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

In the Matter of

Applications of T-Mobile US, Inc. and Sprint Corporation for Consent to Transfer Control of Licenses and Authorizations

WT Docket No. 18-197

PETITION TO DENY OF COMMON CAUSE, CONSUMERS UNION, NEW AMERICA’S OPEN TECHNOLOGY INSTITUTE, PUBLIC KNOWLEDGE & WRITERS GUILD OF AMERICA, WEST, INC.

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EXECUTIVE SUMMARY

The proposed merger of T-Mobile US, Inc. and Sprint Corp. would significantly harm the public interest. The transaction, if approved, would wreak havoc on competition and consumers by removing two disruptive competitive carriers from the market to bring the number of nationwide competitors from four companies to three. The anticompetitive nature of the proposed merger would also harm the prepaid and wholesale mobile wireless markets, and in particular would negatively impact low-income consumers. Meanwhile, the purported benefits claimed by T-Mobile and Sprint are either speculative and nonexistent or not specific to the proposed merger. The Commission should block the deal and protect a healthy, competitive marketplace for the industry and consumers.

T-Mobile and Sprint's proposed combination is first and foremost a clear-cut case of a horizontal merger that would be likely to dramatically curtail competition in the wireless market and harm consumers. The current market sees four dominant, nationwide carriers, but if T-Mobile and Sprint are allowed to merge, 98 percent of the country's wireless market would be in the hands of three providers. As the Department of Justice and the Commission concluded in 2011 when AT&T tried to acquired T-Mobile, higher concentration leads to higher prices, poorer quality, weakened innovation, and less consumer choice. The government's analysis was correct at the time and remains correct today.

The merger would also harm the prepaid and wholesale mobile wireless markets, along with the low-income consumers that rely on the services in those markets. T-Mobile and Sprint offer competing prepaid services. Eliminating two direct competitors would give New T-Mobile the power to raise prices for prepaid service with no major challengers in the market. Additionally, T-Mobile and Sprint sell wireless capacity to mobile virtual network operators that facilitates reseller services under separate brands. The proposed transaction would increase the cost of capacity access for these low-cost resellers. In that vein, Sprint is the main facilities-
based provider that participates in the Commission’s Lifeline program for qualifying low-income consumers. The proposed merger could drastically harm the public interest by potentially eliminating Sprint as a Lifeline participant altogether.

Despite the claims of T-Mobile and Sprint that the proposed merger would be a boon for American jobs, third party analysts have concluded that the transaction is likely to eliminate tens of thousands of American jobs. Further, T-Mobile and Sprint have failed to make any concrete commitments about bringing or retaining jobs in the United States, and either way the claim that the companies will bring in more employees to build a 5G network are not in any way specific to the proposed transaction, as both companies would likely need additional personnel to build their 5G networks regardless.

T-Mobile and Sprint argue that the two companies need one another to build a robust, nationwide mobile 5G network, and that the construction of such a network will benefit the public interest. Both companies have made several promises over the past several years—including as early as this year prior to the announcement of the proposed merger—that they would build out the nation’s first nationwide mobile 5G network, and that their company would be at the forefront of bringing mobile 5G to the United States. The companies made the promises of a mobile 5G network buildout to investors and through press outreach. The Commission should take the companies’ past statements to their investors and the public seriously and consider that both T-Mobile and Sprint have been prepared to build out strong, nationwide mobile 5G networks on their own and that their current argument that they need one another to do so is incorrect. Further, any purported deficiencies in spectrum holdings can be remedied through opportunities in the 3.7-4.2 GHz band coming up, as well as through upcoming auctions for millimeter wave spectrum.

The actual benefits of mobile 5G networks for consumers, and in particular those in rural areas, is highly exaggerated by T-Mobile and Sprint in arguing the proposed transaction serves the public interest. The claims of “fiber-like” speeds to come from a mobile 5G network is not
only not merger-specific, but is also highly unlikely, in particular in rural areas. Analysts have predicted that mobile 5G networks might not see much more than an incremental improvement on LTE networks. Further, carriers have so far largely failed to deploy LTE networks to rural areas, and rural consumers are unlikely to see a sudden jump to mobile 5G as they still await the arrival of current-generation networks.

T-Mobile and Sprint have failed to meet their burden of proof that the proposed transaction would benefit the public interest and the Commission should deny their application to merge. The combined New T-Mobile would harm both competition in the wireless market and consumers, and the potential benefits described by the Applicants are dubious, and also do not require a merger to become reality.
EXECUTIVE SUMMARY

I. Introduction

II. The Merger Is Anticompetitive and Would Harm the Public Interest
   A. The Applicants Have Not Met their Burden of Proof
   B. The Merger Would Severely Concentrate the Wireless Market and Wireless Spectrum Holdings
   C. The Merger Would Eliminate the Undeniable Benefits of Four-Firm Competition
   D. MVNOs and New Entrants Cannot Mitigate the Merger’s Anticompetitive Effects
   E. The Merger Would Disincentivize T-Mobile’s Disruptive ‘Un-Carrier’ Strategy
   F. The Commission Should Reject Applicants’ Claim That Sprint is Failing
   G. The Merger Would Harm Low-Income Consumers in the Prepaid and Wholesale Mobile Wireless Markets
      1. The Merger Would Negatively Impact the Prepaid Market
      2. The Merger Would Negatively Impact the Wholesale Market
      3. The Merger May Eliminate Sprint as a Facilities-Based Lifeline Provider
   H. The Merger Could Eliminate Tens of Thousands of American Jobs
      1. Analysts Predict the Merger Would Lead to Job Losses
      2. Applicants Fail to Make Concrete Jobs Commitments
      3. Applicants’ Job Claims Are Not Merger-Specific

III. The Merger’s Purported Benefits are Nonexistent or Not Dependent on Merging
   A. Applicants Do Not Need the Merger To Deploy 5G Service
      1. Applicants Were Already Planning To Build 5G Networks On Their Own
      2. Applicants Can Readily Acquire Mid-Band Spectrum Without a Merger
   B. Applicants Overstate the Potential Benefits of Mobile 5G Service
      1. Applicants’ 5G Network Would Not Be A “Fiber-Like, Bona Fide Alternative” to Fixed Broadband Service
      2. Applicants’ 5G Network Would Be Limited in Geographic Scale
   C. Rural Americans Would Not ‘Win Big’ With the Merger

IV. Conclusion
I. Introduction

In response to Federal Communications Commission’s (“Commission” or “FCC”) Public Notice,¹ and pursuant to section 1.939 of the rules,² Common Cause, Consumers Union, New America’s Open Technology Institute, Public Knowledge, and Writers Guild of America, West, Inc. hereby file this Petition to Deny the the proposed combination of T-Mobile US, Inc. (“T-Mobile”) and Sprint Corporation (“Sprint”) (collectively, “Applicants”).³

Sprint’s history on mergers suggest that this one, too, does not present benefits for consumers or competition. Sprint’s merger with Nextel in 2005, for instance, bore disastrous effects. Bloomberg ranked that transaction as one of the worst mergers of the 2000s, as Sprint took years to integrate network technologies and suffered a decade of declining revenue and subscribers.⁴ The aftermath of the Nextel acquisition lingers today, yet Sprint is once again resting its hopes on yet another merger that investors and regulators have been skeptical of for years.

The Applicants have failed to demonstrate that the proposed merger will serve the public interest. In fact, the combination of T-Mobile and Sprint is almost certain to significantly reduce wireless competition. As a result, consumers will have fewer choices and pay higher prices, and the three remaining nationwide wireless providers will have reduced incentives to compete on price, network quality, customer service, and deployment. Consumers will lose the benefits that have resulted from four-firm competition, including the aggressive, maverick approaches that independent T-Mobile and Sprint have employed to take market share from their larger rivals,

³ See T-Mobile and Sprint Description of Transaction, Public Interest Statement, and Related Demonstrations, WT Docket No. 18-197 (filed June 18, 2018) (“Public Interest Statement”).
and each other. Further, the Applicants have not demonstrated that other competitors or new entrants can fill the competitive void if T-Mobile acquires Sprint. Finally, the Applicants have failed to show that the public will benefit from the proposed transaction. The merger is neither necessary for T-Mobile and Sprint to deploy standalone 5G networks, nor will materially help the Commission achieve its goal of closing the digital divide for rural and unserved communities. Thus, the Commission should deny the Applicants proposed merger.

II. The Merger Is Anticompetitive and Would Harm the Public Interest

The proposed transaction is a classic horizontal merger that would drastically impair competition and harm consumers; it should be denied. Four nationwide wireless carriers currently dominate the wireless market. The proposed merger would further consolidate this already highly concentrated marketplace down to three nationwide providers who, combined, would account for over ninety-eight percent of the nation’s wireless connections.\(^5\) The prepaid and wholesale wireless markets would experience more acute concentration, imposing the greatest harm on low-income consumers and the carriers that serve them.

A. The Applicants Have Not Met their Burden of Proof

Under the Communications Act, the Commission must determine whether the “public interest, convenience, and necessity will be served” by granting the application.\(^6\) The Applicants bear the burden of proving, by a preponderance of the evidence, that the proposed transaction, on balance, will serve the public interest.\(^7\)


\(^6\) See 47 U.S.C. §§ 309(a-d); 310(d).

\(^7\) See e.g., Application of AT&T Inc. and Cellco Partnership d/b/a/ Verizon Wireless for Consent to Assign or Transfer Control of Licenses and Authorizations and Modify a Spectrum Leasing Arrangement, WT Docket No. 09-194, Memorandum Opinion and Order, 25 FCC Rcd 8704, 8716 ¶ 22 (2010); Applications
Under the Commission’s duty to protect the public interest in merger reviews, the Applicants must meet a high burden to demonstrate that the proposed transaction will actually be good for consumers. First, the Applicants must show that the merger’s purported benefits exceed the harm caused by the loss of one of only four major competitors in a highly concentrated market. Second, the Applicants must show their claimed benefits are only achievable through the proposed merger and not through any other means. Last, the Applicants must demonstrate how alleged efficiencies, such as cost-savings, will actually be passed on to consumers, instead of pocketed by executives and investors, or used to fuel additional acquisitions.

As detailed infra, the Applicants have failed to meet this burden. Thus, the Application should be denied.

B. The Merger Would Severely Concentrate the Wireless Market and Wireless Spectrum Holdings

Seven years ago, the FCC’s Wireless Bureau determined that a proposed merger of AT&T and T-Mobile, which would have consolidated the wireless marketplace from four nationwide competitors to three, did not serve the public interest. In the instant proceeding, the Commission should reach the same conclusion and find that the proposed combination of T-Mobile and Sprint would harm competition and consumers, does not serve the public interest, and should be denied.

When the Department of Justice (“DOJ”) sued to block the AT&T/T-Mobile merger in 2011, it argued that “unless the acquisition is enjoined, customers of mobile wireless telecommunications services likely will face higher prices, less product variety and innovation, of AT&T Inc. and Deutsche Telekom AG For Consent To Assign or Transfer Control of Licenses and Authorizations, WT Docket No. 11-65, Staff Analysis and Findings, at 2 ¶ 3 (rel. Nov. 29, 2011) (“AT&T-T-Mobile Findings”).

