BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

In the Matter of the Joint Application of Sprint Communications Company L.P. (U-5112) and T-Mobile USA, Inc., a Delaware Corporation, For Approval of Transfer of Control of Sprint Communications Company L.P. Pursuant to California Public Utilities Code Section 854(a).	Application No. 18-07-011
And Related Matter.	Application No. 18-07-012

OPENING TESTIMONY OF DEBBIE GOLDMAN ON BEHALF OF COMMUNICATIONS WORKERS OF AMERICA DISTRICT 9

January 7, 2019

As Amended February 4, 2019

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4400-004acp

EXECUTIVE SUMMARY

The California Public Utilities Commission should not approve the proposed merger between T-Mobile and Sprint as currently structured because it is not in the public interest. The merger would result in substantial public interest harm, including significant job loss and adverse competition effects, and offers no countervailing verifiable, merger-related public interest benefits such as improved quality of service and economic benefits to ratepayers.

First, the merger would result in the loss of 30,000 jobs across the United States, including 3,342 jobs in California, lower wages, and combine two companies with a long history of labor and employment law violations. Contrary to the Applicants' unsubstantiated claims of merger-related job creation, leading Wall Street analysts predict that massive job cuts from the elimination of duplicative retail stores and headquarters functions at the New T-Mobile will contribute significantly to the billions of dollars in projected merger "synergies." Consistent with analysts' predictions, CWA performed a comprehensive analysis based on detailed location data for all the retail locations involved in the proposed transaction. Our analysis finds that the proposed T-Mobile/Sprint merger will result in the loss 30,000 U.S. jobs, including 3,342 in California. In addition, the combination of Sprint and T-Mobile will increase wireless employers' power to set wages unilaterally, thus resulting in annual earnings decline of up to $3,276 for workers who sell wireless equipment and services.

The proposed merger would combine two companies with a long history of violation of employment law and workers' rights. This history speaks volumes about the trustworthiness and corporate character of these companies. T-Mobile has won the dubious distinction as being one of the worst labor law violators in the country. T-Mobile has been found in violation of U.S. labor law six times since 2015 and has been subject to approximately 40 unfair labor practice charges since 2011. Findings of illegal activity include, among other things, T-Mobile surveilling its employees and requiring employees, including one who filed a sexual harassment complaint, to sign an unlawful confidentiality notice prohibiting employees from discussing with one another information from employer-led investigations, and threatening discipline, up to and including discharge, if they engaged in those discussions.

The Commission should not approve the merger without verifiable and enforceable commitments by the Applicants to ensure that the transaction does not cause a reduction in California employment, that no employees of T-Mobile or Sprint will lose a job as a result of this transaction, and that the Applicants commit to abide by all labor and employment laws and to maintain neutrality in allowing their employees to form a union of their own choosing, free from any interference by the employer.

Second, the proposed horizontal merger of T-Mobile and Sprint raises serious competitive concerns. The proposed transaction would eliminate the substantial head-to-head competition that currently exists between T-Mobile and Sprint. T-Mobile and Sprint have a long history of targeting each other's customers. Both firms have an equally long history of responding to each other's competitive moves. Because of how closely T-Mobile and Sprint compete for subscribers through their respective product and service offerings, the products and services of these two companies are close substitutes for a large number of consumers. A merger between firms selling differentiated products may diminish competition by enabling the merged firm to profit by unilaterally raising the price of one or both products above the pre-merger level. Economists estimate that the merger would increase prices as much as 15.5 percent on the new T-Mobile's prepaid plans and as much as 9.1 percent for postpaid plans. The merger will disproportionately hurt price sensitive low- and moderate-income customers. T-Mobile's

MetroPCS, Sprint's Boost and Virgin Mobile prepaid brands, and their wholesale partners serve 60 percent of the prepaid market, and almost one-third of these customers have annual incomes below $25,000. Post-merger, the new T-Mobile's low- and moderate-income prepaid customers, many of whom depend on their smartphones for broadband access, could be priced out of the wireless market.

The transaction would significantly increase concentration in the national and numerous local geographic markets for mobile telephony/broadband services and prepaid wireless retail services, measured using both the standard market concentration screen and the FCC's standard screen for spectrum concentration.

We estimated national HHIs for mobile telephony/broadband services by looking at the number of wireless connections reported as of the second quarter of 2018, as well as by revenue for wireless services in 2017. We estimated national HHIs for prepaid wireless retail services by looking at the number of prepaid wireless subscribers reported by the major facilities-based providers as of the second quarter of 2018. These results show that both the mobile telephony/broadband services market and the prepaid wireless services market are "highly concentrated" under the Department of Justice and Federal Trade Commission's 2010 Horizontal Merger Guidelines and the change in concentration resulting from the merger is large enough to trigger the Guidelines' presumption that the merger is "likely to enhance market power." The results are below.

	Pre-Merger HHI	Post-Merger HHI	Change
2Q18 Wireless Connections	2,762	3,281	519
2017 Wireless Service Revenues	2,811	3,243	432
2Q18 Prepaid Wireless Subscribers	3,037	4,461	1,424

The FCC has long recognized that spectrum is an important input for wireless service and conducts an initial spectrum screen to determine if a proposed transaction raises competitive concerns regarding this key input. The screen is triggered when a wireless provider would hold approximately one-third or more of the suitable and available spectrum. The "New T-Mobile" would exceed the spectrum screen in 52 of the 58 California counties. A full 99.2 percent of the population of the California will be living in counties in which the spectrum screen would be exceeded post-merger.

Third, the Applicants have not come close, by any stretch of the imagination, to provide rigorous and well documented evidence proving verifiable public interest benefits that will result from the merger. The Applicants fail to prove their assertion that neither Sprint nor T-Mobile can effectively compete as standalone firms, and specifically that the merger is necessary in order to deploy a next-generation nationwide 5G network. Upon closer inspection, this rationale falls apart for two key reasons:

- Both companies are viable on a standalone basis and are already in the process of improving their networks, including their ability to provide initial 5G services. Neither company needs the proposed transaction to be an effective competitor in the future.
- While Sprint presently appears to lack the tools to offer 5G in rural parts of the country, the Applicants have made no showing that the merged firm would have either the incentive or ability to provide hallmark 5G services outside of densely-populated areas. The proposed merger does not change that reality for rural California. For a great majority of rural Californians, the level of coverage and capacity would be similar for the merged New T-Mobile network and the stand-alone T-Mobile network.

The Applicants have failed to demonstrate that the proposed transaction is in the public interest.

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TESTIMONY OF THE

COMMUNICATIONS WORKERS OF AMERICA DISTRICT 9

Pursuant to the Public Utilities Commission of the State of California's ("Commission") Amended Assigned Commissioner's Scoping Memo and Ruling in the Matter of the Joint Application of Sprint Communications Company L.P. (U-5112) and T-Mobile USA, INC., a Delaware Corporation ("Applicants"), For Approval of transfer of Control of Sprint Communications Company L.P,[1] the Communications Workers of America District 9 ("CWA") submits the following written testimony.[2] CWA's testimony responds to some of the Applicants' claims and issues identified by the Commission in the Amended Scoping Memo and Ruling, including: whether the proposed merger of AT&T and T-Mobile ("Merger") is in the public interest.[3]

I. INTRODUCTION

The proposed merger between T-Mobile and Sprint would result in considerable harm to the public interest with no countervailing public interest benefits. The merger would substantially lessen competition both upstream, hurting workers, and downstream, hurting

[1] Amended Assigned Commissioner's Scoping Memo and Ruling in the Matter of the Joint Application of Sprint Communications Company L.P. (U-5112) and T-Mobile USA, INC., a Delaware Corporation, For Approval of transfer of Control of Sprint Communications Company L.P, Pursuant to California Public Utilities Code Section 853(a), Application No. 18-07-011, And Related Matter, Application No. 18-07-012, (October 4, 2018) [hereinafter Amended Order].

[2] *See* Motion of the Communications Workers of America District 9 to Become a Party (October 17, 2018).

[3] Amended Order at 2.

consumers. Besides fewer jobs, lower wages, and higher prices, the merger will concentrate valuable spectrum in a combined T-Mobile/Sprint, exceeding the FCC spectrum screen in areas covering 99.2 percent of the California population. The merger will not significantly improve rural access. Both companies are financially stable and have planned to build 5G as standalone companies. The Commission should reject the proposed transaction as currently structured.

II. STANDARD OF REVIEW AND PUBLIC INTEREST FRAMEWORK

In reviewing mergers, the Commission has broad discretion to determine whether the proposed transaction is in the public interest.[4] In doing so, the Commission considers a broad range of criteria, including whether the transaction economically benefits ratepayers, does not adversely affect competition, maintains or improves the quality of service to ratepayers, is fair and reasonable to affected public utility employees and benefits the state and local economies and communities served by the resulting public utility, among other factors.[5]

As applicants to the merger, T-Mobile and Sprint bear the burden of proof that the transaction is in the public interest.[6] T-Mobile and Sprint have failed to make this showing. This testimony shows, on the contrary, that the proposed merger would harm the public interest with significant job loss and adverse competition effects and offers no countervailing public benefits.

III. COMPETITIVE ANALYSIS

The proposed horizontal merger of T-Mobile and Sprint raises serious competitive concerns.

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[4] Pub. Util. Code § 854(a); D.06-02-003, p. 23.
[5] Pub. Util. Code §§ 854(b) and (c).
[6] D.10-10-01 at 11, 16.

First, the transaction would significantly increase concentration in markets for mobile telephony/broadband services and prepaid wireless retail services, measured using both the standard market concentration screen and the FCC's standard screen for spectrum concentration. The concentration levels and increases that would flow from the transaction are "a strong indicator of harm to competition – and in antitrust analysis trigger a presumption of such harm – for good reason."[7]

Second, the proposed transaction would eliminate the substantial head-to-head competition that currently exists between T-Mobile and Sprint. T-Mobile and Sprint have a long history of targeting each other's customers. Both firms have an equally long history of responding to each other's competitive moves. Because of how closely T-Mobile and Sprint compete for subscribers through their respective product and service offerings, and as evidenced through Local Number Portability data, the products and services of these two companies are close substitutes for a large number of consumers.[8] A merger between firms selling differentiated products may diminish competition by enabling the merged firm to profit by unilaterally raising the price of one or both products above the pre-merger level.[9]

Given that this is a horizontal merger between two companies that for many years have waged an intense competitive war with each other, one would expect the parties to provide at

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[7] Applications of AT&T and Deutsche Telekom AG, WT Docket No. 11-65, *Order and Staff Analysis and Findings*, WT Docket No. 11-65 ¶ 19 [hereinafter *AT&T/T-Mobile Staff Analysis and Findings*].
[8] *See* Reply to Opposition of Free Press submitted to Federal Communications Commission, WT Docket No. 18-197, 6-52 (October. 31, 2018) [hereinafter Free Press Reply]. *See also* Reply of DISH Corporation submitted to Federal Communications Commission, WT Docket No. 18-197, at 2, 12-18 (October. 31, 2018) [hereinafter DISH Reply].
[9] U.S. Department of Justice and the Federal Trade Commission, Horizontal Merger Guidelines, § 6.1, August 19, 2010, available at http://www.ftc.gov/sites/default/files/attachments/merger-review/100819hmg.pdf [hereinafter Horizontal Merger Guidelines].

least *some* factual support to show that the parties' offerings are not regarded by consumers as particularly close substitutes, that only a small percentage of customers actually switch or would consider switching from Sprint to T-Mobile (or vice versa), or other evidence showing the parties do not often go head-to-head in the marketplace. This, perhaps for obvious reasons, they have failed to do. Their failure is telling.

a. Market Definition, Market Participants and Concentration

Merger analysis may involve multiple relevant product markets. That is because competitive effects and consumer harm may occur in multiple markets. For a merger to be anticompetitive, it need only cause harm in one relevant market.

Wireless phone service is purchased by various types of customers with different needs. It is a differentiated product. Some examples of the relevant points of product and price differentiation include: payment plans; contract lengths; types of handsets; data features and costs of data services; roaming costs; and family plans.

Because carriers have the ability to set distinct prices for particular service packages, these various differences imply that the merger could be analyzed in any or all of a number of different relevant product markets or sub-markets, or market segments of more broadly defined markets.

In this section of the Testimony, we focus on two product markets that may be adversely affected by the merger: the *mobile telephony/broadband services market*, and the narrower market for *prepaid wireless retail services*.[10]

[10] There may be additional product markets affected by the transaction, including service to retail postpaid customers and to corporate and government accounts.

i. Mobile telephony/broadband services is a relevant market

The main downstream product market affected by this transaction is a combined mobile telephony and mobile broadband services market. This market is comprised of mobile voice and data services, including mobile voice and data services provided over advanced broadband wireless networks. We note that this combined "mobile telephony/broadband services" market is the same product market the FCC has defined in a series of recent transactions, including T-Mobile/MetroPCS and AT&T/T-Mobile.[11] Applicants appear to concede in their FCC Joint Opposition that mobile telephony/broadband services is an appropriate antitrust market.[12]

The rationale for a "mobile telephony/broadband services" product market remains compelling. Mobility is highly valued by customers – perhaps never more so than now. Mobile wireless services that include both voice and data allow customers to make telephone calls, check email, send texts, use popular services like Facebook, make payments, and search the Internet when they are outside of the home or moving between one location and another, without interruption. More than three-quarters of Americans now own a smartphone.[13] Voice and data services are heavily advertised and promoted as a package by wireless providers and are purchased by most consumers in a single wireless plan.

[11] *See* T-Mobile/MetroPCS Order ¶ 25; AT&T/T-Mobile Staff Analysis and Findings at ¶ 31.
[12] *See* Joint Opposition of T-Mobile US, Inc. and Sprint Corporation, WT Docket No. 18-197, at 99 n. 373 (Sept. 17, 2018) (stating that "the Commission traditionally reviews wireless transaction using a combined mobile telephone/mobile broadband services product market"); Woroch Decl. at 1 ("This transaction should be evaluated in terms of its competitive effects on the combined 'mobile telephony/broadband services' market.").
[13] *See* Pew Research Center Mobile Fact Sheet (Feb. 5, 2018), http://www.pewinternet.org/fact-sheet/mobile/.

Because neither fixed wireless services nor wireline services are mobile, they are not regarded by consumers of mobile wireless services as reasonable substitutes.[14] In addition, public Wi-Fi is generally regarded as less secure than a cellular network.[15]

ii. Prepaid wireless retail services is a relevant market

In addition to the mobile telephony/broadband services market, the parties also compete in a narrower market for prepaid wireless retail services. The mobile wireless marketplace is differentiated between prepaid and postpaid offerings. Prepaid plans are often marketed under a different brand name (such as Boost Mobile, MetroPCS and Cricket Wireless), sold in different stores, have different contractual terms (e.g. do not require a credit check or an annual plan), offer different handset options, and have other features that differentiate these plans from postpaid plans.

iii. Applicants mischaracterize new market entrants

The Applicants argue in their application with the California Public Utilities Commission ("C-PUC Application") that "the wireless space is increasingly populated by competitors beyond the traditionally recognized four nationwide wireless providers, making it impossible that the merger will reduce competition."[16] They point to Comcast, Charter, DISH, TracFone, and Google as new players in the wireless industry. This effort fails for at least two reasons. First,

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[14] Second Amended Complaint at ¶ 12, United States v. AT&T & T-Mobile, Case 1:11-cv-01560-ESH (D.D.C. filed Sept. 30, 2011), https://www.justice.gov/atr/case-document/file/487726/download [hereinafter DOJ AT&T/TMO Second Amended Complaint].

[15] *See, e.g.*, Symantec, Press Release, Consumers' Perceived Invincibility on Public Wi-Fi Could Be Placing Their Personal Information at Risk (July 9, 2017), https://www.symantec.com/about/newsroom/press-releases/2017/symantec_0709_01; Ryan Orsi, *Wi-Fi honeypots: Alive and well at RSAC 2018* (Apr. 30, 2018), https://www.helpnetsecurity.com/2018/04/30/wi-fi-honeypots-rsac-2018/.

[16] Application For Review of Wireless Transfer Notification Per Commission Decision 95-10-032, Application No. A1807012, at 30-31 (filed July 13, 2018) [hereinafter C-PUC Application].

there is no showing that consumers view any of these alternatives as effective substitutes for the Big Four wireless companies. Second, the parties have presented no evidence that any of these companies operates as a constraint on pricing or other competitive decisions by the Big Four. Market definition is not an abstract exercise. Market definition and the "hypothetical monopolist" test go hand in hand. The purpose of market definition is to identify "which product(s) in which geographic locations significantly constrain the price of the merging firms' products."[17] None of these suggested alternatives do so.

Comcast and Charter

Comcast's Xfinity Mobile is only available as part of a bundle with other Comcast services; its current total wireless subscribership of approximately 781,000 customers makes it less than two percent the size of Sprint; it is dependent on Verizon's network for wireless service; its "unlimited" plan shifts to reduced speeds after 20 GB of cellular data usage; and it offers few handset options.[18]

It is likely that Comcast is offering a mobile wireless service as part of a bundle in an effort to reduce its own continuing losses of customers for its legacy pay-TV business. According to Comcast executive David Watson, Xfinity Mobile is "designed to support the core cable business."[19]

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[17] FTC and DOJ Commentary on the Horizontal Merger Guidelines (2006), at 5.

[18] *Comcast Reports 2nd Quarter 2018 Results*, Comcast Corporation (July 26, 2018), available at: https://www.cmcsa.com/news-releases/news-release-details/comcast-reports-2nd-quarter-2018-results. Rob Pegoraro, *The hidden details in Comcast's wireless plan*, USA TODAY (Apr. 7, 2017), https://www.usatoday.com/story/tech/columnist/2017/04/07/hidden-details-comcasts-wireless-plan/100161224/; Mike Dano, *Comcast's Xfinity Mobile begins to accelerate, but analysts remain wary*, FIERCE WIRELESS (July 26, 2018), https://www.fiercewireless.com/wireless/comcast-s-xfinity-mobile-begins-to-accelerate.

[19] Julia Boorstin, *Comcast launches new wireless service, Xfinity Mobile*, CNBC (Apr. 6, 2017), https://www.cnbc.com/2017/04/06/comcast-launches-new-wireless-service-xfinity-mobile.html.

Charter has just begun to offer wireless cell service. Like Comcast, Charter relies on Verizon's network, only offers the service to Charter subscribers, and the service is only sold as part of a bundle with other Charter services. According to its CEO, Charter expects the new wireless service "to drive more sales of our core products and to create longer customer lives."[20]

As one industry observer has suggested,

> The cable companies have found that the more services that a customer purchases from a single company, the less likely that customer is to switch to a different service provider, even if they are unhappy with one or more of the service elements within the bundle. At least for now, Comcast's Xfinity Mobile and the impending Charter offering is more about preserving their wireline business than competing in the wireless business.[21]

The Applicants offer snippets suggesting that Comcast and Charter have broader ambitions. But there is no evidence in the record that Comcast or Charter are – or in a reasonable period of time will become – constraints on the merging parties' pricing or other competitive decisions. In February 2018, a few months before the proposed merger was announced, T-Mobile's CEO called Comcast's wireless service "very irrelevant" and Charter's wireless service "irrelevant squared."[22] Comcast's and Charter's pay-TV bundles are hardly a good second, third or even fourth choice for T-Mobile or Sprint customers who want mobile voice and data service.

