

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

In the Matter of	)	
	)	
	)	
Applications of T-Mobile US, Inc.	)	WT Docket No. 18-197
And Sprint Corporation for Consent to	)	
Transfer Control of Licenses and Authorizations	)	

**REPLY COMMENTS OF  
NEW AMERICA'S OPEN TECHNOLOGY INSTITUTE**

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## I. Introduction and Summary

The proposed merger between T-Mobile and Sprint (jointly, “The Applicants”) threatens consumers, the wireless market, and the job security of thousands of Americans, despite any purported benefits.<sup>1</sup> New America’s Open Technology Institute (“OTI”) detailed significant concerns about the proposed merger and the potential new company (“New T-Mobile”) in a Joint Petition to Deny.<sup>2</sup> Of those concerns, OTI respectfully submits additional comments on the merger’s harmful impact on jobs and illusory public interest benefits.

The Commission should consider the merger’s disastrous effects on employment. The Commission has evaluated similar concerns in previous wireless carrier mergers, including Softbank/Sprint, T-Mobile/MetroPCS, and AT&T/T-Mobile, and there is no reason to depart from this precedent. Tens of thousands of jobs would be eliminated by the merger, and the Applicants have only made unsubstantiated claims that the merger would create jobs. Likewise, claims that job losses would be justified by efficiency gains that would be passed on to subscribers are speculative and non-binding.

Additionally, the proposed transaction would create a consolidated wireless market that is conducive to coordinated effects between the remaining three dominant providers. In this respect, the proposed transaction poses a greater anticompetitive threat than the failed merger between AT&T and T-Mobile would have. Mergers can remove the economic constraints preventing coordination. T-Mobile/Sprint would not only eliminate a significant competitor, thereby making it easier to reach a consensus among competing firms and sustain coordination, but also create a more homogeneous market structure in which the remaining three firms would

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<sup>1</sup> Description of Transaction, Public Interest Statement, and Related Demonstrations (“Public Interest Statement”), WT Docket No. 18-197 (June 18, 2018), [https://ecfsapi.fcc.gov/file/10618281006240/Public%20Interest%20Statement%20and%20Appendices%20A-J%20\(Public%20Redacted\)%20.pdf](https://ecfsapi.fcc.gov/file/10618281006240/Public%20Interest%20Statement%20and%20Appendices%20A-J%20(Public%20Redacted)%20.pdf).

<sup>2</sup> Petition to Deny of Common Cause, Consumers Union, New America’s Open Technology Institute, Public Knowledge, and Writers Guild of America, West (“OTI et al. Petition to Deny”), WT Docket No. 18-197 (Aug. 27, 2018), <https://ecfsapi.fcc.gov/file/10827862305575/T-Mobile%20Sprint%20Petition%20to%20Deny%20CC%20CU%20OTI%20PK%20WGA.pdf>. All references to petitions or comments refer to this proceeding unless stated otherwise.

have similar market shares and cost structures. Whereas AT&T/T-Mobile would've resulted in a more heterogeneous market structure, with three firms of varying market shares and cost structures, T-Mobile/Sprint would facilitate market conditions with greater transparency into rivals' competitive behavior, which increases the likelihood of coordinated effects.

T-Mobile/Sprint would have the opposite effect of T-Mobile/MetroPCS on the prepaid market. MetroPCS authorized dealers claim that T-Mobile/Sprint would lead to growth in the prepaid market. These claims, however, ignore that the transaction would eliminate an aggressive, direct competitor in the prepaid market, leaving one firm to dominate the market and increase prices for low-income consumers. The consolidation of MetroPCS and Boost Mobile would also harm independent wireless dealers through store closures.

The Applicants' claim that they *need* a merger to build a strong, nationwide network is patently false. Both companies have a record of years of statements to investors and the public claiming that they are more than capable and in the process of preparing their mobile 5G networks across the country on their own. The record also shows strong evidence that both companies have ample spectrum holdings and resources necessary to deploy nationwide 5G networks independently.

