

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

In the Matter of)	
)	
Implementation of Section 6002(b) of the)	
Omnibus Reconciliation Act of 1993)	WT Docket No. 18-203
)	
Annual Report and Analysis of Competitive)	
Market Conditions with Respect to Mobile)	
Wireless, Including Commercial Mobile Services)	

**COMMENTS OF
THE FREE STATE FOUNDATION¹**

I. Introduction and Summary

These comments are submitted in response to the Commission’s request for comments regarding RAY BAUM’S ACT of 2018’s requirement that the Commission publish a report in which it shall “assess the state of competition in the communications marketplace, including competition to deliver voice, video, audio, and data services” by “providers of commercial mobile service.” In these comments we show that the Commission should reaffirm that the commercial mobile service market is “effectively competitive.” Further, consistent with its new statutory requirement that the agency’s forthcoming communications report consider the effects of intermodal competition, these comments present evidence for wireless substitutability and urge the Commission to recognize wireless as a substitute or potential substitute for wireline.

¹ These comments express the views of Randolph J. May, President of the Free State Foundation, and Seth L. Cooper, Senior Fellow of the Free State Foundation. The views expressed do not necessarily represent the views of others associated with the Free State Foundation. The Free State Foundation is a nonpartisan, non-profit free market-oriented think tank.

In its [*Twentieth Wireless Competition Report*](#) (2017), the Commission found that the market for mobile wireless broadband is “effectively competitive.” The Commission’s affirmative report finding was based on key market metrics for 2016 and early 2017. For example, as of December 2016, 92% of the U.S. population had access to four or more service providers offering 3G technology or better, up from 82% at the start of 2014. And 89% had access to at least four service providers offering 4G LTE technology, up from 41% in mid-2015.

Mobile wireless speeds have increased during and after the periods covered in the *Twentieth Report*. Mean LTE download speeds increased to 23.5 Mbps in the first half of 2017. Those download speeds increased 20.4% to 27.33 Mbps between the first half of 2017 and the first half of 2018. Further, wireless connections rose to 396 million at the end of 2016. According to CTIA, year-end 2017 connections exceeded 400 million. Data cited in the *Twentieth Report* put average monthly data usage per smartphone subscriber at 3.9 GB. CTIA estimates that smartphones generated 5 GB of data per month in 2017.

Meanwhile, prices have continued to decline. In 2016, Average Revenue per User (ARPU) fell 7%, to \$41.50. CTIA estimates year-end 2017 ARPU dropped to \$38.66. Between 2012 and 2016, while overall CPI rose 4.5%, the annual Wireless Telephone Services CPI decreased 8%. Pro-consumer pricing options have also increased. In 2016 and early 2017, “unlimited” and “free data” postpaid plans became much more widely available. Free data plans exempt certain types of content, especially streaming video and music, from subscribers’ monthly data allowances.

The developments with regard to postpaid plans have blurred even further the line between the postpaid and prepaid services as providers of both postpaid and prepaid plans increasingly interweave elements that formerly characterized one segment or the other into their

various offerings. For example, some postpaid plans now require no mandatory contract, while prepaid plans now offer consumers a greater variety of phones that more closely match those offered to postpaid customers. The bottom line is even more consumer choice in the wireless marketplace regarding pricing and other service characteristics.

Given the strong evidence of competition, consumer choice, declining prices, and technological dynamism, the *Twentieth Report* found, correctly, that the commercial mobile services market is effectively competitive. Recent trends certainly support reaffirmation of that finding in the Commission's forthcoming competition report.

Pursuant to RAY BAUM'S ACT, the Commission will release its first comprehensive report on the state of competition in the communications marketplace later this year. This report will include competitive analyses and findings regarding the state of "competition to deliver voice, video, audio, and data services" among providers of telecommunications, commercial mobile service, multichannel video programming distributors, broadcast TV stations, satellite communications, Internet service providers, and other services. In assessing competition, RAY BAUM'S ACT also requires that "the Commission shall consider all forms of competition, including the effect of intermodal competition." The Commission's forthcoming report should therefore include an assessment of wireless/wireline substitution's existence and effects.