8 Applications of AT&T Inc. and Deutsche Telekom AG For Consent To Assign or Transfer Control of Licenses and Authorizations, WT Docket No. 11-65, Order, 26 FCC Rcd 16184, 16184-85 ¶¶ 2-3 (2011) (“AT&T-T-Mobile Order”).
and poorer quality services due to reduced incentives to invest than would exist absent the merger.” The Commission’s staff report (“AT&T/T-Mobile Findings”) similarly found that competition would be significantly harmed, primarily in the form of increased prices for consumers, reduced incentives for innovation, and decreased consumer choice. The AT&T/T-Mobile Findings are all the more important given how essential wireless connectivity was—and continues to be—to modern society. As DOJ argued,

Mobile wireless telecommunications services have become indistinguishable both to the way we live and to the way companies do business throughout the United States. Innovation in wireless technology drives innovation throughout our 21st-century information economy, helping to increase productivity, create jobs, and improve our daily lives. Vigorous competition is essential to ensuring continued innovation and maintaining low prices.

The harms that the Commission and DOJ identified in their reviews of the AT&T/T-Mobile merger are also evident in the instant proceeding. If the Applicants are permitted to merge, the number of nationwide wireless providers would shrink from four to three, exacerbating the concentration of an already highly concentrated market.

The Department of Justice and the Commission have both previously concluded that there are four nationwide wireless carriers: Verizon Wireless, AT&T, T-Mobile, and Sprint. Verizon Wireless and AT&T are T-Mobile and Sprint’s competitors, and those carriers are likely to remain the Applicants’ sole competitors in the future due to the wireless industry’s extremely high barriers to entry. While the Commission has recognized the role of smaller players in the wireless market, including multi-regional, regional, and local service providers such as U.S. Cellular, C Spire, and dozens of single-market (often rural) providers, those providers have very small market shares and provide little, if any, competitive restraint on the nationwide carriers.

According to the Commission’s most recent wireless market competition report, U.S. Cellular is

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10 See AT&T-T-Mobile Findings.
11 AT&T-T-Mobile Complaint at 1.
12 Id. at 8-11, Twentieth Report at 8975 ¶ 13.
the nation’s fifth largest facilities-based wireless carrier. As of December 2016, U.S. Cellular had approximately 5.079 million subscribers, compared to more than 71.4 million subscribers for T-Mobile and 59.5 million subscribers for Sprint, the nation’s third and fourth largest carriers.\footnote{Id. at 8982 Table II.B.1.} Multi-regional, regional, and local service providers cannot provide sufficient competitive pressure in the wireless market to discipline the four nationwide providers, and they would be rendered even less significant by a combined T-Mobile/Sprint.

According to measurement tools employed by the FCC, DOJ, and the Federal Trade Commission, the wireless market is already extremely concentrated. The Commission uses the Herfindahl-Hirschman Index (“HHI”) to measure mobile wireless concentration.\footnote{Id. at 8988 ¶ 33.} The Commission has explained,

\begin{quote}
[a]ntitrust authorities in the United States generally classify markets into three types: Unconcentrated (HHI < 1500), Moderately Concentrated (1500 < HHI < 2500), and Highly Concentrated (HHI > 2500). The Commission’s initial HHI screen identifies, for further case-by-case market analysis, those markets in which, post-transaction: (1) the HHI would be greater than 2800 and the change in HHI would be 100 or greater; or (2) the change in HHI would be 250 or greater, regardless of the level of the HHI.\footnote{Id. at 8989 n.103 (citing U.S. Department of Justice and the Federal Trade Commission, Horizontal Merger Guidelines § 5.3 at 18-19 (Aug. 19, 2010), http://www.justice.gov/atr/public/guidelines/hmg-2010.pdf) (“Horizontal Merger Guidelines”).}
\end{quote}

The Department of Justice’s \textit{Horizontal Merger Guidelines} point out,

\begin{quote}
[m]ergers resulting in highly concentrated markets that involve an increase in the HHI of between 100 points and 200 points potentially raise significant competitive concerns and often warrant scrutiny. Mergers resulting in highly concentrated markets that involve an increase in the HHI of more than 200 points will be presumed to be likely to enhance market power.\footnote{Horizontal Merger Guidelines § 5.3 at 19.}
\end{quote}

According to the FCC’s most recent analysis of wireless competition, “[a]s of year-end 2016, the weighted average HHI for mobile wireless services was 3,101.”\footnote{Twentieth Report at 8988-89 ¶ 33.} More recently,
Recon Analytics measured the HHI of the wireless industry as approximately 2,942.¹⁹ Both measurements far exceed what competition authorities and regulators consider “highly concentrated.” Further, “the merger will increase the HHI by more than 400 points, well above 200 points, which is considered to enhance the market power of the merged company.”²⁰ The resulting post-merger HHI for the wireless market with a combined T-Mobile-Sprint would be between 3,342 and 3,501, depending on the pre-merger baseline measurement.

The Commission has previously explained that its merger review accords with federal antitrust law in that “[m]ergers that result in both a highly concentrated market and the new firm controlling an undue share of that market are presumptively illegal.”²¹ Here, a combined T-Mobile/Sprint could control more than 31 percent of the wireless market.²² In AT&T/T-Mobile, the Commission’s staff concluded that “[t]he concentration levels and increases” arising from that four-to-three merger “are a strong indicator of harm to competition – and in antitrust analysis trigger a presumption of such harm – for good reason,” and that “[m]arket statistics of the type generated by this transaction commonly indicate that buyers would have fewer viable choices, making both unilateral and coordinated competitive effects more likely.”²³

The Commission’s merger review also examines the input market for spectrum that is “suitable” and “available” for the provision of mobile voice or broadband services.²⁴ According to the Commission’s most recent report on wireless market competition, the spectrum screen includes 715.5 megahertz of spectrum in the 600 MHz, 700 MHz, Cellular, SMR, Broadband

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²⁰ Id.

²¹ AT&T-T-Mobile Findings at 9 ¶ 16.

²² Twentieth Report at 8982 Table II.B.1.

²³ AT&T-T-Mobile Findings at 10 ¶ 19.

PCS, AWS-1, AWS-3, AWS-4, H Block, WCS, BRS, and EBS bands.25 A carrier would need to hold one-third of this spectrum, or at least **238.5 megahertz** of the included spectrum, to trigger further review in local markets under the second prong of the Commission’s screen.

Review of the Applicants’ spectrum presentations in their Public Interest Statement show that the proposed transaction would far exceed the spectrum screen in numerous markets.26 In the nation’s top twenty markets, the combined firm would exceed the spectrum screen in *every market*, sometimes by nearly 100 megahertz. Nationwide, New T-Mobile would exceed the spectrum screen in approximately 64 percent of the counties in the U.S. Together, the concentration demonstrated by the HHI and the spectrum screen analyses make clear that the proposed merger poses significant harms to consumers and competition.

The wireless market is already highly concentrated by any measure, and the Commission should not approve a merger that exacerbates this problem. As discussed *infra*, T-Mobile and Sprint have instigated much-needed competition and innovation, benefiting consumers. The proposed transaction would eliminate these benefits and lead to an unprecedented degree of consolidation that harms competition and consumers.

C. The Merger Would Eliminate the Undeniable Benefits of Four-Firm Competition

The benefits of four-firm competition in the U.S. wireless market are undeniable, as are the demonstrable harms of reducing competition. In 2014, the Commission updated its policies regarding concentration in the wireless market.27 During the course of the FCC’s review, DOJ explained, “local mobile wireless markets across the nation are relatively concentrated,”28 thus, “it is essential to maintain vigilance against any lessening of the intensity of competitive forces,

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25 Twentieth Report at 8995 Table II.E.1.
26 See Public Interest Statement, Appendix L: Spectrum Holdings and Aggregation Data.
28 Ex Parte Submission of the United States Department of Justice, WT Docket No. 12-269, at 11 (filed Apr. 11, 2013) ("DOJ Ex Parte").
or reduction in the number of effective competitors, in the wireless industry.\(^{29}\) Especially relevant to the instant transaction, DOJ detailed,

> [t]he ability to exercise market power can take various forms and harm competition in multiple ways. Market power can lead directly to consumers paying higher prices, can insulate a carrier from the competitive pressures to expand service or improve quality, and can diminish innovation. Moreover, the fewer competitors in a market, the higher the risk that competitors can coordinate or act in concert to the detriment of consumers and innovation.\(^{30}\)

Consumers have reaped the benefits of four-firm competition, particularly from T-Mobile’s focus on competing for customers of the other three nationwide carriers. The lesson is clear: companies will compete vigorously when they have the incentive to do so. This means that a market must be sufficiently competitive. It also means that the companies must be under no illusion that they can simply buy their way into success through anticompetitive deals and shortcuts.

Consumers have reaped numerous benefits as a result of four-firm competition. As the Wall Street Journal explained, “Much of that competition has been driven by Sprint and T-Mobile, which have slashed prices and aggressively marketed unlimited data plans. Those moves forced AT&T and Verizon to bring back unlimited data plans.”\(^{31}\) T-Mobile has “lowered prices, offered contract free plans, subsidy-free phones, options to upgrade early, free international data roaming, and even provide free music streaming,” in addition to leading the industry in the reintroduction of unlimited mobile broadband data plans.\(^{32}\) Moreover, four-firm

\(^{29}\) Letter from William J. Baer, Assistant Attorney General, Antitrust Division, United States Department of Justice, to Marlene H. Dortch, Secretary, Federal Communications Commission, WT Docket No. 12-269, at 2 (filed May 14, 2014).

\(^{30}\) DOJ Ex Parte at 7.


\(^{32}\) Alice Truong, Blocking AT&T’s merger with T-Mobile has been great for US Consumers, but bad news for operators, Quartz, Dec. 14, 2015, https://qz.com/312907/blocking-atts-merger-with-t-mobile-has-been-great-for-us-consumers-but-bad-news-for-operators; see also Public Interest Statement, Appendix A: Declaration of John Legere, Chief Executive Officer, T-Mobile US, Inc. at 4-7 (“Appendix A”).
competition led to declines of $4-to-$5 in average revenue per user from prior to AT&T’s attempt to purchase T-Mobile.\(^{33}\)

As T-Mobile CEO John Legere correctly points out, T-Mobile’s aggressive strategy provided benefits to customers across the U.S. wireless industry.