Further, the claims the Applicants make about their future mobile 5G network—namely, that it will help rural Americans and provide a substitute to fixed services—are untrue and should not be considered seriously in consideration of this merger. Rural advocates note that T-Mobile has historically ignored rural areas in its deployment, and has hoarded spectrum in underserved areas without serving those areas or attempting to sell or otherwise make that spectrum available to other providers. This merger would further damage rural Americans in that Sprint has traditionally been a relatively positive partner for rural communities. Additionally, the Applicants' own data shows that rural areas will receive substantially lower quality service than those in urban areas. The fact remains that despite the fact that the Applicants and other mobile industry representatives tout purported revolutionary speeds from mobile 5G, several analysts

doubt it will produce much more than an incremental improvement on current 4G LTE technology, and that rural areas will regardless be highly unlikely to see these revolutionary speeds even if they do become a reality. Finally, despite the claims of the Applicants, mobile broadband is not currently a substitute for fixed broadband and is highly unlikely to become one in the near future due to the fundamental differences between the two technologies and how consumers use them.

## **II. The Record Shows That the Proposed Transaction Would Destroy Jobs**

The Commission's broad public interest standard of review includes the consideration of employment effects. Several commenters inaccurately assume that the Commission's review should be guided solely by consumer welfare, but to do so would be a misguided interpretation of the Commission's public interest standard.<sup>3</sup> Indeed, the Commission has a long-established precedent for considering employment effects in prior merger proceedings involving wireless carriers, including Softbank/Sprint, T-Mobile/MetroPCS, and AT&T/T-Mobile.<sup>4</sup>

The proposed transaction would likely lead to substantial job losses in the United States. The Communications Workers of America ("CWA") predicts that more than 28,000 American jobs will be eliminated as a result of the merger.<sup>5</sup> Approximately 24,000 jobs would be eliminated in the closure of overlapping retail stores, and another 4,500 jobs would be

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<sup>3</sup> See, TechFreedom Reply to Oppositions at 18-19 and Information Technology & Innovation Foundation Opposition to Petitions to Deny at 2.

<sup>4</sup> Applications of Softbank Corp., Starburst II, Inc., Sprint Nextel Corporation, and Clearwire Corporation for Consent to Transfer Control of Licenses and Authorizations, IB Docket No. 12-343, *Memorandum Opinion and Order*, 28 FCC Rcd 9642 ¶¶ 68-70, Applications of Deutsche Telekom AG, T-Mobile USA, Inc., and MetroPCS Communications, Inc. For Consent To Transfer of Control of Licenses and Authorizations, WT Docket No. 12-301, *Memorandum Opinion and Order*, 28 FCC Rcd 2322 ¶¶ 76-80, and Rick Kaplan to Richard Rosen re: Applications of AT&T Inc. and Deutsche Telekom AG for Consent to Assign or Transfer Control of License and Authorizations, WTB Docket No. 11-65, Letter to AT&T Regarding Response About Jobs (Oct. 13, 2011).

<sup>5</sup> Comments of Communications Workers of America at 61-65.

eliminated in the consolidation of duplicative roles at corporate headquarters in Overland Park, Kansas and Bellevue, Washington.<sup>6</sup>

In response to the predicted job loss, the Applicants have made unverified and unsubstantiated claims of job creation. While T-Mobile CEO John Legere promised employees that New T-Mobile will create 3,000 more jobs in the first year post-transaction and 11,000 more by 2024, he has admitted that there will be some consolidation.<sup>7</sup> Neither Legere nor Sprint CEO Marcelo Claure have made explicit commitments that employees at both companies will keep their jobs—just that employees would be competing against one another to keep their jobs: “we are going to choose the best employee for the jobs. T-Mobile employees doesn’t [sic] automatically get a job; Sprint employees don’t automatically get a job. We are going to choose who is the best person that is suited to do specific jobs.”<sup>8</sup>

Several commenters claim that job loss is justified by efficiency gains for the merged company—even if the transaction resulted in a loss of *all* employees—and that New T-Mobile would pass these efficiencies on to consumers in the form of lower prices, a better network, or another non-price factor.<sup>9</sup> These claims are speculative and unsubstantiated. To date, the Applicants have not made any binding commitments to deliver these benefits to consumers, nor have they demonstrated that these benefits are merger-specific. They have only made a broad claim that they intend to pass on their synergy savings to subscribers by reducing their average revenue per user by over six percent, which does not amount to anything more than an empty promise.<sup>10</sup> In addition, these speculative savings do not outweigh—or more importantly,

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<sup>6</sup> *Id.*

<sup>7</sup> Transcript of Audio Recordings filed by Sprint Corporation, File No. 001-04721 (filed Oct. 18, 2018) at 60-62.