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[20] See Karl Bode, *Charter Wireless Service to Launch in First Half of Next Year*, DSL REPORTS (Oct. 30, 2017).

[21] The Capitol Forum, *Sprint/T-Mobile: Despite Changes in Administration, Competitive Landscape, and Market Dynamics, Clearance Prospects Remain Highly Challenging*, at 5 (May 16, 2017).

[22] Daniel Frankel, *T-Mobile's Legere: Charter's wireless service will be 'irrelevant squared'*, FIERCEVIDEO (Feb. 8, 2018), https://www.fiercevideo.com/cable/t-mobile-s-legere-charter-s-wireless-service-will-be-irrelevant-squared.

DISH

DISH has amassed significant spectrum over the past decade. But the company faces what has been described as "an uphill climb to wireless relevance."[23] Some of DISH's spectrum is one-way, meaning it can be used only for downloading, but not for uploading data, making calls or sending text messages. DISH also lacks the network infrastructure of the Big Four wireless carriers. In addition, many of DISH's pay-TV customers live in rural areas. It is not at all clear whether DISH would be able to market a competitive wireless service effectively or profitably. Although DISH expects to invest in wireless projects in the next two years, and plans to deploy a 5G network, its plans at this point appear focused on supporting Internet of Things (IoT) applications.[24]

Google

Google's Project Fi has been in existence for approximately three years. The hallmark of the service is that it switches between cellular networks (Sprint, T-Mobile and U.S. Cellular) and Wi-Fi networks when available, offers a potentially lower-priced service for data usage, and works on a select number of phones. Google does not report subscriber numbers for Project Fi.

Project Fi is a mobile virtual network operator (MVNO). It has been characterized as a "Wi-Fi-first" provider, an MVNO that works to push customers' traffic onto Wi-Fi in order to protect them from the cost of cellular data. However, with the advent of unlimited cellular data plans by the Big Four wireless carriers, its business case has diminished.[25] According to one

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[23] The Capitol Forum, *T-Mobile/Sprint: Dish Faces Uphill Climb to Wireless Relevance Even If It Buys Divested Assets, Industry Experts Say* (July 12, 2018).
[24] *Id*.
[25] Mike Dano, *Wireless Editor's Corner—Whatever happened to Google's big MVNO, Project Fi?*, FIERCE WIRELESS (Jan. 12, 2017), https://www.fiercewireless.com/wireless/whatever-happened-to-google-s-big-mvno-project-fi.

industry analyst, "[Project] Fi has the challenge of being a product that might appeal to more techie users but commercially is of more interest to price-sensitive lower-use customers. Collectively, those Wi-Fi-first propositions have approximately 3 million users in the US – challenged by that niche pricing position, often limited device support, and marketing spend dwarfed by the big 4."[26] Project Fi is also compatible with a limited list of phones. Apple's iPhones, for example, are not compatible, as are most other major phone brands.[27]

In addition to the fact that Project Fi is a niche product with an uncertain future, there is the question of what impact the proposed transaction would have on a service that relies on both Sprint and T-Mobile networks and pits the network speeds of Sprint and T-Mobile against each other to determine which network to connect to. In other words, Project Fi has been a spur to competition between the parties to create better networks.

Finally, history suggests that Google does not have unlimited resources to throw at unprofitable or marginal businesses. A few years ago Google Fiber was seen as a viable competitive alternative to the incumbent cable companies.[28] No longer.

TracFone

The parties argue that TracFone "is exerting huge competitive pressure on traditional wireless competitors" as it is "the largest MVNO in the United States and the fifth largest wireless carrier by subscribership." But MVNOs depend upon facilities-based carriers'

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[26] *Id*.
[27] Andreas Rivera, *What is Google's Project Fi and How Does it Work?*, What Works for Business (Blog) (March 2, 2018), https://www.business.com/articles/project-fi-phone-system/.
[28] *See, e.g.*, Henry Blodget, *Here's Why You Will Instantly Dump Your Cable Company To Get Google Fiber*, BUSINESS INSIDER (Nov. 23, 2012), https://www.businessinsider.com/google-fiber-vs-your-cable-company-2012-11.

networks, and this relationship can be terminated or altered when it suits the network provider. For this reason, the competitive significance of MVNOs has historically been seen as limited.

There is no inherent virtue in TracFone's relative size in this wholesale relationship. As the FCC staff wrote in *AT&T/T-Mobile*,

> These firms [MVNOs] purchase service at wholesale rates from facilities-based providers. Unless the firms selling wholesale services (often the nationwide providers) have an ability and incentive to expand output after the proposed transaction, as we find unlikely, it is also unlikely that they would set wholesale rates at a level that would allow resellers to create significant new competition in retail services. Commission rules do not require facilities-based providers to offer services for resale.[29]

Accordingly, the staff concluded, "we would not expect resellers and MVNOs to be able to counteract or deter a competitive problem in retail mobile wireless services through expansion, whether on their own or in conjunction with expansion or new competition by other firms."[30]

Given that the "New T-Mobile's" share of the retail prepaid market would be over 60 percent (including MVNOs hosted by the Applicants) following the proposed merger,[31] prepaid business would potentially become a more important part of "New T-Mobile's" overall business, giving it greater incentive to focus on that segment and less incentive to provide wholesale service to a competitor. Indeed, this was one of Sprint's major theories in the *AT&T/T-Mobile*

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[29] *AT&T/T-Mobile Staff Analysis and Findings* ¶ 69 n. 202.
[30] *Id*. ¶ 69.
[31] Petition to Deny of DISH Network submitted to Federal Communications Commission, at 75-76, Table 2, Aug. 27, 2018. *See also* Carrier annual reports and Dennis Bournique, "Fourth Quarter, 2017 Prepaid Mobile Subscriber
Numbers by Operator," Prepaid Phone News (February 19, 2018), https://www.prepaidphonenews.com/2018/02/fourth-quarter-2017-prepaid-mobile.html, accessed August 15, 2018.

case, where Sprint was both a customer of and a competitor to the merging parties.[32] Any notion that the transaction would allow TracFone to create new competition does not square with the facts.

iv. Geographic markets

Both the FCC and the Department of Justice have in the past defined the relevant geographic markets as local, but have also recognized that there are important national characteristics which make it appropriate to consider also a national market.[33] In a similar vein, it is appropriate for the C-PUC to evaluate the impact on statewide and local markets.

From the consumer's perspective, local areas may be considered relevant geographic markets for mobile wireless telecommunications services. The Cellular Market Areas ("CMAs") that the FCC has identified and used to license mobile wireless telecommunications services providers often approximate the areas within which customers have the same competitive choices.[34]

v. Concentration

1. Mobile telephony/broadband services

Under any metric, the national market for mobile telephony/broadband services is highly concentrated. In 2017, according to the FCC's *2018 Communications Marketplace Report*, total

[32] *See, e.g.*, Sprint Complaint ¶ 7 ("as a result of the significant increase in market concentration resulting from the merger, AT&T and Verizon, both unilaterally and in coordination, would have the increased ability and incentive to directly raise the costs that their rivals must incur for backhaul and roaming").
[33] *See* T-Mobile/MetroPCS Order ¶ 34; *DOJ AT&T/TMO Second Amended Complaint* ¶¶ 14-20.
[34] *DOJ AT&T/TMO Second Amended Complaint* ¶ 17.

wireless service revenues were approximately $179.1 billion,[35] and the four nationwide service providers accounted for approximately 99 percent of that total.[36]

The Applicants have not provided national or California specific HHI estimates in their application. We submit that the reason Applicants have not supplied any HHI estimates is that, using *any* available data, the HHIs show that the proposed merger is presumptively anticompetitive under well-established antitrust case law.

We have estimated national HHIs in two ways. First, we looked at the number of wireless connections reported by AT&T, Sprint, T-Mobile, Verizon and U.S. Cellular as of the end of the second quarter of 2018. Second, we looked at revenue for wireless services for the same firms in 2017. The HHI takes into account the relative size distribution of the firms in a market. It increases both as the number of firms in the market decreases and as the disparity in size between those firms increases.[37] Thus, although there may be additional minor facilities-based fringe firms, their omission should not significantly impact the results. Our estimates are below.

	Pre-Merger HHI	Post-Merger HHI	Change
2Q18 Wireless Connections	2,762	3,281	519
2017 Wireless Service Revenues	2,811	3,243	432

The U.S. Department of Justice (DOJ) uses an HHI index to calculate the competitive impact of a merger. "Highly concentrated" markets have an HHI of 2500 or more.[38] DOJ presumes that an HHI increase of more than 200 points in highly concentrated markets such as

[35] *See* FCC, 2018 Communications Marketplace Report, GN Docket No. 18-231, FCC-CIRC1812-07, Collected Appendices, p. 12, Appendix A-4: ARPU (draft released Nov. 27, 2018) [hereinafter 2018 Communications Marketplace Report].
[36] *Id.* at 8, Fig. A-3.
[37] Herfindahl-Hirschman Index, DOJ, https://www.justice.gov/atr/herfindahl-hirschman-index.
[38] *2010 Merger Guidelines* § 5.3.

wireless is likely to enhance market power.[39] These results above show that the national retail wireless market is "highly concentrated" under the 2010 Horizontal Merger Guidelines and the change in concentration resulting from the merger is large enough to trigger the Guidelines' presumption that the merger is "likely to enhance market power."[40]

The Applicants also have failed to provide any information from which to calculate HHIs for individual California local markets. However, we do not expect the situation to be materially different on a local level. Many local markets, including major metropolitan markets, are likely to be highly concentrated. The FCC, using Numbering Resource Utilization and Forecast (NRUF) data, reports that as of year-end 2017 the weighted average HHI for mobile wireless services was 3,106,[41] and in virtually every local market analyzed by the FCC, the HHI exceeds 2,500—the DOJ/FTC classification of "highly concentrated markets."[42] In numerous local markets, the transaction is likely to trigger the 2010 Horizontal Merger Guidelines' presumption that the merger is "likely to enhance market power." Sprint, T-Mobile, and their wholesale partners have significant market share in specific geographic areas. For example, 56 percent of wireless customers in Los Angeles, and almost half (46 percent) of the customers in Sacramento, report cellular service from a Sprint or T-Mobile-owned company or wholesale partner.[43] Such local markets should be evaluated independently of the national market due to the large increase in concentration post-merger.

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[39] *Id.*

[40] *Id.* Using the revenue information in Table II.C.1 of the FCC 20th Mobile Wireless Report yields similar results for 2016: Pre-merger HHI is 2,850, post-merger HHI is 3,262 and the change is 412.

[41] 2018 Communications Marketplace Report ¶ 30.

[42] *Id.* at 22, Fig. A-22.

[43] Petition to Deny of Free Press submitted to Federal Communications Commission, WT Docket No. 18-197, at 68, Fig. 9 (Aug. 27, 2018), https://ecfsapi.fcc.gov/file/10827006310093/REDACTED%20-%20Free%20Press%20Petition%20to%20Deny%20T-Mobile%20Sprint%20(WT%2018-197).pdf [hereinafter Free Press Petition].

Using proprietary FCC numbering (NRUF) data, consumer organization Free Press in its FCC Reply Comments calculates both national and local HHIs, weighting the national estimates according to the size of the local market. While the data in the Free Press analysis is redacted under the terms of a protective order, Free Press concludes that the "NRUF data confirms just how concentrated the U.S. wireless market is, both at the national-level and at the Cellular Market Area ("CMA") level" and notes that applying the DOJ's screen for a post-merger HHI reveals how "troubling the summary data are."[44] But even more problematic, according to Free Press, are the HHIs in large urban areas, including the Los Angeles CMA, which suggests to Free Press "the importance of T-Mobile and Sprint to price-sensitive customers – a segment that is disproportionately made up of lower-income people and persons of color, both of which groups are disproportionately located in large, urban U.S. markets."[45]

2. Prepaid wireless retail services

For prepaid services, concentration levels and the change in concentration from the merger would be even greater. We estimated national HHIs based on the number of prepaid wireless subscribers for the branded services of AT&T, Sprint, T-Mobile, Verizon, and U.S. Cellular, all of which are facilities-based providers, as of the end of the second quarter of 2018.[46] The results are below.

	Pre-Merger HHI	Post-Merger HHI	Change
2Q18 Prepaid Subscribers (facilities-based)	3,037	4,461	1,424

[44] *See* Free Press Reply Comments, WT Docket No. 18-197, Oct. 31, 2018 at 8-14.
[45] *Id.* At 12-13.
[46] Some but not all of these firms also report information about the number of reseller/wholesale wireless subscribers. Because not all of the firms report such information, and to avoid estimating what share of those reseller/wholesale subscribers should be counted as prepaid subscribers, we attempted to estimate shares and HHIs based on the information we could document at this time. Accordingly, we did not use reseller/wholesale subscriber numbers in our calculations.

Although we recognize that the FCC generally attributes the subscribers of MVNOs to their host facilities-based service providers,[47] we did not have granular enough data that would have allowed us to reliably make this attribution.

Notably, however, even if one were to depart from the FCC's standard approach and *not* attribute MVNO subscribers to a facilities-based provider, the HHI results would not dramatically change. For the sake of argument, we estimated HHIs based on the number of prepaid wireless subscribers for the branded services of AT&T, Sprint, T-Mobile, Verizon, U.S. Cellular, and, in addition, included TracFone subscribers separately, as of the end of the second quarter of 2018. The results are below. They suggest that even if the FCC were to depart from its standard practice of attributing the subscribers of MVNOs to their host facilities-based providers, the transaction would still result in a highly concentrated market and the change in concentration would be high enough to trigger the Guidelines' presumption that the merger is "likely to enhance market power" in the prepaid segment of the market.

	Pre-Merger HHI	Post-Merger HHI	Change
2018 Prepaid Subscribers (incl. TracFone)	2388	3086	698

To be sure, market shares and HHIs do not necessarily tell the whole story.[48] Industries with few players may be intensely competitive. However, the empirical evidence is stronger today than it was a few years ago that the Horizontal Merger Guidelines' presumption is a valid predictor of post-merger harm. The author of the leading retrospective study of merger price effects, Professor John Kwoka, has shown that a large number of mergers that lie above identifiable HHI thresholds indeed prove to be anticompetitive when analyzed after the fact. The

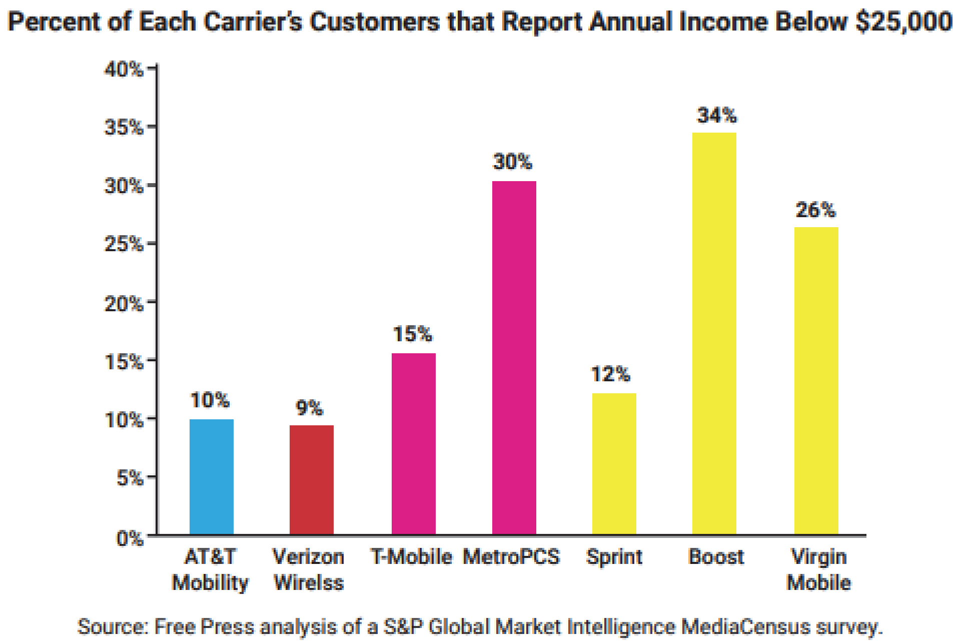
[47] *20th Wireless Report* ¶ 33 n. 99.
[48] *20th Wireless Report* ¶ 33.

prediction is stronger when a simple HHI measure is supplemented by a change in HHI, and stronger still when couched in terms of the number of significant competitors in the market. These results, according to Kwoka, validate thresholds like those in the 2010 Horizontal Merger Guidelines. "The evidence is, simply put, quite strong."[49]

Other economic scholars also find value in having a structural presumption. Professor Steven Salop recently cast the structural presumption of *Philadelphia National Bank*[50] in decision theoretic terms. Salop quotes approvingly from *Philadelphia National Bank,* noting that the precise effect of a merger is not "susceptible of a ready and precise answer in most cases," that congressional intent should not be subverted by "permitting a too-broad economic investigation" and hence that, where possible, the courts ought to "simplify the test of illegality" with a presumption.[51] If (and when) the Applicants offer a detailed economic analysis, this cautionary note by one of their economists should be kept in mind.

Price sensitive low- and moderate-income consumers typically purchase prepaid wireless plans. T-Mobile's MetroPCS, Sprint's Boost and Virgin Mobile prepaid brands, and their wholesale partners serve 60 percent of the prepaid market.[52] Almost one-third of these customers have annual incomes below $25,000.[53] Post-merger, the new T-Mobile's low and moderate-income prepaid customers, many of whom depend on their smartphones for broadband access, could be priced out of the wireless market.

[49] John Kwoka, *The Structural Presumption and the Safe Harbor in Merger Review*, 81 ANTITRUST L.J. 837, 872 (2017).
[50] United States v. Phila. Nat'l Bank, 374 U.S. 321 (1963).
[51] Steven C. Salop, *The Evolution and Vitality of Merger Presumptions: A Decision-Theoretic Approach*, 80 ANTITRUST L.J. 269, 272 (2015).
[52] DISH Petition at 75-76.
[53] Free Press Petition at 69, Fig. 10.



3. Spectrum

The FCC has long recognized that spectrum is an important input for Commercial Mobile Radio Services and has said that "the state of control over the spectrum input is a relevant factor in its competitive analysis."[54]

Sprint's own economic experts have explained in an article why concentration in spectrum ownership has "significant implications for competition in the provision of wireless service":

> First, spectrum is an essential input for wireless carriers. Carriers with limited spectrum holdings have limited capacities and are, for that reason, handicapped in competing for wireless subscribers. Second, because there are significant scale economies in the provision of wireless services, a carrier with small spectrum holdings, and a commensurately small share of subscribers, can be expected to have higher costs per subscriber than a carrier with large spectrum holdings and a

[54] In re Policies Regarding Mobile Spectrum Holdings Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions, Report and Order, 29 FCC Rcd 6133, 6143 ¶ 17 (2014).

large subscriber share. This cost disadvantage reinforces the effect of the competitive disadvantage that results directly from the carrier's smaller capacity.[55]

Spectrum that is suitable and available in the near term for the provision of mobile telephony/broadband services is counted in the FCC's initial spectrum screen, which the FCC uses when reviewing proposed transfers of control of spectrum to identify local markets in which changes in spectrum holdings resulting from the transaction may be of particular concern. The screen is triggered when a wireless provider would hold approximately one-third or more of the spectrum.[56]

There is currently a total of up to 715.5 MHz of spectrum that is suitable and available in the near term for the provision of mobile telephony/broadband services.[57] This results in a screen as high as 238.5 MHz. In their FCC Public Interest Statement, the Applicants appear to assume that the screen should be 238.5 everywhere.[58]

The transaction would massively exceed the spectrum screen. Specifically:

- Using data provided in Appendix L-1 of the Public Interest Statement, we estimate that the "New T-Mobile" would exceed the spectrum screen in 52 of the 58 counties in California. (*See* attached Appendix B)

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[55] Stanley M. Besen, Stephen D. Kletter, Serge X. Moresi, Steven C. Salop & John R. Woodbury, *An Economic Analysis of the AT&T-T-Mobile USA Wireless Merger*, 9 JOURNAL OF COMPETITION LAW & ECONOMICS 23, 31 (2013).
[56] In re Policies Regarding Mobile Spectrum Holdings Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions, Report and Order, 29 FCC Rcd 6133, 6156 ¶ 44 (2014).
[57] 20th Mobile Wireless Report at ¶ 39, Table II.E.1.; 2018 Communications Marketplace Report, at 30, Fig A-23.
[58] Description of Transaction, Public Interest Statement, and Related Demonstrations, 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, 134 (June 18, 2018) [Hereinafter PIS].

