any truly residential customers that purchase 1.5 Mbps services that rely on UNE DS1 loops, and the few locations that are even potentially ‘residential’ are in most cases multi-million dollar mansions.”); CenturyLink Comments at 14, 41 (“Detailed analysis of CenturyLink’s UNE billing records revealed that few, if any, DS1 or DS3 loops provided by CenturyLink are used to serve residential customers...”).

⁶⁵ AT&T Comments at 17 (“AT&T has confirmed that most of the DS1 UNE Loops it sells to Sonic are business locations or have non-DSL alternatives that serve those locations. For the small number of remaining locations, it is not clear whether they are business or residential locations.”); Verizon Comments at 3 (“[i]n the case of Verizon, virtually all DS1 and DS3 loops are being used to serve business customers – less than a tenth of one percent of DS1 and DS3 loops appear to be even possibly used for residential customers.”).

⁶⁶ Verizon Comments at 14 (“Verizon’s own recent data show that, to the extent that competitors are using DS1 and DS3 loops, they are doing so almost exclusively to serve business customers, and that the use of these loops for residential customers is *de minimis*.”).

Claims in the record supporting the use of DS1 services for rural, residential broadband are isolated.⁶⁷ The Commission should not carve out a difficult-to-administer exemption to support the poor business decisions of a few individual competitors.⁶⁸ As USTelecom pointed out in its comments, the statute compels the Commission to focus on protecting competition, not individual competitors.⁶⁹ For all these reasons, not only is there no justification for the Commission’s proposal for a rural, residential exception, but as CenturyLink pointed out, “any marginal benefit of the proposed rural residential carve-out for DS1 loops would be outweighed by the cost of implementing it.”⁷⁰ This is because, as Verizon highlighted, the rural, residential exemption would “require [ILECS] to modify[] [their] provisioning systems to allow for screening orders at the address level” and these modifications “could create opportunities for

⁶⁷ See Digital West Comments at 1 (noting that Digital West has “some residential customers in the rural central coast of California,”). However, Digital West’s comments indicate that they only have “24 rural customers” relying on DS1 loops and the service provided through that is DSL and local telephone for \$89. *Id.* at 7. The Commission should not maintain such an overwhelming obligation for an incredibly small handful of customers held captive by an inefficient competitor’s choices, especially when there might be other non-wired competitive options available. See also Sonic Comments at 4 (“Sonic focuses on the continued need for unbundled DSO Loops [] and unbundled dark fiber, ... to serve and ultimately deploy fiber to the residential marketplace.”). Nowhere in Sonic’s comments do they mention the need for DS1 loops for residential customers.

⁶⁸ See *NPRM* at para. 7 (“The Commission presumes that the reasonably efficient competitor would use ‘reasonably efficient technologies and take advantage of existing alternative facilities deployment where possible.’”) (internal citations omitted); USTelecom Comments at 18-20 (“The relevant inquiry is as to the impact on reasonably efficient competitors, not to ‘the individualized circumstances of the actual requesting carrier’ or a specific ‘carrier’s impairment with reference to that carrier’s particular business strategy,’ given that ‘such an approach could reward those carriers that are less efficient or whose business plans simply call for greater reliance on UNEs.’”) (internal citations omitted); CenturyLink Comments at 41 (“There simply is not a business case for using DS1s to serve residential customers. CenturyLink’s average unit price for a DS1 UNE loop is \$68.59 per month. Few residential customers today would be willing to pay that amount, plus the CLEC’s markup, for a 1.5 Mbps broadband service, a speed that doesn’t come close to the minimum speed tier in the RDOF auction.”); AT&T Comments (arguing that a CLEC using DS1 loops to provide broadband would hardly be considered to be an “efficient competitor” because, “the extent any such customers [of the CLEC] exist at all, it could only be a small number, given that such customers would be paying \$149 per month for a 1.5 Mbps connection.”).

⁶⁹ USTelecom Comments at 19-20; 40-41.

⁷⁰ CenturyLink Comments at ii.

gaming, ordering errors, and disputes.”⁷¹ Ultimately, as AT&T stated, this “exemption would impose considerable costs on incumbent LECs for no gain to consumers or competition.”⁷²

Given that the Commission cannot justify an exception for rural, residential broadband, it also cannot justify the proposal in the record to carve out small businesses.⁷³ Practically speaking from a service provider perspective, and contrary to opponents in the record, when using UNEs there is no difference between providing service to a farm office versus a farmhouse.⁷⁴ It is also difficult for the ILEC to know whether a DS1 UNE loop is being used by a competitive LEC to serve a residence or a small business. Further complicating matters, there is not a clear, and universally consistent definition of what exactly constitutes a small business, which could lead to additional confusion. A rural, small business exemption would just be one additional administrative hoop to jump through without sufficient corresponding benefits.

C. Digital DS0 Loop Unbundling Obligations Must Be Lifted in All Urban Census Blocks

The record fully supports the Commission’s proposal to eliminate digital DS0 loop unbundling obligations in urban census blocks, if not nationwide. USTelecom member data shows that providers representing about one-third of DS0 UNEs saw 16% declines of use of DS0 UNEs from 2018 to 2019. And 97% of digital DS0s are sold in urban areas. Competitors are

⁷¹ Verizon Comments at 14, n. 48.

⁷² AT&T Comments at 15. *See also Business Data Services in an Internet Protocol Environment et al.*, Report and Order, 32 FCC Rcd 3459, 3502 para. 93 (2017) (“*BDS Order*”) (emphasizing the value of creating an administrable test).

⁷³ INCOMPAS Comments at 24 (suggesting that the Commission, “not limit its ‘rural’ exemption for UNE DS1 and DS3 Loops to rural residential use.”).

⁷⁴ INCOMPAS Comments at 23; *see also, e.g., BDS Order* at 3528 n.412 (rejecting CMT-related concerns raised by the Small Business Administration, and concluding a nationwide approach “will provide for increased competitive BDS choices for small businesses by relieving unnecessary regulatory burdens for competitive entry”); *id.* at 3517 para. 123 (describing how even a lesser form of deregulation than that ultimately adopted in the *BDS Order* would “impose substantial regulatory costs on incumbent LECs—and consequently on small businesses, wireless carriers, and other consumers”).

simply not impaired without the ability to access unbundled DS0s; nor are these loops being used in urban areas by competitive LECs as a “as a springboard to fiber deployment.”⁷⁵ Even if a very few competitive LECs are using UNEs to compete against the ILEC and other competitors (typically cable at a minimum) in a particular area, once there is sufficient competition it is no longer appropriate for the competitive LEC to maintain access to the ILEC network at below-market regulated rates. Once competition has arrived, the justification for UNEs is no longer present, no matter how badly a competitor would like to take advantage of an uneven playing field. For decades, it has been USTelecom members deploying fiber. They will continue to do so.

In addition, and as discussed above, cable competitors have demonstrated that deployment of broadband, via DOCSIS technology or fiber deployment, is possible without continued reliance on unbundling mandates. Many competitive LECs have also demonstrated the ability to deploy a significant amount of fiber without reliance on DS0s. The “bridge to broadband” metaphor invoked by some competitive LECs is inapt. In nearly every community in America, numerous providers already built robust, multi-lane broadband “bridges.” To the extent a provider seeks indefinite access to low-capacity DS0s, it is asking not for a bridge to broadband, but for a highly subsidized and long-past-its-prime rowboat. That rowboat will not serve consumers who already have multiple “bridges” at their disposal, and it will not serve competitive LECs, whose incentives to invest in their own bridges will remain anemic so long as they can rely on the subsidized ILEC vessel.

⁷⁵ INCOMPAS March 6 *ex parte* at 2; INCOMPAS Comments at 17 (“[T]his bridge to broadband is a critical competitive stimulus to the deployment of fiber networks capable of delivering gigabit services.”). *But see* Verizon Comments at 20 (“Verizon’s data show that instances of CLECs using DS0 loops in urban census blocks without cable are *de minimis*.”).

As USTelecom highlighted previously, DS0 UNE loops are primarily used to serve the residential and small and medium business voice and broadband markets – where there is intense competition from cable, especially in urban areas.⁷⁶ USTelecom agrees with commenters that because DS0s are used differently the Commission should assess impairment for DS0 loops independently of the impairment for the DS1 and DS3 loops discussed above.⁷⁷

USTelecom analyzed a variety of data that demonstrate that there is widespread competitive deployment by cable in urban census blocks. This analysis substantiates the Commission’s own Form 477 cable deployment data showing a high concentration of cable in urban areas, and thus the Form 477 cable deployment data are highly likely to be accurate in urban blocks.