<sup>8</sup> *Id.* at 12-13.

<sup>9</sup> TechFreedom Reply to Oppositions at 18.

<sup>10</sup> Public Interest Statement at 120-121.

mitigate—the substantial harm to the 20,000 to 30,000 people who stand to lose their jobs as a result of this transaction.<sup>11</sup>

### **III. Applicants' Prior Mergers Strengthen the Case for Rejecting the Proposed Transaction**

The record includes numerous references to past transactions as evidence that Applicants will use the merger to deliver public benefits. The Commission should reject these claims. If anything, merger history suggests that the potential for anticompetitive harm is significant. Compared to the failed merger between AT&T and T-Mobile in 2011, the proposed transaction creates greater risks for coordinated effects between wireless carriers in a post-transaction market with three similarly-situated, remaining competitors. While T-Mobile points to its success in integrating with MetroPCS in 2013 as reason to believe that this proposed merger will also be successful, the transaction would eliminate an aggressive competitor in the prepaid market, which would harm low-income consumers.

#### *A. The Proposed Transaction Exacerbates the Potential for Coordinated Effects More Than the Failed AT&T/T-Mobile Merger*

The proposed transaction would be more conducive to coordinated effects than the failed merger between AT&T and T-Mobile. A large number of firms, asymmetries among firms, and a lack of transparency all serve as economic constraints on coordination.<sup>12</sup> A merger between T-Mobile and Sprint would relax these constraints much more than AT&T/T-Mobile would have. AT&T/T-Mobile would have created a market with three wireless carriers of varying size and cost structure. AT&T/T-Mobile would have become the dominant firm with 132 million

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<sup>11</sup> OTI et al. Petition to Deny at 36-37.

<sup>12</sup> See Serge Moresi, ABA Brownbag Series Coordinated Effects, Presentation at American Bar Association Section of Antitrust Law (March 8, 2017).

subscribers nationwide at the time, compared to Verizon's 101 million and Sprint's 48 million.<sup>13</sup> The heterogeneous market structure would have given each carrier different interests, making it more difficult to align them through coordination. A merger between T-Mobile and Sprint, however, would facilitate a homogenous market structure, leading to just three firms with roughly equal market shares and cost structures. A post-transaction T-Mobile/Sprint would have 32 percent national market share; AT&T would have 32 percent; and Verizon would have 35 percent.<sup>14</sup> These resulting market conditions would exacerbate the potential of coordinated effects between the remaining carriers post-merger. While both mergers would eliminate a significant competitor, thereby making coordination more sustainable, T-Mobile/Sprint would also facilitate a more homogenous market in which the remaining competitors can more readily infer rivals' pricing based on their own competitive positioning.<sup>15</sup>

*B. Unlike T-Mobile/MetroPCS, the Proposed Transaction Would Weaken the Prepaid Market*

The Commission should reject commenters' claims that the success of T-Mobile/MetroPCS in revitalizing the MetroPCS brand would be replicated with Sprint/T-Mobile.<sup>16</sup> These commenters, both authorized dealers of MetroPCS, ignore that the proposed transaction would combine the two most aggressive competitors in the prepaid wireless market, MetroPCS and Boost Mobile. The founder and former CEO of Boost Mobile, Peter Adderton, attests that the combination of T-Mobile and Sprint would create a single firm that dominates the prepaid

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<sup>13</sup> Annie Lowrey, *Hold the Phone: Why the proposed merger between AT&T and T-Mobile is a bad idea*, Slate (March 21, 2011), [http://www.slate.com/articles/business/moneybox/2011/03/hold\\_the\\_phone.html](http://www.slate.com/articles/business/moneybox/2011/03/hold_the_phone.html).

<sup>14</sup> American Antitrust Institute Petition to Deny at 6.

<sup>15</sup> See Marc Ivaldi, Bruno Jullien, Patrick Rey, Paul Seabright, Jean Tirole, *The Economics of Tacit Collusion*, Final Report for DG Competition, European Commission (March 2003).

