

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
Restoring Internet Freedom)	WC Docket No. 17-108
)	
Bridging the Digital Divide)	
for Low-Income)	WC Docket No. 17-287
)	
Lifeline and Link Up Reform and Modernization)	WC Docket No. 11-42

Comments of

Scott Wallsten*

April 20, 2020

The Federal Communications Commission (FCC) “seeks to refresh the record regarding issues remanded by the *Mozilla* Court.”¹ In this comment, I first discuss the economics and history of common carriage regulation (e.g., comparable to Title II), and how it tends to be incompatible with rapid innovation and unsustainable over time. I then turn to public safety, noting that network neutrality is inconsistent with high-performing public safety communications. Finally, I discuss Lifeline, noting that changes in how ISPs are regulated appear to be uncorrelated with changes in Lifeline participation.

Common Carriage Regulation Trades Market-Based Decisions for Lobbying²

Regulation under Title II is akin to common carriage regulation. As the second sentence of Title II states, “All charges, practices, classifications, and regulations for and in connection with such

* President and Senior Fellow, Technology Policy Institute. The views reflect those of the author only, not necessarily those of TPI, its Board of Directors, or its donors.

¹ Federal Communications Commission, “Wireline Competition Bureau Seeks to Refresh Record in Restoring Internet Freedom and Lifeline Proceedings in Light of the D.c. Circuit’s *Mozilla* Decision,” Public Notice, February 19, 2020, 1, <https://docs.fcc.gov/public/attachments/DA-20-168A1.pdf>.

² This section draws heavily on two earlier relevant pieces by this author: Thomas M. Lenard and Wallsten, Scott, “Comments on the Restoring Internet Freedom Notice of Proposed Rulemaking,” July 17, 2017, <https://techpolicyinstitute.org/wp-content/uploads/2017/07/Comments-on-the-Restoring-Internet-Freedom-Notice-of-Proposed-Rulemaking.pdf>; Scott Wallsten, “FCC Effort to Regulate Internet Ignores History of Past Failures,” *The Conversation*, February 24, 2015, <http://theconversation.com/fcc-effort-to-regulate-internet-ignores-history-of-past-failures-37953>.

communication service, shall be just and reasonable, and any such charge, practice, classification, or regulation that is unjust or unreasonable is hereby declared to be unlawful.”³ To some, that sentence may sound clear, but in practice it is not. When the regulator must decide what is “just and reasonable,” its decisions replace market-based decisions, which necessitates intense lobbying by all sides. As I noted in an earlier essay,

Even when established with the best of intentions, however, regulations do not necessarily work for the public good. Instead, they become the product of lobbying by interested parties ranging from companies to public interest groups to Congress and others over how to distribute profits. The interactions between the regulator and those parties inevitably lead to increasingly complex and politicized regulatory regimes.⁴

Rail, trucking, and gas were all subject to common carrier regulation, and all experienced that outcome:

Start with the Interstate Commerce Commission (ICC), which was established in 1887 to regulate railroads in response to farmers’ claims of rate discrimination and decommissioned at the end of 1995. Net neutrality proponents would have swooned over the ICC’s enabling legislation, which made it illegal for any common carrier to “make or give any undue or unreasonable preference or advantage to any particular person, company, firm, corporation, or locality, or any particular description of traffic, in any respect whatsoever...” In other words, no preferential treatment.

Like net neutrality, that nondiscrimination sounds simple, but it wasn’t. In 1908, railroads filed nearly 229,000 rates at the ICC. These tariffs differed by distance and what was being transported. The ICC even had a full-time “classification committee” dedicated to setting allowable maximum prices for different types of freight.

The result? Initially, railroad profits increased. When trucking began to compete with railroads, the ICC regulated trucks, too. That was great for the trucking industry, which became a legal cartel with no incentive to innovate and later fought tooth and nail against deregulation. Meanwhile, regulations prevented railroad companies from adapting, driving several into bankruptcy.