As T-Mobile began to stand out in the market, other carriers had no choice but to follow suit and tried to copy our pioneering initiatives, particularly in abandoning long-term, restrictive service contracts and making it easier for customers to switch wireless providers without being shackled by unnecessary contract terms.\(^{34}\)

DOJ concurred, explaining,

competitive forces have been a central driver of innovations that have enabled carriers to expand capacity and improve service quality. For instance, when challenging the proposed merger of AT&T and T-Mobile, the Department noted that AT&T felt competitive pressure from T-Mobile’s network improvements, and that AT&T upgraded its own services in response. In the year since the proposed AT&T and T-Mobile transaction was abandoned, T-Mobile has continued to develop new plan structures designed to win customers from AT&T, including by offering customers the choice of service plans that do not build in the cost of expensive handset subsidies. In addition, T-Mobile and other carriers have aggressively pursued strategies for addressing their network constraints, such as reclaiming spectrum currently being used for older technologies, utilizing new "small cell" technology, or creating business models for commercializing new spectrum.\(^{35}\)

Moreover, Sprint has held down prices as the industry’s low-price leader.\(^{36}\) The aggressive, maverick approach taken by both T-Mobile and Sprint has benefited consumers, but led to consternation amongst investors who want less robust competition and higher profits. Wall Street analysts have complained that competitive pressure from T-Mobile and Sprint through aggressive pricing and re-introduction of unlimited plans are driving down industry profits and the ability of carriers to impose data caps and charge subscribers for overages.\(^{37}\)


\(^{34}\) Appendix A at 6.

\(^{35}\) DOJ Ex Parte at 6-7 (omitting citations).


Wall Street reacted negatively in 2017 when Verizon Wireless, under competitive pressure from T-Mobile and Sprint, reintroduced unlimited data plans because "share loss to value providers T-Mobile and Sprint are pushing [Verizon] to be more aggressive."³⁸

The reintroduction of unlimited data plans has been a positive development for mobile video, but this merger threatens those benefits. Consumer adoption of online video services and connected video devices such as smartphones, which grew from 73.6 million devices in 2010 to 248.9 million in 2017, and tablets, which grew from 9.7 million devices to 122 million in the same timeframe, have spurred the growth of the mobile video market.³⁹ However, the relatively high cost of wireless data plans had previously limited mobile video consumption on wireless networks, with consumers instead relying on Wi-Fi connections to watch mobile video. A 2015 study found that 73% of consumers who watch mobile TV at least once a week use a Wi-Fi connection.⁴⁰ In recent years, competition among wireless providers has led to the introduction of unlimited wireless data plans among all four of the national wireless carriers, allowing consumers to watch more mobile video content without worrying about overages or data caps.⁴¹

The proposed merger threatens to unwind these positive developments for consumers and the mobile video market. The elimination of a major competitor would likely exacerbate the ability of the national wireless providers to raise prices, impose arbitrary data caps, and exercise gatekeeper power over online video providers who wish to reach wireless consumers.

As beneficial as four-firm competition has been, the proposed transaction would likely eliminate those benefits. As the American Antitrust Institute noted, “[t]he anticompetitive perils of 4-3 mergers feature prominently in the economic analysis of mergers and enforcement

decisions. In Canada, for example, three nationwide carriers dominate the market. A recent study by Canada’s telecommunications regulator showed that while U.S. wireless subscribers were reaping the benefits of aggressive competition by T-Mobile and Sprint, Canadians paid significantly higher prices than U.S. consumers and had little choice for low-cost, data-only plans and there was little incentive for the entrenched firms to compete in that market segment.

Austria provides another clear example of harms that result when a wireless market consolidates from four providers to three. As the Financial Times reported,

Telecoms consolidation in Austria almost doubled some consumers’ smartphone bills... data from Austrian competition and telecoms authorities show that existing customers faced average price rises of 14 percent to 20 percent in the two years after the commission approved the 4-to-3 deal between Hutchinson’s H3G Austria and Orange Austria in late 2012.

Vienna’s telecoms regulator estimated that smartphone bills in 2013 and 2014 were 50 percent to 90 percent higher. Traditional phone users, without data services, received bills 20 percent to 31 percent higher.

The Austrian example confirms analysis that found higher relative wireless prices in other countries that have undergone four-to-three mergers.

The benefits of four-firm competition, with T-Mobile and Sprint competing aggressively against AT&T, Verizon, and each other, are extensive. The proposed transaction would eliminate those benefits and most likely lead to higher prices, less innovation, and lower quality

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service across the market. Thus, the Commission should deny the Applicants’ proposal and not permit further consolidation of the wireless market.

D. MVNOs and New Entrants Cannot Mitigate the Merger’s Anticompetitive Effects

Given that the benefits of four-firm competition have been so demonstrably positive for competition and U.S. wireless consumers, and the harms of further consolidating an already concentrated market are so readily apparent, the Applicants have resorted to fanciful claims that the wireless market is much more competitive than it is, or that new competition is just around the corner. However, the data show that the wireless market is already “highly concentrated” and that new entrants are not on the horizon.46

The Applicants claim that “[m]any significant companies, particularly Comcast and Charter, but also DISH, TracFone, and Google, have successfully entered or are on the verge of entering the wireless market, demonstrating the intensity of current competition in the sector.”47

The Declaration of T-Mobile’s Chief Operating Office elaborates on this claim:

T-Mobile also faces competitive pressure from other sources, including big cable providers. Cable’s recent entry into the wireless marketplace should not be underestimated: like AT&T and Verizon, they have extensive high-speed broadband networks and the scale and resources to adapt those networks to support next generation communications, access to a large customer base, and the ability to offer attractive, high-value bundled services. Comcast has already signed on 577,000 wireless subscribers in its inaugural year, and Charter is launching its service this summer. In addition, DISH just announced that its planned narrowband IoT network will serve as the first step to deploying a full-fledged 5G network.48

However, upon close examination, the Applicants’ claims that cable, satellite, and technology firms can adequately discipline harmful behavior in a three-firm market do not hold water. DOJ has explained that non-national carriers are extremely limited in their ability to

46 See infra II.A.2.
47 Public Interest Statement at iv, 102-117.
48 Public Interest Statement, Appendix C: Declaration of G. Michael Sievert, President and Chief Operating Officer, T-Mobile US, Inc. at 4-5 (“Appendix C”).
competitively constrain the four largest nationwide wireless carriers.\textsuperscript{49} Many of the companies that the Applicants allege are strong enough competitors to discipline the conduct of the nationwide firms are mobile virtual network operators ("MVNOs"), or resellers that purchase wholesale access from the nationwide wireless carriers and then sell that re-packaged service to consumers.

While MVNOs are not entirely irrelevant in the FCC’s analysis of wireless competition, they only account for small fraction of all wireless subscribers, and therefore play a limited role.\textsuperscript{50} In prior transactions, “the Commission has considered only facilities-based entities providing mobile telephony/broadband services...to be market participants, but has assessed the competitive effect of MVNOs and resellers.”\textsuperscript{51} The Commission’s competition analysis has “exclude[d] MVNOs and resellers from consideration when computing initial concentration measures,” and only considered facilities-based providers in its calculations of market concentration. However, the Commission has insisted “MVNOs and resellers may provide additional constraints against any anticompetitive conduct.”\textsuperscript{52}

Although MVNOs provide valuable alternatives for consumers, they are customers of the major carriers and resellers of their services, not true competitors in the wireless market. By partnering with MVNOs, carriers may be able to reach diverse end-user markets, indirectly offer more varied pricing plans, and create brand differentiation. Some MVNOs, including cable companies like Comcast and Charter, complement their resale of carrier network access (Verizon, in the case of Comcast and Charter) with other services, such as Wi-Fi connectivity, or can bundle their MVNO mobile service with other offerings (e.g., video subscriptions or fixed broadband) that the carrier itself may not offer. These are an important part of the marketplace,

\textsuperscript{49} AT&amp;T/T-Mobile Complaint at 15-16.
\textsuperscript{51} Cricket Leap-AT&amp;T Order at 2751 ¶ 35.
\textsuperscript{52} Id. at 2752 ¶ 37 (emphasis added).
but fundamentally, a retailer cannot be said to “compete” with its own wholesaler in an economically meaningful sense.

The Applicants themselves have undercut their claims that MVNOs are significant competitors to the nationwide wireless carriers. The Applicants detail that Comcast and Charter have entered the wireless market and are vigorously competing with the existing nationwide carriers. However, the maps the Applicants provided illustrating Comcast and Charter cable service territories (and most likely areas for strong competition) demonstrate the very limited extent that even the largest cable providers are likely to effectively compete in the wireless market. The maps exhibit that Comcast and Charter will provide little-to-no competitive check on the national wireless carriers in all, or most, of large swaths of the country, including South Dakota, Iowa, Kansas, New Mexico, Nevada, Oklahoma, Idaho, Montana, Wyoming, Arkansas and the less densely populated areas of Oregon, Colorado, Arizona, Utah, Washington, downstate-Illinois, and northern-Maine. The Applicants also point out that Comcast had a total wireless subscribership of 577,000 in the first quarter of 2018, which is less than 1 percent of Sprint’s subscribers at the end of 2016. Clearly, cable providers do not provide sufficient competition to justify market consolidation.

Further, T-Mobile CEO John Legere has, until the announcement of the present transaction, discounted the cable industry’s ability to compete in the wireless market. Earlier this year, Legere called cable’s wireless play “irrelevant” and “incompetent,” and explained that cable’s MVNO or Wi-Fi model does not work and does not pose a competitive threat to the nationwide wireless carriers. The Applicants’ claims that MVNOs are legitimate competitors in the wireless market is further undermined by reports that T-Mobile has pushed MVNOs “that

53 Public Interest Statement at 109 fig. 14-15.
54 Public Interest Statement at 110.
55 The Commission reported Sprint had 59,515,000 wireless connections at the end of 2016. Twentieth Report at 8982 Table II.B.1.
56 Chris Mills, Canada’s embarrassingly bad data plans are another reason to hate the T-Mobile-Sprint merger, BGR, May 2, 2018, https://bgr.com/2018/05/02/t-mobile-sprint-merger-competition-regulation-canada-example/.
piggyback off its network to issue public statements or even write newspaper editorials to help antitrust regulators to approve its proposed $26 billion acquisition of Sprint Corp.\textsuperscript{57} The fact that T-Mobile believes it can strong arm MVNOs to weigh in to support the transaction belies the Applicants’ assertion that MVNOs are strong, independent competitors.

The Applicants also argue that DISH holds spectrum licenses and has the resources and customer base to compete with the existing nationwide wireless providers.\textsuperscript{58} However, DISH does not currently offer any wireless service, and as history has shown with the cable industry’s failed efforts to enter the wireless business, the barriers to entry, even for deep-pocketed companies with well-established customer bases, are often impossible to overcome. Further, as the Applicants note, DISH has a current customer base of 13.2 million satellite television subscribers.\textsuperscript{59} Even if DISH was able to improbably convert each of its satellite television customers to subscribe to its nonexistent wireless offering, it would serve less than a quarter as many as the more than 59 million subscribers Sprint serves as the fourth largest wireless carrier. Even with all 13.2 million of those connections, DISH would have approximately 3 percent of wireless connections. Comparatively, as of year-end 2016, Verizon Wireless served approximately 146 million subscribers (35 percent of the market), AT&T served approximately 135 million (32.4 percent), T-Mobile served approximately 71.5 million (17.1 percent), and Sprint served approximately 59.5 million (14.3 percent).\textsuperscript{60} A combined T-Mobile-Sprint, alongside Verizon Wireless and AT&T, would dwarf a DISH wireless offering and render it competitively irrelevant.