<sup>16</sup> See, e.g., Comments of Talk More Wireless at 2-3 (Authorized MetroPCS dealer Talk More attributes its expansion to T-Mobile's "strategic growth opportunities" and "expect[s] T-mobile will apply the same winning formula of investment, innovation and growth following the proposed merger with Sprint.") and Comments of Cell Nation at 2.

market and increases prices.<sup>17</sup> In addition, the transaction would harm thousands of independent wireless dealers, with Adderton predicting harm for as many as 20,000 of these dealers, some of whom would go out of business altogether.<sup>18</sup>

#### **IV. The Record Does Not Support the Applicants' Hyperbolic 5G Claims**

The Commission should reject claims that the Applicants need this proposed merger to create mobile 5G networks that will benefit consumers.<sup>19</sup> The Applicants' drastic claim that without a merger they cannot build strong, nationwide mobile 5G networks is incorrect.<sup>20</sup> As detailed below, the record contains ample evidence that the applicants *do not* need a merger to build out mobile 5G networks, as the Applicants hyperbolically claimed in their Public Interest Statement. The Applicants' other purported 5G-related benefits, such as improvements to rural broadband and an eventual substitute to fixed broadband, are also unlikely to materialize.

##### *A. The Record Demonstrates That Applicants Do Not Need A Merger To Build Nationwide Mobile 5G Networks*

The argument that T-Mobile and Sprint *need* this merger to build 5G is incorrect on its face from looking at the companies' spectrum holdings. The claim is further discredited by statements the Applicants have made for the the past two years touting their abilities to build nationwide 5G networks. Despite assertions from the Applicants, the fact that T-Mobile and

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<sup>17</sup> Manatt Ex Parte Notice (Aug. 29, 2018).

<sup>18</sup> James Langford, *Boost founder: T-Mobile-Sprint merger would kill prepaid wireless market*, Washington Examiner (June 12, 2018), <https://www.washingtonexaminer.com/business/boost-founder-t-mobile-sprint-merger-would-kill-prepaid-wireless-market>.

<sup>19</sup> Joint Opposition of T-Mobile and Sprint, iii.

<sup>20</sup> Petition to Deny of DISH, at 35 ("The Application seems to oscillate between a claim that the merger is necessary for any 5G deployment and the more modest argument that the combined company can deploy 5G more quickly and efficiently.<sup>131</sup> But the problem is that the Applicants' quantification of the merger benefits assumes the more aggressive claim—that no merger means no 5G for either company—and credits the transaction with the entire benefit of nationwide 5G deployment by New TMobile and the response to it by Verizon and AT&T. In the face of the Applicants' apparent concession that 5G likely would happen sooner or later, Dr. Evans' postulated consumer price decrease evaporates.").

Sprint do not need the merger “to build such a nationwide 5G network” is directly pertinent to this proceeding, in which the Applicants argue at length that the merger is necessary to build a strong nationwide mobile 5G network.

Furthermore, the Applicants overstate the potential of mobile 5G networks, dubiously claiming that they will bridge the digital divide in rural areas and eventually replace fixed broadband networks. These arguments, with speculations about the future of 5G, cannot be taken seriously as a justification for the proposed merger.<sup>21</sup> These hyperbolic claims about the coming mobile 5G revolution are unlikely to materialize, as there is no reason to believe rural Americans will benefit from New T-Mobile’s mobile 5G network. Further, mobile wireless is not a substitute for fixed wireless, and is unlikely to become a viable substitute regardless of the Applicants’ ability to merge.

As opponents to the merger have detailed to the Commission, T-Mobile and Sprint do not need this merger to build mobile 5G networks. Both companies have repeatedly told investors, the public, and the press that they are able to build out nationwide networks and that they are making preparations to do so.<sup>22</sup> For example, Sprint’s Chief Financial Officer told an audience that upgrading the company’s network to 5G would be “literally a flick of a switch to convert to 5G rather than having to reclaim the tower one more time” as the standards for 5G become definitized.<sup>23</sup> Sprint recently elaborated on this capacity, touting its ability to deploy MIMO technology to add capacity to its 4G network and rolling out its 5G service starting in 2019.<sup>24</sup>

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<sup>21</sup> Petition To Deny of NTCA—The Rural Broadband Association, MB Docket No. 18-197, (Aug. 27, 2018), “While we may or may not be “on the brink” of major wireless technology transformation with the introduction of 5G,6 any predictions about technological advances, deployment strategies, consumer adoption or consumer behavior are merely speculative and not a basis for competitive review.”).