1. The Commission Can Confidently Rely on Form 477 Data in Support of Its Proposal to Limit Relief to Urban Census Blocks

The Commission’s 477 deployment data suggest that cable at 25/3 Mbps is available to 96.7 percent of the population in urban blocks.⁷⁸ While opponents of the Commission’s proposal correctly note that there have been criticisms of the Form 477 data,⁷⁹ those criticisms have

⁷⁶ USTelecom Comments at 4, 37.

⁷⁷ U.S. TelePacific et al. Comments at 5 (“Impairment precedent demands that the Commission assess impairment for DS0 loops separately from impairment in the context of higher capacity loops like DS1 or DS3 UNE loops.”).

⁷⁸ Fixed Broadband Deployment, FCC, Compare Broadband Availability in Different Areas, https://broadbandmap.fcc.gov/#/area-comparison?version=jun2019&tech=c&speed=25_3&searchtype=county (last visited March 19, 2020).

⁷⁹ In particular, critics point out that Form 477 generally overstates availability due to FCC reporting standards that deem an entire census block served if a provider serves just one location, or if a provider “could” provide service in a reasonable timeframe. See INCOMPAS Comments at 6-8; TelePacific Comments at 14.

primarily focused on rural, not urban, areas.⁸⁰ This is because the overstatement problems associated with the Form 477 data tend to occur in low-density, spacious rural blocks, where it is more likely that a provider would serve some but not all locations, *not* in urban blocks where locations are close to one another and a provider serving one location is likely to serve most or all of them.⁸¹ Recognizing that the Form 477 data, while imperfect, is valid for competition analysis—especially in urban areas—the Commission may appropriately rely on it.⁸² As described at length in USTelecom’s comments, above in Section II.A.1, and below, the Commission can rely on the Form 477 census block data to assess the presence of and feasibility of last-mile facilities-based competition.⁸³

⁸⁰ The key findings from USTelecom’s Broadband Mapping Initiative Pilot, conducted by CQA, were focused on rural areas, not urban areas. The key findings revealed that “as many as 38 percent of total *rural* locations (445,000+) in census blocks reported as ‘served’ with current FCC Form 477 are actually unserved by any pilot participants” and that location counts were incorrect “in nearly 50 percent of *rural* census blocks.” See Jim Stegeman, Broadband Mapping Initiative: Proof of Concept, CQA (Aug. 2019), <https://www.ustelecom.org/wp-content/uploads/2019/11/USTelecom-BMI-Pilot-Results.pdf>. See also Written Testimony of Jonathan Spalter, President & CEO, USTelecom to House Energy and Commerce Committee, Broadband Mapping Legislative Hearing, at 2 (Sept. 11, 2019) (“Until recently, the FCC collected deployment data from broadband providers by census block via its Form 477. Unfortunately, location data on homes and businesses are not accurately reflected by census block or other available data. Furthermore, if a provider is able to serve a single location in a census block, then the FCC considers every location in that block “served.” This creates an overstatement of served locations and helps contribute to the *rural broadband gap*. In some cases, only a fraction of locations in the block can access broadband services. *This issue is particularly acute in rural areas where census blocks are far larger than their urban and suburban counterparts and where data sources are lacking.* The “one-served-all-served” reporting is simply not a reliable tool to accurately understand broadband availability, nor is it a viable approach to identify where scarce federal support for broadband deployment should be allocated. In fairness to the FCC, the Form 477, initially established nearly 20 years ago, was not designed with this objective in mind.”); Written Testimony of Jonathan Spalter, President & CEO, USTelecom to Senate Commerce Committee, Broadband Mapping Hearing, at 2 (Apr. 10, 2019) (“*This issue is particularly acute in rural areas where census blocks are far larger than their urban and suburban counterparts and data sources are lacking.* The “one-served-all-served” reporting is simply not a reliable tool to accurately understand broadband availability, nor is it a viable approach to identifying where scarce federal support for broadband deployment should be allocated.”).

⁸¹ Dr. George S. Ford, *Quantifying the Overstatement in Broadband Availability from the Form 477 Data: An Econometric Approach*, The Phoenix Center, at 6 (July 11, 2019), <http://www.phoenix-center.org/perspectives/Perspective19-03Final.pdf>.

⁸² *BDS Order*, 32 FCC Red at 3507 para. 106 (“The Form 477 data on broadband availability are well suited to identify increases in competitive broadband deployment, particularly by cable providers which are the most likely sources of competitive growth.”).

⁸³ USTelecom Comments at 13 n. 31.

Multiple independent sources demonstrate that facilities-based competition to ILECs is widespread in urban census blocks. This validates the Form 477 data that indicate urban census blocks are highly competitive, and supports the *NPRM's* proposal to provide relief from ILEC-specific unbundling obligations in such blocks.

The first such independent source is a new analysis of cable broadband deployment based on Comcast's public Wi-Fi deployment in the state of Georgia conducted by CostQuest Associates ("CQA").⁸⁴ CQA selected Georgia since it is representative of ILEC properties in major, mid-tier and small cities, intermixed with rural areas. CQA found that, of census blocks in price cap ILEC footprints in Georgia that the cable operator reported as served, *at least* 50 percent of locations were served in 95 percent of Census blocks and *at least* 80 percent of locations were served in 89 percent of Census blocks.⁸⁵ CQA also analyzed several third-party data sources and studies that corroborate the results of its cable analysis and support the conclusion that Form 477 data are reliable with respect to competition in urban census blocks.⁸⁶

CQA conducted research to determine whether, in urban ILEC price cap areas, when a non-ILEC (cable) competitor reports a census block as served for Form 477 purposes, is it likely that a substantial portion of locations in the census block are served by the competitor. CQA based its study on cable Wi-Fi locations in Georgia— these Wi-Fi locations represent the most robust public data available from cable providers as to coverage below the census block level.

⁸⁴ CQA is an economic modeling firm specializing in communications networks. It has deep expertise in mapping deployment of broadband infrastructure. CQA has developed a rigorous methodology for mapping serviceable locations and broadband deployment in the United States. In particular, CQA has developed a proprietary databased called the Broadband Serviceable Location Fabric (BSLF). The CQA Georgia analysis relies in part on the BSLF to determine the extent of cable broadband availability.

⁸⁵ See Appendix A, Coverage in Served Census Blocks – Price Cap, Urban Areas.

⁸⁶ See *Id.*

CQA pulled reported public Wi-Fi locations from Comcast’s web site. It then geo-referenced each Wi-Fi location and inferred the extent of cable broadband infrastructure deployment. Using its Broadband Serviceable Location Fabric (“BSLF”) location data,⁸⁷ CQA then estimated the availability of cable broadband infrastructure to serviceable locations.⁸⁸ CQA found that, of price-cap census blocks reported as served by price cap ILECs in Georgia, cable does in fact provide facilities-based broadband service to 97.5 percent of urban census blocks.⁸⁹ CQA found that cable broadband infrastructure was available to at least 50 percent of locations in 95 percent of the urban census blocks and at least 75 percent of locations are served in 93 percent of the blocks.⁹⁰ In fact, CQA found that at least 80 percent of locations are served in 89 percent of blocks; and at least 90 percent of locations are served in 83 percent of blocks.⁹¹

In addition to CQA, USTelecom engaged a market research firm to test the availability of cable broadband using a “web crawl,” during which an automated computer program plugged in addresses into service providers’ public web sites to determine whether the provider offers service at the address.⁹² In this case, the market research firm first obtained a sample list of addresses in a portion of Ohio within census blocks reported to be served according to the FCC’s Form 477 data for a single cable provider, Spectrum (Charter).⁹³ The market research firm

⁸⁷ The CQA Broadband Serviceable Location Fabric (BSLF) makes it possible to map precisely where broadband is available and where it is not. The BSLF aggregates hundreds of millions of data points, and applies statistical scoring and managed crowdsourcing to pinpoint the exact locations of virtually every structure that is a candidate for broadband. *See* Letter from Jonathan Spalter, President & CEO, USTelecom, et al., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 19-195 (filed Aug. 20, 2019).

⁸⁸ *See* Appendix A (detailing the methodology CQA used).

⁸⁹ *Id.*

⁹⁰ *Id.*

⁹¹ *Id.*

⁹² *See* Appendix B, USTelecom-Sponsored Web Crawl to Assess Cable Availability.