- In California, 99.2 percent of the population of the state's population – or almost 37 million people – live in counties in which the spectrum screen would be exceeded post-merger.[59] (*See* Attached Appendix B)
- The spectrum holdings of the "New T-Mobile" – almost 300 MHz on an average basis – would vastly exceed the FCC's spectrum screen and the holdings of other wireless carriers. The "New T-Mobile" would hold nearly three times as much spectrum per subscriber as Verizon, and more than twice as much spectrum per subscriber as AT&T.

The parties fail to explain why they require so much spectrum, even to deploy the promised 5G services, and how they can reconcile such a large aggregation of spectrum with their position that there will be robust competition in both current generation and 5G mobile wireless services.

b. Unilateral Competitive Effects

As one District Court recently noted, "[m]ergers that eliminate head-to-head competition between close competitors often result in a lessening of competition."[60] Sprint and T-Mobile have aggressively and successfully targeted each other for years through pricing, promotions, service, handset offerings and other competitive moves. This intense head-to-head competition has spurred both companies to invest in and upgrade their networks in order to attract and retain

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[59] CWA calculation based on data in Public Interest Statement Appendix L-1. Population residing in counties that exceed the FCC spectrum screen of 238.5 MHz (284,945,126) divided by total U.S. population (308,745,538) = 92 percent of U.S. population. Note that we eliminate duplicate entries from Appendix L-1. The duplicates are Baltimore MD, Roanoke VA, St. Louis MO, Richmond VA, Franklin VA. Source for total U.S. population is 2010 U.S. Census.

[60] FTC v. Staples, Inc., 190 F. Supp. 3d 100, 131 (D.D.C. 2016).

customers – often, each other's customers. Consumers have benefited from this direct head-to-head competition. The proposed transaction would end it.

The head-to-head competition between the carriers appears to have been robust until the end of 2017, after which the companies seemed to back off on some promotional activity and marketing targeted at each other's customers. This trend aligns with statements by company executives signaling less reliance on discounting as a competitive strategy.

i. Head-to-head competition between Sprint and T-Mobile 2015

In June 2015, T-Mobile launched Jump On Demand, a smartphone leasing program that gave customers the ability to upgrade their smartphones up to three times a year. The company advertised Jump as being cheaper than other carrier leasing programs, including Sprint's.[61] In September, Sprint launched an iPhone leasing plan that started at $1 per month, in direct response to T-Mobile's $5-per-month iPhone leasing plan.[62]

In November 2015, Sprint unveiled a limited-time promotion offering 50 percent off to T-Mobile, Verizon, and AT&T customers.[63] In response, T-Mobile's CEO took to Twitter to contrast T-Mobile's offering with Sprint's.[64]

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[61] Dan Seifert, *T-Mobile's new phone leasing program lets you upgrade three times a year, Jump On Demand is the carrier's latest move to sell you smartphones*, THE VERGE (June 25, 2015, 9:26am EDT), https://www.theverge.com/2015/6/25/8844935/t-mobile-jump-on-demand-leasing-program.

[62] *Sprint will launch iPhone 6S leasing plan featuring $1 a month*, KANSAS CITY STAR (Sept. 24, 2015 11:57 AM; Updated Sept. 24, 2015 07:12 PM), https://www.kansascity.com/news/business/technology/article36470874.html.

[63] Tara Donnelly, *Sprint cuts AT&T, Verizon and T-Mobile plans in half to celebrate LTE Plus launch*, WHISTLEOUT (Nov. 19, 2015), https://www.whistleout.com/CellPhones/Guides/sprint-cuts-att-verizon-t-mobile-plans-in-half.

[64] Dan Thorp-Lancaster, *T-Mobile CEO John Legere rails against Sprint over new promotion*, ANDROIDCENTRAL (Nov. 18, 2015), https://www.androidcentral.com/t-mobile-ceo-john-legere-rails-against-sprint-over-new-promotion.

That same month, Sprint flew a promotional banner over T-Mobile's corporate headquarters. T-Mobile had done something similar a month earlier, writing "End Overages Now" above Verizon's headquarters.[65]

2016

In August 2016, T-Mobile and Sprint announced unlimited data plans (T-Mobile One and Unlimited Freedom) within minutes of each other. This triggered a heated Twitter exchange between Sprint's then CEO Marcelo Claure and T-Mobile's CEO John Legere,[66] in which they accused each other of mimicry. A week or so later, Sprint launched Unlimited Freedom Premium, which offered unlimited HD streaming in addition to unlimited data; the press release announcing the offering included a graphic comparing the plan to T-Mobile One.[67] Days later, T-Mobile followed with a premium-tier unlimited plan (T-Mobile One Plus), giving customers unlimited HD video streaming, unlimited LTE hotspot use, in addition to unlimited data.[68]

In September 2016, ahead of the iPhone 7 launch, T-Mobile offered a free 32GB iPhone 7 to new and existing customers trading in an iPhone 6.[69] The same day, Sprint launched a

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[65] Jacob Demmitt, *T-Mobile cries copycat as Sprint flies banner over its Bellevue headquarters*, GEEKWIRE (Nov. 20, 2015 at 3:30 pm), https://www.geekwire.com/2015/t-mobile-calls-copycat-as-sprint-flies-banner-of-its-bellevue-headquarters/.

[66] Mark Davis, *Sprint and T-Mobile launch unlimited data plans, spurring CEO squabble*, KANSAS CITY STAR (Aug. 18, 2016 08:59 AM; Updated Aug. 18, 2016 07:29 PM), https://www.kansascity.com/news/business/technology/article96361492.html.

[67] Sprint, Press Release: Sprint Launches Unlimited Freedom Premium (Aug. 26, 2016), http://newsroom.sprint.com/sprint-launches-unlimited-freedom-premium.htm.

[68] Tara Donnelly, *T-Mobile upgrades unlimited with One Plus, takes on Sprint's Premium plan*, WHISTLEOUT (Aug. 30, 2016), https://www.whistleout.com/CellPhones/News/t-mobile-upgrades-unlimited-with-one-plus.

[69] *T-Mobile offers free iPhone 7 to anyone who trades in an iPhone 6/s, deal starts tomorrow alongside pre-orders*, 9TO5MAC (Sept. 8, 2016 7:41 am PT), https://9to5mac.com/2016/09/08/t-mobile-free-iphone-7-trade-deal/.

nearly identical promotion. It also offered 256 GB iPhone 7s for the price of the 128 GB model online.[70]

2017

In February 2017, on the heels of Verizon's launch of its unlimited data plan, T-Mobile upgraded its basic unlimited plan to include unlimited HD video streaming.[71] In response, Sprint rolled out an unlimited data plan that included unlimited HD video streaming, but priced less than its Unlimited Freedom Premium plan.[72] It also began to run a promotion offering five lines of unlimited data, talk and text for $90 a month, which it claimed as a "better value than Verizon, AT&T and T-Mobile."[73]

In June 2017, Sprint began offering a free year of unlimited data to customers of T-Mobile, Verizon, and AT&T.[74]

In August 2017, T-Mobile launched a plan geared toward seniors, called the T-Mobile One Unlimited 55+.[75] COO Mike Sievert claimed the offering was primarily aimed at AT&T

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[70] Jordan Kahn, *Sprint matches T-Mobile's free 32GB iPhone 7 w/ trade-in deal, offers 256GB for $100 off*, 9TO5MAC (Sept. 8, 2016 11:44 am PT), https://9to5mac.com/2016/09/08/sprint-free-iphone-7-promo-preorder-deal/.

[71] Chris Welch, *T-Mobile responds to Verizon by improving its own unlimited data plan*, THE VERGE (Feb. 13, 2017, 4:18pm EST), https://www.theverge.com/2017/2/13/14601844/t-mobile-unlimited-plan-hd-video-hotspot-verizon.

[72] Chaim Gartenberg, *Sprint follows Verizon and T-Mobile in offering better unlimited data plans: Five lines for $90 per month until March 31st, 2018*, THE VERGE (Feb. 16, 2017, 11:09am EST), https://www.theverge.com/2017/2/16/14635998/sprint-unlimited-data-plan-new-verizon-t-mobile.

[73] Sprint, Press Release: Sprint Announces FIVE Lines of Unlimited Data, Talk and Text for $90/month (Feb. 10, 2017), http://newsroom.sprint.com/sprint-announces-five-lines-unlimited-data-talk-and-text-for-90month.htm.

[74] Jeff Dunn, *Sprint is offering an aggressive deal: a free year of 'unlimited' data for people who switch from Verizon, AT&T, or T-Mobile*, BUSINESS INSIDER (June 13, 2017, 1:17 PM), https://www.businessinsider.com/sprint-free-unlimited-plan-deal-switch-verizon-att-t-mobile-2017-6.

[75] T-Mobile, Press Release: A New Reason to Get a Fake ID: Introducing T-Mobile ONE Unlimited 55+ (Aug. 6, 2017), https://www.t-mobile.com/news/unlimited-55.

and Verizon customers and was seeing success.[76] In February 2018, Verizon rolled out a senior plan.[77] Sprint followed suit in May 2018.[78]

In September 2017, T-Mobile began to give Netflix for free to subscribers of its unlimited family plans.[79] In November, Sprint started to bundle Hulu into its unlimited plans for free.[80] Analysts read these efforts as competitively-driven attempts to differentiate by providing content.[81]

In October 2017, ahead of the iPhone X launch, Sprint offered to discount iPhone Xs to new and existing customers who traded in eligible smartphones. T-Mobile followed with a similar promotion.[82]

2018

In April 2018, T-Mobile launched T-Mobile One Military, which shaved $15 off plan costs for service members and additional discounts for each line. This undercut Sprint's military

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[76] Mike Dano, *Verizon offers response to T-Mobile's unlimited plan for customers over 55 years old*, FIERCEWIRELESS (Feb. 23, 2018 12:32pm), https://www.fiercewireless.com/wireless/verizon-tests-response-to-t-mobile-s-unlimited-plan-for-customers-over-55-years-old.
[77] *Id*.
[78] Martha DeGrasse, *Sprint matches T-Mobile's price plan for seniors*, FIERCEWIRELESS (May 17, 2018 10:55 am), https://www.fiercewireless.com/wireless/sprint-matches-t-mobile-s-price-plan-for-seniors.
[79] Todd Spangler, *T-Mobile Giving Netflix Free to Family-Plan Unlimited Subscribers*, VARIETY (Sept. 6, 2017 8:07 AM PT), https://variety.com/2017/digital/news/t-mobile-netflix-free-family-plans-1202548815/.
[80] Todd Spangler, *Sprint Will Bundle Hulu VOD Service With Unlimited Plans for No Extra Cost*, VARIETY (Nov. 15, 2017 6:00AM PT), https://variety.com/2017/digital/news/sprint-hulu-vod-unlimited-plan-1202614940/.
[81] Anjali Athavaley, *T-Mobile to launch TV service in 2018, buy Layer3 TV*, REUTERS (Dec. 13, 2017 / 10:21 AM), https://www.reuters.com/article/us-layer3-m-a-tmobile/t-mobile-to-launch-tv-service-in-2018-buy-layer3-tv-idUSKBN1E722M.
[82] *Verizon, Sprint, T-Mobile, announce iPhone X discounts ahead of launch*, APPLEINSIDER (Oct. 23, 2017, 04:36 pm PT), https://appleinsider.com/articles/17/10/23/verizon-sprint-t-mobile-announce-iphone-x-discounts-ahead-of-launch.

plan, which discounted total costs by 15 percent.[83] In July, Sprint rolled out a 50 percent discount on military family phone lines.[84]

ii. Head-to-head competition between Boost Mobile and MetroPCS

2015

In June 2015, Boost Mobile offered to halve the cost of plans for customers that switched from either MetroPCS or Cricket Wireless.[85]

In July 2015, MetroPCS began to promote unlimited plans that enabled unlimited calling, messaging, and data roaming in Mexico. The carrier highlighted the contrast between its plans and Boost Mobile's, which did not offer data roaming services in Mexico.[86]

2016

In January 2016, MetroPCS offered Sprint, Boost Mobile, and Virgin Mobile customers the option to switch for 22 to 50 percent off their current pricing.[87] Both Boost Mobile and Virgin Mobile were owned by Sprint, and the press release announcing the promotion took direct aim at the offerings of Sprint and its prepaid brands.[88]

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[83] Edward C. Baig, *T-Mobile launches wireless plan for military: $100 for four lines*, USA TODAY (April 18, 2018), https://www.usatoday.com/story/tech/columnist/baig/2018/04/18/t-mobile-launches-wireless-plan-military-100-four-lines/525541002/.
[84] Karen Jowers, *Sprint rolls out 50 percent military discount on family phone lines*, MILITARY TIMES (July 12, 2018), https://www.militarytimes.com/pay-benefits/2018/07/12/sprint-rolls-out-50-percent-military-discount-on-family-phone-lines/.
[85] Alex Wagner, *Boost Mobile promo offers to halve the plan prices of Cricket and MetroPCS switchers*, ANDROID AND ME (June 19, 2015 at 6:08 PM), https://androidandme.com/2015/06/news/boost-mobile-promo-offers-to-halve-the-plan-prices-of-cricket-and-metropcs-switchers/.
[86] Dan Meyer, *MetroPCS coverage now includes Mexico in battle with Boost, Cricket*, RCR WIRELESS NEWS (July 15, 2015), https://www.rcrwireless.com/20150715/carriers/metropcs-coverage-now-includes-mexico-in-battle-with-boost-cricket-tag2.
[87] T-Mobile, Press Release: MetroPCS Launches 'The Biggest Offer in Sprint's History' (Jan. 19, 2016), https://www.t-mobile.com/news/metropcs-takes-on-sprint.
[88] *Id*.

In March 2016, Boost Mobile launched a limited-time offer: two lines of unlimited talk, text, and data for $60 a month. Advertisements of the offer included statements like: "2X More Data than MetroPCS" and "Save up to 25% compared to MetroPCS."[89]

2017

In May 2017, Boost Mobile launched its "Project Switch" campaign, an effort to convince wireless customers to switch to Boost.[90] The campaign took aim at MetroPCS. It claimed that customers switching to Boost would receive unlimited high-speed data, while MetroPCS customers were capped at 2 GB of high-speed data.[91]

In August 2017, MetroPCS debuted a two-line unlimited data plan for $75, with the first line priced at $50 and the second at $25.[92] Analysts viewed this as undercutting Boost Mobile's unlimited data plan, which offered $50 for the first line and $30 for the second line.[93] Two weeks later, Boost Mobile dropped the price for additional lines to $25 a month.[94]

In September 2017, Boost Mobile announced plans to bundle in taxes and fees into plan costs. Analysts viewed the change as motivated by T-Mobile, which announced earlier in the

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[89] Tara Donnelly, *Switch to Boost, save 50% (and get a free phone)*, WHISTLEOUT (March 4, 2016), https://www.whistleout.com/CellPhones/News/switch-to-boost-save-50-percent.

[90] Alexandra Arici, *Boost Mobile unveils new campaign to encourage customers to switch*, ANDROID GUYS (May 12, 2017), https://www.androidguys.com/news/boost-mobile-unveils-new-campaign-to-encourage-customers-to-switch/.

[91] Sprint, Press Release: *Boost Mobile y su nueva campaña "Project Switch" exhorta a los clientes a que "hagan el switch" de su compañía telefónica actual y comiencen a ahorrar* (May 11, 2017), http://newsroom.sprint.com/boost-mobile-y-su-nueva-campaa-project-switch-exhorta-los-clientes-que-hagan-el-switch-de-su-compaa-telefnica-actual-y-comiencen-ahorrar.htm.

[92] Tara Seals, *MetroPCS undercuts AT&T's Cricket, Boost with $75 2-line unlimited plan*, FIERCEWIRELESS (Aug. 9, 2017 1:08 pm), https://www.fiercewireless.com/metropcs-undercuts-at-t-s-cricket-boost-75-2-line-unlimited-plan.

[93] *Id*.

[94] Adrian Diaconescu, *Boost Mobile fights back at MetroPCS with sweet add a line unlimited deal of its own*, POCKETNOW (Aug. 14, 2017 11:46 am), https://pocketnow.com/boost-mobile-add-line-unlimited-gigs-deal-25-dollars-month.

year that it would bundle costs for its newest plans.[95] The effort put Boost Mobile on a level playing field with MetroPCS, which had reportedly bundled costs since 2010.[96]

In October 2017, MetroPCS started offering four lines of unlimited data for $100. That week, Boost Mobile began offering five lines of unlimited data for $100.[97]

2018

In February 2018, Boost Mobile ran a promotion called "Switch Off MetroPCS," which gave 2 months of free service to MetroPCS customers who switched to Boost.[98]

In April 2018, Boost Mobile offered a free month of service for new customers who brought their own device to the carrier. Shortly after, MetroPCS announced new customers would receive two months of free service.[99]

iii. Likelihood that transaction will lead to unilateral competitive effects

When a merger or acquisition involves two of the closest direct competitors (viewed in terms of their product or service offerings), the primary competitive concern is often that it will lead to adverse unilateral competitive effects, and in particular higher prices. In a unilateral effects analysis, the degree to which the products sold by merging parties are viewed as close substitutes is an important factual question. As the 2010 Horizontal Merger Guidelines state,

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[95] Jacob Kastrenakes, *Boost Mobile now includes taxes and fees in its plans just like T-Mobile*, THE VERGE (Sept. 8, 2017, 9:47 am EDT), https://www.theverge.com/2017/9/8/16273586/boost-mobile-now-bundles-taxes-fees-in-service-plans.
[96] *Id*.
[97] Chris Mills, *Sprint just one-upped T-Mobile with 5 Unlimited lines for $100*, BGR (Oct. 26, 2017 at 4:54 PM), https://bgr.com/2017/10/26/best-prepaid-unlimited-plan-2017-boost-vs-metropcs/.
[98] Joe Paonessa, *Boost Mobile Giving Away 2 Months Of Free Service When You Switch From MetroPCS*, BESTMVNO (Feb. 9, 2018), https://bestmvno.com/boost-mobile/boost-mobile-switch-off-metropcs/.
[99] Mike Dano, *T-Mobile's MetroPCS gives away 2 free months of service*, FIERCEWIRELESS (April 12, 2018 11:02am), https://www.fiercewireless.com/wireless/t-mobile-gives-away-2-free-months-metropcs-service.