<sup>22</sup> OTI, et al. Petition to Deny, DISH Petition to Deny at 22-29.

<sup>23</sup> “Sprint Corporation (S) Management Presents at Deutsche Bank’s 26th Annual Leveraged Financial Conference (Transcript),” (Oct. 2, 2018), <https://seekingalpha.com/article/4209464-sprint-corporation-s-management-presents-deutsche-banks-26th-annual-leveraged-financial>.

<sup>24</sup> Scott Santi, “Sprint Network is Most Improved and #1 in 123 Cities in Download Speeds,” Sprint Press Release, (Oct. 11, 2018), <https://newsroom.sprint.com/sprint-most-improved-123-cities.htm>, “We’ve also

These announcements and pre-merger movements, coupled with the companies' own spectrum holdings, reflect that both Applicants have the spectrum assets and resources needed to deploy 5G networks individually.<sup>25</sup> Notably, both T-Mobile and Sprint have access to plenty of nationwide and near-nationwide spectrum to deploy mobile 5G service on a national scale.<sup>26</sup> And they will have every opportunity to acquire additional spectrum – both in mid-band and millimeter wave spectrum – in upcoming FCC auctions for thousands of megahertz of spectrum in the 28, 24, 37-40, 3.5 and 3.7 GHz bands. This is the same spectrum that their only other competitors, Verizon and AT&T, will rely on. In addition, substantial mid-band spectrum – tentatively as much as 270 megahertz of licensed 3 GHz spectrum – will become available in the 3.5 GHz and 3.7 GHz bands over the next 24 to 36 months under the already-completed Citizens Broadband Radio Service auction and the pending NPRM that proposes to clear C-band spectrum above 3700 MHz for flexible use licensing. MmW spectrum provides the capacity necessary for the high “fiber-like” speeds the Applicants claim is possible under 5G. Indeed, the Commission's upcoming auction of high-band spectrum licenses in the 24 GHz and 28 GHz bands reflects the crucial role that this spectrum will play in 5G technologies.<sup>27</sup> The Applicants will need to purchase licenses in these bands, and T-Mobile (and seemingly Sprint

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begun to deploy Massive MIMO technology, which is adding significant capacity to our 4G network and is a key bridge to Sprint 5G service launching in the first half of 2019. Our Next-Gen Network build is unlocking our deep 2.5 GHz spectrum holdings, and we're excited to provide millions of customers across the country with an even better experience than before on a network that's built for unlimited. The investment we're making is delivering better coverage, reliability and speed, and it's building a strong LTE Advanced foundation for our launch of mobile 5G next year.”).

<sup>25</sup> DISH Petition to Deny at 25 (“These pre-merger plans, backed by the companies' respective spectrum holdings, and the realities of what 5G entails, demonstrate that both companies appear to have the spectrum assets and resources to deploy 5G networks on their own today, and any purported acceleration in network deployment or enhancement to network quality has not yet been proven by the Applicants.”).

<sup>26</sup> *Id.* at 25-28 (“Each of Sprint and T-Mobile today likely can deploy 5G using a significant chunk of its spectrum while reserving enough of it for supporting their legacy 4G subscribers.”).

<sup>27</sup> “Carr Statement, FCC Establishes Procedures for First 5G Spectrum Auctions,” AU Docket No. 18-85, (Aug. 3, 2018), <https://docs.fcc.gov/public/attachments/FCC-18-109A4.pdf>, (“November 2018 will be an important month for millions of Americans. It will mark the start of the FCC's first new auction of 5G spectrum. And with this Public Notice, we announce the final procedures that will govern bidding for the 24 and 28 GHz bands.”).

as well) have already filed applications to do so.<sup>28</sup> T-Mobile should compete for any additional 5G spectrum needed for a robust buildout rather than stifle already limited mobile-market competition in an effort to acquire mid-band spectrum via merger.

The Applicants' argument that they lack financing is also deeply flawed. The companies claim that they will recoup an alleged \$43.6 billion in synergies from 5G benefits by consolidating and later invest this in 5G deployments. However, both carriers have individually committed to invest \$5-6 billion into 5G deployments every year until 2020—suggesting the Applicants' projected combined spend is no more than the combination of what each already planned to spend independently.<sup>29</sup>

#### *B. The Applicants Continue to Ignore the Limitations of 5G Technology*

The Applicants have failed to engage with the realities of 5G—that it will likely mark only an incremental improvement over 4G, that rural areas will likely be left out in these advances, and that without providing specifics, the Applicants' 5G claims are difficult to even assess.