⁹³ The most current 477 data at the time of the study were for year-end 2018.

found that in sampled census blocks where Form 477 data indicated Spectrum broadband was available, 92 percent of households were served by Spectrum according to its public web site.⁹⁴ While this methodology was only used in selected portions of one state, the locations reflected two distinct geographic areas: a close-in suburb of downtown Columbus, OH, and a small city that is the county seat of an otherwise rural county. Notably, the results of this sample were remarkably consistent with the findings of the CQA Georgia research.

CQA points to other public data and studies suggesting similar results. For example, USTelecom filed the results of CQA's BSLF proof of concept pilot ("Pilot") looking at deployment by ILECs and selected fixed wireless providers in Virginia and Missouri in the Commission's DODC proceeding.⁹⁵ Using census block data from the these two states, CQA found that, at least a majority of locations were served in 92 percent of blocks and at least three-quarters of locations were served in 83 percent of blocks.⁹⁶ The BSLF Pilot only captured the coverage of ILECs and WISPs as cable and fiber-based competitive LECs did not participate in the study. Nonetheless, the coverage characteristics are likely to be representative of all carrier types since the economic decision to deploy to an urban area is similar amongst mass-market carrier types.

⁹⁴ The sample included 1,081 urban census blocks containing 30,592 households in Marion City, Ohio and portions of Columbus, Ohio. The market research firm conducted the web crawl in January 2020. In the context of this study, "served" means that Spectrum indicated that it offered service at 25/3Mbps or greater at the address entered into its public web site.

⁹⁵ Letter from Jonathan Spalter, President & CEO, USTelecom, et al., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 19-195 (filed Aug. 20, 2019).

⁹⁶ See Appendix A.

CQA also reviewed data from the New York state broadband auction, though which New York achieved broadband coverage of 25 Mbps download or greater for 99.9 percent of locations statewide.⁹⁷ New York offered funds to providers to build out broadband service in unserved and underserved parts of the state. The state included in the auction those blocks identified as not served at 100 Mbps or higher through its analysis of FCC 477 and proprietary carrier data, full and partial Census Blocks as not served (over 100 mbps). Of the over 100,000 urban census blocks in the state served by Spectrum, the major cable provider in the state, New York offered funding to fewer than 500, or less than 0.5 percent. In other words, 99.5 percent of locations were served by Spectrum.

CQA also reviewed the study by Dr. George Ford of the Phoenix Center comparing Form 477 data to actual deployment.⁹⁸ Using economic analysis, Dr. Ford estimated based on data from six states that, while 11.5 percent of locations in rural areas deemed “served” were not in fact served, only a little over 3 percent of locations in urban locations within “served” census blocks were unserved. The result of the Ford study, like those of the other studies and data discussed above, is again consistent with the view that overstatements associated with the Form 477 are in rural areas, not urban areas.

Finally, USTelecom provides an updated and expanded analysis of Census block size, including new analysis for urban Census blocks.⁹⁹ This analysis further supports the findings above by confirming that both cable-served blocks and urban blocks are small in area and dense

⁹⁷ See Appendix A.

⁹⁸ Dr. George S. Ford, *Quantifying the Overstatement in Broadband Availability from the Form 477 Data: An Econometric Approach*, Phoenix Center, at 6 (2019), <http://www.phoenix-center.org/perspectives/Perspective19-03Final.pdf>.

⁹⁹ See Appendix C, USTelecom Census Block Size Analysis (Land Area).

in population.¹⁰⁰ Thus, if a cable operator has deployed facilities in a census block, particularly in urban areas, it is a highly reliable indicator that competitive facilities are generally available or deployable throughout the Census block. USTelecom previously filed information for all census blocks and cable-served census blocks for all areas combined—urban and rural.¹⁰¹

According to the most recent Census, of the nearly 11 million census blocks in the United States, the mean area is 0.34 square miles, and 85 percent of blocks are less than the mean; the median is only 0.01 square miles. For Census blocks reported as served in the FCC Form 477 data for December 31, 2018, the mean cable-served census block size is 0.8 square miles and the median is 0.008 square miles. Cable-served urban Census blocks are even smaller, with a mean of 0.2 square miles and a median of 0.007 square miles.¹⁰²

Thus, cable-served Census blocks are smaller and denser than Census blocks on average, and cable-served urban blocks are similarly small and dense. In all Census blocks nationwide, 76 percent of households are in Census blocks that are less than one-quarter of a square mile in area. By contrast, in urban Census blocks, where as noted above cable reports serving approximately 97 percent of urban Americans, 92 percent of households are in Census blocks that are less than one-quarter of a square mile in area. In urban Census blocks reported as served

¹⁰⁰ Thus, cable-served census blocks are significantly smaller and denser than average. Cable served blocks include approximately 50 percent of all census blocks and approximately 90 percent of the population.

¹⁰¹ See Letter from Patrick R. Halley, Senior Vice President, Advocacy and Regulatory Affairs, USTelecom, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-141 (filed May 6, 2019) (USTelecom May 6 *ex parte*). The 2010 Census are still the most current data available, so the figures remain unchanged from the May 6 *ex parte* analysis. For Census blocks reported as served in the FCC Form 477 data from December 31, 2017, the mean census block size was 0.9 square miles and the median is 0.008 square miles. Here, USTelecom provides updates based on December 2018 data because the June 30, 2019 Form 477 data was just recently released and there was not time to include it in these Reply Comments. The median is lower because the mean is skewed upward by a relatively small number of very large rural census blocks.

¹⁰² See Appendix C.

by cable, 89 percent of households are in Census blocks that are less than one-quarter of a square mile in area.

Thus, urban blocks generally overlap with cable-served blocks and share size and density characteristics that make them suitable for widespread competitive deployment; and the economic characteristics of urban blocks generally are comparable to urban blocks already served by facilities-based cable broadband providers. In addition, the analyses of cable-served Census blocks in urban areas described above support the conclusion that where competitive deployment is reported in urban Census blocks, it is likely to be widely available throughout such blocks. This is the case because such Census blocks are sufficiently small and dense that cable facilities deployed to serve them are likely to reach either all or large portions of the block.

Taken together, these independent sources validate the Commission's use of Form 477 data as an indicator of facilities-based competition in urban areas and provide additional confidence that reported competition in urban Census blocks is widespread.

2. *Relief is Justified in All Urban Census Blocks*

The Commission's proposal to provide relief from UNEs in urban Census blocks is fully justified given the widespread competition – especially *facilities-based* cable competition – in urban blocks. This proposal allows for a level playing field in demonstrably competitive urban markets, while protecting less competitive areas.

Suggestions that the Commission needs to assign a population threshold to the urban census blocks in which it provides relief are baseless.¹⁰³ This is because, in any area included in the definition of an “urban” census block, regardless of whether it is an urban cluster or

¹⁰³ See, e.g. Socket Comments at 32; Snowcrest Comments at 3-5 (included as part of INCOMPAS IRFA Comments).

urbanized area, sufficient inter-modal competition exists to eliminate unbundling.¹⁰⁴ Further, few, if any UNEs, are sold outside of urbanized areas.¹⁰⁵ Carving out urbanized areas from urban clusters would also present practical implementation challenges for the Commission, competitive LECs, and ILECs. The Commission has previously cautioned that when deregulating, the Commission should aim to achieve the “proper balance between precision and administrability.”¹⁰⁶ Artificially limiting regulatory relief in all urban census blocks would eliminate meaningful relief for ILECs without providing any real benefit for consumers or competition. Additionally, as USTelecom’s Census block analysis demonstrates, urban census blocks are so small that most, if not *all*, locations will be within a half-mile of cable serving a neighboring urban census block. As discussed above, the Commission has determined that this proximity disciplines prices and demonstrates the ability of providers to build-out services.¹⁰⁷

Finally, instances where the Commission has established a population threshold for Urban Census Blocks are inapposite to unbundling. In the past instances, the Commission used the population counts to determine the level of direct subsidies an entity would receive for service. In those instances, the subsidies were directly tied to the number of people in an area.¹⁰⁸

¹⁰⁴ Verizon Comments at 20-21 (“[R]egardless of whether an urban census block falls within an urbanized area or an urban cluster, it is overwhelmingly likely to have access to at least cable broadband, and also has the potential to attract other competitive alternatives such as fixed wireless and 5G.”).