\textsuperscript{58} Public Interest Statement at 112-114.

\textsuperscript{59} \textit{Id.} at 112.

\textsuperscript{60} \textit{Twentieth Report} at 8982 Table II.B.1.
Moreover, the Applicants acknowledge that network quality is a critical factor in attracting wireless customers and competing against rivals. In one of the Applicants’ supporting declarations, David Evans of Market Platform Dynamics explains, “[g]iven the importance that consumers attribute to network quality, every carrier has recognized that the quality of its network is fundamental to its ability to compete.”

Evans asserts,

[t]he FCC repeatedly has recognized the importance of network quality to competition among carriers. In its 2011 [Mobile Competition] Report, the FCC observed that ‘network quality is a critical factor for many mobile consumers.’ Along similar lines, in its 2015 Report the FCC stated that “[o]ne critical way in which mobile wireless service providers differentiate themselves is through the coverage and speed of their mobile broadband networks.”

The Petitioners vigorously agree. Network quality is critical to attracting customers and competing against rival providers. However, the MVNOs and satellite providers that the Applicants allege comprise a vibrantly competitive wireless ecosystem lack their own networks. Hence, because MVNOs lack the very asset that Mr. Evans claims is “fundamental” to a carrier’s ability to compete, it is clear that MVNOs cannot provide a competitive check on the nationwide wireless carriers.

Just as MVNOs cannot provide a competitive check on the nationwide carriers, sufficient competition from new facilities-based providers is not forthcoming. The failed efforts of the cable industry are illustrative in establishing how difficult it is to start up an effective facilities-based wireless provider. In 2008, several cable companies acquired spectrum from the FCC. By 2012, those same cable firms mothballed their wireless plans and sold their wireless licenses to Verizon. As the Wall Street Journal reported at the time, the sale to Verizon ended the cable

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61 See Public Interest Statement, Appendix G: Declaration of David S. Evans, Ph.D, Founder, Market Platform Dynamics at 73-81.
62 Id. at 75.
industry’s “years-long flirtation with setting up its own cellphone service,” and “signal[ed] a retreat from the idea that [cable] could enter the wireless business by building their own networks. Cable operator Cox Communications Inc., which had developed a full-blown wireless offering, last month said it would discontinue the service, saying it lacked the scale to compete.”

Today, instead of using their deep pockets to build competitive facilities-based wireless networks to take on Verizon and AT&T, Comcast and Charter are mere MVNOs that resell capacity they purchase from Verizon. Contrary to claims by the Applicants, MVNOs and hypothetical new entrants, regardless of how well-funded, do not provide a sufficient competitive check on the nationwide wireless carriers, and cannot mitigate the likely harms that would result from the proposed combination.

E. The Merger Would Disincentivize T-Mobile’s Disruptive ‘Un-Carrier’ Strategy

The proposed transaction would eliminate two disruptive forces that have taken on the larger, incumbent providers and forced them to compete on more consumer-friendly practices. Sprint and T-Mobile have played a key role in recent years of aggressively spurring competition and innovation. Importantly, they have also been acutely focused on competing against each other to capture customers and market shares.

As T-Mobile likes to remind us, it calls itself the “uncarrier,” and touts the various promotions and discounts it has offered in order to attract customers away from AT&T and Verizon. Some of these offerings have included: ending two-year contracts tied to termination fees; unlimited data plans, which Verizon and AT&T were forced to match; unlimited video and

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music streaming on devices without using data;\textsuperscript{66} unlimited talk and text in Canada and Mexico, with no high-speed roaming charges;\textsuperscript{67} access to free Wi-Fi on U.S. flights;\textsuperscript{68} integrated Wi-Fi calling;\textsuperscript{69} and carry-over of unused data from month-to-month.\textsuperscript{70}

But these innovative promotions were made in an environment that includes not only AT&T and Verizon, but also another aggressive “upstart” competitor, Sprint, going toe-to-toe with T-Mobile to be the alternative to the two big carriers. Indeed, competition between T-Mobile and Sprint has often sparked a rivalry between the two to be the first to market with some new and better promotion, which has only later led the big carriers to respond. For example, in August 2016, T-Mobile disrupted the consumer wireless market by being the first to offer unlimited voice, text, and data plans in years. The very next day, Sprint upped the ante with its own unlimited voice, text, and data plan, priced at $100 for two lines. It was a full six months later when Verizon and AT&T began offering similar plans.\textsuperscript{71}

As this example illustrates, the boost to competition and consumer choice results from having both Sprint and T-Mobile in the marketplace. In important respects, they are each other’s primary competitor. In fact, Verizon may be sincere when it claims not to be concerned about whether this merger goes through or not.\textsuperscript{72} Without the spur of another aggressive competitor at its side, looking to outmaneuver it, the market will become more relaxed and easier to predict, and the merged company is only too likely to settle in to the anticompetitive coordination so


\textsuperscript{70} Data Stash, T-Mobile (Last visited August 21, 2018) https://support.t-mobile.com/docs/DOC-20352.


\textsuperscript{72} See Mills, supra note 44.
familiar in a concentrated marketplace, a prime example of what the DOJ-FTC Horizontal Merger Guidelines refer to as “accommodating reactions.”\textsuperscript{73} When Sprint and T-Mobile no longer have to be concerned with monitoring each other’s competitive maneuverings, the rewards of becoming an accommodating reactor will get stronger and harder to resist, regardless of what T-Mobile likes to call itself.

We can see real-world evidence of this playing out just across our northern border, in Canada. Three wireless companies, Bell, Telus, and Rogers, dominate the market, with a combined 89 percent market share.\textsuperscript{74} And there are strong indications of competitive complacency and “accommodating reactions.” Canada’s mobile phone rates are among the highest in the world.\textsuperscript{75} And when Bell hiked its monthly plans by $5 per month in January 2016, Telus and Rogers followed suit with their own rate increases within a week—the opposite of what we saw happen in our country.\textsuperscript{76} As one tech analyst put it, the Canadian carriers raise prices “because they can.”\textsuperscript{77}

That is not what consumers want for the U.S. wireless marketplace.

F. The Commission Should Reject Applicants’ Claim That Sprint is Failing

The Commission should reject the Applicants’ claims that Sprint cannot effectively compete with the other nationwide wireless carriers. As discussed supra, it is clear that the proposed transaction would further consolidate an already highly concentrated market by merging two of the four nationwide wireless carriers. The combination would result in an

\textsuperscript{73} See Horizontal Merger Guidelines § 7 at 24-27.
\textsuperscript{77} Id.
absurdly high HHI measurement in the wireless market, and cause a high degree of spectrum aggregation that far exceeds the Commission’s spectrum screen in much of the country.\textsuperscript{78}

Because the harms to competition and consumers are so clear and stark, the Applicants have put forth a lukewarm “failing firm” argument, making the case that in the future Sprint will no longer be an effective competitor and the Commission should thus allow the proposed combination with T-Mobile.\textsuperscript{79}

The Commission should reject claims that Sprint is a failing firm or unable to effectively compete in the wireless market. Sprint’s Chief Commercial Officer, Brandon Draper explains, Sprint has become a more stable company financially than it has been in a very long time. In 2017, we became net income positive for the first time in 11 years and achieved positive metrics across several other financial performance measures such as operating revenue, EBITDA growth, and free cash flow.\textsuperscript{80}

Further, Mr. Draper details, “Sprint has plans to invest $5-6 billion per year over the next three years in massive MIMO, small cells, tower upgrades, and new towers to increase our deployment of 2.5 GHz spectrum and to roll out 5G services in several major urban centers beginning in 2019."\textsuperscript{81} Sprint notes it has undergone a sustained period of belt tightening and faces difficult choices regarding how to prioritize spending on promotions and customer acquisition, network investment, and advertising. However, balancing these various priorities and adapting to new economic realities are routine for every business.

Sprint’s central argument is that in the short term, it does not believe it can catch up with or surpass its largest rivals; therefore, the Commission should green-light an anticompetitive merger with T-Mobile. It is true that Sprint and T-Mobile would have to work very hard to overtake the market shares of Verizon and AT&T. However, this does not mean that either company is unable to compete. Moreover, as detailed above, the varying approaches to

\textsuperscript{78} See supra II.A.2.
\textsuperscript{79} See Public Interest Statement at 94-98, see generally Public Interest Statement, Appendix F: Declaration of Brandon “Dow” Draper, Chief Commercial Officer, Sprint Corporation (“Appendix F”).
\textsuperscript{80} Appendix F at 2.
\textsuperscript{81} Id. at 2, see also Public Interest Statement at 97.
customer acquisition, advertising, spectrum acquisition, and network deployment that T-Mobile and Sprint have adopted over the past several years have had significant positive competitive effects and benefited consumers.  

In 2011, T-Mobile similarly attempted to argue it was unlikely to be an effective competitor in an effort to persuade regulators to approve the merger with AT&T. As DOJ later explained to the FCC, rather than floundering following the failure of the AT&T deal, T-Mobile developed a new business plan designed to steal market share from rivals and appeal to customers. Additionally, standalone T-Mobile pursued new strategies to address network constraints, such as reclaiming spectrum used for older technologies, utilizing small cell technology, and introducing innovative business models to commercialize new spectrum. 

ReCode reports, 

T-Mobile went from a boring also-ran to the most exciting company in telecom, seemingly overnight. And it worked! T-Mobile finished 2017 with almost 73 million total customers, up from 33 million at the end of 2011. The company says it captured the majority of the U.S. mobile industry’s “postpaid phone growth” in 2017….It has boasted frequently of stealing customers from rival carriers.

As Sprint explains, it has achieved long-sought financial stability and became net income positive in 2017. Sprint’s stability and positive cash flow should signal to the Commission that a standalone Sprint is apt to be a stronger competitor moving forward, and that granting the proposed transaction would undermine the benefits of the four-firm competition consumers have enjoyed in recent years, as well as the likelihood of even more vigorous competition in the future. Undoing the benefits of four-firm competition—competition by Sprint and T-Mobile

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82 See supra II.A.3., II.B. 
83 DOJ Ex Parte at 6-7. 
against the market leaders, as well as competition between Sprint and T-Mobile themselves—that particularly now, would be counterproductive and harmful to competition and consumers.

While the Applicants do not explicitly claim that Sprint is a failing firm, they do claim Sprint will be a failed or faltering competitor in comparison to its rivals moving forward. In light of the Commission’s competition analysis that dovetails with DOJ’s antitrust review, the Commission should determine whether Sprint does in fact qualify as a “failing firm.” If Sprint does not qualify as a failing firm, the Commission should dismiss Sprint’s arguments that it cannot effectively compete moving forward.

The Applicants’ reliance on DISH as a potential competitor that could sufficiently replace Sprint’s competitive presence in the marketplace highlights the absurdity of the Applicants’ claims that Sprint cannot continue as an effective competitor. According to the Applicants, DISH’s spectrum holding and satellite television customer base make it a threat to emerge as a major wireless competitor and provide competitive pressures on the nationwide providers. However, Sprint’s spectrum holdings and existing customer base dwarf that of DISH. If, as the Applicants allege, DISH “has the resources and spectrum to compete effectively in offering 5G wireless services,” then it is ridiculous for the Applicants to simultaneously claim that Sprint does not have a future as a serious competitive force.