The ICC’s experience was hardly unique. Consider natural gas. Even though one cubic meter of gas is pretty much like any other cubic meter of gas, in 1976 the energy regulator established five types of gas based on vintage in order to promote exploration. By the time this regulatory regime was dismantled in 1978, the number of categories had ballooned to 28.⁵

Outcomes in a Title II broadband world would likely be convoluted, non-economic, and the result of intense lobbying. For example, soon after the first Open Internet order in 2011, MetroPCS, which had only three percent of the market,⁶ was accused of violating the rules with

³ <https://transition.fcc.gov/Reports/1934new.pdf>

⁴ Wallsten, “FCC Effort to Regulate Internet Ignores History of Past Failures.”

⁵ Wallsten.

⁶ <https://www.fiercewireless.com/special-report/grading-top-10-u-s-carriers-second-quarter-2011>

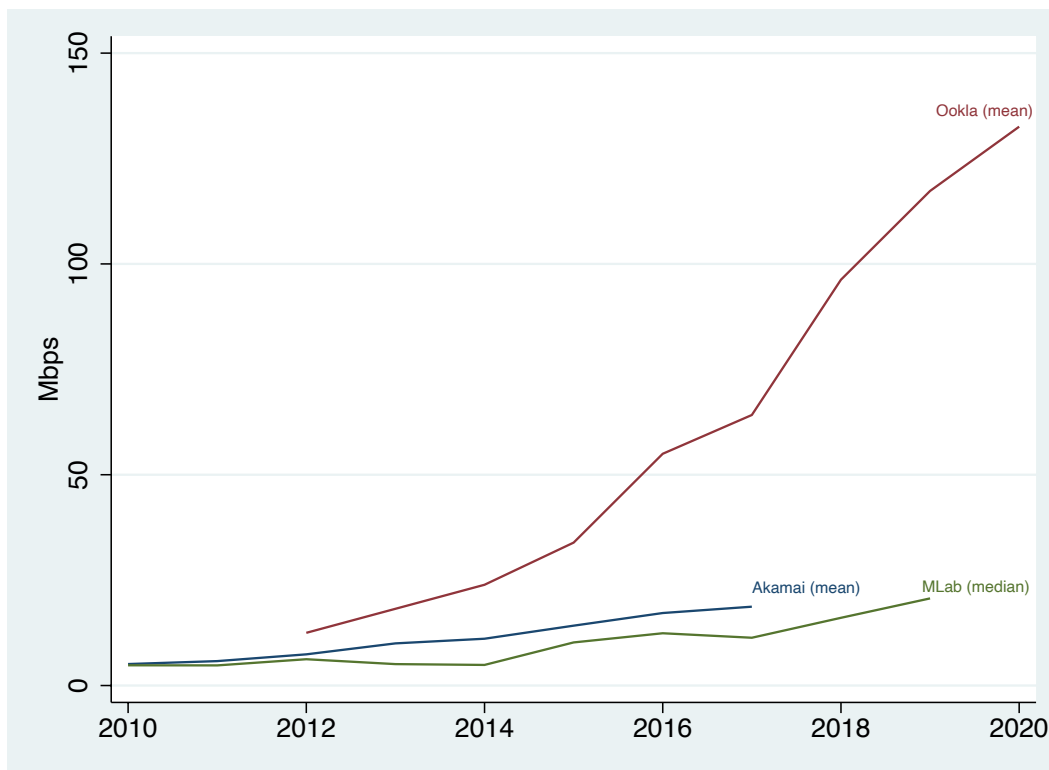
its video streaming service.⁷ The company apparently thought its streaming innovation was a way to differentiate itself from its much larger competitors but instead had to defend itself against complaints to the regulator.

Faster Speeds, Fewer Complaints

Data on broadband performance and consumer complaints suggest that the RIF has not had negative effects on consumer service.

Figure 1 shows that U.S. broadband networks have shown steadily increasing speeds. Neither the OIO nor the RIF appear to have affected the trend.

Figure 1: U.S. Fixed Download Speeds, As Measured by Ookla, Akamai, and MLab



Sources: Ookla, Akamai, and MLab⁸

Similarly, both the FCC (Figure 2) and Federal Trade Commission (FTC) (Figure 3) have recorded a steadily decreasing number of complaints related to broadband service.