¹⁰⁵ The record contains only a limited handful of areas that might fall outside the urban area designation. *See* SnowCrest Comments at 3 (included as part of INCOMPAS IRFA Comments) (claiming that SnowCrest serves 3,300 people in Mount Shasta); GWI Comments at 1 (noting that it serves “rural communities” throughout Maine that are in urban census blocks); Declaration of Douglas Denney, Vice President, Costs & Policy at Allstream Business at 4 (noting concerns about customers in Mesa, AZ, Black Hawk, CO, and Little Falls, MN; Socket in Lincoln County, MO).

¹⁰⁶ *BDS Order* at 3502 para. 93.

¹⁰⁷ *See supra* Section II.B.1.

¹⁰⁸ *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 15338, at 15592-96, paras. 136-143 (2014) (“[T]he population cutoff of 50,000 people combined with the requirement that a majority of all schools or libraries that are part of a school district or library system be classified as rural in order to qualify the school district or library system for the

With unbundling, however, the Commission's analysis depends on *competition*, which is analyzed independent of population.

D. The Record Supports Removal of Additional Loop Obligations Nationwide

For many of the same reasons discussed above, the Commission also must bring an end to mandatory unbundling of three varieties of voice-grade loops—UNE Analog Loops in non-price cap areas, 64 kbps voice-grade channels over last-mile fiber loops (when an ILEC retires copper), and the TDM capabilities, features, and functionalities of hybrid loops – as well as to copper subloops and multitenant unit subloops where the underlying loop is no longer available as a UNE. The Commission should also lift OSS unbundling mandates to the extent that doing so does not interrupt legitimate public safety interests. As demonstrated in the record and below, there no longer exists any basis to claim that competitors are impaired without access to these UNEs.¹⁰⁹

Analog Loops in Non-Price Cap Areas. Due to the intense competition in the voice service market, there is simply no justification to maintain an obligation to provision analog loops in non-price cap areas.¹¹⁰ USTelecom members do not anticipate that competitive LECs will use these loops on a stand-alone basis, and there is nothing in the record demonstrating that there is a current reliance on them. Further, there are not many of these UNEs still in existence

additional rural discount rate leaves a substantial number of school districts and library systems with schools or libraries in sparsely populated areas ineligible for the additional rural funding.”); *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, at 8957-59, paras. 222-224 (2014) (adopting the U.S. Census Bureau (Census) definitions of rural and urban for the purpose of determining whether an E-rate applicant qualifies for an additional rural discount to avoid administrative challenges that would arise using another definition to determine if a school was rural). *See also Rural Health Care Support Mechanism*, WC Docket No. 02-60, Second Report and Order, Order on Reconsideration, and Further Notice of Proposed Rulemaking, 19 FCC Rcd 24613, 24619-20, paras. 11-12 (2004).

¹⁰⁹ Verizon Comments at 22.

¹¹⁰ *See supra* II.A.1; USTelecom Comments at 39-41.

in non-price cap areas. That is because many of the non-price cap areas are rural areas, and in those areas, ILECs might not have elected to remove their rural exemption per Section 251(f).¹¹¹ Thus, many ILECs in non-price cap areas might not even offer UNEs in the first place.

64 kbps Voice-Grade Channels Over Last-Mile Fiber Loops. As with voice-grade UNE analog loops, there is no record evidence showing that these unbundled 64 kbps channels provisioned over fiber are still being utilized on a stand-alone basis outside of the small number of ones that are grandfathered. For example, AT&T and Verizon both indicated that the use of 64-kbps loops is *de minimis*.¹¹² Without any demonstrable use of these loops it is time for the Commission to remove this antiquated requirement.

TDM capabilities, features, and functionalities of hybrid loops. There is no reason why the Commission must maintain UNE obligations for hybrid loops. As AT&T highlighted in the record, these hybrid loops “are used to provide the exact same legacy TDM-based services that could be provided with Analog UNE Loops,”¹¹³ The elimination of unbundling obligations for these loops is therefore the logical next step in the Commission’s reduction of unbundling obligations.

Multiunit Environment Subloops. As demonstrated in the record, very few multiunit environment subloops are currently being sold, especially on a stand-alone basis. These subloops will not disappear; they will still be available where UNEs are available. However, they should no longer be available on a stand-alone unbundled basis. Instead, their regulation should follow the regulation of the relevant loop. As CenturyLink observed, “ILECs no longer

¹¹¹ 47 U.S.C. § 251(f) (describing the exemption for certain rural telephone companies).

¹¹² AT&T Comments at 31, n.100; Verizon Comments at 23.

¹¹³ AT&T Comments at 32.

have a unique competitive position in multiunit premises.”¹¹⁴ It makes no sense for the Commission to continue to enforce an obligation on ILECs for stand-alone multitenant environment subloops. Additionally, as highlighted by USTelecom and others, granting relief here will not disrupt any policy decisions the Commission makes in other proceedings examining competition in multiunit premises.¹¹⁵

OSS. As USTelecom previously highlighted, there is no need for OSS access to be regulated under the UNE regime, as its provision is mutually beneficial and will be maintained *voluntarily* via interconnection and other commercial agreements.¹¹⁶ USTelecom recognizes, however, that deregulation of OSS should not disrupt legitimate public safety interests.¹¹⁷ It is important that the Commission balance the needs of the public safety community with the requirements of the law which requires the Commission to remove an old regulatory scheme that can no longer be justified.

E. Dark Fiber Transport Unbundling Obligations Must Be Lifted

The Commission’s prior findings, the negligible role dark fiber UNEs play in the marketplace, and the number of alternatives that competitive providers can avail themselves of all warrant nationwide relief from dark fiber transport unbundling obligations. USTelecom’s initial comments demonstrate that the Commission must both find non-impairment *and* forbear

¹¹⁴ CenturyLink Comments at 57.

¹¹⁵ *See, e.g.*, USTelecom Comments at 44, n. 139; CenturyLink Comments at 57; *contra* INCOMPAS Comments at 25, 27-28.

¹¹⁶ *See, e.g.*, USTelecom Comments at 57-60; CenturyLink Comments at 64 (noting that OSS functionality “is of little value when decoupled from UNE ordering and provisioning.”).

¹¹⁷ *See* AT&T Comments at 33 (“AT&T will continue to offer unbundled OSS as needed in conjunction with underlying network facilities that remain unbundled, but there would be no justification for maintaining unbundled access to OSS in any other circumstance.”); Verizon Comments at 22, n. 73 (“At this time, however, the Commission may continue to require that ILECs provide access to OSS for purposes of supporting local number portability, to the extent they do so today.”).

with respect to dark fiber transport – if not nationwide, than at least to wire centers within a half mile of competitive fiber.¹¹⁸

As the record shows, there is minimal use of dark fiber UNEs in the market today. Verizon indicated that they “both use and sell a *de minimis* amount of dark fiber UNEs.”¹¹⁹ Further, as CenturyLink notes that with the success of a host of providers like Zayo, Uniti, and Crown Castle, among others “there is much more competition for dark fiber today than in 2005, when the Commission adopted its current dark fiber transport unbundling rules.”¹²⁰ Even if the Commission has concerns about the state of competition for dark fiber *nationwide*, the record more than justifies relief in the areas proposed by the *NPRM*.¹²¹

The Commission also should not be swayed by commenters contending that dark fiber UNEs are not replaceable.¹²² ILECs have first-hand knowledge as to the availability of dark fiber from competitors as purchasers of dark fiber transport from competitive LECs and cable companies on a commercial basis.¹²³ The opposition in the record is simply an attempt by competitive LECs to continue to lease unbundled dark fiber at below-market TELRIC rates and undermine additional investment in fiber upgrades.¹²⁴

Further, existing users will have ample time to prepare for competitive alternatives or give sufficient time to stimulate true “facilities-based competition.” As the Commission wisely

¹¹⁸ USTelecom comments 48-57.

¹¹⁹ Verizon Comments at 25.

¹²⁰ CenturyLink Comments at 61.

¹²¹ *Id.* at 62 (“less than 4% of CenturyLink’s dark fiber transport UNEs originate or terminate in rural areas”).

¹²² *See, e.g.*, INCOMPAS March 6 *ex parte* (claiming that some dark fiber is simply irreplaceable due to restrictions on attaching facilities to bridges in some states, as well as prohibitions on boring river levees); Windstream Comments at 9, 21-24.

¹²³ AT&T Comments at 27.