Broadband networks increasingly are characterized by technological and service convergence and mobile networks are a key part of this convergence. Cisco Systems reported that 60% of global mobile data traffic was offloaded onto fixed networks through Wi-Fi or femtocells in 2016. In 2017 and 2018, Comcast and Charter Communications launched hybrid Wi-Fi/cellular mobile wireless services, and DISH Networks plans to use spectrum licenses to provide Internet-of-Things (IoT) and 5G services. Convergence is also evidenced by Ligado's

modification applications to launch an integrated satellite/terrestrial IoT network using mid-band spectrum, by nationwide geostationary fixed-satellite broadband service coverage by Hughes Network Systems and ViaSat, and by fixed wireless broadband services that combine Wi-Fi connections, cell towers, and backhaul.

This convergence – which is a key predicate for wireless/wireline substitution – has accelerated as 4G LTE mobile broadband capabilities have made mobile broadband services a viable platform for viewing video and other data-rich content. Reports indicate that mobile data usage – and mobile video viewing, in particular – are increasingly popular with consumers. For instance, an AOL study published in early 2017 found “On average, 57% of consumers globally watch videos on a mobile phone every day.” And the June 2018 Ericsson Mobility Report forecasted that global mobile video traffic will account for 73% of all mobile data traffic by 2023. Data collected by NTIA shows that wireless-only broadband households doubled between 2013 and 2015, from 10% to 20%. A June 2018 U.S. consumer survey by the Internet Innovation Alliance indicates: “Fully 43% of all respondents report a preference for mobile access or report no preference as compared to 47% expressing a fixed broadband preference.” The latest National Health Interview survey on wireless substitution states: “53.9% of American homes “had only wireless telephones... during the second half of 2017.” Thus, fixed and mobile services increasingly appear to provide further competitive constraints on each other in the communications marketplace – above and beyond the competition that already exists within each segment.

The *Twentieth Report* offered no analysis of wireless substitution or competition between wireless and other platforms. Further, the *2018 Broadband Progress Report* disagreed that mobile services are full substitutes for fixed services. But the evidence of substitution cited

above and RAY BAUM’S Act mandate for assessing intermodal competition should lead the Commission to rethink its approach and recognize the existence of wireless/wireline substitutability.

In sum, a close examination by the Commission of wireless/wireline substitution and cross-platform competition is overdue and it should be included in its forthcoming report. The policy implications of *or* for wireless/wireline substitutability would be worked out over time. But as a general matter, such substitutability no doubt should prompt the Commission to reduce regulatory burdens applicable to both wireline and wireless providers, thereby freeing up dynamic market forces to further enhance consumer welfare.

II. The Commission Should Continue Making Effective Competition Findings in Its Reports on the Competition in the Communications Landscape

RAY BAUM’S ACT of 2018 requires that the Commission shall publish a report in which it shall “assess the state of competition in the communications marketplace, including competition to deliver voice, video, audio, and data services” by “providers of commercial mobile service” as well as by providers of telecommunications, commercial mobile service, multichannel video programming distributors, broadcast TV stations, satellite communications, Internet service providers, and other services.² The Act also states: “the Commission shall consider all forms of competition, including the effect of intermodal competition, facilities-based competition, and competition from new and emergent communications services.”³

In discharging its new report responsibilities under RAY BAUM’S Act, the Commission should continue making findings regarding “whether or not there is effective competition” in the

² Consolidated Appropriations Act, 2018, Pub. L. No. 115-141, Div. P—RAY BAUM’S Act of 2018, § 401 (2018) (RAY BAUM’S Act of 2018).

³ RAY BAUM’S Act of 2018, § 401.

CMRS or overall wireless markets, as it did under former Section 332(c)(1)(C). Although not required under the Act, such findings can provide insight into the wireless market's conditions and provide a point of reference to guide policymaking.