Under the failing firm defense requirements, a merger is unlikely to enhance market power if “imminent failure” of one of the merging firms would “cause the assets of that firm to

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85 See Moss, supra note 42, at 9 (explaining that as the third and fourth largest nationwide carriers, T-Mobile and Sprint differentiate themselves from Verizon and AT&T “through aggressive price and non-price competition. They compete head-to-head for consumers that may not be able to afford more expensive Verizon and AT&T plans.... Pricing data on monthly wireless plans... illustrate this important dynamic and its implications for the potential loss of head-to-head competition between Sprint and T-Mobile.”).

86 See Public Interest Statement at 112-114.

87 See Twentieth Report at 8996-87 Tables II.E.2, II.E.3, Chart II.E.1 (showing Sprint’s spectrum holdings far outpace DISH’s), see also id at 8982 Table II.B.1 (showing Sprint had a customer base of approximately 59.5 million wireless connections as of December 2016. DISH currently has zero wireless subscribers, and its 13.2 million satellite television customers would only comprise about 3 percent of the wireless market, compared to Sprint’s 14.3 percent market share).

88 Public Interest Statement at 112.
exit the relevant market.”\textsuperscript{89} The reviewing agency will only credit claims that the assets of a firm are exiting the relevant market if all of the following are met:

1. the allegedly failing firm would be unable to meet its financial obligations in the near future;  
2. it would not be able to reorganize successfully under Chapter 11 of the Bankruptcy Act; and  
3. it has made unsuccessful good-faith efforts to elicit reasonable alternative offers that would keep its tangible and intangible assets in the relevant market and pose a less severe danger to competition than does the proposed merger.\textsuperscript{90}

When undertaking good-faith efforts to elicit reasonable alternative offers, a firm must conduct a search, “sufficient to identify other potential buyers, give them an opportunity to conduct due diligence, and possibly make an offer.”\textsuperscript{91} The failing firm doctrine cannot be applied unless it is established that the acquiring company is the only available purchaser.\textsuperscript{92} Securities and Exchange Commission filings suggest that Sprint may have had merger discussions with three other companies prior to entering into its proposed merger with T-Mobile.\textsuperscript{93} The viability of these potential alternative purchasers, including whether they were given the opportunity to conduct due diligence and possibly make an offer for Sprint’s assets, should be assessed prior to applying the failing firm doctrine to Sprint.

Here, Sprint is far from being unable to meet its near-term financial obligations. To the contrary, Sprint is a thriving firm. It achieved record financial results in fiscal year (“FY”) 2017, delivering its highest ever net income and operating income.\textsuperscript{94} After its FY 2017 Quarter 2 results came in, Sprint CEO Marcelo Claure touted that, “[they] are growing in all three...
segments of the market—consumer postpaid, business, and prepaid.” This assertion provides merely one recent example of a robust record of public statements that hail Sprint’s financial viability and growth.\textsuperscript{95} FY 2017 was no anomaly. Sprint has reported a positive trend in share value in summer 2018 as well.\textsuperscript{96} To the extent that Sprint’s investments in 5G deployment could place a financial burden on the company due to a “[lack of] capacity to simultaneously increase investment in the network and continue aggressive promotional activity,”\textsuperscript{97} such hardship does not amount to an “imminent failure” on the part of the firm. Sprint’s demonstrated financial achievements refute any claims that the firm is failing or even “flailing.” Indeed, Sprint’s near-term financial well-being is sufficient to foreclose the company from satisfying the first prong of the failing firm test, and, therefore, the test as a whole.

Sprint also likely fails prong three of the failing firm test because it is unclear whether it has reached out to other potential buyers in an effort to keep its assets in the relevant market. Sprint and T-Mobile have been the sole players in this proposed merger since Sprint’s owner, Softbank, sought recommendations from the FCC and DOJ on the viability of the transaction in


\textsuperscript{97} See Zack’s Equity Research, supra note 94 (“Shares have added about 1% [since the last earnings report].”).

\textsuperscript{98} Appendix F at 10.
While reports surfaced earlier this month that Softbank was interested in a buyout of Charter Communications, any claims that Sprint elicited offers from Charter were rumors at best. Further, to the degree that such claims possess any merit, the Softbank and Charter merger talks were unrelated to the merger at issue. Fortune has also reported that Sprint may have had merger discussions with three other companies before entering into the proposed deal with T-Mobile, but the three companies are unconfirmed, and it is unknown whether these discussions concerned the relevant assets.

In sum, Sprint’s financial health is well-documented, and there is no evidence it has solicited other potential buyers for its assets – particularly buyers that would preserve or even enhance wireless competition. Therefore, Sprint does not meet the requirements to qualify for the failing firm defense. With this defense unavailing, Sprint’s claims that it lacks financial resources and has lost both market share and subscriber base are irrelevant to the merger analysis under an antitrust review. The Commission’s public interest review should similarly conclude that Sprint is now on stable financial footing from which it can and should develop, implement, and execute a strategy to compete with its rivals over the long term.

G. The Merger Would Harm Low-Income Consumers in the Prepaid and Wholesale Mobile Wireless Markets

The proposed transaction would harm the prepaid and wholesale mobile wireless markets, which are critical for serving low-income consumers. Both T-Mobile and Sprint offer

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101 The fact that Sprint was considering avenues to purchase Charter, the second-largest cable operator in the United States further casts serious doubts on its ability to meet its burden of proving the failing firm defense in the merger at hand.


103 See Public Interest Statement at 94; Appendix F at 12.
their own prepaid services that often serve as direct competitors to each other. The transaction would not only reduce competition in the prepaid market by eliminating direct competitors, but also give T-Mobile unrivaled market power to raise prices for prepaid service. T-Mobile and Sprint also sell mobile wireless capacity wholesale to mobile virtual network operators ("MVNOs") who resell these services under their own prepaid brands. The merger would substantially reduce competition in the wholesale market by raising the cost of capacity access to low-cost resellers. Further, Sprint is the main facilities-based provider that participates in the Lifeline program. The transaction would potentially eliminate Sprint as a Lifeline participant. Elimination of competition in the prepaid and wholesale markets will have a disproportionate impact on low-income and marginalized communities. As the Commission has acknowledged, the prepaid market offers more affordable prices in order to serve low-income consumers who may not have the income or credit background to qualify for postpaid service. The lack of competition in these markets would displace millions of low-income consumers who rely on prepaid services and further widen the digital divide.

1. The Merger Would Negatively Impact the Prepaid Market

The merger would negatively impact the prepaid market by reducing competition and giving T-Mobile unrivaled market power to raise prices. Both T-Mobile and Sprint offer their own prepaid services under their own brands. T-Mobile’s prepaid service, MetroPCS, and Sprint’s prepaid service, Boost Mobile, are fierce competitors in the marketplace. This head-to-head

104 See Zach Epstein, Sprint is giving away a month of unlimited prepaid service - so now T-Mobile is giving away 2 months, BGR, April 14th, 2018, https://bgr.com/2018/04/14/t-mobile-unlimited-plan-price-free-metropcs-offer/.

105 See Eighteenth Report at 14515 ¶ 96 (finding that “the remaining differences [between prepaid and postpaid plans] largely reflect the different characteristics of postpaid and prepaid subscribers: ‘prepaid subscribers are typically prepaid for a reasons, relating to their income and credit.’”) (internal citations omitted).

competition has incentivized both providers to roll out innovative offerings that have helped drive
prices for prepaid service down.107 Combining the two most aggressive competitors in the
prepaid marketplace would reduce competition and eliminate innovative and affordable products
that customers have come to expect.

T-Mobile would directly benefit while low-income consumers would suffer from such a
dramatic increase in concentration among prepaid providers. T-Mobile serves approximately 38
percent of the prepaid market and Sprint serves approximately 21 percent. A post-transaction T-
Mobile would control about 60 percent of the prepaid market, far surpassing the share of the two
remaining competitors.108 T-Mobile’s market dominance would make it incredibly difficult for
other prepaid providers to compete or even enter the marketplace. Without any real competition,
T-Mobile would have the ability and incentive to use its unrivaled share of the prepaid market to
raise prices on customers that rely on prepaid services.

Low-income and other marginalized communities would be negatively impacted by the
increased market concentration among prepaid services, because they disproportionately
purchase prepaid service from T-Mobile or Sprint. T-Mobile and Sprint currently have a
significant share of the prepaid market, where they provide service to approximately 31 million
subscribers combined.109 Further, T-Mobile is most popular among customers who make less
than $75,000 per year and Sprint’s prepaid Boost service counts 83 percent of its users in that
income range.110 These consumers are most likely to be hurt from the sudden loss of choice in

107 See Mike Dano, T-Mobile’s MetroPCS gives away 2 free months of service, FierceWireless, April 12,
Seals, MetroPCS undercuts Cricket, Boost with $75 2-line unlimited plan, FierceWireless, Aug. 9, 2017,
https://www.fiercewireless.com/metropcs-undercuts-at-t-s-cricket-boost-75-2-line-unlimited-plan; Colin
Gibbs, T-Mobile, AT&T and Sprint extend unlimited war to prepaid, FierceWireless, Mar. 3, 2017,
108 See Roger Entner, Industry Voices–Entner: Putting some context behind the T-Mobile, Sprint merger,
FierceWireless, Apr. 30, 2018, https://www.fiercewireless.com/wireless/industry-voices-entner-putting-
some-context-behind-t-mobile-sprint-merger.
109 See id.
110 See Sheila Dang, Exclusive: U.S. Justice Department Probes T-Mobile-Sprint Merger Effect on
Smaller Wireless Companies, Reuters, June 7, 2018, https://www.reuters.com/article/us-sprint-corp-m-a-
the prepaid marketplace and to face increased prices for access to service. As a result, many low-income families may get priced out and find themselves without any affordable provider. Because low-income Americans who cannot qualify for credit, or simply cannot afford a postpaid subscription, have no real choice, the merger would hand a combined T-Mobile the market power to control this effectively separate market for prepaid service. With the potential to displace millions of low-income and marginalized communities from wireless access, T-Mobile and Sprint offer no evidence that their merger won’t lead to higher prices in the prepaid market.

2. The Merger Would Negatively Impact the Wholesale Market

The merger would negatively impact the wholesale market by raising the cost of capacity access to low-cost resellers. Both T-Mobile and Sprint lease wholesale capacity to a variety of MVNOs that operate in the marketplace.111 These reseller agreements are subject to their own pricing terms and conditions with respect to the particular carrier. However, like the prepaid market, a merger between Sprint and T-Mobile would dramatically increase the HHI of the wholesale market, by 1,044 points.112 Further, a post-transaction T-Mobile would have a market share of 45 percent in the wholesale market, becoming the most dominant player in this area.113 The increased market concentration, combined with T-Mobile’s market dominance, would give the carrier the ability to charge resellers higher prices for wholesale access, eliminating those who cannot afford to pay the higher rates.