¹²⁴ *Id.* at 30.

stated in the *Resale Forbearance Order*, the purpose of transition is not to require “any customer to transition from one technology to another on any particular timeline,” but rather “to allow competitive LECs that entered into long-term contracts with their customers but not their suppliers to make alternative arrangements[.]”¹²⁵ And while the *Resale Forbearance Order* focused primarily on TDM-based equipment and copper facilities, the Commission’s maxim that a “requirement to maintain” that which is outdated “deters incumbent LECs from investing . . . and casts a regulatory cloud over long-term network planning”¹²⁶ holds just as true with regard to the equally outmoded dark fiber transport UNE obligation.

F. A Brief Transition With No New Ordering Should be Consistently Applied to the Removal of All Unbundling Obligations

As the record makes abundantly clear, the competitive market conditions that the 1996 Act envisioned are here. The Commission must move quickly to not only provide relief from UNEs, but ensure a prompt transition. While recognizing the need for a transition period for impacted competitive LECs, USTelecom and others in the record caution the Commission that an overly long transition process will cause “wasteful and inefficient expenditures” and push back investment by competitive LECs in next-generation networks.¹²⁷ Thus, USTelecom urges

¹²⁵ *Resale Forbearance Order*, 34 FCC Rcd at 6522, para. 35.

¹²⁶ *Id.* at 6510, para. 14.

¹²⁷ Seth Cooper, *FCC Should Go Full Speed Ahead in Removing Unbundling Regulations*, Free State Foundation (Feb. 13, 2020), <https://myemail.constantcontact.com/FCC-Should-Go-Full-Speed-Ahead-in-Removing-Unbundling-Regulations.html?soid=1102207134565&aid=3TJJqCFiwQ0>. (“[T]he Commission ought to consider faster implementation. Given dwindling numbers of legacy subscribers, regulatory compliance may become even more expensive. Repairs and replacement of outdated unique network components will likely grow costlier over the next three years. The Commission should therefore consider making its proposed relief in 18 months or less.”).

the Commission to impose an 18-month transition period for all UNEs and limit the amount of new ordering.¹²⁸

Past Commission findings and precedent support a transition shorter than what the Commission has proposed. When applying transition periods in prior orders lifting unbundling mandates, the Commission has employed transition periods between 12 and 18 months—if a specified time period was necessary at all.¹²⁹ While more recent orders have employed a 36-month transition timeline, those applied on a nation-wide basis.¹³⁰ If the Commission moves forward on its proposals to limit relief to the areas it specified, rather than provide nationwide relief as USTelecom believes is appropriate, then the Commission would be acting well within its precedent by allowing an 18-month transition.

While precedent supports an 18-month transition, the Commission also proposed another transition period to align with the date on which the Commission’s other unbundling obligations will expire: August 2, 2022.¹³¹ While shorter than the three year transition period, the August 2, 2022 date would provide competitive LECs with 32 months from when the *NPRM* was adopted to prepare for the transition. Further, it will provide administrative ease and less confusion for

¹²⁸ USTelecom Comments at 65-67. Consistent with USTelecom’s prior advocacy, should parties’ interconnection agreements contain change of law provision requiring them to negotiate an amendment to effectuate relief provided by the Commission, the UNE rate should be subject to true-up to the applicable ILEC rate increase up to 25 percent upon the amendment of the relevant interconnection agreements. This will ensue that these interconnection agreements would not continue to govern beyond the specified transition period. *See id.* at 66. *See also* Petition of USTelecom for Forbearance Pursuant to 47 U.S.C. § 160(c) to Accelerate Investment in Broadband and Next-Generation Networks, WC Docket No. 18-141, at 44 (filed May 4, 2018) (“USTelecom 2018 Petition”).

¹²⁹ USTelecom Comments at 66; Letter from Patrick R. Halley, Senior Vice President, Advocacy and Regulatory Affairs, USTelecom, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-141, at 3-4 (filed July 1, 2019) (USTelecom July 1 *ex parte*) (citing prior Commission Orders applying 12 and 18-month transitions).

¹³⁰ *See Petition of USTelecom for Forbearance Pursuant to 47 U.S.C. § 160(c) to Accelerate Investment in Broadband and Next-Generation Networks*, WC Docket No. 18-141 et al., Report and Order on Remand and Memorandum Opinion and Order, 34 FCC Rcd 5767 (2019) (*BDS Remand Order/UNE Transport Forbearance Order*); *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*.

¹³¹ *NPRM* at para.101.

all parties, including small competitive LECs that would benefit from a single date concluding the transition.¹³² It will also ensure ample time to address special cases as relief is implemented.¹³³

The Commission should strive to apply the same consistent date across as many UNEs as possible in areas subject to competition, whether it selects 18 months or adopts the proposed consistent transition date of August 2, 2022. However, the Commission should not extend the transition date unnecessarily for all UNEs as a result of a determination that the transition for any one UNE may require additional time. To the extent that the Commission does not feel it can apply a consistent date across all UNEs at issue here, it should apply the shorter transition to as many elements as it can and consider extended transition periods only where embedded users legitimately require more time to transition. There is no reason that the Commission should unnecessarily delay the transition for any of the loops discussed above in order to make it consistent with other elements for which competitive LECs seek a longer transition.¹³⁴

Finally, it is critical that the Commission eliminate the unnecessary six-month new ordering period. Competitive LECs have been on notice since adoption of the NPRM (and, indeed, since USTelecom first sought forbearance from all unbundling mandates in early 2018) that the Commission could forbear or find that they are no longer impaired without access to certain UNEs. Not only is this six-month new ordering period unnecessary, but it is inconsistent with past precedent.¹³⁵ This six-month new ordering window will further delay the already

¹³² AT&T Comments at 33; Verizon Comments at 25.

¹³³ See Verizon Comments at 15-16 (“The Commission should ensure relief may be implemented flexibly”).

¹³⁴ INCOMPAS March 6 *ex parte* (claiming that the transition periods proposed in the NPRM would be far too short for dark fiber).

¹³⁵ See USTelecom July 1 *ex parte* at 2-3, nn. 9&10 (citing past actions from the Commission that prohibited the opportunity for new ordering entirely or outside the embedded customer base after the effective date of the order under both the forbearance and impairment frameworks).

overdue transition. For this reason, the Commission should not provide any new ordering period. If, however, the Commission is committed to maintaining the unnecessary six-month new ordering period then it should, at the very least, limit it to new orders for existing customers. It makes no sense for the Commission to allow new entrants to begin using unbundled elements when it has found that the legal basis for unbundling those elements has evaporated. It would be entirely inconsistent with the Commission's de-regulatory mandate to allow competitive LECs to go on a UNE spending frenzy, especially before a reasonable transition period.

III. CONCLUSION

USTelecom continues to urge the Commission to expeditiously move forward in its examination of the current regulatory framework and provide relief in the nation's competitive markets, where these regulations no longer serve a purpose.

Respectfully submitted,

USTELECOM –
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Appendix A

Appendix A

Coverage in Served Census Blocks Price Cap, Urban Areas

CostQuest Associates, Inc.

3/20/2020



Executive Summary

In this report, we overview our investigation of the extent of non-ILEC broadband coverage in Urban ILEC Price cap areas. Our findings, summarized below, clearly support that in Urban, Price Cap CBs, when reported in the Form 477 as served by a competitor, the competitor is serving the vast majority of locations.

- Cable broadband competition is widespread in urban census blocks
- FCC Form 477 overstatement of deployment is predominantly in rural, not urban, census blocks
- New Cost Quest analysis independently estimating cable broadband coverage from Wi-Fi location data and CQ proprietary location data, finds that among urban census blocks within ILEC price cap areas in Georgia where the cable operator reports providing service in FCC Form 477:
 - 95 percent have at least 50 percent of locations served
 - 89 percent have at least 80 percent of locations served
 - 83 percent have at least 90 percent of locations served

Note: (1) figures do not include coverage of other wired and wireless non-cable competitors, (2) small size of cable-served census blocks suggests that even those not served today could be, and (3) the study incorporated a number of conservative assumptions that may understate actual coverage

- Public studies reinforce the conclusion that in urban census blocks competitive coverage is wide and overstatement is limited:
 - New York's Broadband Auction results indicate that 99.5% of urban Census Blocks appear fully served by Spectrum
 - Phoenix Center paper finds in six states FCC Form 477 understates urban coverage by only three percentage points
 - Cost Quest's USTelecom-sponsored Broadband Serviceable Location Fabric (BSLF) Proof of Concept (PoC) data for urban areas of Virginia and Missouri show that 91% of Missouri and 88% of Virginia locations in urban CBs reported as served in Form 477 were actually served by an ILEC or WISP
- Urban census blocks are small – 95 percent of blocks in the Georgia study were smaller than ¼ square mile – and therefore coverage is likely high

Study Overview: How Extensively Served Are Urban Census Blocks?