The *Twentieth Wireless Competition Report* “consider[ed] a number of facts and characteristics of the provision of mobile wireless services, which taken together, indicate that there is effective competition.”⁴ That is, the report considered market data, recognizing that markets with choices among providers and service plans, technological innovation, increasing consumption and price-reducing trends are competitive. The report's interpretive approach to what constitutes “effective competition” accords with dictionary definitions of “effective” as meaning “actual” or “operative.” This reasonable approach fits within the scope of the Commission's discretionary authority and should be employed in its forthcoming report.

Further, the Commission should reject calls for it to settle arbitrarily on consumer access to four competing facilities-based mobile broadband Internet access service providers as a *sine qua non* for “effective competition.” There is no persuasive reason, from an economic analysis perspective, to make four providers an absolute standard, particularly in markets undergoing rapid innovation.

More important to consumer welfare than fixation on the absolute number of competing providers are the potential benefits of innovative technologies and service offerings driven by the competition that exists in the marketplace. Continuing densification of 4G LTE networks and rollouts of 5G networks as well as increased speeds and reduced per-megabit pricing trends clearly benefit consumers. And even for areas not served by four national mobile service

⁴ Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services, WT Docket No. 17-69, *Twentieth Report* (rel. September 27, 2017), at ¶ 4.

providers, competition in the mobile wireless services market among national and regional providers, as well as by new entrants such as cable companies and potential new entrants nonetheless provides disciplining effects on service provider behavior, sharply constraining the likelihood of significant and sustained price increases above market levels.

Nor should the Commission be dissuaded from affirming the wireless market's competitiveness on account of claims by pro-regulatory advocates that switching costs create "gatekeeper power" and encourage mobile service providers to block or throttle content. Such empty claims were a vestige of the Commission's repealed Title II regulations and they lack supporting economic evidence. Also, the *Twentieth Report* found that "service providers have offered various promotions designed to partially or fully compensate consumers' switching costs" and that "consumers are not only willing but are also able to readily switch between service providers." The trend toward reduced switching costs was recognized in prior *reports*.⁵

III. Clear and Convincing Evidence Supports a Commission Finding That There Is Effective Competition in the Wireless Market

Today's wireless broadband market features a variety of new service and product offerings to consumers, including choices from among four nationwide wireless providers as well as regional providers, new wireless services from cable operators like Comcast and Charter, 4G LTE network capabilities with 5G rollouts underway, smartphone and countless wireless app features, and a variety of mobile data and voice pricing options. (As stated above, and in light of

⁵ See Seth L. Cooper, "Wireless Report Evidence of Effective Competition Contradicts the FCC's Pro-Regulatory Agenda," *Perspectives from FSF Scholars*, Vol. 11 No. 35 (October 20, 2016) (discussing data and observations regarding switching incentives contained in the *Nineteenth Report*), available at: http://www.freestatefoundation.org/images/Wireless_Report_Evidence_of_Effective_Competition_Contradicts_the_FCC_s_Pro-Regulatory_Agenda_102016.pdf. Seth L. Cooper, "Wireless Report Data Undermine the FCC's Rationale for Regulation," *Perspectives from FSF Scholars*, Vol. 11 No. 5 (January 22, 2016) (discussing *Eighteenth Report*), available at: http://www.freestatefoundation.org/images/Wireless_Report_Data_Undermine_the_FCC_s_Rationale_for_Regulation_012216.pdf.

all the evidence discussed herein, an “effective competition” finding is not dependent on the existence of the current four nationwide carriers.)

