

Titles and Synopses of Materials Entered Into the Record of WC Docket No. 17-108 by the Digital Policy Institute

I. Legal Scholarship of Interest

- Lawrence J. Spiwak, *USTelecom and its Aftermath*, PHOENIX CENTER POLICY BULLETIN NO. 42 (June 2017).

Synopsis: While much of the debate to date has revolved around the threshold legal question of whether the Commission has the authority to reclassify in the first instance, few have focused on perhaps the more substantive (yet notably neglected) legal problem: the Commission's actual implementation of Title II, in particular the ratemaking provisions of Sections 201 and 202 and its forbearance authority in Section 10. In this paper, Spiwak demonstrates how the 2015 *Open Internet Order* raises significant due process issues under the Fifth Amendment, including, but not limited to (1) forcing BSPs to provide edge providers with terminating access without compensation (i.e., a regulated price of zero) in direct contradiction to the "just and reasonable" standard of Section 201; (2) imposing a blanket ban on reasonable discrimination in direct contradiction of Section 202; and (3) while the Agency is directly dictating a confiscatory rate of zero, it improperly used its Section 10 forbearance authority to eliminate the tariffing requirements of Section 203 (even though the agency found BSPs to be "gatekeepers"). A proper reading of the Communications Act and the case law requires the exact opposite result. As a result, argues Spiwak, the statutory construct of "Title II" now has no meaning; it is some bizarre legal hybrid that the FCC has made up and the D.C. Circuit in *USTelecom* has sanctioned.

- George S. Ford and Lawrence J. Spiwak, *Tariffing Internet Termination: Pricing Implications of Classifying Broadband as a Title II Telecommunications Service*, 67 FEDERAL COMMUNICATIONS LAW JOURNAL 1 (2015).

Synopsis: In this paper, relying upon the plain statutory language of the Communications Act along with established case law and Commission precedent, the authors lay out what a proper application of Title II should look like. As the authors explain: First, reclassification turns edge providers into "customers" of Broadband Service Providers ("BSPs"), and this new "carrier-to-customer" relationship (as opposed to a "carrier-to-carrier" relationship) requires all BSPs to create, and then tariff, a termination service for Internet content under Section 203 of the Communications Act. Because a tariffed rate cannot be set arbitrarily, and since a service cannot be generally tariffed at a price of zero, reclassification requires all edge providers (not their carriers) – as customers of the BSP – to make direct payments to the BSPs for termination services. Second, as competition is the basis for Section 10 forbearance, the Commission is precluded from setting aside tariffing because it has labeled all Broadband Service Providers as "terminating

monopolists” (subsequently relabeled as “gatekeepers” in the 2015 *Open Internet Order*). Significantly, despite having this case law brought to its attention, the Commission summarily ignored it. (See 2015 *Open Internet Order* at fn. 1519.)

- Lawrence J. Spiwak, *What Are the Bounds of the FCC’s Authority over Broadband Service Providers? – A Review of the Recent Case Law*, 18 JOURNAL OF INTERNET LAW 1 (2015).

Synopsis: In this paper, Spiwak reviews three seminal cases from the D.C. Circuit—*Comcast v. FCC*, *Cellco Partnership v. FCC* and *Verizon v. FCC*—to determine what legal authority, if any, the Commission has to protect an “Open Internet” under Title I. As Spiwak explains, these cases indicate that the agency has ample legal authority over Broadband Service Providers under Title I and, as such, reclassification of broadband Internet access as a common Title II telecommunications service is unwarranted.

II. Economic Scholarship of Interest

- Robert Litan and Hal Singer, Progressive Policy Institute Policy Brief, *Outdated Regulations Will Make Consumers Pay More for Broadband*, (December 2014) (This paper is submitted as a separate PDF document.)

Synopsis: Self-styled consumer advocates are pressuring federal regulators to “reclassify” access to the Internet as a public utility. If they get their way, U.S. consumers will have to dig deeper into their pockets to pay for both residential fixed and wireless broadband services.

- George S. Ford and Michael Stern, PHOENIX CENTER POLICY PERSPECTIVE NO. 10-02, *Sabotaging Content Competition: Do Proposed Net Neutrality Regulations Promote Exclusion?* (March 4, 2010).

