

March 21, 2019

VIA ECFS

Marlene H. Dortch
Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, DC 20554

REDACTED – FOR PUBLIC INSPECTION

Re: Applications of T-Mobile US, Inc. and Sprint Corporation for Consent to Transfer
Control of Licenses and Authorizations, WT Docket No. 18-197

Dear Ms. Dortch:

T-Mobile US, Inc. and Sprint Corporation (collectively, “Applicants”) submit this letter in order to respond to the submission of DISH Network Corporation (“DISH”) and three economists affiliated with the Brattle Group, dated March 18, 2019 (“DISH March 18 Submission”). The DISH March 18 Submission purports to respond to the Applicants’ submissions of March 11 and 14, 2019.

The DISH March 18 Submission does not dispute the central point of the Applicants’ March 14 Submission – that DISH’s economists at the Brattle Group falsely represented that their most recent analysis used: “reported income information,”¹ “actual subscriber incomes”² or “panelist income information.”³ DISH now admits that the Brattle Economists “used an *estimated unconditional expectation* of income . . . for both *respondents* and non-respondents.”⁴ In other words, DISH concedes it manufactured “an estimated unconditional expectation of income” and used that “data” in place of the NMP survey.

This admission is critical. If the Brattle Economists had used the NMP survey data as they represented they did, rather than their manufactured “data,” they would have found that the use of NMP survey data “does not meaningfully affect the estimated diversion ratios” and supports

¹ DISH February 19, 2019 Letter at 3, 8.

² Bazelon, Verlinda, and Zarakas February 19 Submission at 7.

³ *Id.* at 28.

⁴ DISH March 18, 2019 Submission at 5 (emphasis added).

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ABH's conclusion that the effect of the proposed merger will be procompetitive.⁵ Neither DISH nor the Brattle Economists dispute this in the DISH March 18 Submission.

The Brattle Economists were only able to “find” high diversion ratios between Boost/Virgin and MetroPCS by changing the data to suit their needs; yet this feature of their approach is not mentioned in the DISH March 18 Submission. Fundamentally, what the Brattle Economists did was dictate brand choice based upon income. They created a model that forced most non-premium subscribers into the below \$35,000 income brackets and most of the premium subscribers into the above \$35,000 income brackets.⁶ Naturally, when lower-income consumers are forced to choose only non-premium brands, the “data” yield a corresponding outcome. But this outcome is contradicted by all of the available sources of real-world data. It is inconsistent with the NMP survey data as shown in Exhibit 5 of the ABH March 13 Response (attached to the Applicants' March 14 Submission).⁷ And it is inconsistent with data from Free Press, census zip code median income data, census tract median income data, and census block group median income data. As the ABH March 13 Response explains, this artificial skewing of the data led “specifically to their incorrect ‘finding’ of high diversion between Boost/Virgin and MetroPCS.”⁸ Neither DISH nor the Brattle Economists acknowledge, or could professionally defend, that their diversion ratio claims were made possible only by forcing low-income consumers to choose non-premium brands and forcing higher income consumers to choose premium brands.⁹

⁵ See ABH Response of March 13, 2019 at 14, Exhibits 7 and 16.

⁶ See ABH Response of March 13, 2019 at 9-10.

⁷ The chart on the top of Exhibit 5 provides the distribution of incomes based upon the survey data reported in the NMP data set. This distribution is far different than the distribution for the Brattle Economists' manufactured “data” that is shown in the lower chart.

⁸ See ABH Response of March 13, 2019 at 6.

⁹ The Brattle Economists do attempt to justify the structure of the regression they used to achieve their results by citing a paper on statistical techniques for “epidemiological and clinical research.” Bazelon, Verlinda, and Zarakas March 18 Submission at 6, n.5. According to the Brattle Economists, the following quote supports their approach: “In this case, the outcome carries information about the missing values of the predictors and this information must be used.” But the quoted language actually highlights the problem. In the study discussed in the paper, it was already known that systolic blood pressure influences coronary heart disease. This is a far different situation than is the case here. The question being asked is the *whether and to what extent* income influences brand choice; it cannot be assumed. The Brattle Economists nevertheless *assume* in their regression that income does in fact dictate brand choice and that customers with lower incomes choose non-premium brands. That this assumption is false is conclusively shown by the fact that the Brattle Economists' manufactured “data” is completely different than the NMP survey data as well as all other real-world sources of data.