Several data points contained in the *Twentieth Wireless Competition Report* (2017) offer clear and convincing evidence to support a finding that both the commercial mobile services market consisting of wireless carriers and the broader wireless market are effectively competitive. Also, early indicators show significant advancements during 2017 – that is, in the time following the *Twentieth Report*’s coverage period:

- **Consumer connections and data consumption have risen.** Wireless connections rose from 378 million at the end of 2015 to 396 million at the end of 2016. At the end of 2016, monthly data usage per smartphone subscriber reached an average of 3.9 GB, up 39% from year-end 2015.⁶ According to CTIA, year-end 2017 connections exceeded 400 million, smartphones generated an average of 5 GB of data per month in 2017, and smartphones in use increased from 262 million in 2016 to 273 million in 2017.⁷
- **Prices have decreased.** In 2016, Average Revenue per User (ARPU) fell 7%, from \$44.65 to \$41.50. Between 2012 and 2016, while the overall consumer price index (CPI) rose 4.5%, the annual Wireless Telephone Services CPI decreased 8%.⁸ CTIA estimates year-end 2017 ARPU dropped to \$38.66.⁹
- **Consumer access to advanced network capabilities has increased.** At the start of 2017, 92% of the U.S. population had access to four or more service providers offering 3G technology or better, up from 82% at the start of 2014. And 89% had access to at least four service providers offering 4G LTE technology, up from 41% in mid-2015. Between 2013 and 2016, nearly 4,000 new cell sites were added. Further, service providers increasingly have deployed small cells and DAS sites to improve coverage and prepare for 5G network deployments. Mobile service providers have also begun trials for 5G networks.¹⁰
- **Speeds have increased.** Mean LTE download speeds increased to 23.5 Mbps in the first half of 2017, up from 14.4 Mbps in the first half of 2014. Over that same span, median LTE download speeds increased to 15.5 Mbps, up from 11.0 Mbps.¹¹ According to Ookla, mean download speeds increased 20.4% to 27.33 Mbps between the first half of

⁶ *Twentieth Report*, at ¶¶ 19, 5.

⁷ CTIA, “The State of Wireless 2018” (July 2018) (“Annual Wireless Industry Survey”), available at: https://api.ctia.org/wp-content/uploads/2018/07/CTIA_State-of-Wireless-2018_0710.pdf.

⁸ *Twentieth Report*, at ¶¶ 59, 58.

⁹ CTIA, “The State of Wireless 2018.”

¹⁰ *Twentieth Report*, at ¶¶ 7, 43, 77, 86.

¹¹ *Twentieth Report*, at ¶ 8.

2017 and the first half of 2018. Mean uploads speeds increased to 8.63 Mbps in early 2018.¹²

- **Increased availability of pro-consumer pricing options.** In 2016, “unlimited” data plans became widely available to consumers once again. Also, in 2016 and early 2017 free data plans became much more widely available. Free data plans exempt certain types of content, especially streaming video and music, from subscribers' monthly data allowances. Meanwhile, consumers enjoy choice among postpaid as well as prepaid plans. Prepaid offerings include Cricket and MetroPCS brands offered by national mobile broadband ISPs as well offerings by mobile virtual network operators (MVNOs) such as Tracfone.¹³

The developments with regard to postpaid plans have blurred even further the line between the postpaid and prepaid services as providers of both postpaid and prepaid plans increasingly interweave elements that formerly characterized one segment or the other into their various offerings. For example, some postpaid plans now require no mandatory contract, while prepaid plans now offer consumers a greater variety of phones that more closely match those offered to postpaid customers. The bottom line is even more consumer choice in the wireless marketplace regarding pricing and other service characteristics.

Market trends regarding wireless substitution for rival service platforms are additional indicators of effective competition. For several years running, the number of wireless-only subscribers has increased, clearly pointing to wireless substitutability for landline services offered by traditional telephone or cable VoIP providers. The latest National Health Interview survey on wireless substitution states: “53.9% of American homes “had only wireless telephones... during the second half of 2017.”¹⁴

¹² Ookla, “2018 Speedtest U.S. Mobile Performance Report,” (July 2018), available at: <http://www.speedtest.net/reports/united-states/>.

¹³ *Twentieth Report*, at ¶¶ 49-55.