⁷ <https://www.wired.com/2011/01/metropcs-net-neutrality-challenge/>

⁸ Each has a different approach to measuring speed, but all show upward trends in speeds. Ookla: <https://www.speedtest.net/reports/>, <https://www.speedtest.net/global-index/united-states>, and several independent reports for missing years. Akamai data from Quarterly Connectivity Reports. Akamai appears to have stopped publicly reporting speeds after Q1 2017. MLab data from <https://viz.measurementlab.net/data?aggr=year&clientIps=&locations=naus&start=2010-04-20>.

Figure 2: Number of Complaints to the FCC About Broadband Speeds

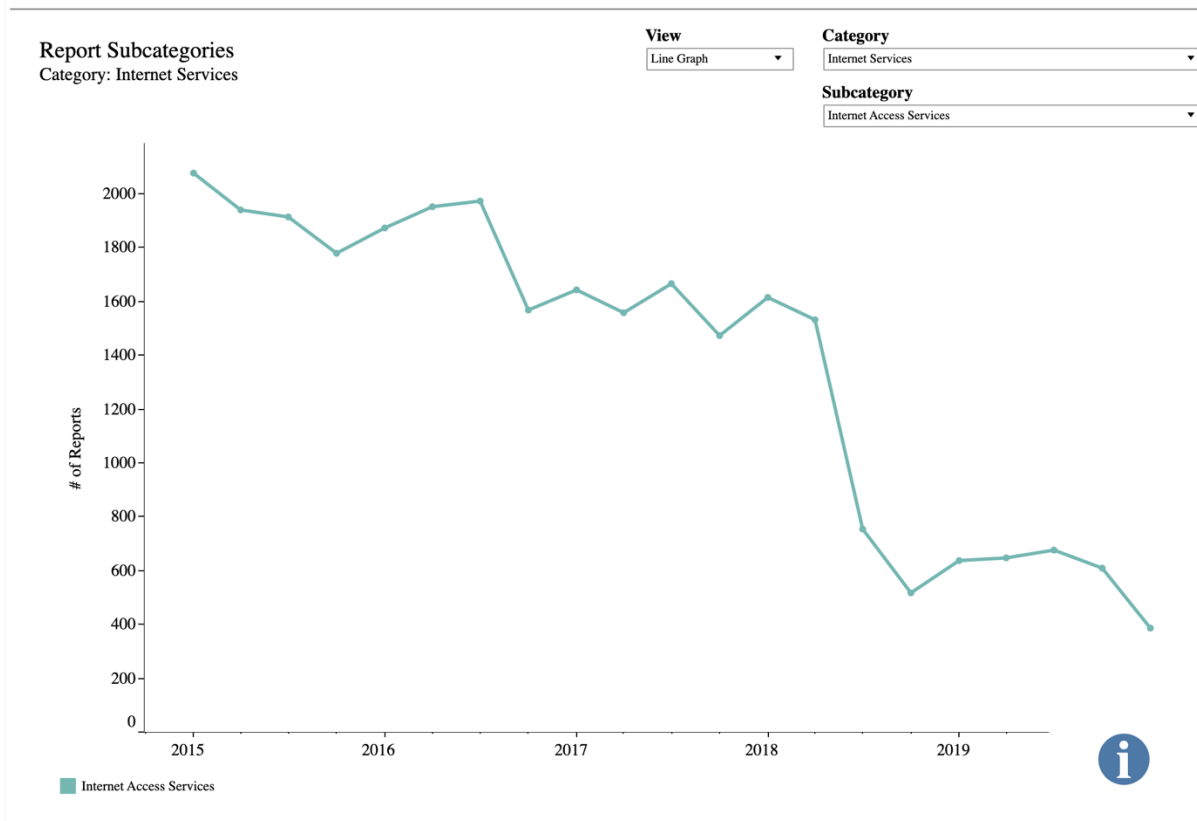


Source: FCC Complaints Database

Figure 3: Number of Complaints to FTC About Internet Access Services

FTC CONSUMER SENTINEL NETWORK

Published April 3, 2020
(data as of March 31, 2020)