"The extent of direct competition between the products sold by the merging parties is central to the evaluation of unilateral price effects."[100] The closer the competition, the more likely there will be unilateral price effects from a transaction. In the words of the Guidelines, "Unilateral price effects are greater, the more the buyers of products sold by one merging firm consider products sold by the other merging firm to be their next choice."[101]

The Horizontal Merger Guidelines discuss the types of evidence that are useful for assessing the extent of competition when unilateral effects are at issue: "The Agencies consider any reasonably available and reliable information to evaluate the extent of direct competition between the products sold by the merging firms. This includes documentary and testimonial evidence, win/loss reports and evidence from discount approval processes, customer switching patterns, and customer surveys."[102] The Guidelines also discuss three types of economic evidence that are particularly relevant to unilateral effects analysis: diversion ratios (i.e. the percentage of customers who would respond to a price increase by one of the merging parties by switching to the other party), "gross upward pricing pressure," and merger simulation models.[103]

So for the proposed transaction to confer a unilateral incentive on the acquiring entity to raise the prices of its products, "a non-trivial fraction" of either T-Mobile's or Sprint's customers must view the other's products and services as their second choice at pre-merger prices, and view the products and services of AT&T and Verizon as more distant choices.[104] The greater the

[100] *2010 Merger Guidelines* at § 6.1.
[101] *Id*.
[102] *Id*.
[103] *Id*.
[104] *AT&T/T-Mobile Staff Analysis and Findings* at ¶ 54.

fraction of Sprint users who view T-Mobile as their second choice (and vice versa), the greater the likely harm.[105]

As the DOJ found in *AT&T/T-Mobile*, each of the Big Four's offerings differ.[106] Moreover, consumers have differing preferences as well.[107] Because both carriers and consumers are diverse, customers differ as to the firms that are their closest and most desired alternatives. Where there is significant substitution between the merging firms by a substantial share of consumers, anticompetitive effects are likely to result.[108]

The FCC staff in *AT&T/T-Mobile* specifically noted this closeness between Sprint and T-Mobile. While certain T-Mobile customers viewed AT&T as their second choice, the staff found that many Sprint and T-Mobile customers saw the other as their second choice. As the staff found, if AT&T and T-Mobile merged, Sprint would likely accede to raising its price. Why was that? Precisely because Sprint "may have a particular advantage in attracting T-Mobile's customers: retail subscribers view Sprint services as closer substitutes for T-Mobile's services than Verizon and AT&T's services."[109] The Local Number Portability ("LNP") database which tracks the movement of customers' phone numbers confirms that Sprint and T-Mobile's customers see each other as their closest competitor.[110] DISH performs this analysis, using confidential FCC Local Number Porting (LNP) data. Based on this analysis, DISH explains that "[t]he porting data…proves that this is not just a simple 4-to-3 merger. The two merging parties

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[105] *Id*.
[106] *DOJ AT&T/TMO Second Amended Complaint* ¶ 37.
[107] *Id*.
[108] *Id.*
[109] *AT&T/T-Mobile Staff Analysis and Findings* at ¶ 83.
[110] Reply to Opposition of Free Press, Applications of T-Mobile US, Inc. and Sprint Corporation for Consent to Transfer Control of Licenses and Authorizations, WT Docket No. 18-197, at 18-52 (October 31, 2018); DISH Reply at 2.

are each other's closest competitors."[111] The consumer organization Free Press reached similar conclusion in its analysis of the LNP data, noting that the data confirms "that this merger would have an outsized impact on customers whose purchasing decisions are based primarily on price." As Free Press further explains, "[t]he economic evidence presented in the record suggests, and subsequent data derived from the LNP database confirms that the loss of Sprint (along with its pre-paid brands Boost and Virgin) as an independent competitor would give post-merger T-Mobile a unilateral incentive to raise prices and otherwise exercise market power."[112]

The unilateral competitive effects of the merger will result in less competition and higher prices for consumers. While the Applicants have not submitted their economic studies in this proceeding, they have been thoroughly refuted by others.[113] The Brattle Group economists estimate that the merger would increase prices as much as 15.5% on the new T-Mobile's prepaid plans and as much as 9.1% for postpaid plans.[114]

IV. APPLICANTS' CLAIMED EFFICIENCIES AND BENEFITS ARE OVERBLOWN AND MISLEADING

In determining whether a merger is in the public interest, the Commission considers

[111] *See* DISH Reply Comments, FCC WT Docket No. 18-197 at 2 and 12-18 (October 31, 2018) (also filed in NY PSC Case 18-C-0396).
[112] *See* Free Press, WT Docket No. 18-197, at 2 and 18-31.
[113] See Comments of Communications Workers of America on Applicants' New Econometric Study filed with the Federal Communications Commission, Applications of T-Mobile US, Inc., and Sprint Corporation for Consent to transfer Control of the Licenses and Authorizations, WT Docket No. 18-197, December 4, 2018; Comments of DISH Network In Response To Public Notice Regarding Cornerstone Report, WT Docket No. 18-197, December 4, 2018; CWA Reply Comments, WT Docket No. 18-197, 24-29, Oct. 31, 2018; Dish Reply at 11-34..
[114] Joint Declaration of Joseph Harrington, Coleman Bazelon, Jeremy Verlinda, and William Zarakas, The Brattle Group, Exhibit B, p. 10 of Petition to Deny of DISH Network submitted to Federal Communications Commission, Aug. 27, 2018, https://ecfsapi.fcc.gov/file/108271088719800/REDACTED%20DISH%20PTD%20Sprint%20TMO%208-27-18.pdf. [hereinafter DISH Petition]

several factors, including whether the merger will maintain or improve the quality of service.[115] The Commission should not consider the purported benefits of a merger if they are "vague, speculative, or otherwise cannot be verified by reasonable means."[116] While the Applicants claim that the proposed merger would improve the quality of service provided to their customers, there is no evidence that claim is true.

The showing that must be made by the Applicants has been aptly described by their own economists in a published article: "if the merger's acceptability requires a showing of substantial efficiencies, the support for those efficiencies must be rigorous and consistent with past firm practices, well documented, able to survive at least simple and obvious robustness checks, and carefully integrated with the competitive effects analysis."[117]

The Applicants' Application with the Commission is long on hyperbole – the merger will give birth to "a World-Class Nationwide 5G Network"; it will "make possible fiber-like data speeds"; it will "aggressively compete against conventional in-home wired broadband products"; it will provide "high-speed broadband for rural areas," and so forth.[118] But the Application is remarkably short on detail, despite its impressive length.

The balance of this section addresses the argument that neither Sprint nor T-Mobile can effectively compete as standalone firms, and specifically that neither can "win" the race to deploy a next-generation nationwide 5G network. Upon closer inspection, this rationale falls apart for two key reasons:

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115 Pub. Util. Code § 854(c).
116 Horizontal Merger Guidelines, 7.
117 Stanley M. Besen, Stephen D. Kletter, Serge X. Moresi, Steven C. Salop & John R. Woodbury, *An Economic Analysis of the AT&T-T-Mobile USA Wireless Merger*, 9 JOURNAL OF COMPETITION LAW & ECONOMICS 23, 46 (2013).
118 C-PUC Application at 13-31.

- Both companies are viable on a standalone basis and are already in the process of improving their networks, including their ability to provide initial 5G services. Neither company needs the proposed transaction to be an effective competitor in the future.

- While Sprint presently appears to lack the tools to offer 5G in rural parts of the country, the Applicants have made no showing that the merged firm would have either the incentive or ability to provide hallmark 5G services outside of densely-populated areas. The proposed merger does not change that reality for rural America.

a. T-Mobile and Sprint have been touting their 5G plans for some time and have been making investments in anticipation of its arrival

Just last month, T-Mobile issued a press release stating: "T-Mobile is building out 5G in six of the Top 10 markets, including New York and Los Angeles, and hundreds of cities across the U.S. in 2018. The network will be ready for the introduction of the first 5G smartphones in 2019. We plan on the delivery of nationwide 5G network in 2020."[1] Similarly, Sprint last month confirmed that the company is on track for a 5G rollout in the first half of 2019, highlighting the benefits of massive MIMO in its 2.5 GHz spectrum, noting that it is "very, very well positioned for 5G."[119] In 2017, before entering into the proposed transaction with its arch-rival Sprint, T-Mobile management told investors that it was planning to offer the first nationwide 5G network in the United States.[120] Management claimed that this effort had been underway "for years" and that T-Mobile was making significant operational improvements and investments in order to realize this grand plan. Now, reversing course, T-Mobile claims that it cannot win the race to 5G without merging with its closest competitor.

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[119] T-Mobile Press Release, "T-Mobile Delivers Its Best Financials Ever and Strong Customer Growth in Q3," at 5 (Oct. 30, 2018); Transcript, Sprint Corp., Q2 2018 Earnings Call, S&P Global (October 31, 2018).
[120] Adding a new Layer to the Un-Carrier story: Layer 3 deal takeaways, Matthew Niknam, Deutsche Bank Markets Research, (December 13, 2017).

During an analyst call in December 2017 announcing the acquisition of Layer3 TV, T-Mobile Chief Operating Officer G. Michael Sievert emphatically stated:

> Today's move is most certainly in anticipation of T-Mobile's plans to be the first to have nationwide 5G. These new 5G capabilities will bring about a converged marketplace at an even more rapid pace and we will be ready. Because we've been getting ready for this for years.[121]

A few months earlier, Oppenheimer analyst Timothy Horan noted that T-Mobile management "stated the company is deploying some of its 600 MHz with 5G ready equipment so when the time comes, the company can turn on 5G with modest baseband and software upgrades later in the decade."[122] As recently as October 2018, CEO John Legere on T-Mobile's third quarter 2018 earnings call reaffirmed that standalone T-Mobile will build 5G in "hundreds of cities" across the U.S. in 2018 and will have a national 5G mobile network by 2020.[123]

Sprint has also been aggressively moving toward 5G, and making substantial capital investments to enable 5G deployment. Competition, and in particular competition to provide a better customer experience, is forcing Sprint to do so. Thus, prior to the announcement of the proposed transaction, Citigroup analyst Michael Rollins wrote "Sprint appears to be banking on 5G to drive a better customer experience . . ."[124] Moreover, this was not a new development. It has been part of Sprint's competitive strategy for several years. As an illustration, nearly two years ago, UBS Global Research analyst John C. Hodulik reported after a meeting with Sprint

[121] Transcript, T-Mobile – Layer3 M&A Call, at 3 (December 13, 2017).
[122] TMUS 3Q17 Follow-Up: Standalone Momentum Intact, Merger Announcement Imminent, Timothy Horan, Oppenheimer (October 25, 2017).
[123] T-Mobile, FQ3 2018 Earnings Call Transcript (October 30, 2018).
[124] Wireless 1Q/18 Preview: Fear & Loathing in Wireless May Get Unexpected Relief, Michael Rollins, Citigroup (April 11, 2018).

management: "Current investments will provide a bridge to 5G, which mgmt. believes will be standardized in the 2019-20 timeframe."[125]

Particularly relevant is what Sprint's top management has been telling investors. For more than two years, former CEO (and current executive chairman) Marcelo Claure has been asserting on the company's earnings calls how well positioned Sprint is to execute on its 5G plans, given its abundant spectrum and the progress it has been making on its network. Indeed, Claure has been emphatic, stating that Sprint is "very, very well positioned" for 5G. Sprint's current and former CEOs have had this to say in earnings calls:

- *July 2016*: "Our densification and optimization plan is also building the foundation for 5G as all carriers more densify their networks to leverage the high-frequency spectrum bands planned for 5G. In fact, we recently provided live over-the-air demonstrations of our 5G capabilities using millimetric band radius to deliver 4K streaming of soccer content and virtual reality exhibits at 2 stadiums hosting the Copa America tournament in June."[126]

- *May 2017*: "When we look at what is coming, where 5G is going and based on the latest 3GPP standard, we are certain that we have the right spectrum, right? I mean, having the vast amount of 2.5 spectrum, as we call, the new low-band of 5G, I think we're very, very well positioned in terms of continuing to densify our network. We don't need any more low-band spectrum. We have sufficient national coverage with the low-band spectrum that we have, and we did a lot of studying before we decided not to participate in the auction. So even though prices came wherever they came, we feel that we made the right decision. And we're focused right now in terms of continuing to densify our network and continue to provide our customers with a better experience. So we feel quite good in terms of that we made the right decision. We'd rather invest our money in densifying our network and optimizing our network rather than buying new spectrum that really is not going to be available until 2019 or 2020."[127]

- *August 2018*: "[I]n parallel with the 4G LTE network enhancement, we're actively preparing for 5G. We continue to partner across the global 2.5 gigahertz or Band 41 ecosystem, including SoftBank, Qualcomm, China Mobile and others

[125] Takeaways from management meeting, John C. Hodulik, UBS Global Research (December 13, 2016).
[126] Sprint, FQ1 2017 Earnings Call Transcript, at 5 (July 25, 2016).
[127] Sprint, FQ4 2017 Earnings Call Transcript, at 11 (May 3, 2017).

towards rolling out massive MIMO and rapidly developing the 5G in our standards to make . . . 2.5 gigahertz a key band in the global 5G deployment."[128]

- October 2018: CEO Michael Combes on Sprint's third quarter 2018 earnings call explained that Sprint is far along in its network build for 5G, with plans to launch in the first half of 2019.[129]

In fact, a May 17, 2018 Kansas City Business Journal article reported that "Company management has stressed that its 5G investment plans will be the same whether or not the proposed transaction takes place."[130] At a December 3, 2018 UBS Investor Conference, Sprint Chief Financial Officer, Andrew Mark Davis, revealed that the company was positioning itself in case the transaction is not completed:

> "We just tapped the market for an extra $1.1 billion on the term loan B. And as part of that, we put an amendment in place, the documentation to help us further upsize spectrum notes in the event that we did have to contemplate a standalone life. "[131] [Emphasis added]

In summary, the Applicants' assertions that neither company can win the race to 5G as a stand-alone entity cannot be squared with what the Applicants have been telling investors, nor do they reflect the substantial investments they are making. As Sprint itself argued in its opposition to *AT&T/T-Mobile*, Applicants' sudden about-face should be "greeted with skepticism."[132]

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[128] Sprint, FQ1 2018 Earnings Call Transcript, at 5 (August 1, 2018).
[129] Sprint, FQ2 2018 Earnings Call Transcript (October 31, 2018).
[130] How Sprint's new CEO plans to keep pressing forward during merger talks, Elise Reuter, Kansas City Business Journal (May 17, 2018).
[131] Transcript, UBS Investment Bank Company Conference Presentation, at 14 (December 3, 2018). Also see almost identical remarks by Davis in Transcript, BofA/Merrill Lynch Company Conference Presentation, at 10 (December 5, 2018).
[132] Sprint Petition to Deny, 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, at 97 (May 31, 2011), https://ecfsapi.fcc.gov/file/7021675883.pdf.

b. Applicants' rhetoric about poor long-term viability is at odds with reality and what they have been telling investors

In what seems to be a time-honored ritual, the Applicants also seek to paint a bleak picture of their prospects as stand-alone competitors – especially Sprint's prospects – in order to justify a merger that is presumptively anticompetitive and will end the intense rivalry between two close competitors. The reality, including recent financial results that postdate the filing of the Application, paints a different picture. There is no showing that either company is likely to exit the market if the merger does not take place nor that either company is in a downward spiral. Quite the contrary.

Sprint continues to invest significantly in its network. Earlier this year, Raymond James' Ric Prentiss published a research note observing the growth in Sprint's network "capex" while assuring investors that the company plans to continue to make such investments:

> With an ~$400M sequential growth in network capex, Sprint noted it is not slowing down on its network improvement plans even with the pending merger. Sprint now has more than 15K outdoor small cells, including 7K strand mounts with cable companies (i.e., partnership with Altice). Moreover, Sprint's 2.5GHz spectrum is now on 2/3rds of its 35K macro sites, up from just 50% last year, and is expected to reach all of its sites by FYE18.[133]

Other analysts have recently highlighted Sprint's "transformation" and how its revenues have reached an "inflection" point similar to other wireless carriers: "Solid C2Q Results as Focus Stays on Revenue & EBITDA Improvements with Stable Subscribers . . . . Sprint remains focused on driving its network transformation . . . Capex ramped 45% q/q, and Sprint's network transformation continues despite the announced merger with T-Mobile."[134] "Sprint joins wireless

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[133] Increasing TP to $8 as Guidance Increased and Risk/Reward of Potential Merger Still Attractive, Ric Prentiss, Raymond James & Associates (August 2, 2018).
[134] Solid C2Q Results as Focus Stays on Revenue & EBITDA Improvements with Stable Subscribers, Phil Cusick, J.P. Morgan & Co. (August 1, 2018).

carrier service revenue inflection party this Q. . . ."[135] Morgan Stanley's Simon Flannery applauded Sprint's most recent financial report for the quarter ending September 30, 2018:

> "Sprint's F2Q18 results demonstrated meaningful financial progress, as the company 1) grew wireless service revenue for the first time in almost five years (ahead of its year end target), 2) generated its highest F2Q EBITDA in twelve years with wireless cash EBITDA margins +350 bps Y/Y, and 3) generated net income for the 4th consecutive quarter and operative income for the 11th consecutive quarter. . . On a standalone basis, Sprint would expect another 1-2 years of elevated capex as it deploys its 2.5 Ghz spectrum."[136]

In other words, Sprint's strategy of improving its network has begun to pay dividends. Analysts are also positive on T-Mobile. For example, Jonathan Atkins from RBS Capital Markets wrote earlier this month: "Strong Standalone Subscriber Momentum: Regardless of the completion of the Sprint merger, we believe near-term subscriber growth prospects for standalone T-Mobile remain strong . . . ."[137] Other analysts are in accord:

- "Importantly, however, we believe 1Q18 results demonstrated TMUS can continue to succeed as a standalone."[138]
- "On a standalone basis, we see the company de-levering to 2.5x by year-end" (absent any spectrum purchases)."[139]

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[135] Sprint joins wireless carrier service revenue inflection party this Q, David Barden, Bank of America/Merrill Lynch (August 1, 2018).
[136] Simon Flannery, Morgan Stanley, Profitability Focus Pays Off (October 31, 2018).
[137] 1Q18 Review and Model Update, RBC Capital Markets, Jonathan Atkin (May 2, 2018).
[138] Better Results Remind Investors of Strong Standalone Prospects, SunTrust Robinson Humphrey, Greg P. Miller (May 1, 2018).
[139] Solid Quarter with Small Beats on Postpaid Adds, EBITDA, J.P. Morgan, Phil Cusick (August 1, 2018).

- "Perhaps more importantly, mgmt. clarified drivers of their pro forma forecasts that paint a much rosier picture of the standalone businesses than we (and others) had feared."[140]

These comments by analysts did not materialize out of thin air. Applicants' own executives have painted a different picture for investors than the one the Applicants have put in front of this Commission and the FCC.

In its October 31, 2018 earnings release, Sprint CEO Michel Combes was positive about all aspects of the company's progress and prospects:

> "Sprint reached an important milestone this quarter by returning to year-over-year growth in wireless service revenue two quarters earlier than promised."
>
> "Our strategy of balancing growth and profitability while we increase network investments and add digital capabilities continues to drive solid financial results."[141]

Meanwhile, T-Mobile reported another record-breaking quarter in October 30, 2018. According to CEO John Legere:

> "T-Mobile delivered ANOTHER record-breaking quarter! We continue to drive our business beyond expectations and despite the work underway to close the merger, we delivered our best financials ever in Q3."[142]

An August 1, 2018 press release also highlighted T-Mobile's "advancements in network technology":

> T-Mobile continues to increase and expand the speed and capacity of our network to better serve our customers. Our advancements in network technology and our

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[140] TMUS: 1Q18 Quick Take: Good Results; Clarity On Pro Forma Forecast; More Juice For Standalone Scenario; New Street Research, Jonathan Chaplin (May 1, 2018).