The Applicants' Public Interest Statement and Joint Opposition to Petitions to Deny undercut their own argument that 5G service will deliver significant benefits to rural America.<sup>30</sup> According to Dr. Andrew Afflerbach, the Public Interest Statement actually shows that “for the great majority of rural Americans, the level of coverage and capacity would be similar for the merged New T-Mobile network as it would be for the standalone T-Mobile network.”<sup>31</sup> Based on the data that Applicants provided to the Commission, Afflerbach concludes that, even after six years, “most of New T-Mobile’s rural customers would be forced to settle for a service that has

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<sup>28</sup> Monica Allevan, “Here’s who is bidding in the FCC’s first-ever millimeter-wave spectrum auctions,” *FierceWireless* (Oct. 10, 2018), <https://www.fiercewireless.com/wireless/here-s-who-s-bidding-fcc-s-first-ever-millimeter-wave-spectrum-auctions>.

<sup>29</sup> *Id.* (“So the Applicants’ projected combined spend appears to be merely the sum of what each intended to spend on its own. The Applicants do not show whether or how they will monetize these claimed synergies.”).

<sup>30</sup> Application at 65; Joint Opposition at iv.

<sup>31</sup> Communications Workers of America Petition to Deny at 47.

significantly lower performance than the urban and suburban parts of the network.”<sup>32</sup> The Applicants actually acknowledge that many rural consumers would not receive mid-band coverage, even after the proposed merger; they estimate that 84.6 million Americans (26 percent of the population) would still be left without New T-Mobile high-capacity mid-band coverage in 2021, and that 45.9 million Americans (14 percent of the total population) would continue to be without access by 2024—and this is the best possible outcome.<sup>33</sup> Further, due to the restrictive characteristics of mmW spectrum, which are crucial for the high-capacity data connections that the industry claims will come with 5G, many rural Americans would not receive the purported benefits of 5G for decades, if ever.<sup>34</sup>

Further, T-Mobile has previously neglected rural areas in a way that cannot be ignored in the context of this proceeding. T-Mobile has a history of warehousing valuable spectrum for several years, with plenty of time to build in rural areas or attempt to sell or otherwise make that spectrum available for rural providers to make use of its spectrum that is tailored for rural applications.<sup>35</sup> As NTCA—The Rural Broadband Association notes, “T-Mobile’s facilities based coverage is clearly focused on cities, towns and the highways that connect them and it has not to date demonstrated a rural commitment.” T-Mobile has had roughly 20 years to deploy wireless service outside high-population density urban areas and highways, but has centered its efforts on urban and suburban markets and largely ignored rural areas entirely.<sup>36</sup> NTCA further

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<sup>32</sup> *Id.*

<sup>33</sup> *Id.* at 48-50.

<sup>34</sup> NTCA Petition to Deny at 5.

<sup>35</sup> NTCA— Rural Broadband Association Petition to Deny at 8.

<sup>36</sup> Rural Wireless Association Petition to Deny at 22 (“But T-Mobile and Sprint, which came into being in the mid-1990s, have had well over 20 years to deploy 2G, 3G and 4G coverage using PCS spectrum in markets beyond just urban centers, interstates and highways. The fact remains that T-Mobile has focused its capital expenditure on urban and suburban markets and has mostly neglected America’s rural markets. Moreover, T-Mobile has neglected in any meaningful way to sell, lease, or enter into joint-venture build-outs with rural carriers to make use of its valuable 600 MHz, 700 MHz, PCS, and AWS spectrum. T-Mobile is arguing that with the 600 MHz spectrum it recently acquired during the FCC’s incentive auction, it now finally aspires to become a rural-focused carrier and deliver 5G services to forgotten corners of the United States. T-Mobile may claim that it intends to change its stripes, but the last twenty years provide ample evidence of a T-Mobile buildout strategy that neglects rural markets.”).

argues that Sprint is a powerful partner for rural connectivity, and that losing the company to a newly-created behemoth would harm rural Americans.<sup>37</sup>