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The DISH March 18 Submission also does not dispute that:

1. The Brattle Economists’ “estimate” of income predicted the wrong income bin for 76.9% of the NMP respondents who provided income information;
2. The Brattle Economists’ manufactured “data” differs dramatically from data submitted by Free Press, one of the opponents of the proposed merger;¹⁰
3. The Brattle Economists’ manufactured “data” is also far different from actual census zip code median income data,¹¹ census tract median income data, and census block group median income data (the other available sources of real-world data);¹² and
4. The NMP survey data and the other real-world income data, reported in Exhibits 1 and 2 of the ABH March 13 Response, are *consistent* with each other.¹³

In sum, DISH does not dispute any of the relevant points made in the Applicants’ March 14 Submission. Having conceded these points, no further analysis is necessary; the February DISH Submissions were based upon false statements and should be excluded.

Unable to address any of the substance of the Applicants’ March 14, 2019 Submission, DISH instead tries to create issues where none exist. For example, DISH argues that “Cornerstone’s income estimates fall outside the range for 80.7%” of the NMP reported incomes.¹⁴ But this is a complete ruse. The ABH March 13 Response compared the Brattle Economists’ manufactured data with the NMP survey data because DISH and the Brattle Economists claimed that they were using the NMP survey data. The fact that the Brattle Economists’ “data” placed the NMP panelists in the wrong income bin 76.9% of the time shows that their claim was false. In contrast, the ABH March 13 Response explicitly stated that ABH used median income data from the U.S. Census Bureau in their demand model and never claimed they used NMP survey data. The fact that U.S. Census median income data does not match data from a completely different source is unsurprising. The median income data from the U.S. Census Bureau does not use the

¹⁰ See ABH Response of March 13, 2019 at 2, Exhibit 1.

¹¹ The ABH demand model used U.S. Census Bureau median income at a zip code level. This was disclosed in the original ABH whitepaper: “Specifically, we include interactions between brand and . . . [m]edian income in home zip code. . . .” ABH Economic Analysis of the Proposed T-Mobile/Sprint Merger, Oct. 31, 2018 at 24. While DISH characterizes this description as “terse,” it is a straightforward and precisely accurate description of the data ABH used. This is in sharp contrast to the fact that the inaccuracies in the description of the data the Brattle Economists used were only detected after an extensive review of the back-up data.

¹² See ABH Response of March 13, 2019 at 2, Exhibit 1.

¹³ See ABH Response of March 13, 2019 at 2-3, Exhibits 1 and 2.

¹⁴ DISH March 18, 2019 Submission at 1.

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NMP income brackets and is an entirely different metric. The comparison is between apples and oranges.

DISH's claim is also irrelevant because Cornerstone's results do not change when they use the NMP survey data as actually reported by NMP, more granular census tract or census block median income data. *All* data, except the "data" the Brattle Economists manufactured, establish the fundamental point – the merger is procompetitive. DISH does not dispute any of this.

DISH also claims that the NMP survey data supports its claim that low-income consumers do not choose premium brands in large numbers.¹⁵ DISH compares the percentage of "non-premium customers" that are in the less than \$25,000 income bracket to "premium customers" that are in the less than \$25,000 income bracket in support of its point.¹⁶ But comparing percentages here is misleading, since so many more U.S. consumers (78%) choose premium brands than non-premium brands (22%).¹⁷

Because the question at hand involves the brand choices made by low-income consumers, it is essential to examine the statistics from the opposite perspective: what *percentage of low-income consumers* choose premium and non-premium brands. Since there are many more premium consumers, the fact that a lower *percentage* of those consumers are low-income does not mean few low-income consumers choose premium brands.