[141] New Release, SPRINT REPORTS YEAR-OVER-YEAR GROWTH IN WIRELESS SERVICE REVENUE WITH FISCAL YEAR 2018 SECOND QUARTER RESULTS, Sprint Corporation (October 31, 2018), http://s21.q4cdn.com/487940486/files/doc_financials/quarterly/2018/Q2/01_Fiscal-2Q18-Earnings-Release-FINAL.PDF.

[142] "T-Mobile Delivers Its Best Financials Ever and Strong Customer Growth in Q3", T-Mobile (October 30, 2018), https://www.t-mobile.com/news/best-financials-ever-q3-2018.

> spectrum resources ensure we can continue to increase the capabilities of our network as the industry moves towards 5G . . .
>
> Introducing 5G across 600 MHz and millimeter wave spectrum. In addition to building out 5G on 600 MHz, T-Mobile intends to bring 5G to 30 cities in 2018 using both 600 MHz and millimeter wave spectrum. The network will harness 4G and 5G bandwidths simultaneously (dual connectivity) and will be ready for the introduction of the first 5G smartphones in 2019.[143]

In summary, the Applicants have been telling a different story to their investors than to the Commission. Only the story they have been telling investors has been supported with facts.

Standard & Poor's Capital IQ reporting on analyst projections

Standard & Poor's Capital IQ maintains an extensive database of a vast range of data on public companies. Among other things, it collects analysts' projections for future company results, including estimates for total revenues, EBITDA[144] (Earnings Before Interest Taxes Depreciation and Amortization). EBITDA is a measure designed to permit comparisons across companies of their relative performance by "normalizing" variable factors including debt service, tax issues, acquisition charges, and other firm-specific issues.

CWA has prepared two charts (below), which compare analysts' ***median estimates*** for future stand-alone T-Mobile and Sprint Total Revenues and EBITDA through 2023 or 2022 (both start with 2017 actual results). As Chart 1 reflects, while T-Mobile is projected to reap steadily increasing total revenues through 2023, Sprint is projected to have essentially flat revenue growth (about 5.9% annually for T-Mobile, but 0.7% for Sprint).

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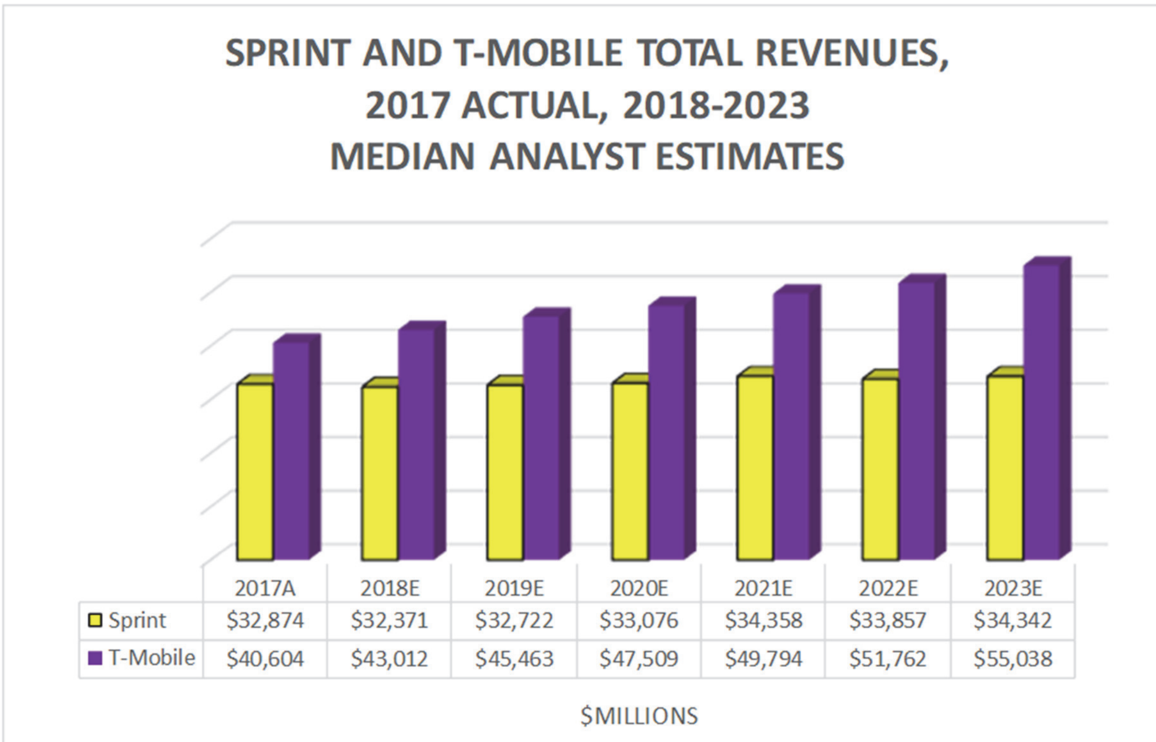
[143] *Id.*
[144] EBITDA, often referred to as "operating cash flow," is a generally employed measure of corporate financial performance, designed to permit comparisons across companies by "normalizing" variable factors including debt service, tax issues, acquisition charges, and other firm-specific issues.

This shouldn't be surprising since T-Mobile has been on a significant growth spurt while Sprint has been working to stabilize its business and has only just "joined the inflection party" in the words of Bank of America/Merrill Lynch analyst David Barden.[145]

CHART 1

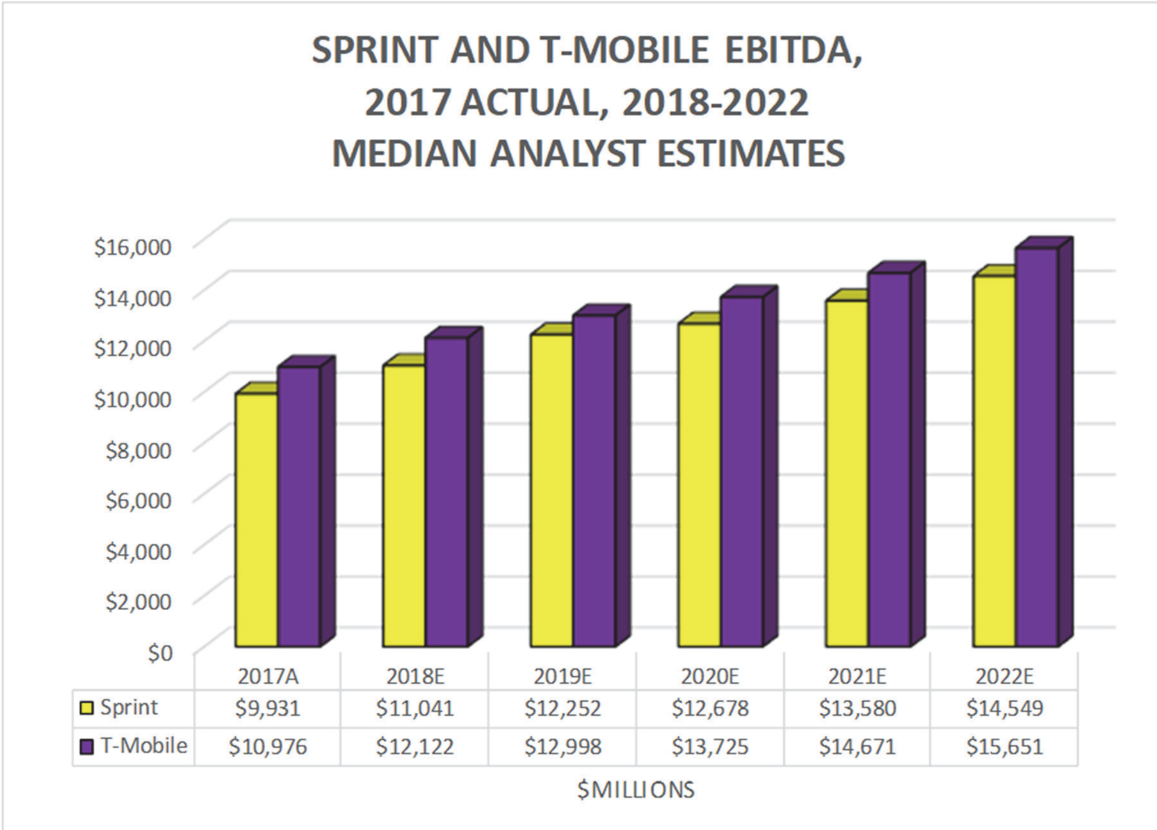


Source: S&P Capital IQ, Actuals and Analyst Estimates. Accessed August 14, 2018. Note that Sprint projections include small amounts associated with its Wireline operations

On the other hand, as can be observed in Chart 2, Sprint's EBITDA is projected to rise steadily, in step with that of T-Mobile. In fact, as a percentage of total revenues (also called "operating margin"), Sprint's margins are projected to be consistently higher than T-Mobile's, as well as rise more quickly – 30.2% for Sprint in 2017 versus 27.8% for T-Mobile in 2017 and 43.0% for Sprint and 30.2% for T-Mobile in 2022.

145 Sprint Joins the wireless carrier service revenue inflection party this Q, David Barden, Bank of America/Merrill Lynch (August 1, 2018).

CHART 2



Source: S&P Capital IQ, Actuals and Analyst Estimates. Accessed August 14, 2018. Note that Sprint projections include small amounts associated with its Wireline operations

In terms of capital expenditures, Sprint management "guided" analysts to annual capital investments of between $5 billion and $6 billion through for the company's Fiscal 2019, which runs through the March 2019 quarter (excluding spending on leased handsets). This translates into "capital intensity" (capital spending as a proportion of total revenues) of between 15.3% and 18.3% in 2019, depending on the actual level of investments and based on median analyst revenue projections. The median analyst projections for T-Mobile in 2018 is $5.3 billion yielding a capital intensity calculation of 12.3%. In other words, compared to T-Mobile, Sprint is expected to invest a significantly greater proportion of its current revenues to prepare the company for a transition to its 5G technology future.

In sum, on a standalone basis, each company is in a position to maximize its resources and remain an effective competitor during and after the transition to 5G.

c. Eliminated

[146] Afflerbach and DeHaven Decl. at ¶ 11. *See* Appendix A.
[147] *Id*. at ¶ 12.
[148] *Id*. at ¶ 13.
[149] *Id*.

[150] *Id*. at ¶¶ 16, 17.
[151] *Id*. at ¶ 19.

[152] *Id*. at ¶ 20.

[153] *Id*. at ¶ 18.
[154] *Id*. at ¶ 21.
[155] *Id*. at ¶ 23.
[156] *Id*. at ¶ 26.

[157] C-PUC Application at 24, Public Interest Statement at 66.
[158] Public Interest Statement at 60.

d. Applicants' claims that they will be more effective competitors with cable broadband are overblown

Finally, we briefly discuss Applicants' argument that the transaction will enable the merged firm to disrupt cable and bundled video service providers in ways that they cannot today. These claims also are not credible.

In July of this year, New Street Research issued an analysis focusing on the likelihood of meaningful fixed wireless broadband substitution for wireline broadband.[161] The thrust of New Street's analysis is that, while fixed wireless substitution is real and will be a "threat" to wireline broadband providers, the amount of data which typical customers consume is far above what can be projected for wireless carriers' data caps. 5G will probably lead to higher data caps, but New Street suggests that this is likely to have only a modest impact on the need for wired connections.

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[159] Afflerbach at ¶ 20.
[160] *Id.* at ¶ 39.
[161] Jonathan Chaplin, "The Threat To Broadband From Wireless Substitution," New Street Research (July 23, 2018).

"The public interest statement is what got us thinking about the wireless substitution threat as distinct from the fixed wireless broadband threat," New Street explains. "T-Mobile has been the primary driver of wireless substitution to date. They claim that 12% of their customers have cut the cord already."[162]

As New Street notes, the FCC Public Interest Statement claims that the New T-Mobile would bring new competition to the broadband market with fixed wireless broadband, and the additional capacity that it would gain (if the FCC were to approve the proposed merger with no spectrum divestitures) would enable it to continue driving wireless substitution. New Street eviscerates the Applicants' assertion:

- "Our reading of the disclosure leads us to believe that they are unlikely to gain material share in the broadband market with a fixed wireless broadband product. Simply put, ***this would be a poor use of their newfound capacity. They are far more likely to use their capacity to take share in the mobile market***."[163]
- "They may well raise data caps as a tool to take share; other carriers will struggle to respond. T-Mobile is likely to capture a larger share of high-usage subs, which will include a larger share of wireless only households. We doubt they will be able to increase data caps sufficiently to materially change the size of the wireless-only market though."[164]

V. THE PROPOSED MERGER WOULD RESULT IN THE LOSS OF 3,432 JOBS IN CALIFORNIA AND 30,000 JOBS ACROSS THE UNITED STATES

If the positive impact a merger may have on employment is a public interest benefit, an expected reduction in employment following a merger may be regarded as a public interest harm. CWA has performed a comprehensive analysis based on detailed location data for all the retail locations involved in the proposed transaction. Our analysis finds that the proposed T-

[162] *Id*.
[163] *Id*. (Emphasis added.)
[164] *Id*.

Mobile/Sprint merger will result in the loss of 30,000 retail and headquarters jobs nationwide, ***including 3,342 jobs in California***.

a. The Applicants fail to substantiate their claim that the proposed merger will create jobs

The Applicants' C-PUC Application cites their FCC Public Interest Statement claim that the "New T-Mobile is expected to be jobs positive from Day One and beyond, with an initial increase relative to the combined companies standing alone of more than 3,600 direct internal jobs that increases to over 11,000 by 2024."[165] The Applicants claim in their FCC Public Interest Statement that the proposed transaction will result in a net increase in employment for "direct internal" employees and "direct external" employees. (The Applicants define "direct external employees" as Sprint and T-Mobile contractors and branded authorized retailers.)[166] The information that the Applicants have submitted to the FCC and this Commission is insufficient to support these claims.

The Applicants base their assertion that the transaction will result in a net increase in employment on an "internal analysis" of what the standalone companies' "employee base would have been for the foreseeable future."[167] But the Applicants do not include this "internal analysis" in the FCC Public Interest Statement or related Declarations.[168] Therefore, neither the Commission nor the public can evaluate the validity of this black box "internal analysis." The Applicants are effectively saying "trust us" when it comes to the employment effects of the transaction.

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[165] C-PUC Application at 25.
[166] *See* PIS, Appendix C, at 8.
[167] *Id,* at 82.
[168] *Id,* at 81.

Although the Applicants claim that their plans to increase employment are specific to the proposed transaction,[169] the available evidence in fact suggests that both companies had aggressive growth plans absent the proposed transaction.

In fiscal year 2017, T-Mobile opened a total of 2,800 stores (1,500 T-Mobile stores and 1,300 MetroPCS stores).[170] Since the start of 2018, T-Mobile has focused on its plans to grow its store footprint in rural areas and "greenfield markets," places where the company has network coverage but no stores.[171] In May 2018, a T-Mobile representative stated that its future growth would focus on rural and suburban areas.[172] In July 2018, T-Mobile's announcements of six store openings in the Dallas area and 10 in the Orlando area indicated that the company continues its aggressive expansion, even in markets where it already has a significant presence.[173] In March 2018, T-Mobile opened a 1,200-worker call center in South Carolina.[174] In August 2018, T-Mobile announced that its customer call center operations would focus on live representatives and would avoid automation, suggesting that T-Mobile would continue to expand its call center staff.[175]

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[169] U.S. Senate, Subcommittee on Antitrust, Competition Policy, and Consumer Rights, Hearing "Game of Phones: Examining the Competitive Impact of the T-Mobile – Sprint Transaction" (June 27, 2018), https://www.judiciary.senate.gov/meetings/game-of-phones-examining-the-competitive-impact-of-the-t-mobile_sprint-transaction.
[170] T-Mobile, Press Release, *T-Mobile Reports Record Financial Results Across the Board for FY 2017, Issues Strong Guidance for 2018 and Beyond* (Feb. 7, 2018).
[171] T-Mobile Q4 2017 Earnings Call Transcript (T-Mobile claims its store expansion efforts are "focused on greenfield. It's focused on places where the network's deployed where there is no competition").
[172] T-Mobile Q1 2018 Earnings Call Transcript (T-Mobile claims it plans on building "additional stores in rural areas and areas that neither company reaches").
[173] T-Mobile, Press Release, *T-Mobile opening 6 new stores in Dallas-Fort Worth area and expanding rural network coverage in North Texas* (July 18, 2018); T-Mobile, Press Release, *T-Mobile opening 10 new stores in the Orlando area and expanding rural network coverage in Florida* (July 18, 2018).
[174] T-Mobile, Press Release, *T-Mobile Opens Its Biggest Customer Care Facility Yet and Adds Hundreds of New Jobs* (March 1, 2018).
[175] T-Mobile, Press Release, *T-Mobile's Latest Un-carrier Move: Real People, Not Robots Introducing T-Mobile Team of Experts* (Aug. 15, 2018).

In fiscal year 2017, Sprint opened 1,300 stores (500 Sprint stores and 800 Boost Mobile stores) and planned to continue its retail expansion.[176] In March 2018, Sprint announced that it planned to open 600 Sprint stores and 850 Boost Mobile stores by the end of year.[177] In May, Sprint's spokesperson stated that merger with T-Mobile would not change its plans to open new stores.[178] Sprint had already planned to onshore call center jobs prior to the merger. In December 2016, Sprint CEO Marcelo Claure pledged Sprint would create 5,000 jobs in the U.S. by the end of 2017, primarily by reshoring call center positions.[179] CWA has not identified a reliable assessment about whether these jobs materialized on schedule.

Given the aggressive expansion plans that the Applicants demonstrated as standalone companies, their claims of merger-specific job creation are simply not credible. In several cases, such as retail expansion in rural areas and onshoring of customer care, the Applicants appear to claim that pre-existing U.S. job growth plans were somehow driven by the transaction. The Commission should require the Applicants to submit their "internal analysis" of projected employment growth as part of the record in this proceeding so that the Commission and the public can properly evaluate the job impacts of this transaction.

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[176] Sprint Q4 2017 Earnings Call Transcript (Sprint claims it "opened over 500 new Sprint company-owned stores in fiscal 2017" and opened nearly 800 new Boost stores. The carrier also claimed it planned "to add hundreds more Sprint and Boost stores" throughout the year).

[177] Mark Davis, *Sprint to lay off 500 from Overland Park headquarters in cost-cutting push*, THE KANSAS CITY STAR (March 9, 2018), https://www.kansascity.com/news/business/technology/article204415764.html.

[178] Elise Reuter, *Mapping retail in a Sprint/T-Mobile merger*, KANSAS CITY BUSINESS JOURNAL (May 04, 2018), https://www.bizjournals.com/kansascity/news/2018/05/04/mapping-retail-in-a-sprint-t-mobile-merger.html.