The realities of 5G seem to be wholly absent from the Applicants' merger arguments. First and foremost, while the Applicants claim that the New T-Mobile's mobile 5G network will revolutionize mobile broadband and eventually replace fixed services, many analysts could bring only a minor improvement on current 4G LTE services.<sup>38</sup> Former Chairman Michael Powell recently reflected this notion, telling an audience: "You know what the wireless guys like most? Wireline networks. 5G is 25% technology, 75% marketing."<sup>39</sup> Additionally, the Applicants do not acknowledge what they mean by 5G, which can include a combination of fixed wireless with low-band, mid-band, and mmW spectrum. Without better details, it is very difficult to assess the viability of the claims made by the Applicants regarding exactly what they mean by "5G" when they tout all the benefits of a potential merger.<sup>40</sup>

The Commission should also scrutinize the Applicants' dubious claim that "5.8 million households will eliminate their traditional wireline in-home broadband service in favor of New T-Mobile's 5G mobile services by 2021 and a total of 6.3 million households by 2024."<sup>41</sup> This claim, which cites a declaration from T-Mobile's President and Chief Operating Officer, requires skepticism. Even the Applicants' economist cannot fully endorse the estimates: "Of course, the actual number of consumers abandoning in-home broadband services would depend on changes in price and quality. I have seen only a point estimate, not a range, of the number of customers changing service. There presumably is a similar effect of other mobile broadband

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<sup>37</sup> NTCA Petition to Deny at 8-10.

<sup>38</sup> *Id.* at 5.

<sup>39</sup> Daniel Frankel, "NCTA's Powell: 5G is 25% Technology, 75% Marketing," Multichannel News, (Oct. 23, 2018), <https://www.multichannel.com/news/nctas-powell-5g-is-25-technology-75-marketing>.

<sup>40</sup> DISH Petition To Deny at 29-35.

<sup>41</sup> Joint Opposition at 68.

customers for other carriers substituting that service for in-home fixed broadband, but I have not seen estimates of that effect.”<sup>42</sup>

Finally, the Applicants ignore the fact that mobile broadband is fundamentally not a viable substitute for fixed broadband. Mobile broadband is subject to higher costs due to restrictive data caps, less reliable service, and is generally harder to use for educational, employment, and other applications than fixed broadband services. Mobile broadband remains a complement, but not a substitute, for fixed broadband, and is unlikely to become a viable substitute to fixed broadband any time soon.<sup>43</sup> In fact, this discrepancy is likely to persist in a 5G world. First, fiber-to-the-home networks are much cheaper to upgrade than 5G networks, and future upgrades to capacity are much more restricted for wireless technologies compared to wireline networks.<sup>44</sup>

## **V. Conclusion**

The record clearly demonstrates that the proposed transaction would harm consumers, jobs, and competition in the wireless market. The Applicants’ dubious claims about the merger’s benefits fail to meet the Commission’s public interest standard. We urge the Commission to deny this merger to protect consumers, the health of the market, and American jobs.

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<sup>42</sup> Appendix J: Declaration of Dr. Harold Furchtgott-Roth, fn 17, [https://ecfsapi.fcc.gov/file/109171182702890/Appendices%20A-K%20\(Public\).pdf](https://ecfsapi.fcc.gov/file/109171182702890/Appendices%20A-K%20(Public).pdf).

<sup>43</sup> Comments of New America’s Open Technology Institute, GN Docket No. 18-238, GN Docket No. 18-231, WC Docket No. 11-10, Sep. 17, 2018, at 20-30, <https://ecfsapi.fcc.gov/file/109170024011310/2018-09-17%20OTI%20Section%20706%20Comments.pdf>.

<sup>44</sup> Electronic Frontier Foundation Ex Parte, GN Docket No. 18-238 (Oct. 12, 2018), <https://ecfsapi.fcc.gov/file/101269873074/EFF-%20Wireline%20vs%20Wireless.pdf> (“As a general matter, the capacity of fiber networks can increase if additional advancements can be made in how many signals can be transmitted through the fiber strand. Wireless technologies depend on spectrum allocations and must deal with the limitations of specific frequencies, such as interference and dependency on line of sight. Moreover, 5G towers have an early estimated range of around 1000 feet requiring more towers to be built in order to maintain optimal speeds.”).