¹⁴ Stephen J. Blumberg and Julian V. Lake, “Wireless Substitution: Early Release of Estimates From the National Health Interview Survey, July-December 2017,” Division of Health Interview Statistics, National Center for Health Statistics (released May, 2018), available at <https://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201806.pdf>.

As a result of new deployments and network densification upgrades, 4G LTE wireless networks are speedier and more capacious than previously. Indeed, as will be discussed later, in many instances 4G networks constitute a potential substitute for wireline broadband. Further, 5G mobile networks which are now entering the early stages of rollout, will potentially offer speeds 10 times higher than 4G.¹⁵ Capabilities offered by 5G will further increase media consumption choices for consumers and similarly increase the likely substitutability of mobile wireless networks for alternative platforms. The increased capacity and reliability of 5G networks will also expand access to and adoption of Internet-of-Things (IoT) services, which enable advanced precision manufacturing, smart agriculture, industrial operations, as well as energy and public safety functions. It is also projected that \$275 billion in 5G-related investments by industry will lead to the creation of as many as 3 million jobs and boost GDP by as much as \$500 billion.¹⁶

IV. The Commission Should Recognize That Wireless Is a Substitute or Potential Substitute for Wireline

RAY BAUM'S ACT of 2018 requires that "the Commission shall consider all forms of competition, including the effect of intermodal competition, facilities-based competition, and competition from new and emergent communications services."¹⁷ Pursuant to its intermodal competition assessment, the Commission should recognize that wireless services are a substitute or potential substitute for wireline services.

¹⁵ Deloitte, "Wireless Connectivity Fuels Industry Growth and Innovation in Energy, Health, Public Safety, and Transportation" (January 2017), at 3, available at: http://www.ctia.org/docs/default-source/default-document-library/deloitte_20170119.pdf.

¹⁶ Accenture Strategy, "Smart Cities: How 5G Can Help Municipalities Become Vibrant Smart Cities" (January 2017), at 1, available at: <https://www.ctia.org/docs/default-source/default-document-library/how-5g-can-help-municipalities-become-vibrant-smart-cities-accenture.pdf>.

¹⁷ RAY BAUM'S Act of 2018, § 401.

Broadband networks increasingly are characterized by convergence and consumer data usage is increasingly dispersed across competing technology platforms. Mobile networks are part of this convergence:

- Cisco Systems reported that 60% of global mobile data traffic was offloaded onto fixed networks through Wi-Fi or femtocells in 2016.¹⁸
- In 2017 and 2018, Comcast and Charter Communications launched hybrid Wi-Fi/cellular mobile wireless services that rely on their broadband networks in combination with millions of hotspots and leased mobile network capacity. Xfinity Mobile enrolled 577,000 subscribers through the first quarter of 2018 and enrollment may surpass 2 million subscribers in the near future.¹⁹
- DISH Network owns valuable spectrum licenses and has announced plans to launch an Internet of Things (IoT) network as well as 5G network services.²⁰
- Pending at the FCC are Ligado’s spectrum license modification applications to launch an integrated satellite/terrestrial IoT network that uses mid-band spectrum.²¹
- Recent technological advancements have enabled nationwide geostationary fixed-satellite broadband service coverage by Hughes Network Systems and ViaSat, with available download speeds exceeding 25 Mbps, 50 Mbps, or even 100 Mbps, and with future satellite technology promising significantly higher speeds.²²
- Fixed wireless broadband service is also an increasingly viable choice for residential consumers and enterprises. Combining use of Wi-Fi connections, cell towers, and backhaul, fixed wireless connections can deliver download speeds up to 100 Mbps.²³

¹⁸ Cisco Systems, Cisco’s Visual Networking Index (VNI) (June 6, 2017) , available at: <https://www.cisco.com/c/en/us/solutions/collateral/service-provider/visual-networking-index-vni/mobile-white-paper-c11-520862.html>

¹⁹ Mike Dano, “Analyst: Wireless customers will begin flocking to Comcast’s Xfinity Mobile,” *Fierce Wireless* (April 9, 2018), available at: <https://www.fiercewireless.com/wireless/analyst-wireless-customers-will-begin-flocking-to-comcast-s-xfinity-mobile>.