[179] Elise Reuter, *Sprint/T-Mobile merger: Job effect would extend beyond head count*, KANSAS CITY BUSINESS JOURNAL (March 24, 2017), https://www.bizjournals.com/kansascity/news/2017/03/24/sprint-tmobile-merger-effect-on-jobs.html.

b. The proposed transaction will result in the loss of 30,000 jobs in the U.S. and 3,342 in California

Contrary to the Applicants' unsubstantiated claims, CWA performed an analysis based on detailed location data for all the retail locations involved in the proposed transaction. CWA estimates that the merger will result in the loss of 30,000 U.S. jobs, including, 25,500 retail jobs and 4,500 headquarters and administrative positions.[180] CWA estimates that 3,342 jobs will be eliminated in California.[181]

U.S. Census-defined urban area	Number of existing stores in California	Projected store closures in California	Projected retail jobs lost (net) in California
Los Angeles-Long Beach-Anaheim, CA	1,273	419	-1,645
Riverside-San Bernardino, CA	227	76	-273
San Diego, CA	272	63	-247
Sacramento, CA	160	39	-93
Fresno, CA	68	22	-71
Indio-Cathedral City, CA	42	18	-63
Hemet, CA	22	12	-51
Lancaster-Palmdale, CA	41	16	-48
Modesto, CA	37	10	-44
Victorville-Hesperia, CA	35	10	-35
Other cities in the state	1,064	217	-772
TOTAL FOR THE STATE	3,241	902	-3,342

[180] *See* CWA Comments Appendix D
[181] *Id.*

Postpaid Wireless Retail. Sprint and T-Mobile currently operate a total of 1,231 corporate and authorized retail stores selling postpaid wireless services in California.[182] This combined retail network is substantially larger than either Verizon's (645 stores) or AT&T's (553 stores) retail operations and involves a high degree of geographic overlap.[183] A merger between these two companies would involve a significant number of store closures. T-Mobile CEO John Legere referred to a "rationalization" of overlapping urban retail operations and resulting job cuts in a recent U.S. Senate hearing on the proposed transaction.[184]

Industry analysts believe that store closures are a key element of the projected cost savings from the proposed merger. In April 2018, New Street Research published an analysis of potential synergies from a T-Mobile/Sprint merger in which the analysts assumed that the resulting company would generate substantial savings from the elimination of excess store locations.[185]

To predict the number of postpaid T-Mobile and Sprint stores likely to close following the merger, CWA created a regression model using the relationship between population and the number of T-Mobile Stores [*see* Appendix C for methodology]. This model predicts that the Applicants will operate 873 postpaid retail stores in current T-Mobile/Sprint markets in California, closing 357 corporate and dealer stores in these markets.

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[182] CWA analysis of store location data collected from Sprint and T-Mobile's websites on April 23, 2018 and April 27, 2018 respectively, https://storelocator.sprint.com/locator/ and https://www.t-mobile.com/store-locator/.
[183] CWA analysis of store location data collected from Verizon's website in June 2018, https://www.verizonwireless.com/stores/; CWA also reviewed AggData's list of AT&T stores in operation in August 2018.
[184] U.S. Senate, Subcommittee on Antitrust, Competition Policy, and Consumer Rights, Hearing, "Game of Phones: Examining the Competitive Impact of the T-Mobile – Sprint Transaction."
[185] *See* New Street Research "Sprint / T-Mobile Redux: Refreshing Synergies and Scenarios," at 28 (April 15, 2018).

We project that the initial store closures will eliminate more than 2,864 postpaid retail positions in California, but that these losses will be somewhat offset by gains at remaining stores and new hiring in rural areas. We project the proposed transaction will cause a net loss of 1,707 postpaid retail jobs in California.[186]

Summary of Estimated Job Losses from Proposed Transaction	
Type of Work	**Net Job Loss**
Retail – Postpaid (T-Mobile, Sprint)	1,707
Retail – Prepaid (Boost, MetroPCS)	1,635
Total	**3,342**
Source: CWA calculations of retail job loss. See Appendix C for detailed methodology, revised as described above.	

Prepaid Wireless Retail – MetroPCS and Boost. In addition to robust retail networks targeting postpaid customers, both Sprint and T-Mobile own prepaid brands with their own retail operations.

MetroPCS, T-Mobile's prepaid brand, has 1,362 full-service retail locations and Boost, Sprint's primary prepaid brand, has 648 locations in California.[187] Our analysis of the carriers' store data suggests that virtually all of these locations are operated by independent authorized retailers.[188] A combination of these brands would have 2,010 locations, more than three times as many as its closest competitor, AT&T's Cricket, which has only 581 full-service retail locations in California.[189]

[186] See Appendix C for methodology.
[187] CWA analysis of store location data collected from MetroPCS and Boost Mobile's websites in May 2018, https://www.metropcs.com/find-store.html and https://www5.boostmobile.com/#!/store.
[188] CWA analysis of store location data collected from MetroPCS and Boost Mobile's websites in May 2018.
[189] CWA analysis of Cricket Wireless store location data collected via Google Places API in May 2018.

MetroPCS and Boost's retail stores are highly concentrated in similar areas of the state, and are often located very close to each other. Our analysis of Boost Mobile and MetroPCS store location data finds that 60 percent of all Boost Mobile stores in California are located less than one-third of a mile from the closest MetroPCS store and 92 percent of Boost Mobile stores are within one mile from the closest MetroPCS.[190] According to the National Wireless Independent Dealer Association (NWIDA), the "new T-Mobile entity will unify their prepaid offerings under a single brand, effectively shuttering thousands of retail outlets."[191]

Using a simple population regression model to predict store closures, CWA estimates that 545 of the current MetroPCS and Boost Mobile stores in California will close as part of the merger. With an estimated three employees per store,[192] this consolidation in the prepaid wireless market could cost 1,635 jobs.[193]

National Job Estimates. The CWA analysis estimates the loss of 30,000 jobs across the nation, including 25,500 retail jobs (net of rural store openings and staffing expansion) and 4,500 headquarters and administrative jobs. The national retail job loss analysis estimates 13,700 at prepaid retail locations and 11,800 at postpaid retail locations.[194]

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[190] CWA analysis of store location data collected from MetroPCS and Boost Mobile's websites in May 2018.

[191] *See* NWIDA, Press Release: NWIDA Joins Founder And Former CEO Of Boost Mobile USA In Joint Statement That Sprint/T-Mobile Merger Will Be Devastating To Prepaid Customers And 30,000 Wireless Dealers In U.S. (May 31, 2018), http://nwida.org/nwida-joins-founder-former-ceo-boost-mobile-usa-joint-statement-sprint-t-mobile-merger-will-devastating-prepaid-customers-30000-wireless-dealers-u-s.

[192] Employment estimates from press coverage of store openings such as: https://patch.com/florida/newportrichey/talk-time-store-opens-new-tampa-bay-location, http://www.mlive.com/business/west-michigan/index.ssf/2012/07/boost_mobile_to_open_location.html

[193] See store closure prediction methodology in Appendix C.

[194] *See* CWA Reply Comments, Applications of T-Mobile US, Inc., and Sprint Corporation for Consent to transfer Control of the Licenses and Authorizations, WT Docket No. 18-197, at 4-5 (Oct. 31, 2018). In October 2017 Moffett-Nathanson analysts estimated a prospective T-Mobile-Sprint merger would involve

c. T-Mobile has a history of post-merger layoffs.

T-Mobile's January 2018 acquisition of its remaining interest in Iowa Wireless ("iWireless") is a recent and informative example of the effects of the proposed transaction jobs.[195] At the time of T-Mobile/iWireless transaction, iWireless provided postpaid and prepaid service to 75,000 customers in Iowa, western Illinois, and eastern Nebraska.[196] iWireless operated 103 stores – 22 corporate stores and 81 authorized dealers – as well as customer call centers in Cedar Rapids and Des Moines.[197]

After the iWireless acquisition, T-Mobile announced that it would close most iWireless stores and begin opening MetroPCS stores in Iowa.[198] By August 2018, six of the 22 corporate-

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cutting 5,000 jobs at Sprint and T-Mobile headquarters. We have adjusted this number down to account for Sprint's recent layoffs of 558 headquarters' employees. *See* Mark Davis, *Could a Sprint merger with T-Mobile kill more jobs than Sprint has?*, THE KANSAS CITY STAR (Oct. 6, 2017), https://www.kansascity.com/news/business/technology/article177413566.html and Elise Reuter, *Sprint's new CEO promises employees they will have a place after T-Mobile merger*, KANSAS CITY BUSINESS JOURNAL (June 15, 2018), https://www.bizjournals.com/kansascity/news/2018/06/15/sprint-employee-rally-at-sprint-center.html

[195] *See* Alex Wagner, *T-Mobile says 600MHz LTE now in 586 cities, confirms completion of Iowa Wireless deal*, TMOSNEWS (Jan. 3, 2018), https://www.tmonews.com/2018/01/t-mobile-600mhz-lte-586-cities-confirms-completion-iowa-wireless-deal. Prior to the transaction, iWireless operated as a partnership between T-Mobile and Aureon, in which T-Mobile provided service to iWireless customers, when their phones roamed outside of iWireless' network, and iWireless provided service to T-Mobile customers in Iowa. *See* T-Mobile website for iWireless customers (August 21, 2018) (under FAQs, T-Mobile claims "T-Mobile customers in Iowa were already roaming on the iWireless network"), https://www.t-mobile.com/customers/iowa-wireless-service; *see also* iWireless website (August 21, 2018), https://www.iwireless.com/why-iwireless/default.aspx (iWireless claims its customers "get nationwide 4G LTE coverage through the T-Mobile network").

[196] T-Mobile, Press Release, T-Mobile to Acquire Remaining Interest in Iowa Wireless from Aureon (Sept. 26, 2017).

[197] Total corporate stores from T-Mobile Press Release (https://www.t-mobile.com/news/t-mobile-iowa-wireless-aureon). Corporate store and authorized dealer breakdown from CWA analysis of list aggregator AggData's list of iWireless retail locations posted on iWireless's website as of October 2, 2017 (Retrieved August 13, 2018), about one week after T-Mobile announced that it would be acquiring the carrier; *see also* WayBack Machine's archive of the iWireless webpage on December 23, 2017 ("Our call centers are based in Cedar Rapids and Des Moines") (https://web.archive.org/web/20171223132951/http://www.iwireless.com:80/why-iwireless/default.aspx).

[198] *See iWireless acquisition Is being finalized*, HOWARDFORUMS (June 04, 2018), https://www.howardforums.com/showthread.php/1907346-iWireless-acquisition-Is-being-finalized; T-

owned iWireless stores had been rebranded to T-Mobile, while the remaining 16 were closed.[199] Of the iWireless 81 authorized dealers, five were converted to MetroPCS dealers and 76 locations were slated to close by August 24, 2018.[200] iWireless' customer call centers in Des Moines and Cedar Rapids, Iowa were slated to close on September 30, 2018.[201]

As a combination of two carriers with overlapping operations, the iWireless example – in which T-Mobile post-acquisition closed more than 72 percent of corporate stores and more than 93 percent of authorized dealer stores – is more analogous to the current transaction than the MetroPCS example.

d. The proposed transaction would increase concentration in the wireless industry labor market with negative impact on industry-wide wages

Several independent groups of economists have recently published research papers examining the degree of concentration in U.S. labor markets and the impact of concentration on wages, employment, and output.[202] The key findings of the emerging literature on labor market monopsony power are the following:

Mobile website for iWireless customers (Aug. 21, 2018) (under FAQs, T-Mobile urges customers to be "watching for MetroPCS which will be coming to Iowa in the second half of 2018!"), https://www.t-mobile.com/customers/iowa-wireless-service.

[199] CWA reviewed AggData's list of iWireless stores listed on iWireless' website as of October 2, 2017. From that list, we identified 22 corporate-owned iWireless stores in operation. CWA cross-referenced these 22 locations against a list of T-Mobile, MetroPCS, and iWireless stores in operation in August 2018, collected from the carriers' websites on August 13, 14, and 16, respectively.

[200] CWA reviewed AggData's list of iWireless stores listed on iWireless' website as of October 2, 2017. CWA cross-referenced authorized dealer locations against a list of T-Mobile, MetroPCS, and iWireless stores in operation in August 2018.

[201] Phone conversation with iWireless Call Center Representative in iWireless' Cedar Rapids Call Center, August 18, 2018 via iWireless' customer service number at 1-(888)-550-4497.

[202] *See, e.g.,* Suresh Naidu, Eric A. Posner & E. Glen Weyl, *Antitrust Remedies for Labor Market Power*, Harvard Law Review, Forthcoming; University of Chicago Coase-Sandor Institute for Law & Economics Research Paper No. 850; U of Chicago, Public Law Working Paper No. 665, https://ssrn.com/abstract=3129221 or http://dx.doi.org/10.2139/ssrn.3129221 ; Efraim Benmelech, Nittai Bergman & Hyunseob Kim, *Strong Employers and Weak Employees: How Does Employer Concentration Affect Wages?*, Working Paper (March 22, 2018), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3146679; José Azar, Ioana Marinescu, & Marshall I.

- Labor markets in the U.S. are already highly concentrated.[203]
- Otherwise similar workers are paid lower wages in more concentrated labor markets.[204]
- Collective bargaining substantially reduces the negative effect of labor market concentration on wages.[205]

As a result, scholars recommend that any competitive analysis of mergers include identifying the various labor markets affected by the mergers and assessing the effect of the merger on concentration in these labor markets. This includes calculating the pre-merger and post-merger HHI levels of these labor markets, and recognizing "a presumption against a merger if the postmerger absolute level of concentration and/or the increase indicate too high a risk of wage suppression." As the parties have not supplied HHI figures in the downstream markets, they unsurprisingly have not addressed how the merger would improve (or affect) competition upstream in the labor markets. This omission is glaring given the parties' anticompetitive labor practices.

The proposed transaction could substantially increase concentration in numerous local wireless industry retail labor markets, increasing the monopsony power of employers in purchasing labor power of retail wireless workers, thereby depressing workers' wages and benefits through reduced competition for labor. Absent collective bargaining as a means to counter employer concentrated power, retail wireless workers will be worse off by reducing the

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Steinbaum, *Labor Market Concentration*, National Bureau of Economic Research Working Paper No. 24147, (December 15, 2017), https://www.nber.org/papers/w24147.

[203] Azar et al., *Labor Market Concentration*, *supra*, at 2.

[204] *See* Azar et al., *Labor Market Concentration*, *supra*, at 19; *see also* Benmelech et al., *Strong Employers and Weak Employees*, *supra*, at 12.

[205] *See* Benmelech et al., *Strong Employers and Weak Employees*, *supra*, at 3.

number of national wireless retail employers from four to three. The unionization rate of the retail wireless labor market is 9 percent, and almost entirely at AT&T Mobility.[206]

A recent paper by the Economic Policy Institute and Roosevelt Institute examines the labor market impact of the proposed Sprint/T-Mobile merger on retail workers who sell wireless equipment and services. The economists found that post-merger, the annual earnings of retail wireless workers will decline by $3,276on average (across the 50 largest markets) using the specification with the largest magnitude, and $520 on average using the smallest magnitude specification."[207] The authors found that post-merger average annual earnings of retail wireless workers will decline in these California local labor markets as follows (using the specification with the largest magnitude):

- Los Angeles: $2,906 decline in retail wireless workers annual earnings
- San Francisco: $2,953 decline in retail wireless workers annual earnings
- San Diego: $2363 decline in retail wireless workers annual earnings
- San Jose: $2,728 decline in retail wireless workers annual earnings
- Sacramento: $2,319 decline in retail wireless workers annual earnings[208]

e. Both T-Mobile and Sprint have long track records of offshoring U.S. jobs

Both T-Mobile and Sprint have a history of outsourcing key functions and sending U.S. jobs to overseas contractors. In the FCC Public Interest Statement, the Applicants' make unverified claims that they will bring some jobs back from overseas. However, the Applicants

[206] *Id.* at 27-28
[207] Adil Abdela and Marshal Steinbaum, *Labor Market Impact of the Proposed Sprint–T-Mobile Merger*, Economic Policy Institute and Roosevelt Institute (December 17, 2018), https://www.epi.org/files/pdf/159194.pdf.
[208] *Id.*

provide no information regarding the number of jobs each company currently offshores and specifically how many offshore jobs will be repatriated as a result of the proposed transaction.

T-Mobile sends many call center jobs offshore to the Philippines, Guatemala, Honduras, India, Mexico, and Canada. In June 2012, T-Mobile laid off 3,300 workers when it closed seven call centers located in Colorado, Florida, Kansas, Pennsylvania, Oregon, and Texas and sent the work to call centers in Mexico, Honduras, Guatemala, and the Philippines. T-Mobile attempted to deny its displaced workers much-needed federal benefits by denying the offshoring of their jobs. A U.S. Department of Labor investigation concluded that T-Mobile sent the work overseas and approved Trade Adjustment Assistance (TAA) benefits for the 3,300 workers.[209]

Sprint outsources call center work to the Philippines, Mexico, Panama, India, the Dominican Republic, Costa Rica, Guatemala, and Canada.[210] In 2009, Sprint outsourced 6,000 positions and the management of its wireless network to Sweden-based Ericsson.[211] In 2013,

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[209] *See* U.S. Department of Labor's TAA Decision 81520, July 11, 2012, *available at* https://www.doleta.gov/tradeact/taa/taadecisions/taadecision.cfm?taw=81520 (finding that laid-off call center workers previously employed at T-Mobile call centers in Allentown, Pennsylvania, Fort Lauderdale, Florida, Frisco, Texas, Brownsville, Texas, Lenexa, Kansas, Thornton, Colorado, and Redmond, Oregon were eligible to apply for adjustment assistance); *see also* Petition for TAA, https://www.doleta.gov/tradeact/taa/taadecisions/81520.pdf (lists the number of workers as 3,300).

[210] *See* Jaime Lopez, *Sprint Call Center in Costa Rica Enters International Competition*, COSTA RICA STAR (Aug. 6, 2016), https://news.co.cr/sprint-call-center-costa-rica-enters-international-competition/49607/ (finding that Sprint has customer care functions in "Guatemala, Costa Rica, the Philippines"); *see also* Alana Semuels, *Sprint focuses on keeping customers happy so they don't leave*, LA TIMES (March 5, 2009), http://latimesblogs.latimes.com/technology/2009/03/sprint-and-cust.html (finding that Sprint has outsourced customer care to the "Philippines, India and Mexico"); *see also* LinkedIn profiles of Andres Lasso and Ramphis Boniche, employees of third-party call center operators in Panama who service Sprint customers, *available at* https://www.linkedin.com/in/andres-lasso-34ba65a1/ and https://www.linkedin.com/in/ramphis-boniche-81582625/; *See also* LinkedIn profiles of Jose Silva and Claribel Miranda, employees of third-party call center operators in Dominican Republic who service Sprint customers, *available at* https://www.linkedin.com/in/jose-silva-2b692813b/ and https://www.linkedin.com/in/claribel-miranda-b2100171/; *see also* LinkedIn profile of Dominic Macwan, employee of a third-party call center operator in Canada who services Sprint customers, *available at* https://www.linkedin.com/in/dominic-macwan-4828b066/.

[211] *See* Larry Dignan, *Sprint outsources network to Ericsson*, CNET (July 10, 2009), https://www.cnet.com/news/sprint-outsources-network-to-ericsson/.