Source: FTC⁹

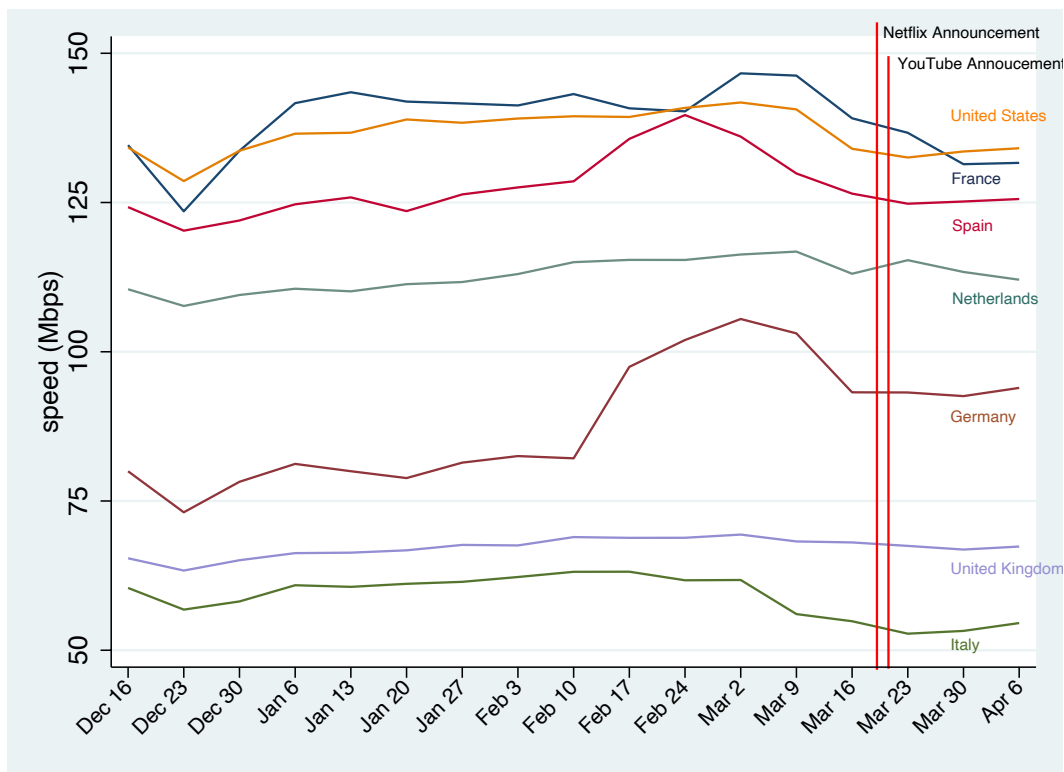
In short, despite concerns that moving from Title II to Title I regulation of ISPs would worsen service, speed and complaint data suggest that consumers have not suffered ill effects from the change.

The current coronavirus crisis additionally highlights the robustness of U.S. networks. Data from Ookla shows U.S. networks maintaining an average of over 130 Mbps, faster than most European networks (Figure 4). While EU regulators asked streaming services to reduce the resolution,¹⁰ and therefore bandwidth needs, during the crisis, U.S. regulators did not. Without regulatory intervention, U.S. networks have continued to perform admirably.

⁹ <https://www.ftc.gov/enforcement/data-visualizations/explore-data>

¹⁰ <https://www.cnn.com/2020/03/19/tech/netflix-internet-overload-eu/index.html>

Figure 4: Average Download Speed in the U.S. and Europe



Source: Ookla¹¹

As with complaint data, actual performance by U.S. broadband networks under extremely heavy demand is inconsistent with claims of faltering performance if ISPs were regulated under Title I.

Public Safety

In this Notice, the Commission asks, “Could the network improvements made possible by prioritization arrangements benefit public safety applications—for example, by enabling the more rapid, reliable transmission of public safety related communications during emergencies?”¹² In this section, I discuss why network neutrality is inimical to public safety communications and show that we have already seen innovation that relies on prioritization.

We broadly recognize the importance for first responders and other aspects of public safety to have priority over normal activities. Perhaps the most common example is that cars must pull over to allow emergency vehicles flashing their lights to pass—emergency vehicles have priority over other vehicles when necessary. The same is true for communications.