In this report, we investigated whether or not when a non-ILEC competitor reports an urban census block as served, is it likely that most locations in the CB are served by the competitor.

- Our findings are based on the following:
 - A new analysis using Cable deployment estimated from Wi-Fi location data in Georgia
 - Georgia was selected as it is representative of ILEC properties in major, mid-tier and small cities, intermixed with rural areas
 - From the Comcast Web site, we pulled reported Wi-Fi locations, as these represent the most robust public data from Cable carriers as to coverage below the CB
 - While not every Comcast customer location is a public Wi-Fi location, we can make assumptions about cable coverage knowing that the facilities used to serve the public Wi-Fi location will pass other locations nearby
 - A review of public studies:
 - Results from New York's Broadband Auctions
 - A paper by Dr. George Ford
 - Dr. Ford of the Phoenix Center conducted a study looking at the coverage levels in Form 477 reported served CBs
 - Output of USTelecom's sponsored Broadband Serviceable Location Fabric (BSLF) Proof of Concept (PoC) efforts
 - While the BSLF PoC did not have participation from Cable or competitive Fiber ETCs, the data does provide a view of actual provider coverage data within a CB, which we believe is consistent with competitive coverage data
 - And finally, by its nature, CBs defined as Urban by the Census Bureau tend to be small CBs
 - In the GA Comcast CBs that intersect Price Cap coverage, 95% of the CBs are smaller than $\frac{1}{4}$ of a square mile
 - The availability of coverage in a CB that is small and reported covered is likely to be high simply due to its small size of approximately 2600ft by 2600ft

Georgia Cable Wi-Fi Coverage

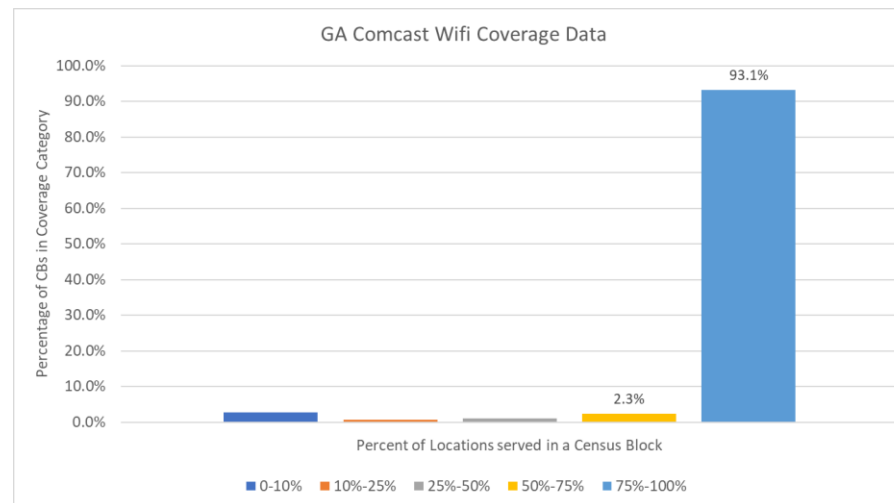
In this section, we derive an estimate of Cable coverage data in the state of GA for Comcast.

- Georgia was selected as it is representative of ILEC properties in major, mid-tier and small cities, intermixed with rural areas
- As a first note, there is a dearth of available public data providing coverage detail below the Census Block (CB)
 - Our inability to locate detailed coverage below the level of CB geography re-enforces the fact that the Form 477 Census Block based data is the only nationally available public source of granular coverage information
- Given this lack of direct sub-CB coverage evidence, we use an alternative data source and methodology
 - The only public data we have located that contains published cable industry locational cable deployments is the industry's Wi-Fi maps (see <http://Wi-Fi.xfinity.com/>)
 - Locations were downloaded and georeferenced to a location on the earth's surface using CostQuest's GA BSLF data
 - While Wi-Fi points are not representative of every point of coverage, they do represent locations to which cable infrastructure has been deployed
 - And, we believe the Wi-Fi locations provide the basis for a reasonable proxy for cable deployment

Georgia Cable Wi-Fi Coverage (continued)

Georgia Wi-Fi coverage findings:

- Of the 50,582 Urban Price Cap CBs with BSLF locations and reported as covered by Comcast in GA in the FCC Form 477, our use of Comcast Wi-Fi data to estimate coverage provided coverage in 49,297 CBs (97.5%)
- Within this collection of Comcast Wi-Fi coverage CBs,
 - For each CB, using the percentage of locations in the CB that were actually served, we classified the coverage percentage into 5 categories: 1-10% locations covered in the CB, 10-25%, 25-50%, 50-75%, and 75-100%
 - From the resulting data, as this chart shows the vast majority (93%) of Urban CBs are served at levels above 75%
 - In fact, 83.2% of CBs have 90% or more of locations covered while 89% of CBs have 80% or more of locations covered



While public data to validate the reasonableness of this Wi-Fi coverage approach is unavailable, the results are consistent with sub CB level coverage data CostQuest has observed and with the reports noted in this document

Georgia Cable Wi-Fi Coverage (continued)

The rationale for our Wi-Fi based approach first starts with our understanding of cable network deployments:

- Historically, cable plant was focused on serving residential and small business
 - From this plant deployment, extensions and direct fiber runs were made to enterprise business locations
 - For Wi-Fi, the locations are typically serviced from the same coax plant used for the residential and small business customers
- The cable plant is primarily coaxial cable serving the customer premises
 - At the street, a tap into the coax cable connects the customer's drop to the cable network
 - Typically, this drop runs up to 150 to 200ft -- over this distance, line extension charges may be incurred to cover the additional cost of long drops
- Feeding the coaxial plant is fiber plant that runs from the area back to a serving Hub or Head-end
 - The fiber from the Hub or Head-end terminates on a fiber node that connects to the coax plant, converts optical to electrical, and manages the packets/signals to the customers
 - Historically, in the Hybrid Fiber Coax networks, fiber nodes were placed upwards of 5000 coax feet from the locations passed
 - Along the path, amplifiers would be placed (~1500ft) to reamplify the signal on the coax
- In today's deployment, the fiber is being pushed out closer to customer so that higher broadband speeds can be supported
 - There is also a desire to remove all active amplifiers on the coaxial plant so that the quality of the service is high (around max of 1500 feet of coax between node and customer)
 - As the fiber nodes are pushed out, the original service areas served from the original fiber node are split, with additional nodes placed within the original service area

Georgia Cable Wi-Fi Coverage (continued)

Our methodology of converting Wi-Fi access points to coverage, based on our knowledge of cable broadband infrastructure, is as follows:

- From the Comcast Web site, we pulled reported Wi-Fi locations, as these represent the most robust public data from cable companies as to coverage below the CB
 - While not every Comcast customer location is a public Wi-Fi location, we can make assumptions about cable coverage knowing that the facilities used to serve the public Wi-Fi location will pass other locations nearby
- Using the location of each Wi-Fi location, we identified those road segments within 750 meters
- Once the road segments were identified, we buffered around the road by 200 feet to show the area estimated to be served by Comcast (cable companies will typically serve, without line extension charges, those locations that have a drop distance under 200 feet)
- We then overlaid these road-based polygons on our GA BLSF data to identify the fabric locations in these polygons...which were then compared to the full count of fabric locations in the CB
- For each CB, using the percentage of locations in the CB that were actually served, we classified the coverage percentage into 5 categories: 1-10% locations covered in the CB, 10-25%, 25-50%, 50-75%, and 75-100%
- We limited this analysis to Price Cap covered CBs that contained GA Broadband Serviceable Location Fabric locations

Public Studies: New York Broadband Auction

In reviewing sources for detailed coverage data, we were able to locate supporting evidence that when Urban CBs are reported as served by cable companies, they are extensively served