²⁰ Andy Szal , “DISH Could Spend Up to \$1B on NB-IoT Network, \$10B on Nationwide 5G,” *WirelessWeek* (May 24, 2018), available at: <https://www.wirelessweek.com/news/2018/05/dish-could-spend-1b-nb-iot-network-10b-nationwide-5g>.

²¹ See Seth L. Cooper, “Time for NTIA and FCC to Act on Ligado’s Application for Advanced IoT Network,” *FSF Blog* (June 13, 2018), available at: <http://freestatefoundation.blogspot.com/2018/06/time-for-ntia-and-fcc-to-act-on-ligados.html>.

²² See Seth L. Cooper, “Satellite Broadband Services Will Enhance Competition and Reach New Consumers,” *FSF Blog* (March 14, 2018) available at: <http://freestatefoundation.blogspot.com/2018/03/satellite-broadband-services-will.html>.

²³ See Michael J. Horney, “Fixed Wireless Broadband Could Help Reach More Rural Consumers” *FSF Blog* (November 24, 2017), available at: <http://freestatefoundation.blogspot.com/search?q=fixed+wireless>.

This convergence – which is a key predicate for wireless/wireline substitution – has accelerated as mobile broadband capabilities have advanced. Improved speed and reliability of 4G LTE networks have made mobile broadband services a viable platform for viewing video and other data-rich content. As indicated earlier, Ookla tests indicate mean mobile download speeds in the U.S. exceeded 27 Mbps during the first half of 2018. Speeds will no doubt rise in the near future, and 5G networks promise average speeds about ten times LTE networks, with peak speeds exceeding LTE by perhaps 100 times. Many popular mobile applications, including online video services and HD viewing capabilities, such as Netflix, YouTube, HuluPlus, and HBO Go, require download speeds of not more than 10 Mbps or 5 Mbps.

Moreover, reports indicate that mobile data usage – and mobile video viewing, in particular – are increasingly popular with consumers:

- Mobile connections represent nearly 72% of all broadband connections, double the amount of fixed broadband connections. And mobile connections continue to grow at a faster rate than fixed broadband connections, with a 7% year-to-year increase for mobile connections in December 2016 compared to a 3% increase for fixed connections.²⁴
- Based on minutes spent, as of December 2016, mobile-based digital usage through apps and mobile web browsing exceeded desktop-based digital usage 69% to 31%.²⁵
- An AOL study published in early 2017 found: “On average, 57% of consumers globally watch videos on a mobile phone every day.”²⁶
- According to the 2018 Ericsson Mobility Report, global mobile data traffic is forecast to rise at a 43% compound annual growth rate, “reaching close to 107 exabytes (EB) per

²⁴ *Internet Access Services Report: Status as of December 30, 2016*, Industry Analysis and Technology Division, Wireline Competition Bureau, (February 2018) at 16 (Figure 12), at 2, available at: <https://www.fcc.gov/internet-access-services-reports>.

²⁵ comScore, “2017 Cross-Platform Future in Focus (March 22, 2017), at 6, available at: <https://www.comscore.com/Insights/Presentations-and-Whitepapers/2017/2017-US-Cross-Platform-Future-in-Focus>.