An incident that many use to argue in favor of net neutrality actually shows the importance of prioritization, not net neutrality, for public safety. In 2018, Verizon mistakenly throttled speeds

¹¹ <https://www.speedtest.net/insights/blog/tracking-covid-19-impact-global-internet-performance/#/>

¹² Federal Communications Commission, “Wireline Competition Bureau Seeks to Refresh Record in Restoring Internet Freedom and Lifeline Proceedings in Light of the D.c. Circuit’s Mozilla Decision,” 2.

to a fire department’s mobile subscribers while the department was fighting wildfires in California. This incident was “submitted as evidence in a lawsuit that seeks to reinstate federal net neutrality rules.”¹³ In an emergency, it is not enough to not experience data throttling. Data transmission between emergency crews requires priority handling over other types data. Even as he argued for net neutrality, the Santa Clara Fire Chief acknowledged the importance of prioritization in all other aspects of responding to fires when arguing for net neutrality. He said the throttling affected a command center that was used to “track, organize, and prioritize routing of resources from around the state and country to the sites where they are most needed.”¹⁴

The ability to prioritize emergency communications is a key component of FirstNet, a public safety network built and operated by AT&T. As AT&T notes, “Public safety will have dedicated access to this network in times of crisis– their communications needs will come before non-public safety users.”¹⁵

Additionally, FirstNet has a specialized application store,¹⁶ where applications can be designed to use prioritization. As the developer instructions note, “Public safety apps get prioritized quality of service on FirstNet. Even within that set of apps, there are critical apps which during incidents and under certain trigger conditions have to be elevated to receive a higher quality of service.”¹⁷ New services or apps offered on FirstNet that require prioritization would not be possible on a network governed by a net neutrality rule.

Our experience with FirstNet to date suggests that prioritization is not just important for public safety, but that it creates a new direction for innovation.

Lifeline

The Commission also asks “...how the changes adopted in the Restoring Internet Freedom Order might affect the Lifeline program.”¹⁸ The Notice states that the Commission is particularly focused “on [its] authority to direct Lifeline support to eligible telecommunications carriers (ETCs) providing broadband service to qualifying low-income consumers.”¹⁹ As an economist, I cannot comment on questions regarding legal authority. Instead, I look at the available data to evaluate whether the OIO or RIF had an effect on Lifeline.

The most consistent data for Lifeline is expenditures from the Universal Service Fund. Figure 5 shows Lifeline expenditures by quarter from 2000 through the third quarter of 2019. The large increase beginning in 2009 occurred when mobile voice service became eligible for program support, and the decrease beginning in 2012 occurred when the Commission began to more

¹³ <https://arstechnica.com/tech-policy/2018/08/verizon-throttled-fire-departments-unlimited-data-during-calif-wildfire/>

¹⁴ <https://arstechnica.com/tech-policy/2018/08/verizon-throttled-fire-departments-unlimited-data-during-calif-wildfire/>

¹⁵ <https://www.firstnet.com/faq.html>

¹⁶ <https://www.firstnet.com/content/dam/firstnet/white-papers/firstnet-app-catalog-inventory-external.pdf>

¹⁷ <https://developer.firstnet.com/firstnet/apis-sdks/firstnet-app-priority#api-restricted-description-1-fn-app-prio>