- The New York Broadband Auction
 - Background:
 - The state of NY offered funds to providers to build out broadband service in unserved and underserved parts of the state
 - The state included in the auction those blocks identified, through their analysis of FCC Form 477 and proprietary carrier data, full and partial Census Blocks as not served (over 100Mbps)
 - In addition, they allowed auction participants to identify any unserved parts of “served” census blocks that they could demonstrate as not being served and that were not specifically identified by the state
 - Auction Results:
 - New York secured improved service (over 100Mbps) to over 2 million locations at no State cost through additional State-secured commitments valued at approximately \$660m
 - New York leveraged over \$700m in funds (private, state, and federal) to build out over 250,000 locations and that achieved coverage levels of 99.9% of locations for service in excess of 25Mbps download
 - <https://nysbroadband.ny.gov/program-highlights>
 - Auction Urban Area Coverage
 - Of the over 100,000 urban Census Blocks served by Spectrum in the state (Spectrum is the major cable provider in the state of NY and is considered an ILEC Competitor), less than 500 of Spectrum CBs (less than 0.5%), were awarded funding by New York
 - Coverage Conclusion
 - Given that 0.5% of Spectrum urban CBs were awarded funding indicates that Spectrum’s New York coverage extent in urban CBs is robust

See the CBs listed in the Auction results at https://nysbroadband.ny.gov/sites/default/files/all_phases_1_2_3_awarded_census_blocks.xlsx

Public Studies: Dr. George Ford of the Phoenix Center

In reviewing sources for detailed coverage data, we were able to locate supporting evidence that when Urban CB's are reported as served by cable companies, they are majority served

- A recent study by Dr. George Ford of the Phoenix Center based on a probit analysis estimated the number of served households in Urban census blocks filed in Form 477 as served at over 98%
 - From page 6: "For these states, 95.7% of households have broadband service at the 25-3 Mbps level under the all-in assumption. The model predicts that only 92.4% have broadband for an overstatement rate of 3.3 percentage points. Across the six states, the overstatement rate for rural blocks is 11.5 percentage points but only 1.9 percentage points for urban blocks. "
 - In Table 4, he breaks the values out by State

Table 4. Overstatement by Urban Status (Percentage Points)

State	Statewide	Urban	Rural
CA	1.1	0.8	6.1
GA	5.6	2.8	14.0
PA	4.0	1.8	11.8
TX	3.7	2.3	10.6
WV	10.0	4.5	15.5
WY	6.0	1.5	14.3

- Dr. Ford's findings that households in urban CBs reported as served in Form 477 are covered at a higher percentage than in rural CBs coincides with findings from the Broadband Serviceable Location Fabric Proof of Concept Study, covered on the next 2 pages

See: <http://www.phoenix-center.org/perspectives/Perspective19-03Final.pdf>

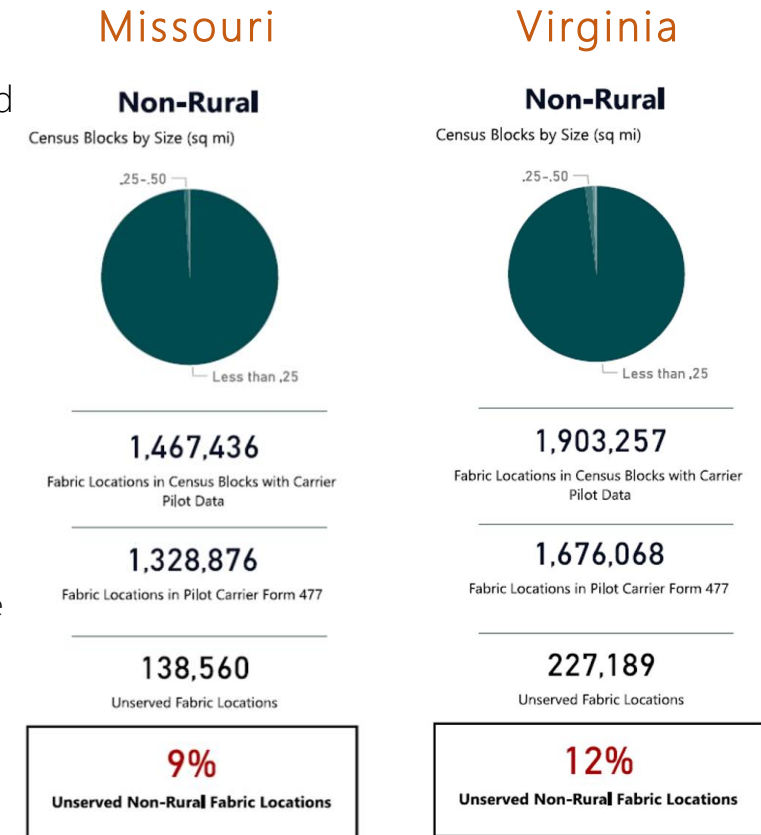
Public Studies: The BSLF Proof of Concept Study

In reviewing sources for detailed coverage data, we were able to locate supporting evidence that when Urban CB's are reported as served by cable companies, they are majority served

- In 2019, the Broadband Mapping Initiative group sponsored the BSLF PoC effort which investigated the unserved percentages in CBs that would be reported as served in Form 477 in the states of Missouri and Virginia
- In the PoC report that was presented to the FCC and Congress, the images to the right provided summary findings in Non-Rural (Urban) CBs
- In short,
 - 91% of Missouri locations in urban CBs reported as served, are actually served
 - 88% of Virginia locations, in urban CBs reported as served, are actually served
- While Dr. Ford's study shows a higher % of actually served Urban CB locations than this BSLF PoC study, the BSLF PoC study only captured ILEC and WISP coverage (as Cable and Fiber based CLECs did not participate in the study)
 - While the study only demonstrates the coverage of ILECs and WISPs, we believe these coverage characteristics are representative of all carrier types
 - The rationale: the economic decision to deploy to an urban area is similar amongst mass-market carrier types

See Mr. Stegeman's Congressional Testimony at <https://energycommerce.house.gov/committee-activity/hearings/hearing-on-legislating-to-connect-america-improving-the-nations>

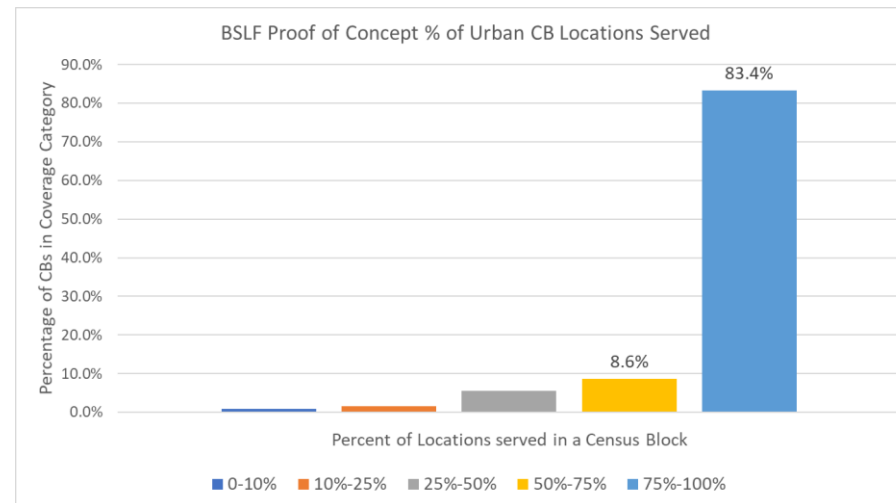
See ex-parte filed in Establishing the Digital Opportunity Data Collection - WC Docket No. 19-195, Modernizing the FCC Form 477 Data Program - WC Docket No. 11-10, Connect America Fund - WC Docket No. 10-90, Rural Digital Opportunities Fund - WC 19-126



Public Studies: The BSLF Proof of Concept Study (continued)

In reviewing sources for detailed coverage data, we were able to locate supporting evidence that when Urban CB's are reported as served by cable companies, they are majority served