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113 See Entner, supra note 108.
Fewer resellers in the wireless marketplace would negatively impact low-income consumers who rely on these carriers for affordable rates. Like T-Mobile’s and Sprint’s own prepaid brands, many resellers serve the prepaid market as well, which is primarily targeted for low-income communities. Indeed, resellers are the primary participants of Lifeline, serving nearly 70 percent of customers on the program. A merger between T-Mobile and Sprint may eliminate some resellers currently participating in Lifeline who would not be able to pay the higher rates a post-transaction T-Mobile would charge.

3. The Merger May Eliminate Sprint as a Facilities-Based Lifeline Provider

The merger may eliminate Sprint as a facilities-based Lifeline provider. Sprint currently participates in the Lifeline program through Virgin Mobile, its wholly owned prepaid service. The Applicants’ public interest statement makes a single assertion that it will continue Lifeline services currently provided by T-Mobile and Sprint. However, T-Mobile does not currently participate in Lifeline as a facilities-based provider. Further, T-Mobile’s newfound dominance in the prepaid market would give it little incentive to continue participating in the Lifeline program through Sprint’s Virgin Mobile. T-Mobile executives have also made statements that the carrier believes Lifeline is “non-sustainable” and will look to phase out its current Lifeline customers. Eliminating Sprint from the Lifeline program would be extremely detrimental to low-income consumers, particularly at a time when the Commission is currently considering removing resellers from the program.

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116 See Public Interest Statement at 11.
H. The Merger Could Eliminate Tens of Thousands of American Jobs

The proposed transaction would likely lead to substantial job losses in the United States—another concrete reflection of the harmful consequences that could be expected to result from the merger. Independent research from the Communications Workers of America ("CWA"), New Street Research, and MoffettNathanson Research predicts job loss in the tens of thousands for U.S. workers. The Applicants’ claim that the merger will create jobs is unverifiable as T-Mobile has not made any concrete commitments to protect existing jobs or to create new ones. Any jobs created from 5G deployment are not merger-specific, either, because the Applicants do not need the merger to deploy 5G technology.

Importantly, both companies have a history of layoffs in prior mergers. In 2013, T-Mobile laid off hundreds of employees in its operations and marketing divisions in its merger with MetroPCS. Following its merger with Nextel, Sprint cut 4,000 jobs in 2008 and 8,000 more in 2009.

1. Analysts Predict the Merger Would Lead to Job Losses

The overwhelming consensus is that the merger would lead to job loss. The CWA estimates that the transaction could result in a loss of over 30,000 jobs in the U.S. It attributes the loss of approximately 26,000 jobs to retail store closures. Of these 26,000 jobs, CWA estimates that up to 8,000 job losses may come from Boost stores closures resulting from

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consolidation of prepaid wireless retail stores in the New T-Mobile network, and pulls the remaining 18,000 job losses from New Street Research’s analysis suggesting that New T-Mobile would close 2,300 corporate and dealer locations, with an average of eight employees per store.\footnote{\textit{Id.}} CWA also includes an estimated 4,000 to 5,000 additional jobs that would be eliminated at Sprint and T-Mobile headquarters in its total job loss count, an estimate derived from MoffettNathanson Research’s analysis.\footnote{\textit{Id.}}

In its own analysis, MoffettNathanson Research predicts a total loss of 20,000 jobs from the merger.\footnote{\textit{Kari Bode, The Jobs-and-Competition-Killing T-Mobile/Sprint Merger Is Back On, Vice Motherboard, Apr.l 13, 2018, https://motherboard.vice.com/en_us/article/gymm3w/sprint-t-mobile-merger-can-still-happen.}} It attributes 15,000 to retail store closures and 5,000 to the elimination of “redundant” overhead jobs at the companies’ headquarters.\footnote{\textit{Id.}}

2. Applicants Fail to Make Concrete Jobs Commitments

Despite claims from T-Mobile’s paid consultant Dr. Jeffrey A. Eisenach that the transaction will contribute an estimated 51,200 job-years over a five-year period, T-Mobile has not made any concrete commitments regarding jobs as carriers have in prior mergers.\footnote{\textit{Id.}} In T-Mobile’s attempt to merge with AT&T in 2011, the companies made a number of commitments to protect against merger-related job losses.\footnote{\textit{Public Interest Statement, Appendix I: Declaration of Jeffrey A. Eisenach, Ph.D, at 18 (“Appendix I”).}} Specifically, the companies committed to 1) no lay-offs of call center employees who worked for T-Mobile or AT&T at the time of the merger’s closing, 2) offering T-Mobile non-management employees whose job functions would no longer be required because of the merger another position in the new company, 3) bringing back to the U.S. 5,000 wireless call center jobs that had been outsourced to other countries, 4) relying on natural employee attrition to eliminate some redundant job functions, and 5) reducing

\begin{thebibliography}{9}
\bibitem{123} \textit{Id.}
\bibitem{124} \textit{Id.}
\bibitem{126} \textit{Id.}
\bibitem{127} \textit{Public Interest Statement, Appendix I: Declaration of Jeffrey A. Eisenach, Ph.D, at 18 (“Appendix I”).}
\bibitem{128} \textit{See AT&T Ex Parte Letter to the Federal Communications Commission, WT Docket No. 11-65, (filed Oct. 13, 2011).}
\end{thebibliography}
workforces at outsourced sites before U.S. company sites.\textsuperscript{129} In this pending merger before the Commission, T-Mobile has not made any similar, concrete commitments to protect or create jobs. Any claims of an increase for jobs in the new company at this point are unsubstantiated and unreliable.

3. Applicants’ Job Claims Are Not Merger-Specific

As detailed above, T-Mobile does not need to merge with Sprint in order to deploy 5G technology. Because this so-called efficiency is not merger-specific, the associated 73,600 job-years that Eisenach attributes to 5G deployment between 2021 and 2023 are not merger-specific, either.\textsuperscript{130} Excluding these 5G-related jobs, the companies’ speculative claim of 51,200 job-years—which could range from 10,240 to 51,200 total jobs over the projected five-year period—does not project a net job creation resulting from the merger. In other words, if both T-Mobile and Sprint have promised to build and deploy nationwide 5G networks on their own, as their past statements to investors and the public have indicated, the carriers would already create jobs catalyzed by a need to build the infrastructure for 5G even in the absence of this merger. Based on their previous statements, T-Mobile and Sprint will build out 5G networks no matter what, and they will need to hire employees to build those mobile networks. They do not need to merge to employ more Americans through 5G deployment.

III. The Merger’s Purported Benefits are Nonexistent or Not Dependent on Merging

A. Applicants Do Not Need the Merger To Deploy 5G Service

The Applicants argue that the merger is necessary to construct and deploy a 5G network, and that neither T-Mobile nor Sprint could do so on a standalone basis. The assertion

\textsuperscript{129} Id.
\textsuperscript{130} Appendix I at 29.
that the Applicants require merging to build 5G networks, however, contradicts past statements both companies have made about their plans and capability to deploy 5G networks independently. Additionally, there will be an ample amount of mid-band and millimeter wave (mmW) spectrum available in auctions for several carriers to buy and build up an even stronger foundation for mobile 5G networks.

1. Applicants Were Already Planning To Build 5G Networks On Their Own

The Applicants claim that without the proposed merger, neither company would be able to build and deploy mobile 5G networks on a standalone basis, arguing, “T-Mobile would be capacity constrained and Sprint lacks coverage.” The Applicants argue that both the cost of deployment and their spectrum holdings, compared to their larger rivals, will hobble their ability to deploy 5G networks as standalone firms. These claims starkly contrast with both companies’ strong statements in the past, and as recently as this year, to investors and the public trumpeting their abilities to become leaders in mobile 5G.

Over the past few years the Applicants have made numerous promises about their ability and intent to build and deploy standalone 5G networks that directly contradict their newfound claim that they would be unable to do so without the merger. As recently as February of this year, both companies touted their plans—and more importantly, their capability—to build a mobile 5G network across the country.

“T-Mobile will be the first to give customers the truly transformative, nationwide 5G network they deserve,” T-Mobile Chief Technology Officer Neville Ray said at the 2018 Mobile World Congress. At the same conference, T-Mobile announced that it would be building out

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131 Id. at 19 (“The transaction will solve these issues as New T-Mobile combines each company’s complementary spectrum and site assets to mitigate their individual shortcomings and leverage their strengths.”).

132 Id. at 19-29.

5G in 30 cities this year as it moves to build out a nationwide 5G network alongside its current LTE network, and that customers in New York, Los Angeles, Dallas and Las Vegas would be the first to use it.\textsuperscript{134} Just a month prior, Ray wrote in a blog post, “... Last week we reiterated our commitment to launch 5G nationwide by 2020, starting in 2019 in 600 MHz... \textbf{T-Mobile is STILL the ONLY wireless company committed to deploying a nationwide 5G network.}”\textsuperscript{135} T-Mobile Chief Executive Officer John Legere told investors in an earnings call in February that his technical team “turned a lagging 3G network into a blazing fast 4G LTE industry leader \textbf{with a commitment on the books to launch the first nationwide 5G summary -- network.}”\textsuperscript{136} T-Mobile even addressed the specific issue of spectrum holdings, a problem identified in the Application, in its 2017 Q4 Quarterly Results, in which the company reported to investors that T-Mobile would use its “600 MHz spectrum holdings to deploy America’s first nationwide 5G network expected by 2020.”\textsuperscript{137} In the aforementioned Neville Ray blog post, the T-Mobile CTO detailed how the company would use its extensive mid-band spectrum holdings to build the country’s first nationwide mobile 5G network, adding, “We are in a best position to execute on this strategy, and will drive the network evolution to 5G.”\textsuperscript{138}

Meanwhile, Sprint also touted its ability and plans to build and deploy a nationwide 5G network as recently as March, when then-Chief Financial Officer, and current CEO, Michele

\begin{quote}
\textsuperscript{137} T-Mobile Q4 FY 2017 Quarterly Results, http://investor.t-mobile.com/Cache/1001231997.PDF?O=PDF&T=&Y=&D=&FID=1001231997&iid=4091145 (“T-Mobile’s network continues to be faster and more technologically advanced than our competition, and that trend will only continue as we clear and deploy new spectrum, densify our network, and lay the groundwork for 5G.”).
\textsuperscript{138} Ray, supra note 136 (“And we will of course be leveraging our mmW assets to drive not just great 5G mobility but also enhanced speeds and latency. We also announced our NB-IoT plans and our 600 MHz 5G strategy will enable future evolution on IoT solutions… The best way to launch a new technology is new, clear spectrum like 600 MHz, then re-use other spectrum bands for 5G over time. We are in a best position to execute on this strategy, and will drive the network evolution to 5G.”).
Combes discussed Sprint’s plan to build the first nationwide wireless 5G network in 2019: “We believe that we have the best assets in order to go there. We have the best in terms of spectrum. We have both mid-band and depth, so which means the ability to really build a nationwide network, a 5G network.” That assertion, directly at odds with the claim that the company cannot build a robust, nationwide network on its own, came only a month after former CEO Marcelo Claure made a similar case for Sprint as the company built for 5G. “We’re working with Qualcomm and network and device manufacturers in order to launch the first truly mobile [5G] network in the United States by the first half of 2019,” current Sprint Chairman Claure told investors in a February quarterly earnings conference call, adding that the company’s next-generation network would “truly differentiate Sprint over the next couple of years.” Claure then tweeted that same day with a link to the article about Sprint’s plan to use its 2.5 GHz holdings to build a nationwide mobile 5G network saying, “Stand 100% behind this. Sprint. 5G Company.”