Sprint cut 800 call center jobs.[212] In 2014, Sprint cut more than 1,400 jobs at six call centers, closed 55 retail stores, and shuttered service and repair centers.[213] In 2016, Sprint closed U.S. call centers that employed 2,500 people and sent the work overseas to the Philippines.[214]

The Applicants' well-documented recent history of cutting jobs following a transaction and significant offshoring of U.S. jobs raises questions about the credibility of their future plans to preserve and create jobs in the U.S.

f. T-Mobile and Sprint have a long history of violation of workers' rights

The proposed merger would combine two companies with a long history of violation of employment law and workers' rights. This history speaks volumes about the trustworthiness and corporate character of these companies. In 2000, when Deutsche Telekom (DT) sought to enter the U.S. market with its purchase of VoiceStream, Deutsche Telekom management told CWA that its U.S. subsidiary (renamed T-Mobile) would adopt the positive labor-management relationship that DT had with its union ver.di in Germany and would respect the right of its employees to form a union. With this reassurance, CWA supported the acquisition.[215] But CWA soon learned that the new T-Mobile could not be trusted to honor this commitment, as T-Mobile adopted an aggressive policy to deny employees their legal right to form a union.

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212 *See* Mark Davis, *Sprint is cutting 800 customer service jobs*, KANSAS CITY STAR (August 27, 2013), *https://www.kansascity.com/news/local/article326121/Sprint-is-cutting-800-customer-service-jobs.html*.

213 *See* Ina Fried, *Sprint Closing Three Call Centers, 55 Stores in Latest Cuts*, RECODE (March 20, 2014), https://www.recode.net/2014/3/20/11624800/sprint-closing-three-call-centers-55-stores-in-latest-cuts; *see also* Mary Beth Quirk, *Sprint Closing Three Call Centers, Shutting Down 55 Stores Across The Country*, CONSUMERIST (March 21, 2014), https://consumerist.com/2014/03/21/sprint-closing-three-call-centers-shutting-down-55-stores-across-the-country.

214 *See* Patrick Thibodeau, *Lawmakers try again to stop call center offshoring*, COMPUTER WORLD (March 6, 2017), https://www.computerworld.com/article/3176945/it-industry/lawmakers-try-again-to-stop-call-center-offshoring.html.

215 CWA Comments, VoiceStream Wireless Corporation, Transferor, and Deutsche Telekom AG, Transferee Application for Consent to Transfer Control, IB Docket No. 00-187 (Dec. 13, 2000).

T-Mobile has won the dubious distinction as one of the worst labor law violators in the country. T-Mobile has been guilty of violating U.S. labor law six times since 2015 and has been subject to approximately 40 unfair labor practice charges since 2011. Findings of illegal activity by the federal courts, the National Labor Relations Board (NLRB), and an Administrative Law Judge include, among other things:

- Maintaining unlawful rules forbidding workers from speaking to each other and others about wages and working conditions (nationwide violation; U.S. Court of Appeals for the 5th Circuit affirmed the Board's order).[216]
- Creating, maintaining, dominating and assisting an internal organization called T-Voice to try to discourage workers from forming, joining, or supporting an independent union (nationwide violation).[217]
- Refusing to negotiate with CWA over a successor contract for a unit comprising field technicians in Connecticut (the U.S. Court of Appeals for the DC Circuit granted the NLRB's application for enforcement).[218]
- Surveilling and interrogating employees about union activity restricting discussions about working conditions over social media, and prohibiting employees from sending union-related emails.[219]
- Unlawfully prohibiting employees from talking about the union during work time.[220]

[216] T-Mobile USA, Inc., 363 NLRB No. 171 (Apr. 29, 2016), *enf'd in relevant part* T-Mobile USA, Inc. v. Nat'l Labor Relations Bd., 865 F.3d 265 (5th Cir. 2017).
[217] T-Mobile USA, Inc., JD-23-17,2017 WL 1230099 (Apr. 3, 2017).
[218] T-Mobile USA, Inc., 365 NLRB No. 23 (Feb. 2, 2017), *enforcement granted by* T-Mobile USA, Inc. v. Nat'l Labor Relations Bd., 717 F. App'x 1 (D.C. Cir. 2018).
[219] T-Mobile USA, Inc., JD-57-16, 2016 WL 3537770 (June 28, 2016).
[220] T-Mobile USA, Inc., 365 NLRB No. 15 (Jan. 23, 2017).

- Requiring employees, including one who filed a sexual harassment complaint, to sign an unlawful confidentiality notice prohibiting them from discussing with one another information from employer-led investigations, and threatening discipline, up to and including discharge, if they engaged in those discussions.[221]

Sprint's violation of workers' rights dates back to the landmark *La Conexion Familiar* case in which Sprint fired 226 employees and closed the Spanish language telemarketing center in San Francisco to avoid a union election. Sprint was also found to have committed more than 50 labor law violations during the organizing campaign, including interrogating employees about their union activities, requesting that employees distribute anti-union buttons, creating the impression of surveillance of employees' union activities, changing working conditions because of union activities, falsifying financial records, and surveillance of employees. The case was subject to a tri-country labor investigation under terms of the North America Free Trade Agreement.[222]

Moreover, since 2007, current and former workers employed at Sprint call centers and retail stores have sued the company multiple times due to alleged wage and hour violations affecting thousands of workers. In three recent cases, workers reported that the company failed to pay them overtime wages, reimburse them for mileage, give them adequate meal or rest breaks, and compensate them for all hours worked. Sprint agreed to pay $14.85 million to settle claims in just three recent cases.[223] In 2009, the Department of Labor fined Sprint $120,000 and

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[221] T-Mobile USA, Inc., JD(NY)-34-15, 2015 WL 4624356 (August 3, 2015), adopted by NLRB on September 14, 2015.

[222] La Conexion Familiar and Sprint Corp., 322 NLRB No. 137 (1996).

[223] *See* Cara Bayles, *Sprint Inks $1.2M Deal To End Workers' Wage And Hour Suit*, LAW360 (October 4, 2017), https://www.law360.com/articles/970869/sprint-inks-1-2m-deal-to-end-workers-wage-and-hour-suit; *see also* David McAfee, *$4.85M Settlement for Sprint Workers Gets First OK*, BLOOMBERG (February 29, 2016), https://www.bna.com/485m-settlement-sprint-n57982067900/; *Sprint settles*

ordered the company to pay $260,000 in back wages to more than 1,000 call center employees because the company failed to pay them overtime wages.[224]

In summary, the combination of T-Mobile and Sprint would result in the loss of 3,342 California jobs, and at the same time reduce the employment options available to retail wireless employees in an already concentrated retail wireless labor market, exerting downward pressure on wages and other working conditions. Collective bargaining serves to mitigate the negative impacts of labor market monopsony power, but in this instance, both T-Mobile and Sprint have fought aggressively to deny their employees this legal right.

These employments impacts do not serve the public interest, especially in light of the fact that there is consensus across the political spectrum that wage stagnation is a serious national problem. The Commission, therefore, should not approve the merger of these two companies absent the jobs protections we discuss below. Without such protections, the merger would only serve to eliminate jobs and further depress labor standards in this industry

VI. CONCLUSION

The Commission should not approve the proposed merger between T-Mobile and Sprint as currently structured because it would result in substantial public interest harm and offers no countervailing verifiable, merger-related public interest benefits. Moreover, the Commission should:

- require the Applicants to submit their "internal analysis" of projected employment growth as part of the record in this proceeding so that the

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overtime pay suits for $8.8M, KANSAS CITY BUSINESS JOURNAL (January 15, 2009), https://www.bizjournals.com/kansascity/stories/2009/01/12/daily40.html.

[224] *See* Erin Marie Daly, *Sprint Call Center Workers Win Back Wages*, LAW360 (May 21, 2009), https://www.law360.com/texas/articles/102852/sprint-call-center-workers-win-back-wages.

Commission and the public can properly evaluate the job impacts of this transaction;

- not approve the proposed transaction without clear and enforceable commitments by the Applicants to protect jobs in the U.S.; and
- require the Applicants to (i) ensure that the transaction does not cause a reduction in U.S. employment and that no employee of T-Mobile or Sprint loses a job as a result of this transaction; (ii) commit to return all overseas customer call center jobs to the U.S.; and (iii) commit to complete neutrality in allowing their employees to form a union of their own choosing, free from any interference by the employer.

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APPENDIX B:

Analysis of New T-Mobile Post-Merger Spectrum Aggregation in California

Analysis of New T-Mobile Post-Merger Spectrum Aggregation

STATE	TOTAL POPULATION	POPULATION ABOVE FCC SCREEN	PERCENT ABOVE SCREEN
California	37,253,956	36,947,135	99.2%

County	State	New T-Mobile Mhz	FCC Spectrum Screen	Difference	County Population
		CALCULATIONS			
Sierra	CA	332.5	238.5	**94.00**	3,240
Calaveras	CA	332.5	238.5	**94.00**	45,578
Kern	CA	332.5	238.5	**94.00**	839,631
Mariposa	CA	322.5	238.5	**84.00**	18,251
San Joaquin	CA	322.5	238.5	**84.00**	685,306
Santa Clara	CA	322.5	238.5	**84.00**	1,781,642
San Bernardino	CA	322.5	238.5	**84.00**	2,035,210
Riverside	CA	322.5	238.5	**84.00**	2,189,641
Alpine	CA	318.2	238.5	**79.70**	1,175
Tuolumne	CA	317.5	238.5	**79.00**	55,365
Orange	CA	316.5	238.5	**78.00**	3,010,232
Ventura	CA	314.7	238.5	**76.20**	823,318
San Diego	CA	313.0	238.5	**74.50**	3,095,313
Trinity	CA	312.5	238.5	**74.00**	13,786
Glenn	CA	312.5	238.5	**74.00**	28,122
Napa	CA	312.5	238.5	**74.00**	136,484
Butte	CA	312.5	238.5	**74.00**	220,000
Merced	CA	312.5	238.5	**74.00**	255,793
Solano	CA	312.5	238.5	**74.00**	413,344
Santa Barbara	CA	312.5	238.5	**74.00**	423,895
San Mateo	CA	312.5	238.5	**74.00**	718,451
Contra Costa	CA	312.5	238.5	**74.00**	1,049,025
Alameda	CA	312.5	238.5	**74.00**	1,510,271
Los Angeles	CA	311.8	238.5	**73.30**	9,818,605
Tehama	CA	310.5	238.5	**72.00**	63,463
Shasta	CA	310.5	238.5	**72.00**	177,223
Yuba	CA	307.8	238.5	**69.30**	72,155
Sutter	CA	307.8	238.5	**69.30**	94,737
Stanislaus	CA	307.5	238.5	**69.00**	514,453
Plumas	CA	304.7	238.5	**66.20**	20,007
Yolo	CA	303.0	238.5	**64.50**	200,849
Placer	CA	303.0	238.5	**64.50**	348,432
Sacramento	CA	303.0	238.5	**64.50**	1,418,788
Colusa	CA	302.5	238.5	**64.00**	21,419
Nevada	CA	302.5	238.5	**64.00**	98,764
El Dorado	CA	302.5	238.5	**64.00**	181,058
Santa Cruz	CA	302.5	238.5	**64.00**	262,382
San Luis Obispo	CA	302.5	238.5	**64.00**	269,637
Fresno	CA	302.5	238.5	**64.00**	930,450
Marin	CA	301.0	238.5	**62.50**	252,409
Amador	CA	297.8	238.5	**59.30**	38,091
Sonoma	CA	294.7	238.5	**56.20**	483,878
Tulare	CA	292.5	238.5	**54.00**	442,179
San Francisco	CA	292.3	238.5	**53.80**	805,235
Madera	CA	282.5	238.5	**44.00**	150,865
Lake	CA	276.9	238.5	**38.40**	64,665
San Benito	CA	276.7	238.5	**38.20**	55,269
Monterey	CA	271.7	238.5	**33.20**	415,057
Humboldt	CA	259.1	238.5	**20.60**	134,623
Mendocino	CA	249.1	238.5	**10.60**	87,841

Kings	CA	246.9	238.5	**8.40**	152,982
Inyo	CA	243.5	238.5	**5.00**	18,546
Mono	CA	233.5	238.5	**(5.00)**	14,202
Lassen	CA	233.5	238.5	**(5.00)**	34,895
Imperial	CA	228.0	238.5	**(10.50)**	174,528
Modoc	CA	221.5	238.5	**(17.00)**	9,686
Del Norte	CA	221.5	238.5	**(17.00)**	28,610
Siskiyou	CA	221.5	238.5	**(17.00)**	44,900

APPENDIX C:

Methodology for Estimating Store Closures and Retail Job Losses Following the Proposed Transaction

METHODOLOGY FOR ESTIMATING STORE CLOSURES AND RETAIL JOB LOSSES FOLLOWING THE PROPOSED TRANSACTION

a. Estimating store closures

i. Overview

In order to predict how the Applicants' retail footprint would change if they operated a single postpaid brand and a single prepaid brand, CWA developed a store closure model based on the relationship between urban area population and the existing numbers of T-Mobile and MetroPCS stores.

This model predicts that in Census-defined urban areas where T-Mobile or Sprint currently operate at least one store, the number of T-Mobile/Sprint stores will go from 8,871 stores to 5,923 stores operated under a single postpaid brand, a decrease of 2,948 stores or 33 percent.

In urban areas where MetroPCS and Boost Mobile operate at least one store, the number of MetroPCS/Boost Mobile stores will go from 15,340 to 11,022 stores operated a single prepaid brand, a decrease of 4,318 stores or 28 percent.

ii. Scope of our model

Our model is limited only to U.S. Census-defined urban areas where T-Mobile, Sprint, or their pre-paid carriers (MetroPCS and Boost) operate at least one store. These urban areas account for 97 percent of Sprint/T-Mobile stores, and 99 percent of MetroPCS/Boost stores.

Our model predicts store closures but not store openings. The Applicants claim that they will open over 600 new stores to serve small towns and rural areas after the merger.[1] As

[1] *See* Description of Transaction at Appendix C, 8.

explained below, we estimate that of those 600 new stores, only 240 will be postpaid stores. These 240 stores, plus the 230 Sprint/T-Mobile stores that fall outside Census-defined urban areas brings our forecast of the single postpaid brand store count to 6,393.

iii. Store closure methodology

CWA's model uses a regression analysis to predict the number of stores that will remain open after the merger. The model uses urban area population figures as the independent variable and T-Mobile's store count to predict the number of postpaid stores that will remain open after the merger and MetroPCS store count to predict the number of prepaid stores. The model uses T-Mobile and MetroPCS' store counts to predict each urban area's post-merger store count because store counts from these two chains are highly correlated to urban area population figures.[2] All indications suggest that the merged company will follow T-Mobile's retail growth strategy, meaning that the T-Mobile/MetroPCS patterns of store distribution will inform the future retail footprint of a merged operation.

To calculate the number of stores that will remain in operation after the merger, we developed two different regressions, one for postpaid stores and one for prepaid stores. Each regression only includes urban areas where T-Mobile and MetroPCS operate at least one store. The formulas for these regressions are:

$$\textit{Number of stores} = \textit{Urban area population} * x + b$$

If the number of stores predicted by the regression was greater than the combined number of stores currently operated by the two postpaid brands or the two prepaid brands, then we

[2] The postpaid linear regression has an R-squared of 0.98, while the prepaid model has an R-squared of 0.92.

assumed that the post-merger number of stores would be equal to the number of stores predicted by the model. For example, the baseline number of prepaid stores predicted for Los Angeles is 529. Since there are 773 prepaid locations in Los Angeles (510 MetroPCS and 263 Boost Mobile), we assumed that the post-merger store count will be reduced to 529 locations, resulting in 244 store closures.

In urban areas where the number of stores predicted by the model is less than or equal to the actual number of stores currently operated by T-Mobile (postpaid model) or MetroPCS (prepaid model), we assumed that the post-merger number of stores will be equal to the number of T-Mobile or MetroPCS stores, depending on the model. For example, the baseline number of postpaid stores predicted for Chicago is 217. Since there are 241 T-Mobile stores and 147 Sprint stores, we assumed that Chicago's post-merger store count will be 241, resulting in about 147 store closures.

Likewise, in urban areas where the number of stores predicted by the model is less than or equal to the number of Sprint stores, we assumed that the post-merger store count will be equal to the number of current Sprint or Boost Mobile store counts, depending on the model. For example, since there are seven Boost Mobile stores in Honolulu and no MetroPCS stores, we assumed that the post-merger number of prepaid stores will remain at seven.

Our model predicts store closures but not store openings. In cases when the baseline number predicted by the regression is greater than the total number of existing stores in an urban area, then we assumed that the post-merger number of stores will be equal to the current number of stores. For example, the baseline number of postpaid stores predicted by the regression for Worcester, MA was 12. Since the current Sprint/T-Mobile store count is only 10, then we assumed that the post-merger store count will remain at 10 stores.

iv. Store closure model sources

Population

Population data is from 2016 American Community Survey 5-Year Estimates.[3]

Urban Area Geographies

Urban area geographic boundary data is from the Urban Area National Shapefile (2010 Census) published by the U.S. Census.[4]

Store Data

We retrieved each carrier's store location data directly from their website. Data retrieved in April and May 2018.[5]

B. Estimating job losses following the proposed transaction

i. Postpaid Methodology

Step 1: Calculate pre-merger employment level

Sprint and T-Mobile operate 9,101 corporate and authorized dealer postpaid locations combined, which we multiplied by an estimated average of eight employees per store to generate a pre-merger employment estimate of 72,808.

Step 2: Calculate job losses from projected store closures

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[3] *See* U.S. Census Bureau's 2012-2016 American Community Survey 5-Year Estimates Table 01003, American FactFinder, *available at* https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml.

[4] *See* Urban Area National Shapefile (2010 Census), U.S Census Bureau, *available at* https://www.census.gov/geo/maps-data/data/tiger-line.html.

[5] CWA analysis of store location data collected from T-Mobile, Sprint, MetroPCS, and Boost Mobile's websites in April and May 2018.

As described above, our population-based model predicts that the merged company will rationalize its retail footprint by closing 2,948 locations in census-defined urban areas. We multiplied this by the estimated average of eight employees per store to generate an initial job loss estimate of 23,584.

Step 3: Calculate post-merger employment level of remaining stores

We predict that the post-merger company will operate 6,153 postpaid retail stores in census-defined urban areas. If the staffing level remained at eight per store, these remaining stores would employ an estimated 49,224 people. New Street Research predicts that stores that remain open after the transaction will have an increase of 25 percent in volume per store.[6] We think that not all of this projected volume will translate into increased staffing needs in the remaining stores, as consumers are increasingly shopping for smartphones online and keeping their phones for longer periods of time.[7] We think that given these trends, remaining stores will need to expand their staff by 20 percent on average, or one and a half additional employees per store on average. We estimate that staff expansion at stores that remain open after the transaction will reduce our estimate of the Applicants' gross job losses by 8,146 jobs.

To estimate staff expansion at the stores that remain open after the transaction, we multiplied the number of remaining stores in each urban area times 1.5. We then took that figure and subtracted it from the gross total job loss estimate that we calculated from postpaid stores closures. For example, we predict that the Applicants will close 47 out of 149 postpaid stores in the Phoenix,

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[6] *See* "Sprint / T-Mobile Redux: Refreshing Synergies and Scenarios" at 30.