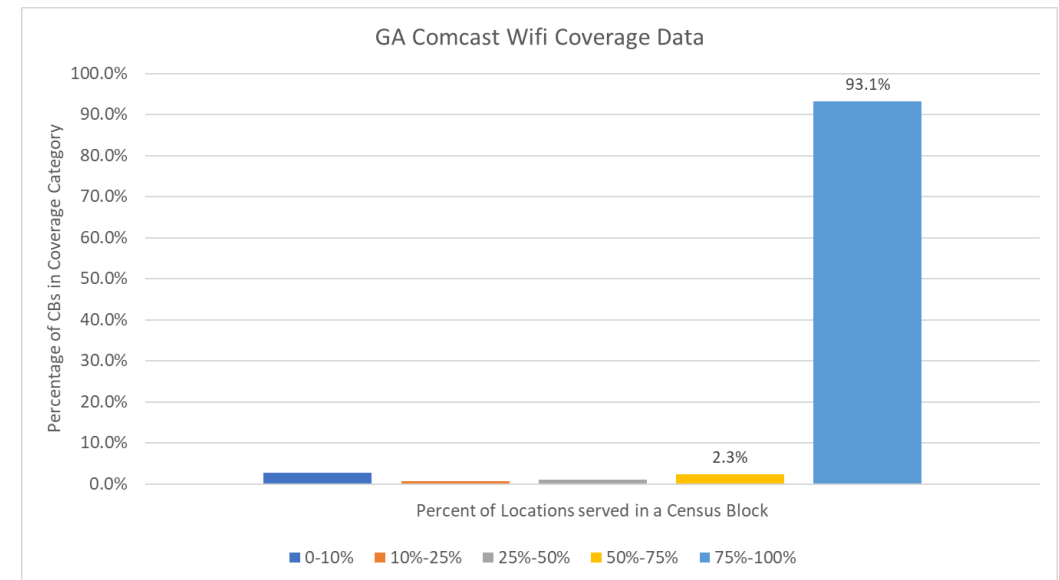
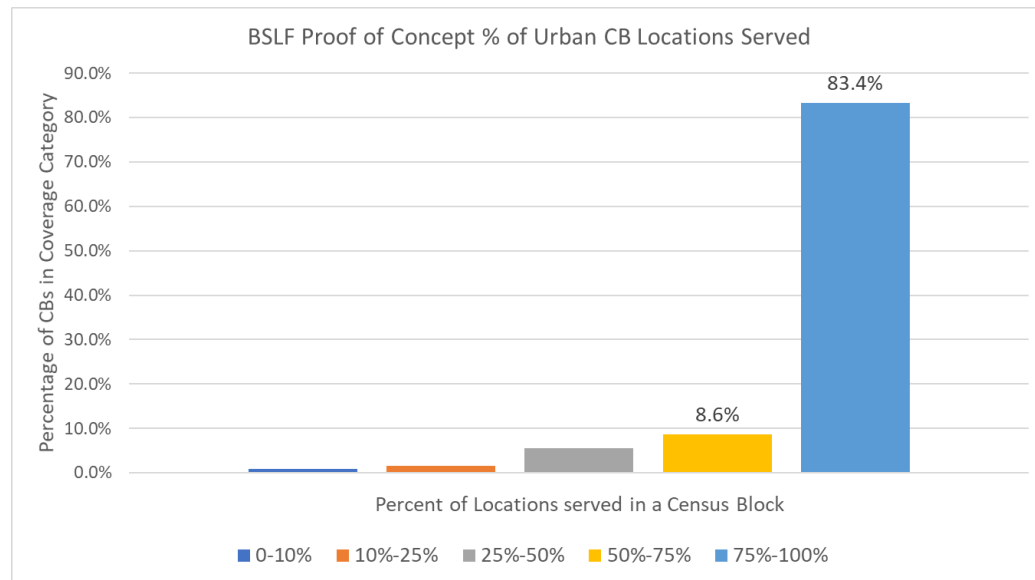
- In addition to reviewing the overall BSLF Proof of Concept report, we were able to look at the underlying CB data that was the basis of the study
- In the chart below, we show the level of Urban coverage based on the combined CB data for MO and VA from the BSLF PoC
 - As with the GA Wi-Fi study, using the percentage of locations in the CB that were actually served, we classified the coverage percentage into 5 categories: 1-10% locations covered in the CB, 10-25%, 25-50%, 50-75%, and 75-100%
 - With each CB categorized, we counted the CBs that fell into each category
 - As the chart shows, the vast majority (92%) of Urban CBs are served at levels above 50% (majority served), while 83.4% are served at levels above 75%



Public Studies -vs- Georgia Cable Wi-Fi Coverage

Earlier we stated that we believe the BSLF PoC ILEC carrier coverage data is similar to other mass market carrier coverage in urban areas

- In the charts below, we demonstrate the similarities
 - On the left is the Broadband Serviceable Location Fabric (BSLF) Proof of Concept (PoC) data, that shows 92% of CBs have 50% or more locations in CB served
 - On the right is the GA Comcast Wi-Fi coverage data that shows 95% of CBs have 50% or more locations in CB served



Appendix B

Appendix B USTelecom-Sponsored Web Crawl to Asses Cable Availability

Objective

To validate whether cable provides service in urban census blocks where cable providers report service in FCC Form 477, USTelecom engaged a market research firm to conduct a “web crawl.”

Methodology

A web crawl uses an automated computer program to enter a series of addresses into service provider public web sites queries to determine if the provider offers service at the addresses entered.

The market research firm developed a sample address list intersecting with census blocks reported as served by cable according to FCC Form 477 data in selected areas of Ohio. The study was limited to a single cable provider, Spectrum (Charter). Specifically, the sample included 1,081 urban census blocks containing 30,592 households from two distinct geographic areas: Upper Arlington, a close-in suburb of downtown Columbus, and the small city of Marion, the county seat of an otherwise rural county.

The firm conducted the web crawl in January 2020. The computer program queried one address randomly chosen per unique block code. Each address was categorized as served or having no service. The program considered an address served if Spectrum’s web site stated that service was available to the address at 25/3 Mbps. There was a small number of inconclusive queries, which the firm discarded when calculating these results.

Results

		Blocks			Households		
		Served	No Service	Total	Served	No Service	Total
Numbers	Upper Arlington / Franklin County	315	16	331	11,311	839	12,150
	City of Marion / Marion County	684	66	750	16,850	1,592	18,442
	Total	999	82	1,081	28,161	2,431	30,592
Percentages	Upper Arlington / Franklin County	95%	5%	100%	93%	7%	100%
	City of Marion / Marion County	91%	9%	100%	91%	9%	100%
	Total	92%	8%	100%	92%	8%	100%

Conclusion

Of sampled urban census blocks where Form 477 data indicated Spectrum broadband was available, the web crawl found service in blocks representing 92 percent of households. The results support the conclusion that cable service is widely deployed among urban census blocks. Moreover, given what we know about census block coverage (Appendix A) and size (Appendix C), along with the large sample size in this study, where a cable operator reports service availability in a census block, it is likely that in most cases service is available throughout large portions of each census clock.

Appendix C

Appendix C

USTelecom Census Block Size Analysis (Land Area)

Key Statistics	All Census Blocks (Percent of All)	Cable Served Census Blocks Nationwide (Percent of All)	Urban Census Blocks (Percent of Urban)	Cable Served Census Blocks in Urban Areas (Percent of Urban)
Percent of Blocks	100%	48.1%	100.0%	81.4%
Percent of Households	100%	89.4%	100.0%	97.6%
Mean Census Block Land Area (Square Miles)	0.319	0.083	0.021	0.023
Median Census Block Land Area (Square Miles)	0.010	0.008	0.006	0.007

Block Distributions by Land Area

Area of X Square Miles or Less	Percent of All U.S. Census Blocks ...	Percent of Cable Served Census Blocks ...	Percent of All U.S. Urban Census Blocks ...	Percent of Cable Served Urban Census Blocks ...
0.01	50.8%	56.1%	66.1%	62.4%
0.10	77.9%	88.4%	96.0%	95.5%
0.25	84.7%	93.4%	98.8%	98.6%
0.50	89.6%	96.2%	99.6%	99.6%
0.75	92.3%	97.6%	99.9%	99.8%
1.00	94.5%	98.3%	99.9%	99.9%
Any	100.0%	100.0%	100.0%	100.0%

Household Distributions by Land Area

In Census Blocks with Area of X Square Miles or Less	Percent of All U.S. Households ...	Percent of Cable Served Households ...	Percent of All U.S. Urban Households ...	Percent of Cable Served Urban Households ...
0.01	29.7%	31.0%	34.8%	34.3%
0.10	70.2%	74.2%	81.4%	81.2%
0.25	80.8%	84.9%	91.8%	91.7%
0.50	87.5%	91.1%	96.8%	96.7%
0.75	90.9%	94.0%	98.4%	98.4%
1.00	93.2%	95.7%	99.2%	99.2%
Any	100.0%	100.0%	100.0%	100.0%

Baseline Data

Metric	All U.S.	Cable Served	All Urban	Cable Served Urban
Census Blocks (2010)	11,078,297	5,324,383	5,052,699	4,110,668
Households (2010)	116,716,292	104,396,966	93,943,992	91,646,387

Notes: Census Block, Area, Population, and Household data are from the 2010 Census. Cable Deployment data are from FCC Form 477 as of December 31, 2018. Cable-Served means FCC Form 477 data as of December 31, 2018 reported a Census Block as served by cable at 25 Megabits per second download or greater. All area calculations are based on land area only.