On the subject of spectrum, Sprint has assured investors and the press repeatedly that it has the spectrum holdings needed to build a strong nationwide mobile 5G network. In its Fourth Quarter results for the 2017 Fiscal Year, Sprint noted, “With more than 160 MHz of 2.5 GHz spectrum in the top 100 markets, Sprint is one of the only operators in the world with enough capacity to operate LTE and 5G simultaneously using Massive MIMO and huge channels of 100-200 MHz of licensed spectrum on the same radios. Sprint expects to launch the first mobile 5G network in the U.S. in the first half of 2019.” At the 2018 Mobile World Congress, Sprint announced that customers in Chicago, Dallas, and Los Angeles would begin experiencing “5G-like capabilities, including significant increases in data speed and capacity” in the first half of 2019, with an

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139. Sean Kinney, We can be the 5G company. Sprint CFO says, RCR Wireless, March 8, 2018, https://www.rcrwireless.com/20180308/5g/we-can-be-the-5g-company-sprint-tag17 (emphasis added).
aggressive rollout to Atlanta, Houston, and Washington, D.C. to follow. In the press release announcing the move, Claure stated: “Our deep spectrum position gives us an incredible advantage no other carrier has in the U.S. We’re making significant investments using state-of-the-art technology, and working with leading chip and handset partners to deliver an incredible Next-Gen Network for our customers.” In Sprint’s last Quarterly Earnings report before the proposed merger with T-Mobile was announced, the company elaborated on its belief that its spectrum holdings and next-generation technology would help it build a foundation for a nationwide 5G network.

These public statements by T-Mobile and Sprint executives and both companies in quarterly earnings documents to investors about their plans and capability to leverage their spectrum holdings to beat competitors to a nationwide 5G network only predate the proposed merger by a few months. Even with the caveats laid out by the Applicants in the Application detailing purported problems both companies face in deploying reliable nationwide mobile 5G networks, the past statements made by the companies all indicate that these obstacles appear to be grossly exaggerated.

2. Applicants Can Readily Acquire Mid-Band Spectrum Without a Merger

If the Applicants, and in particular T-Mobile, wish to acquire more mid-band spectrum to build a nationwide mobile 5G network, there will be plenty available through auctions and private market transactions for multiple carriers to acquire and build the foundation for a 5G network. The certainty of an auction in 2019 for Citizens Broadband Radio Service spectrum (70 megahertz between 3550 and 3620 MHz), free access to 80 megahertz of contiguous CBRS

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144 Id.
spectrum (the General Authorized Access portion of CBRS from 3620 to 3700 MHz), and the pending FCC proposal to rapidly clear between 100 and 300 or more additional megahertz for exclusive mobile licensing via private market deals in the 3.7-4.2 GHz C-band all indicate there will be sufficient mid-band spectrum not only for T-Mobile, but for other carriers as well. Sprint will not be competing for this trove of 3 GHz spectrum since, as the company has acknowledged, it has sufficient and even better spectrum at 2.5 GHz. Additionally, as former Commission Chairman Tom Wheeler recently noted, carriers could share network infrastructure to create the backbone for a 5G network, as the wireless industry has done in the past.  

T-Mobile has identified the 3.7-4.2 GHz band as ideal for its 5G plans, based on the “potential for international harmonization, the availability for large bandwidth channelization, and the band’s proximity to other spectrum being evaluated for mobile wireless broadband use,” as well as its ability to provide a “balance of capacity and coverage.” Global equipment manufacturers have similarly predicted that vendors will soon launch 5G equipment and technology in the 3.7-4.2 GHz band due to its propagation characteristics. T-Mobile has told the Commission that expeditious adoption of flexible rules in the band would help the U.S. be a leader in 5G, and would also “permit a range of terrestrial technologies to be deployed in the band, including the fixed and point-to-multipoint operations for which the Broadband Access Coalition and others advocate, while enabling the maximum amount of spectrum to be made available for mobile broadband use.”

On July 12, the Commission approved a Notice of Proposed Rulemaking proposing a “market-based approach” that could rapidly free up between 100 and 500 megahertz of C-band spectrum above 3.7 GHz far more quickly than a traditional auction process, thereby helping

146 Tom Wheeler, Sprint and T-Mobile: There is a better 5G solution than reducing competition, The Brookings Institution (May 2, 2018), https://www.brookings.edu/blog/techtank/2018/05/02/sprint-and-t-mobile-there-is-a-better-5g-solution-than-reducing-competition/.
147 Comments of T-Mobile USA, Inc., GN Docket No. 18-122, at 3 (filed May 31, 2018) (“T-Mobile 3.7-4.2 GHz Comments”).
148 Id.
149 Id. at 8.
carriers build the foundation for mobile 5G networks. Commissioner Michael O’Rielly has said that he believes that anywhere from 200 to 400 megahertz of the 500 available in the 3.7-4.2 GHz band should be made available for sale, noting the importance of such spectrum for carriers to build out 5G networks. The auction of Priority Access Licenses in the 3.5 GHz band, coupled with access to 80 megahertz of adjacent GAA spectrum, and combined with the likelihood that more than 100 megahertz will be freed up for flexible use in the 3.7-4.2 GHz band, will in aggregate provide the contiguous spectrum that T-Mobile and other carriers need to deploy 5G networks.

Further, both companies will be able to densify their 5G networks through acquisitions of mmW spectrum through forthcoming opportunities from the Commission. On August 2, 2018, the Commission approved the procedures for auctions in the 24 GHz and 28 GHz bands specifically for carriers to build 5G networks, with bidding in the auctions to commence November 14, 2018. This action follows the Commission’s efforts to open up high-band spectrum for carriers and their future 5G networks in the 2016 Spectrum Frontiers Order and 2017 Spectrum Frontiers Order. The Commission plans to conduct auctions for even larger quantities of high-band spectrum, optimized for mobile carrier use, in the 37 and 39 GHz bands soon after the completion of the 24 and 28 GHz auctions. In sum, the Applicants will have many opportunities to increase their mmW holdings and bolster their mid-band and low-band spectrum holdings in order to build strong mobile 5G networks.

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150 Expanding Flexible Use of the 3.7 to 4.2 GHz Band, et al., GN Docket Nos. 18-122, 17-183, RM-11791, RM-11778, Order and Notice of Proposed Rulemaking, FCC 18-91 at 24 ¶ 66 (rel. July 13, 2018). See also id, Statement of Chairman Ajit Pai (“Our boat gets bigger today as we aim to make more spectrum available for the 5G future. Our focus here is on making more intensive use of the 3.7-4.2 GHz band, commonly called the C-band. To help us figure out the best way forward, we authorize the collection of additional information from the band’s current users. That data will help us figure out how to accommodate the needs of incumbents, which are primarily using the band to provide Fixed Satellite Service. It’ll also enable us to free up more spectrum for advanced wireless services.”).


153 Id. ¶ 3.
While Sprint surely offers T-Mobile a treasure trove of mid-band spectrum for its mobile 5G aspirations, T-Mobile does not need this merger to be a major player in 5G. As T-Mobile’s prior statements suggest, the company is well on its way to building a nationwide 5G network, and any need for mid-band spectrum can be satisfied through a number of upcoming opportunities in the 3.7-4.2 GHz band and the 3.5 GHz band as well.

B. Applicants Overstate the Potential Benefits of Mobile 5G Service

We urge the Commission to reject the applicants’ hyperbolic claims about mobile 5G networks and soberly examine the potential of this technology. Mobile broadband service is currently a complement to fixed service and in no respect adequate as a competitive substitute. Wireless ISPs like Sprint and T-Mobile continue to operate in a separate market from fixed ISPs and the distant prospect of 5G as a true competitive substitute is unlikely to change that reality. Accordingly, the purported benefits of the applicants’ hoped-for 5G network do not constitute a significant or realistic public interest benefit.

Mobile 5G technologies, although promising, are still years away from large-scale deployment.\(^{154}\) The first deployments at scale are not expected until 2020 at the earliest,\(^ {155}\) and some analysts predict that large-scale deployments of well-functioning 5G services will not happen until 2022 or 2023.\(^ {156}\) It would be a mistake for the Commission to give any weight to the purported benefits of 5G before its actual deployment and adoption by American consumers. In the absence of large-scale deployments and a chance for consumers to


\(^{155}\) Klint Finley, \textit{Does It Matter If China Beats The US To Build A 5G Network?}, Wired, June 6, 2018, https://www.wired.com/story/does-it-matter-if-china-beats-the-us-to-build-a-5g-network/, ("Carriers don’t expect national availability in the US until 2020. The wireless industry promises that 5G will bring enormous boosts in speed and reliability to mobile devices, bridge the gap between wireline and wireless broadband speeds, and enable a new wave of technologies and applications that we can’t even imagine yet.").

\(^{156}\) 5G: Known unknowns, New Street Research, at 8 (Apr. 17, 2016), www.newstreetresearch.com/download/5G%20April%202016%20slides.pdf.
experience the technology, 5G is currently awash in marketing hype. Many industry experts predict that 5G will be a mere incremental improvement from 4G and LTE. At this early stage, 5G is not ready for deployment, and it is certainly not a regulatory justification for a major further consolidation of the marketplace.

1. Applicants’ 5G Network Would Not Be A “Fiber-Like, Bona Fide Alternative” to Fixed Broadband Service

The Commission should reject the Applicants’ overstated assertions that the merged company’s 5G service will offer “fiber-like speeds” that are “a bona fide alternative” to fixed broadband ISPs such as Comcast and Charter. The reality is that 5G still exists largely in the realm of marketing hype, and there is healthy skepticism that the dawn of mobile 5G will deliver more than an incremental improvement over the capabilities of current LTE networks to the average U.S. home or business. The purported improvement of mobile 5G is at the moment a general unknown, and while it could bring the “fiber-like” speeds that the Applicants and others conjecture for us, there is enough skepticism to wonder if a slight potential improvement over LTE is worth going from four competitors in the wireless market to just three. Eric Xu, Huawei Chairman, has said that consumers would find no “material difference between 5G & LTE.” The Chief Technology Officer of Telefonica, Enrico Blanco, spoke in 2017 of concerns that in many countries where carriers are pushing fast for 5G networks (including the U.S.), they would “simply end up extending 4G capabilities [with] little differentiation from advanced LTE technology.” Some analysts have said that mobile 5G could mark anywhere from a 20

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157 Id.
158 Public Interest Statement at ii.
percent improvement on LTE to a 50 percent improvement.\textsuperscript{161} T-Mobile’s own CTO Neville Ray estimates that the 5G network will improve capacity by 19 percent to 52 percent compared to LTE (table from the Application included below).\textsuperscript{162} While such potential improvements are to be heralded, they do not constitute the “revolution” that the Applicants and others prematurely cheering 5G have been promising. Nor does it suggest that mobile 5G will in the foreseeable future be able to satisfy the growing bandwidth consumption of the average U.S. household (over 200 gigabytes per month and rising) at a price comparable to fixed networks.