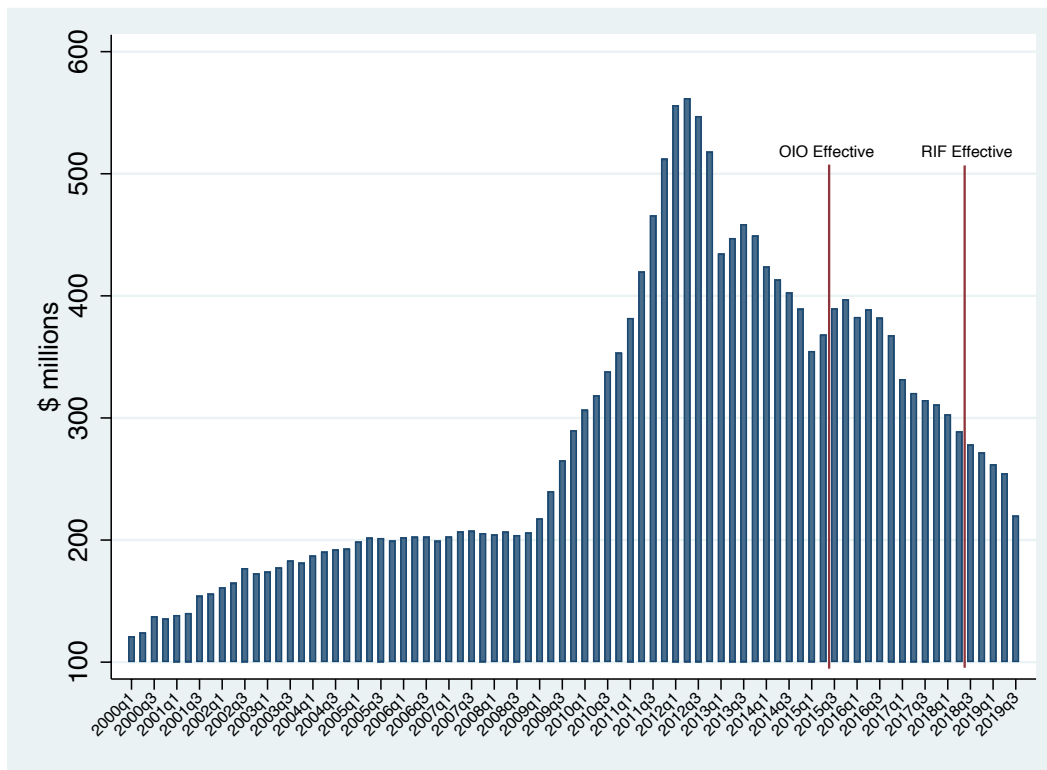
¹⁸ Federal Communications Commission, “Wireline Competition Bureau Seeks to Refresh Record in Restoring Internet Freedom and Lifeline Proceedings in Light of the D.c. Circuit’s Mozilla Decision,” 2.

¹⁹ Federal Communications Commission, 3.

systematically enforce rules allowing only one subsidized phone per household with stronger checks on eligibility. The increase in 2016 coincides with the March order that added broadband support to the Lifeline program.²⁰

For the purposes of this Notice, however, the key insight is that the downward trend continued in quarterly expenditures decreased at approximately the same rate regardless of whether broadband service was regulated under the OIO or RIF rules.

Figure 5: Lifeline Expenditures



Source: USAC

Regardless of legal authority, Lifeline expenditures do not appear to have been affected either way by net neutrality regulation.

Conclusion

Theory suggests that the internet is more likely to thrive when not subject to common carrier rules. In practice, performance and output measures consistently improved while the RIF order was in place. Those metrics alone do not prove that Title I is superior to Title II, of course, but show that, at a bare minimum, RIF did not cause the problems that net neutrality proponents feared and, more likely, allowed innovation to continue apace. Additionally, Title I does not mean that ISPs operate with impunity, as they are still subject to consumer protection enforcement by the FTC and antitrust enforcement by the FTC and the Department of Justice.

²⁰ 2016 Lifeline Modernization Order (March 31, 2016).

Public safety has a clear need for prioritized service, which is contrary to net neutrality. FirstNet has shown that prioritization, and even varying levels of prioritization, can be conducive to innovation, as evidenced by the apps created by independent developers for the network that rely on prioritization.

Finally, Lifeline expenditures do not appear to have been affected by any net neutrality rules. I do not comment on how the rules affect the FCC's authority with respect to this program.

The controversial nature of network neutrality means that the FCC cannot credibly commit to maintaining Title I or Title II beyond the tenure of a given administration. Neither ISPs nor companies that rely on the internet are likely to make major changes to their investment strategies without assurances that current governance is reasonably stable. As a result, it is generally not possible to make definitive claims about the effects of either the OIO or the RIF Order. Nevertheless, the evidence since the RIF Order was promulgated shows rapid network improvements, fewer consumer complaints to government agencies, innovation in public safety communications, and no effect on Lifeline trends.