²⁶ AOL, “How Consumers are Engaging with Mobile Video Around the World” (February 17, 2017), available at: <https://advertising.aol.com/mobile-video-global>.

month by the end of 2023.” Further: “Mobile video traffic is forecast to grow by around 45 percent annually through 2023 to account for 73 percent of all mobile data traffic.”²⁷

- Observed an NTIA Chief Economist: “Mobile Internet service appears to be competing more directly with wired Internet connections.” Data collected by NTIA shows “online households that relied exclusively on mobile service at home doubled between 2013 and 2015,” from 10% to 20%. Wireless-only broadband household access “appears to have come at the expense of wired broadband connections.”²⁸
- “Deloitte Global predicts that 20 percent of North Americans with internet access will get all of their home data access via cellular mobile networks (mobile-only) in 2018.”²⁹
- A June 2018 survey of 100,000 consumers in the U.S. by the Internet Innovation Alliance indicates that 20% have “no preference” for how they access the Internet. Further: “[f]ully 43% of all respondents report a preference for mobile access or report no preference as compared to 47% expressing a fixed broadband preference, demonstrating clearly that in the public view, there is essential equivalence between mobile and fixed alternatives.”³⁰

The growing numbers of consumers that choose one or the other indicates that many consider fixed and mobile services to be substitutes and will switch in response to changes in prices or quality of services. This means that the two services are providing a competitive constraint on each other and should be considered to be in the same communications market.

Like prior reports, the *Twentieth Report* offered no analysis of wireless substitution or competition between wireless and other platforms. Further, the Commission’s *2018 Broadband Progress Report* expressed disagreement with the idea “that mobile services are currently full

²⁷ Ericsson Mobility Report (June 2018), at 13, available at: <https://www.ericsson.com/assets/local/mobility-report/documents/2018/ericsson-mobility-report-june-2018.pdf>.

²⁸ Giulia McHenry, Chief Economist, Office of Policy Analysis and Development, NTIA, “Evolving Technologies Change the Nature of Internet Use” (April 19, 2016), available at: <https://www.ntia.doc.gov/blog/2016/evolving-technologies-change-nature-internet-use>.

²⁹ Deloitte, “Mobile-only: wireless home internet is bigger than you think,” (January 2018), available at: <https://www2.deloitte.com/content/dam/Deloitte/global/Images/infographics/technologymediatelecommunications/gx-deloitte-tmt-2018-mobile-home-internet-report.pdf>.

³⁰ Internet Innovation Alliance (IIA), “Evolving Preferences: Consumer Preferences Tilting Toward Mobile Broadband” (July 17, 2018), at 4, available at: https://internetinnovation.org/wp-content/uploads/IIA_ConsumerPreferences_Whitepaper.pdf.

substitutes for fixed services” deserves closer scrutiny.³¹ That report maintained that fixed and mobile broadband services are not “full substitutes” because they “provide different functionalities” and are “tailored to serve different consumer needs.”³² The evidence of substitution cited above should lead the Commission to rethink its approach.

Rightly, Commissioner Michael O’Rielly disputed the report’s finding, stating: “I disagree with the Commission’s reluctance to firmly acknowledge that wireless broadband is a substitute for wireline service. It is not a mere complement. Every day, more and more consumers are flocking to wireless broadband and the mobile experience it provides despite the differences in speed.” Commissioner O’Rielly also observed: “[C]onsumers, especially in the less affluent and younger populations, are willing to trade speed for flexibility.” Also: “many consumers view the two as substitutes.”³³

In short, merely rejecting “full substitution” and declining further analysis fails to fully take stock of the substitution-related data that exists. Now RAY BAUM’S Act requires the Commission to do more. The implications of wireless/wireline substitutability would be worked out in the course of future Commission actions. But as a general matter, strong intermodal competition and the existence of wireless/wireline substitutability no doubt should prompt reductions in regulatory burdens in both market segments, thereby freeing up dynamic market forces to further enhance consumer welfare.

³¹ Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, GN Docket No. 17-199, *2018 Broadband Progress Report* (rel. Feb 2, 2018), at ¶ 18.

³² *2018 Broadband Progress Report*, at ¶ 18.

³³ Statement of Commissioner Michael O’Rielly, *2018 Broadband Progress Report*, at 86.

V. Conclusion

For the foregoing reasons, the Commission should expressly find that the commercial mobile services market and the overall wireless market are effectively competitive, and it should also recognize that wireless is a substitute or potential close substitute for wireline.

Respectfully submitted,

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