<table>
<thead>
<tr>
<th>Spectrum</th>
<th>Antennas</th>
<th>LTE</th>
<th>5G</th>
<th>Percentage Increase</th>
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</thead>
<tbody>
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<td>2.1</td>
<td>2.5</td>
<td>19%</td>
</tr>
<tr>
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<td>4x4 MIMO</td>
<td>2.5</td>
<td>3.8</td>
<td>52%</td>
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<td>mmWave</td>
<td>mMIMO</td>
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<td>7</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*Table 3: Spectral Efficiency Comparison\textsuperscript{24}*

Whatever increase in speeds mobile 5G might actually produce that would not justify the Applicants’ merger. The two companies have claimed for years that they are able and planning to build out nationwide 5G networks on their own, which demonstrates that the Applicants’ purported benefits from 5G deployment are not merger-specific, as detailed earlier.

2. Applicants’ 5G Network Would Be Limited in Geographic Scale

There are several reasons to believe that any “5G revolution” will only happen in densely-populated urban areas, leaving rural and suburban communities largely unreached.

Although the Applicants tout their focus on 5G, the reality is that many parts of America are still


\textsuperscript{162} Public Interest Statement, Appendix B: Declaration of Neville Ray, Chief Technology Officer, T-Mobile US, Inc., at 26, Table 3.
waiting for 4G service.\textsuperscript{163} The effort to bring 4G LTE service to rural areas is still ongoing. A bipartisan group of 30 senators recently expressed concern that the effort is not moving fast enough, writing to Chairman Ajit Pai that the Mobility Fund Phase II Support map “falls short of an accurate depiction of areas in need of universal service support.”\textsuperscript{164} Furthermore, wireless providers have been accused of “grossly overstating” their 4G coverage, particularly in rural areas.\textsuperscript{165} There is little reason to believe that the industry will suddenly work to deploy 5G service in communities where they have not elected to deploy 4G service—despite pressure to do so from the Commission and Congress.

Furthermore, the propagation characteristics of the high-frequency spectrum that is being licensed for mobile 5G is ideally suited for urban areas with high building density. Signals in the millimeter wave spectrum being set aside for 5G propagate at very short distances and are particularly vulnerable to weather and other natural obstacles such as foliage.\textsuperscript{166} These characteristics mean that 5G service will depend on an extensive network of small cells that are deployed in close proximity to each other—all of which makes mobile 5G poorly suited for less dense, leafy areas. Although the Applicants argue that Sprint’s spectrum in the 2.5 GHz band will be especially valuable for 5G deployment, even they acknowledge that this spectrum is not

\textsuperscript{163} Ajit Pai, \textit{Bridging the Digital Divide}, FCC Blog, (July 13, 2017), https://www.fcc.gov/news-events/blog/2017/07/13/bridging-digital-divide, (“...You can’t even get 4G LTE wireless service on more than 7,700 road miles in rural parts of the same state. And this is unfortunately common nationwide.”).
\textsuperscript{164} Letter from Senators Wicker, Hassan, \textit{et al}., to Ajit Pai, Chairman, Federal Communications Commission (May 30, 2018), https://docs.fcc.gov/public/attachments/DOC351493A2.pdf (“Wicker/Hassan Letter”) (“Communities in our states that are not initially eligible or successfully challenged will be ineligible for up to $4.53 billion in support over the next 10 years, exacerbating the digital divide and denying fundamental economic and safety opportunities to rural communities.”).
\textsuperscript{165} Informal Request Of The Rural Wireless Association, Inc. For Commission Action, WC Docket No. 10-90, at 3 (filed Aug. 6, 2018).
ideal for rural areas. Accordingly, mobile 5G deployments are most likely to focus on dense urban areas that can support these technical requirements.

The cost of deploying mobile 5G service to rural and even outer suburban areas will also be a major obstacle. New Street found that Verizon’s plan to use small cells to build out backhaul for its mobile 5G network will require 360,000 nodes, take 5 to 8 years, and cost $35 billion. This enormous project would lay the foundation of a 5G network for just 44 million homes in the nation’s largest 100 metropolitan areas. This is just the initial step for partial deployment of an urban 5G network by one of the nation’s biggest wireless providers. The cost of a similar effort for the rest of the country could be prohibitively expensive and limit 5G’s prospects to the nation’s largest cities. Indeed, New Street concluded that Verizon would not get sufficient return on investment if it expanded its efforts beyond a certain suburban population density, even in the largest metropolitan markets. Nothing in the Applicants’ statement indicates that these same financial headwinds would not apply to New T-Mobile. Indeed, Applicants’ filings indicate that the merged company will devote substantial energy and resources to “eliminat[ing] 35,000 redundant Sprint cell base station sites,” a multiyear project that will be focused squarely on well-served, urbanized markets.

Lastly, mobile 5G networks will rely heavily on fixed broadband networks for backhaul support to quickly deliver vast amounts of data, similar to current mobile wireless technology. Indeed, an estimated 60 percent of mobile data traffic is currently offloaded onto fixed networks. However, the Applicants do not explain where they will find this fixed backhaul

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167 Public Interest Statement at 95 (noting that Sprint customers’ user experience is often “diminished in buildings and in suburban, exurban, and rural locations”).
168 Id.
170 Id.
171 See Appendix C at 6.
support in rural, less densely-populated areas. Mobile 5G networks will need more than wireless systems to function, since gigabit capacity requires proximity to fixed-line backhaul. That is precisely why Verizon has announced its initial 5G effort will focus on quadrupling its FiOS footprint, to establish the backhaul necessary for a true mobile 5G capability, albeit only in urban and inner suburban areas. T-Mobile and Sprint have an even bigger gap to overcome in this respect because neither company operates extensive wireline networks, unlike AT&T and Verizon. Nothing about this merger would make that backhaul infrastructure suddenly materialize in the nation’s unserved communities. The failure to account for this infrastructure need is another critical flaw in Applicants’ argument and underscores why their 5G claims are not credible.

A merger will not change the inherent problems with 5G technologies in rural areas or any of the underlying challenges that have prevented the Applicants from investing in rural service already. The Applicants have not demonstrated that simply combining their existing networks will add any infrastructure to currently unserved areas, or otherwise change the economies of scale that have long left rural communities behind. What is clear, however, is that merging would reduce the competitive pressure for New T-Mobile, AT&T, and Verizon to build out 5G networks quickly and efficiently.

C. Rural Americans Would Not ‘Win Big’ With the Merger

The Applicants’ argument that rural Americans will “win big” from the transaction is unsupported. Rural areas have been on the wrong side of the digital divide for far too long, and we strongly support efforts to close this gap so that all Americans can participate in modern society. But rural Americans need more than the applicants’ threadbare assertions. Applicants have failed to demonstrate that rural America will benefit in any cognizable way from this
merger. If anything, the anticompetitive impact of the merger could exacerbate the divide between rural and urban areas. Accordingly, the Commission must rigorously scrutinize the applicants’ claims about rural benefits and reject anything that is unsubstantiated or not merger-specific.

There is every reason to be skeptical that the Applicants will prioritize deployment of 5G technologies to rural communities. With low population density and high per-consumer costs, these areas have historically lacked the economies of scale needed to attract strong investment from Sprint, T-Mobile, Verizon, and AT&T. As explained above, mobile 5G service will likely be a modest, incremental improvement over LTE speeds, particularly in areas where the cost of network densification is prohibitive. Even if mobile 5G is ultimately deployed on a widespread basis, analysts do not believe 5G signals will be able to penetrate buildings in a manner that is competitive with fixed broadband.\footnote{New Street Research, \textit{supra} note 156, at 8.} Further, based on the history of prior mobile wireless technology upgrades and the technical characteristics of millimeter wave spectrum, mobile 5G deployment will likely focus on the nation’s most urban, affluent areas and do little for rural America. In all likelihood, the applicants would focus on the same high-value markets that they do today.

Moreover, the Commission should reject the Applicants’ hollow claims about the benefits for rural telemedicine. Applicants assert that their future 5G network’s “ability to transmit high-resolution video and audio to distant physicians will enable rural residents to access higher-quality medical care and to get it faster and without having to travel hundreds of miles.”\footnote{See Public Interest Statement at 57.} Applicants offer no indication, assurance, or commitment that their rural 5G service—if it comes to exist at all—will be offered at affordable rates and with sufficiently high throughput and data allowances such that customers can realistically connect with high-bandwidth telehealth providers. Rural telemedicine requires more than the mere “ability” to stream high-bandwidth
data over mobile 5G networks. Those networks must also be accessible to customers by being reasonably priced and free from punitive data caps. Absent any tangible commitment to this effect, Applicants have failed to demonstrate that the merger will have a cognizable impact on rural telemedicine. This does not constitute a public interest benefit.

The Applicants’ most tangible commitment to rural America is a promise to open 600 retail stores in “small towns.”175 Applicants offer no evidence—or even assertions—for why they need the merger to achieve this retail expansion. T-Mobile may have already planned this retail expansion with or without Sprint. Moreover, the Applicants do not define what constitutes a “small town,” nor do they offer any timeframe for fulfilling this promise—all of which renders the commitment practically unverifiable. Under the vague terms of the commitment, T-Mobile could meet it by merely converting 600 pre-existing Sprint retail stores to T-Mobile signage. Most importantly, it is unclear how a retail store would do anything to connect the millions of Americans who live in unserved rural communities. New T-Mobile would presumably locate these stores in communities where they offer service. Unserved small towns would be left out of this plan and any jobs that may come with it. The Commission should swiftly reject this empty promise to rural America.

If the merger has any clear rural impact, it is the elimination of the competitive pressure that the two firms operating independently bring to the marketplace. Without that pressure, wireless providers would have even less incentive to build out to rural areas and more incentive to focus on extracting revenue from their existing customers. None of this helps close the United States’ longstanding digital divide.

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175 See Appendix C at 7-8.
IV. Conclusion

WHEREFORE, for the above stated reasons, the Commission should deny the Application, or refer the matter for a hearing pursuant to section 309(e) of the Commission’s rules.176

Respectfully submitted,

/s/ ____________________________  /s/ ____________________________
Yosef Getachew                Jonathan Schwantes
Common Cause                  Consumers Union

/s/ ____________________________  /s/ ____________________________
Joshua Stager                 Phillip Berenbroick
New America’s Open Technology Institute  Public Knowledge

/s/ ____________________________
Laura Blum-Smith
Writers Guild of America, West, Inc.

176 47 C.F.R. § 309(e).