Synopsis: Net Neutrality regulation is motivated fundamentally by the belief that broadband service providers will, at some future date, seek to extract profits from the content segment of the Internet marketplace. Neutrality supporters fear surplus extraction will take the form of exclusionary practices such as unfair or discriminatory access prices, fast lanes and slow lanes, or the outright monopolization of content. In this paper, a theoretical model is presented that demonstrates Net Neutrality regulation is not a cure for such ills but actually *increases* the incentive of BSPs to engage in exclusionary conduct in the content sector. Ironically, net neutrality rules, which are supposed to suppress privately profitable exclusionary conduct, will actually have an effect opposite of what is intended. Demonstration of this result is straightforward and depends, for the most part, on little more than the axiom that price regulation of a firm with market power does not increase profits.

- George S. Ford, PHOENIX CENTER POLICY PERSPECTIVE NO. 17-03, *Net Neutrality, Reclassification and Investment: A Further Analysis* (May 16, 2017).
Synopsis: In this paper, Ford expands his statistical analysis in response to comments on his earlier paper. In this new work, Ford restricts the analysis to investments in property and equipment (thereby excluding investment in intellectual property), alters the control group, and evaluates other modifications to the statistical model. His prior results are confirmed in this updated analysis, again finding “that investment in total fixed assets would have been about \$30 billion more annually” and “[i]nvestment in equipment and property would have been \$20 billion more ‘but for’ reclassification.”

- George S. Ford, PHOENIX CENTER POLICY PERSPECTIVE NO. 17-05, *“Regulatory Revival” and Employment in Telecommunications* (June 12, 2017).
Synopsis: As there is a direct relationship between network investment and jobs, the next logical question to ask is how this reduced network investment affected employment in the telecommunications sector. In this paper, Ford answers this question. Using standard economic techniques and publicly-available data from the Bureau of Labor Statistics, Ford finds that over the period 2010-2016, the telecommunications sector lost approximately 100,000 jobs per year – ironically, many of them high-paying union jobs. This loss is the pay-equivalent of about 130,000 “average” U.S. jobs.

- George S. Ford, PHOENIX CENTER POLICY PERSPECTIVE NO. 17-08, *Reclassification and Investment: A Statistical Look at the 2016 Data* (July 13, 2017).

Capital spending in the telecommunications sector is down significantly in 2016, a year after the FCC’s *2015 Open Internet Order*. While the decline in capital spending has been recognized by numerous parties, the data has not been subject to statistical analysis. In this paper, Ford applies some basic statistical tests to determine whether the large reductions in capital spending for 2016 are abnormal or broadly consistent with historical changes. Ford demonstrates that whether one uses investment data constructed by USTelecom or CTIA, the reductions in capital spending for 2016 are large and inconsistent with the normal variation in historical spending levels. For the USTelecom data, Ford finds that capital spending in broadband networks is \$5 billion below expectations. This figure is almost identical to that cited by Chairman Ajit Pai (about \$5 billion) when announcing his plan to revisit the *2015 Open Internet Order*. For the CTIA data, Ford finds that capital spending in the wireless industry is about \$6 billion below expectations, a decline of 20%.

- George S. Ford, PHOENIX CENTER POLICY PERSPECTIVE NO. 17-04, *Reclassification and Investment: An Analysis of Free Press’ “It’s Working” Report* (May 22, 2017).

Synopsis: According to a report issued by Free Press entitled *It’s Working: How the Internet Access and Online Video Markets are Thriving in the Title II Era*, capital spending “accelerated” after reclassification. In this paper, Ford analyzes the capital expenditure data presented in the *Free Press Report*. Correcting only for inflation, Free Press’ data shows capital expenditures are down significantly in

2016, the year following the reclassification decision. Based on the claimed growth rates in the *Free Press Report*, actual capital expenditures in 2016 were nearly \$4 billion below expectations. As Ford observes, the reduction in investment “is similar to the \$3.7 to \$5.1 billion investment decline used by Chairman Pai in announcing his intent to review of the *2015 Open Internet Order*.” Free Press’ calculation of a strong downward shift in capital spending in 2016 is consistent with recent evidence from industry sources including CTIA and USTelecom.

- George S. Ford, PHOENIX CENTER POLICY PERSPECTIVE NO. 17-06, *Below the Belt: A Review of Free Press and the Internet Association’s Investment Claims* (June 20, 2017).