To illustrate this point, the figure below uses the most recent data published by the Commission on the number of U.S. wireless subscribers broken down between prepaid and postpaid brands.¹⁸ The pie chart on the left applies the "percentages low-income" referenced at page 7 of the DISH letter to the bases of prepaid and postpaid wireless subscribers to show the respective portions that are low-income – reflecting the much lower percentage of the postpaid group that is in the low-income category. The pie chart on the right then compares the low-income slices side by side – showing that *many more low-income customers choose postpaid brands than prepaid brands*. In short, a smaller percentage applied to a much larger population yields a bigger number, which DISH and the Brattle Economists seek to conflate.

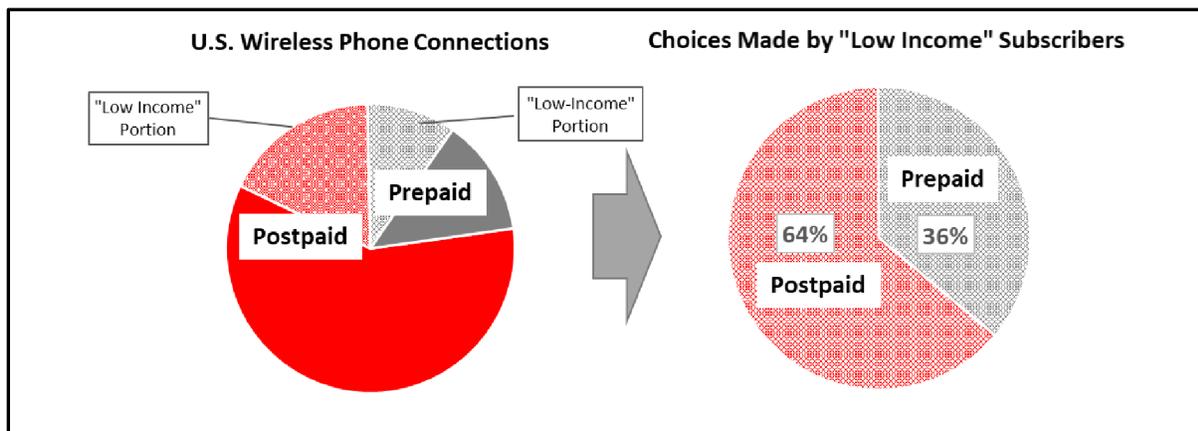
¹⁵ But what DISH fails to address is that the NMP reported income ranges are based upon unreliable data. As ABH detailed, many consumers respond to the survey multiple times and frequently report inconsistent data. ABH Response of March 13, 2019 at 18-19. In addition, many respondents never report their income. ABH Response of March 13, 2019 at 19

¹⁶ DISH March 18 Letter at 7.

¹⁷ See ABH's Economic Analysis of The Proposed T-Mobile/Sprint Merger, Oct. 31, 2018 at 125, Exhibit 81.

¹⁸ *Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, Report, 32 FCC Rcd 8968, 8988, Appendix II, Table II.B.ii (2017).

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This is precisely consistent with the comparison shown in Exhibit 2 of the ABH March 13 Response. That exhibit shows the percentage split between non-premium and premium customers in the less than \$25,000 bracket as reported in the NMP survey data – [REDACTED] of customers in that income bracket choose *premium* brands and only [REDACTED] of customers in that income bracket choose non-premium brands. In other words, a majority of low-income customers do patronize premium brands, which supports ABH’s diversion ratios.¹⁹

This filing contains information that is “Highly Confidential” pursuant to the Protective Order filed in WT Docket No. 18-197.²⁰ Accordingly, pursuant to the procedures set forth in the Protective Order, a copy of the filing is being provided to the Secretary’s Office. In addition, two copies of the Highly Confidential Filing are being delivered to Kathy Harris, Wireless Telecommunications Bureau. A copy of the Redacted Highly Confidential Filing is being filed electronically through the Commission’s Electronic Comment Filing System.

¹⁹ The Applicants are submitting this response to the DISH March 18 Submission on an expedited basis to address DISH’s misstatements relating to the NMP data set. The Applicants will provide shortly a separate response to DISH’s claims relating to the Applicants’ March 11, 2019 submission.

²⁰ Applications of T-Mobile US, Inc., and Sprint Corporation for Consent to Assign Licenses, Protective Order, WT Docket No. 18-197 (June 15, 2018).

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Please direct any questions regarding the foregoing to the undersigned.

Respectfully submitted,

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