[7] *See* Maurice Klaehne, *Amazon Leads the Online Smartphone Sales Channel in the US in Q1 2018*, COUNTERPOINT RESEARCH (June 6, 2018), https://www.counterpointresearch.com/amazon-leads-online-smartphone-sales-channel-us-q1-2018/; Timothy W. Martin & Drew FitzGerald, *Your Love of Your Old Smartphone Is a Problem for Apple and Samsung*, WALL STREET JOURNAL (Feb. 28, 2018), https://www.wsj.com/articles/your-love-of-your-old-smartphone-is-a-problem-for-apple-and-samsung-1519822801.

AZ, Urbanized Area. The gross change in employment due to store closures is -376 (47 store closures * 8 jobs per store = 376 gross job losses) and the estimated staff expansion at remaining stores is +153 (102 remaining stores * 1.5 jobs = 153 additional jobs in remaining stores), bringing Phoenix's net change in retail employment to -223 (-376 + 153 = -223).

For urban areas where our model predicts little to no store closures, we assumed that the increased employment at remaining stores would not be greater than the gross job losses from store closures. For example, we predict that the Applicants will reduce the number of postpaid stores in the Rochester, NY, Urbanized Area from 20 to 17. The gross change in employment due to store closures is -24 (3 store closures * 8 jobs = 24 gross job losses) and staff expansion at remaining stores would be 26 (17 remaining stores * 1.5 = 26 additional jobs in remaining stores), which is two more jobs than the actual number of jobs that would be lost from three store closures. Without adjusting the staff expansion figure, our model would predict a net increase of two retail jobs in Rochester, despite there being three store closures (-24 jobs from store closures + 26 jobs from staff expansion at remaining stores = +2 net change in retail employment). In these cases, we assumed that the staff expansion at remaining stores would be equal to the number of gross job losses, resulting in a net increase in retail employment of zero. For Rochester, this means that we adjusted the staff expansion estimate from 26 to 24 jobs, which amounts to zero jobs lost (-24 jobs from store closures + 24 jobs from staff expansion at remaining stores = 0 net change in retail employment).

Step 4: Project the impact of new jobs at the claimed 600 new rural stores

The Applicants claim that their planned expansion into rural markets will involve six hundred new retail stores and 5,000 new retail jobs, or an average of 8.3 employees per rural store.[8] The Applicants do not specify whether these rural stores will be postpaid or prepaid locations, but imply that they will be postpaid by using the average of more than eight jobs per store.

Our analysis of the Applicants current retail operations finds that approximately sixty percent of their retail locations in markets with populations of less than fifty thousand are prepaid stores.[9] Given the low income levels and low volume of customers we would expect to see in rural areas, we do not believe that it is plausible for the combined company to open six hundred new postpaid locations in rural areas. Therefore, we project that forty percent of the 600 stores, or 240 stores, will be postpaid locations. We multiply these rural postpaid locations by an average of 7 jobs per store to yield an estimated total of 1,680 new rural postpaid retail jobs.[10]

Table 1: Summary of Post-Merger Postpaid Employment Calculations

Item	Estimate
Pre-merger postpaid retail employment	72,808
Job Loss from 2,948 stores closing	-23,584
Expansion of staff at remaining stores	+8,146
Rural postpaid expansion	+1,680
Projected post-merger postpaid retail	59,050

[8] See Description of Transaction at Appendix C, 8.
[9] CWA analysis of T-Mobile, Sprint, MetroPCS and Boost Mobile store locations in U.S. Census-defined areas with populations of less than 50,000.
[10] Based on the press coverage of T-Mobile stores opening in rural areas, such as Great Falls, MT. David Sherman, *T-Mobile opens store in Great Falls*, MTN News (Posted: Mar 23, 2018 1:10 PM, Updated: Mar 23, 2018 7:10 PM EDT), http://www.krtv.com/story/37796747/t-mobile-opens-store-in-great-falls.

employment	
Net change in postpaid retail employment	**-13,758**

ii. Prepaid Methodology

Step 1: Calculate pre-merger employment

MetroPCS and Boost Mobile operate 15,445 prepaid locations combined, which we multiplied by an estimated average of three employees per store to generate a pre-merger employment estimate of 46,335.

Step 2: Estimate job losses from projected store closures

Our model predicts that 4,318 MetroPCS and Boost Mobile stores will close as a result of the transaction. Multiplying this by the estimated average of three employees per store generates an estimated job loss of 12,954.

Step 3: Estimate the impact of rural store expansion

We estimate in the postpaid employment estimate methodology above that forty percent (240) of the Applicants' planned 600 rural expansion stores will be postpaid locations and sixty percent (360) will be prepaid locations. Multiplying 360 projected new rural prepaid stores by an estimated average of three workers per prepaid stores yields an estimated 1,080 additional prepaid retail jobs in rural areas.

Table 2: Summary of Post-Merger Prepaid Employment Calculations

Item	Estimate
Pre-merger prepaid retail employment	46,335
Job Loss from 4,213 stores closing	-12,954
Rural prepaid expansion	+1,080

Projected post-merger prepaid retail employment	34,461
Net change in prepaid retail employment	**-11,874**

APPENDIX D:

Curriculum Vitae of Debbie Goldman
Policy and Research Director, Communications Workers of America

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PROFESSIONAL EXPERIENCE

Communications Workers of America, Washington DC, Telecommunications Policy Director. 1992 to 2018, Research Director 2018-2019.
Directs telecommunications policy program for labor organization representing 700,000 employees working for wireline, wireless, cable, and equipment companies; coordinates CWA's Speed Matters national campaign to bring affordable, high-speed broadband to all Americans; provides policy analysis, writes testimony and legal briefs on telecommunications and media issues before Congress, the Federal Communications Commission, state legislatures, and state regulatory commissions.

Public Employee Department, AFL-CIO, Washington DC, Public Policy Director, 1988-1991.
Coordinated research and advocacy for public policy program of 33 public sector AFL-CIO affiliated unions on issues related to tax, budget, economic development, work and family, working women, and public sector organizational rights.

Service Employees International Union, Washington DC, Public Policy Analyst, 1987 to 1988.
Coordinated work and family public policy program; researched and wrote *Solutions for the New Workforce: Policies for a New Social Contract*, a book analyzing the impact of recent corporate and government policy on U.S. workers and outlining policy solutions in the area of work and family, job training, pay, employee benefits, worker participation, and health and safety.

EDUCATION

University of Maryland. College Park, Maryland. All-But-Dissertation toward PhD in U.S. History; M.A. in U.S. History, 2007.

University of Maryland School of Public Affairs. College Park, Maryland. M.A. in Public Policy, 1998.

Stanford University School of Education. Stanford, California. M.A. in Education, 1975

Radcliffe College (Harvard University). Cambridge, Massachusetts. B.A. Magna Cum Laude, History (Chinese), 1973. Phi Beta Kappa; Oliver-Dabney Award, Outstanding Graduate in History Department.

PUBLIC SERVICE AND AWARDS

FCC. Broadband Deployment Advisory Committee. Model Local Code Working Group. 2018

FCC. Consumer Advisory Committee. 2015-2016

Obama for President Technology and Telecommunications Policy Advisory Committee. 2008.

Susan B. Hadden Pioneer Award. Alliance for Public Technology, 2006.

Democratic Party Platform Committee. 2004

Clinton Presidential Transition Team – Federal Communications Commission. 1992.

Alliance for Public Technology. President, 2004. Public Policy Chair, 2000-2003, Board Member, 1998-2004.

Partners in Justice Award. Avodah: Jewish Service Corps. 2017

PUBLICATIONS

PUBLICATIONS

A. BOOKS AND ARTICLES

Solutions for the New Workforce: Policies for a New Social Contract, Washington, DC: Seven Locks Press, 1989.

B. FEDERAL COMMUNICATIONS COMMISSION REGULATORY FILINGS

Filings on behalf of the Communications Workers of America

Comments, *In the Matter of Applications of T-Mobile US, Inc., and Sprint Corporation for Consent to Transfer Control of the Licenses and Authorizations*, WT Docket No. 18-197, Aud. 27, 2018; Reply Comments, Oct. 31, 2018, Comments on Applicants' New Economic Study, Dec. 4, 2018.

Comments, *In the Matter of Inquiry Concerning Deployment of advanced Telecommunications Capacity to all Americans in a Reasonable and Timely Fashion*, GN Docket No. 18-238, Sept. 10, 2018.

Comments and Reply Comments, *In the Matter of Applications of Sinclair Broadcast Group and Tribune Media Company for Consent to Transfer Control of Licenses and Authorizations*, MB Docket No. 17-179, Aug. 29, 2017, Supplemental Comments June 20, 2018; Supplemental Reply Comments, July 12, 2018.

Reply Comments, *In the Matter of Petition for Declaratory Ruling Regarding Broadband Speed Disclosure Requirements, WC Docket No. 17-131*, July 3, 2017.

Reply Comments, *In the Matter of Protecting Consumers from Unauthorized Changes and Related Unauthorized Charges*, GN Docket No. 17-169, Oct. 13, 2017.

Reply Comments, *In the Matter of Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, WC Docket No. 17-184, June 17, 2017.

Reply Comments, *In the Matter of Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment*, WC Docket No. 17-179, July 17, 2017.

Comments, *In the Matter of Restoring Internet Freedom*, WC Docket No. 17-108, July 17, 2017.

Comments, *In the Matter of Inquiry Concerning Deployment of advanced Telecommunications Capacity to all Americans in a Reasonable and Timely Fashion*, GN Docket No. 17-199, Sept. 5, 2017; Reply Comments, Oct. 6, 2017.

Petition to Deny or in the Alternative Impose Conditions, *In the Matter of Applications Filed for the Transfer of Cablevisions Systems Corporation to AlitceN.V.*, WC Docket No. 15-257, Dec. 7, 2015.

Comments, *In the Matter of Lifeline and Link Up Reform and Modernization et al*, WC Docket Nos. 11-42, 09-197, 10-90, Aug. 31, 2015; Reply Comments, Sept. 30, 2015.

Comments, *In the Matter of Applications Filed by Frontier Communications Corporation and AT&T Inc. for the Assignment or Transfer of Control of the Southern New England Telephone Company and SNET America, Inc.*, WC Docket No. 14-22, March 13, 2014.

Petition to Deny, *In the Matter of Wireless Telecommunications Bureau Announces that Applications for AWS-3 Licenses in the 1695-1710 MHz and 1755-1780 MHz and 2155-2180 MHz Bands are Accepted for Filing*, Report No. AUC-97, File No. 0006670613 and 0006670667, May 11, 2015.

Comments, *In the Matter of Applications of AT&T and DIRECTV to Transfer Control of FCC Licenses and Other Authorizations*, MB Docket No. 14-90, Sept. 16, 2014; Reply Comments, Oct. 16, 2014.

Comments, *In the Matter of Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans,* GN Docket No. 14-126, Sept. 4, 2014.

Comments, *In the Matter of 2014 Quadrennial Regulatory Review et al,* M Dockets Nos. 14-50, 09-182, 07-294, 04-256, Aug. 5, 2014.

Comments, *In the Matter of Protecting and Promoting the Open Internet*, GN Docket No. 14-28, July 15, 2014.

Comments, *In the Matter of Technology Transitions et al*, GN Docket Nos. 13-5, 12-353, March 31, 2014.

Comments, *In the Matter of Structure and Practices of the Video Relay Service (VRS) Program and on Proposed VRS Compensation Rates*, CG Docket Nos. 03-123, 10-51, Nov. 14, 2012.

Comments, *In the Matter of Application of Cellco Partnership d/b/a Verizon Wireless and SpectrumCO LLC for Consent to Assign Licenses and Application of Cellco Partnership d/b/a Verizon Wireless and Cox TMI Wireless LLC for Consent to Assign Licenses,* WT Docket No. 12-4, Feb. 21, 2012; Reply Comments, March 26, 2012.

Comments, *In the Matter of Modernizing the E-Rate Program for Schools and Libraries*, WC Docket No. 13-184, Sept. 16, 2013; Reply Comments, Nov. 8, 2013.

Comments, *In the Matter of Technology Transitions Policy Task Force Seeks Comment on Potential Trials,* WC Docket No. 13-5, July 8, 2013.

Petition to Deny or Impose Conditions, *In the Matter of Sprint and Softbank Seek FCC Consent to the Transfer of Control of Various licenses, Leases, and Authorizations from Sprint to Softbank, and to the Grant of a Declaratory Ruling under Section 310(b)(4) of the Communications Act*, IB Docket No. 12-343, Jan. 28, 2013.

Comments, *In the Matter of Further Inquiry into Certain Issues in the Universal Service-Intercarrier Compensation Transformation Proceeding,* WC Docket Nos. 10-90, 07-135, 05-337, 03-109, CC Docket Nos. 01-92, 96-45, GN Docket No. 09-51.

Comments, *In the Matter of Applications of AT&T Inc. and Deutsche Telekom AG for Consent to Assign Transfer of Control of Licenses and Authorizations*, WT Docket No. 11-65, May 31, 2011; Reply Comments, June 20, 2011; Nov. 26, 2012; Reply Comments, Dec. 17, 2012.

Comments, *In the Matter of Consumer Information and Disclosure*, CG Docket No. 09-158, May 24, 2011.

Comments, *In the Matter of Connect America Fund et al*, WC Docket Nos., 10-90, 07-135, 03-109, GN Docket No. 09-51, CC Docket Nos. 01-92, 96-45, April 1, 2011 and April 18, 2011.

Comments, *In the Matter of Modernizing the FCC Form 377 Data Program et al*, WC Docket Nos. 11-10, 07-38, 08-190, 10-132, March 30, 2011; Reply Comments, April 14, 2011.

Reply Comments, *In the Matter of Universal Service Reform Mobility Fund*, WT Docket No. 10-208, Jan. 18, 2011

Reply Comments, *In the Matter of Applications for Consent to the Transfer of Control of Licenses General Electric Company, Transferor, to Comcast Corporation, Transferee*, MB Docket No. 10-56, Aug. 19, 2010.

Comments, *In the Matter of Review of Wireline Competition Bureau Data Practices*, WC Docket No. 10-132, Aug. 13, 2010; Reply Comments, Sept. 13, 2010.

Reply Comments, *In the Matter of Schools and Libraries Universal Service Support Mechanism, A National Broadband Plan for Our Future*, CC Docket No. 02-6, GN Docket No. 09-51, July 26, 2010.

Comments, *In the Matter of Framework for Broadband Internet Service,* GN Docket No. 10-127, July 15, 2010

Comments, *In the Matter of Applications Filed by Qwest Communications International Inc. and CenturyTel Inc. d/b/a/ Century Link for Consent to Transfer of Control,* WC Docket No. 10-110, July 12, 2010

Comments, *In the Matter of Connect America Fund, A National Broadband Plan for Our Future; High-Cost Universal Service Support*; WC Docket No. 10-90, GN Docket No. 09-51, WC Docket No. 05-337, July 12, 2010.

Comments, *In the Matter of The Future of Media and Information Needs of Communities in a Digital Age,* GN Docket No. 10-25, May 7, 2010.

Reply Comments, *In the Matter of a National Broadband Plan for Our Future*, NBP Public Notice #30, GN Dockets Nos. 09-47, 09-51, 09-137, Jan. 27, 2010

Comments, *In the Matter of Preserving the Open Internet, Broadband Industry Practices*, GN Docket No. 09-191, WC Docket No. 07-52, Jan. 14, 2010; Reply Comments, April 26, 2010; Response to Further Inquiry into Two Under-Developed Issues, Oct. 12, 2010.

Comments, *In the Matter of Applications Filed by Frontier Communications Corporation and Verizon Communications Inc. for Assignment or Transfer of Control*, WC Docket No. 09-95, Sept. 21, 2009.

Reply Comments, *In the Matter of Comments Sought on Defining "Broadband" NBP Public Notice #1,* GN Docket Nos. 09-47, 09-51, 09-137, Sept. 8, 2009.

Comments, *In the Matter of a National Broadband Plan for Our Future,* GN Docket No. 09-51, June 8, 2009.

Comments, *In the Matter of the Commission's Consultative Role in the Broadband provisions of the Recovery Act,* GN Docket No. 09-40, April 13, 2009.

Reply Comments, *In the Matter of Application for the Transfer of Control of Embarq Corporation to CenturyTel Inc.,* WC Docket No. 08-238, Jan. 23, 2009.

Comments, *In the Matter of Form 477 Further Notice of Proposed Rulemaking,* SC Docket No. 07-38, July 17, 2008; Reply Comments, *Broadband Mapping and Broadband Speed Reporting,* SC Docket No. 07-38,, Aug. 1, 2008

Comments, *In the Matter of 2006 Quadrennial Regulatory Review-Review of the Commission's Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996,* MB Docket No. 06-121, Dec. 11, 2007.

Reply Comments, *In the Matter of AT&T Inc.'s Petition for Conditional Forbearance Under 47 U.S.C. Section 160 From the Commission's Pay-Per-Call Service Rules,* WC Docket No. 07-215, Nov. 29, 2007.

Comments, *In the Matter of Petition of AT&T Inc. for Forbearance Under 47 U.S.C. Section 160(c) from Enforcement of Certain of the Commission's ARMIS Reporting Requirements,* WC Docket No. 07-139, Aug. 20, 2007.

Reply Comments, *In the Matter of Development of Nationwide Broadband Data to Evaluate Reasonable and Timely Deployment of Advanced Services to All Americans, Improvement of Wireless Broadband Subscribership Data, and Development of Data on Interconnected Voice over Internet Protocol Subscribership,* WC Docket No. 07-38, July 13, 2007.

Comments, *In the Matter of Development of Nationwide Broadband Data to Evaluate Reasonable and Timely Deployment of Advanced Services to All Americans, Improvement of Wireless Broadband Subscribership Data, and Development of Data on Interconnected Voice over Internet Protocol Subscribership,* WC Docket No. 07-38, June 15, 2007.

Comments, *In the Matter of Petition of FairPoint Communications, Inc. for a Waiver of the All-or-Nothing Rule in Connection with its Acquisition of Certain Verizon Properties in Maine, New Hampshire, and Vermont,* WC Docket No. 07-66, May 4, 2007.

Comments, *In the Matter of 2006 Quadrennial Regulatory Review-Review of the Commission's Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996,* MB Docket No. 06-121, Oct. 23, 2006.

Reply Comments, *In re Applications of Verizon Communications Inc., Transferor and América Móvil, S.A. de C.V., Transferee for Consent to the Transfer of Control of Entities Holding Commission Licenses and Authorizations Pursuant to Sections 214 and 310(d) of the Communications Act,* WT Docket No. 06-113, DA 06-1245, July 31, 2006.

Comments, *In the Matter of Application for Consent to Transfer of Control Filed by AT&T Inc. and BellSouth Corporation,* WC Docket No. 06-74, June 5, 2006.

Comments, *In the Matter of the Commission's Cable Horizontal and Vertical Ownership Limits*, MM Docket No. 92-264, Aug. 8, 2005.

Reply Comments, *In the Matter of Adelphia Communications Corporation, Debtor-in-Possession, Time Warner, Inc. and Comcast Corporation Seek Approval to Transfer Control and/or Assign FCC Authorizations and Licenses*. MB Docket No. 05-192, Aug. 5, 2005.

Petition to Deny, *In the Matter of Adelphia Communications Corporation, Debtor-in-Possession, Time Warner, Inc. and Comcast Corporation Seek Approval to Transfer Control and/or Assign FCC Authorizations and Licenses*. MB Docket No. 05-192, July 21, 2005.

Comments. *In the Matter of Application for Transfer of Control filed by SBC Communications Inc and AT&T Corp*., WC Docket No. 05-65. April 25, 2005.

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