Synopsis: Comparing statements made by BSPs to the FCC and to Wall Street, Free Press contends that alleged inconsistencies imply that the companies are lying to the Commission and to the public about the effect of Title II on investment. The Internet Association—a trade group of companies favoring aggressive Internet regulation—borrowed from Free Press’s report to produce an online video summarizing the Free Press narrative. In this paper, Ford subjects Free Press and the Internet Association’s anecdotal evidence to review, and finds that it is Free Press and the Internet Association—and not BSPs—who are not telling the whole story. As Ford demonstrates, Free Press and the Internet Association have presented a false narrative to both the Commission and the public at large, and that their evidence actually points to the harms of reclassification on investment incentives.

- George S. Ford, PHOENIX CENTER POLICY PERSPECTIVE NO. 17-07, *Broadband Speeds Post-Reclassification: An Empirical Approach* (June 27, 2017).

Synopsis: Recently, without any reference to the Net Neutrality debate, the cable industry trade association NCTA made the unsurprising observation that broadband speeds in the U.S. continue to rise, as they always have. Seeing all things through the lens of Net Neutrality, Public Knowledge Senior Vice President Harold Feld immediately laid claim to the trend, asserting that the data in NCTA’s post supports the FCC’s reclassification decision. According to Feld, the speed trend confirms that the “Title II Virtuous Circle” is “totally working” because “the rate of increase has accelerated since the FCC adopted the Title II Reclassification Order in February 2015.” Feld sets up a direct test of the wisdom of Title II reclassification based on the pace of speed increases following the *2015 Open Internet Order*. An empirical question requires an empirical answer. Using the Akamai speed data, in this paper Ford subjects Feld’s “theorem” to a battery of statistical tests. Without exception, the data reveal a statistically significant decline in the rate of average broadband speed increases for the U.S. subsequent to the *2015 Open Internet Order*. Ford finds that “but for” the FCC’s *2015 Open Internet Order*, U.S. broadband speeds would have been about 10% higher—or about 1.5 Mbps faster—on average. Thus, in direct contradiction to Feld’s claim, reclassification appears to have significantly retarded expected broadband speed increases and has broken the virtuous circle.

- George S. Ford, Bait-and-Switch-Or Why the FCC's 'Virtuous Circle' Theory is Nonsense, BLOOMBERG BNA (May 18, 2015).

Synopsis: In this paper, Ford analyzes the central economic argument behind the Commission's 2015 Open Internet Order-namely, the Commission's theory of a "virtuous circle" or "virtuous cycle" of investment. As Ford explains, while many take the Commission's "virtuous circle" theory as accepted Gospel, the truth is that the Commission, in fact, adopted an "unvirtuous circle" theory of investment under which profit maximizing firms will do things willingly and knowingly to reduce the demand for their products, which will somehow lead to increased profits, which in turn will lead to reduced broadband investment. As the Commission's logical flow cannot be squared with basic economics and the plain language of the Commission's depiction of the "virtuous circle" (or likely any plausible economic model either), regulating a "virtuous circle" in ways that intentionally interfere with the natural workings of the market must, by the Agency's own theory, lead to reduced broadband investment.

- T. Randolph Beard, George S. Ford and Hyeongwoo Kim, Capital Investment and Employment in the Information Sector, 38 TELECOMMUNICATIONS POLICY 371 (2014).

Synopsis: Estimation of the employment effects of changes in capital investment is a standard tool in public policy debates. Typically, such predictions are based on employment multipliers derived from Input-Output analysis. In this paper, the authors measure the employment effects of changes in capital investment in the U.S. information sector by econometrically estimating an "employment multiplier" from historical data. The estimated multiplier is 10 information sector jobs for each million dollars in expenditure, and perhaps 24 new jobs per million dollars invested across the entire economy. Employment multipliers derived from the Input-Output methodology average about 16 jobs per million, but the multiplier includes jobs outside the information sector. Including employment spillovers, their estimates suggest the multipliers from Input-Output models are plausible. It is also important to note that information sector jobs have substantially higher median earnings than the private sector average, so the economic significance of changes in information sector employment are greater than might first appear. This model may be useful to the Commission as it seeks to conduct a cost/benefit analysis of the 2015 Open Internet Order.