Outdated Regulations Will Make Consumers Pay More for Broadband



BY ROBERT LITAN AND HAL SINGER

DECEMBER 2014

1

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.

How deep? We have calculated that the average annual increase in state and local fees levied on U.S. wireline and wireless broadband subscribers will be \$67 and \$72, respectively. And the annual increase in federal fees per household will be roughly \$17. When you add it all up, reclassification could add a whopping \$15 billion in new user fees on top of the planned \$1.5 billion extra to fund the E-Rate program. The higher fees would come on top of the adverse impact on consumers of less investment and slower innovation that would result from reclassification.¹

How did we reach this precipice? In early November, FCC Chairman Tom Wheeler floated a "hybrid" compromise that would have deemed Internet service providers (ISPs)—telcos and cable companies—as public utilities under Title II of the Communications Act of 1934 for purposes of their dealings with websites, such as Netflix. But when it came to the rates and download speeds offered to broadband customers, ISPs would continue to be subject to "light touch" regulation under Section 706 of the Telecommunications Act of 1996, which directs the Commission to promote broadband deployment. This would allow them to give their customers choices: those who were willing to pay more for higher speeds could. Think of it as being willing to pay more to take the faster Acela train as opposed to the regular Amtrak line.

President Obama was not satisfied with this approach, and urged in an unusual video released on November 10 that the Commission embrace a full-throated version of Title II for broadband access as well.² What this means is that the Internet would be treated and regulated as a public utility, like your local electricity or gas-distribution company, which is a monopoly. The president and some other net neutrality advocates want this "reclassification" to prohibit ISPs from charging content providers for priority delivery for fear that ISPs could shake down vulnerable websites with excessive charges. Yet Title II is not needed to protect against

such harms. A simple prohibition of, or a strong presumption against, two types of conduct would protect edge providers: (1) special deals for priority delivery, and (2) degrading a website's performance for refusing to take a priority offering. Both of these remedies are available under Section 706.

We and others have pointed out that classifying broadband services as telecom services will not achieve the president's objective. Under Title II, ISPs are merely prohibited from engaging in "unreasonable discrimination." This means that the FCC cannot ban pay-for-priority under Title II. The only thing the agency could do under Title II is to require ISPs to make any paid priority offers available to all comers at the same terms. This does not appear to be what the president is calling for. Some argue that Title II could be used to ban conduct that the FCC deems to be "inherently unjust." While there are some remote circumstances (decades ago) in which the FCC made such a determination, those cases involved monopoly providers seeking to extend their power into closely related markets—a far cry from what a competitive broadband provider would be trying to accomplish by charging a handful of real-time application providers for priority delivery.

But what about the American consumer? Until now the debate around whether or not to use Title II as the basis for net neutrality rules has included zero analysis of what if any impact the outcome will actually have on consumers. We looked into the issue and discovered there is nothing but bad news on this front: Once ISPs are labeled "telecommunications providers" under Title II, their services become subject to both federal and state fees that apply to those services. The two main federal charges are an excise tax and a fee for "universal service." (We ignore the federal excise tax for the purposes of our calculation.) States and local municipalities impose similar fees and taxes—from franchise fees to high-cost funds to utility user fees to state-based universal service funds—which vary from state to state, and within states by locality. (We ignore any state and local fees that apply to businesses.) Although the state and federal governments collect these fees from broadband providers, history shows-and economic models of competitive markets predict—that the fees are passed along to customers, just as they are now on telecommunication services. So consumers' Internet bills will soon have all those random charges tacked on at the end, much like they see on their phone bills. And these new reclassification-induced fees will be on top of the FCC's planned 16cent-per-month (or \$1.92 per year) increase in wireless and wireline fees to add \$1.5 billion to the fund that finances Internet connections in schools.3

New State and Local Fees

To calculate the new state and local fees that consumers can expect from reclassification, we have used the average prices for wireless residential broadband across U.S. cities (\$44.75 per month for 15-20 Mbps) estimated in a recent study⁴ by the Open Technology Institute (which are roughly \$5 higher per month than the U.S. average estimated in 2012 by the European Commission for 12-30 Mbps)⁵, and figures for average consumer mobile service bills from the CTIA.⁶ We then used data from Vertex and CCH Clearinghouse for the non-business state and local

fees, keeping a low and a high figure because the local tax rate often varies within a state.

The bottom line: Annual residential wireline broadband costs would likely go up by \$8 in Delaware to almost \$148 in certain parts of Alaska. The average fee for wireline households would range from \$51 (the average of the low end of the range within a state) to \$83 per year (the average of the high end of the range within a state). Because the assumed monthly price of a mobile plan is not much different from the price of a wireline broadband plan, and because wireless broadband services would also be reclassified under the plan touted by the president, mobile broadband customers would experience a fee increase of similar magnitude.

When the average annual fee increase for wireline (\$67) and wireless (\$72) broadband plans is multiplied across U.S. residential wireline (84 million) and wireless (131 million) broadband connections, respectively, the aggregate expenditures on the new fees could reach \$15 billion per year.⁷

New Federal Fees

Estimation of the new federal fees from the universal service fund ("USF") is slightly more complicated for two reasons. *First*, the federal rate of 16.1 percent for the USF will adjust downward as the rate base expands. The FCC has a strict process by which USF fees get calculated. In contrast, there is no process at the state level to target a specified amount of revenue. Thus, the state and local tax rates simply can be applied to the larger base of revenues. We assume that broadband access fees for both fixed⁸ and mobile⁹ would be included in a carrier's revenue base for USF purposes. And if demand for services financed by USF increased by \$1.5 billion, as the FCC envisions, the USF contribution rate would decline from 16.1 percent to 5.8 percent. Consumers would pay more, however, because a larger share of their telco bills (for both telephone and Internet service) would be subjected to the universal service fees.

Second, the federal fee is assessed on only interstate revenues. We assume that all broadband is interstate. In contrast, the state and local fees get applied across the board, and can be thought of as a per-connection charge.

To estimate the consumer burden per month under any funding mechanism, one must divide the consumer share of the federal USF program demand (equal to \$8.72 billion¹o) by the product of the number of U.S. households and 12 months. Assuming a consumer share of 50 percent under the current funding mechanism, we first calculate the consumer burden per household per month under the current classification regime (equal to \$2.98). Next, assuming a consumer share of 62.3 percent with broadband revenues added to the contribution base, we calculate the consumer burden per household per month, assuming the current funding mechanism plus the assessable broadband revenue with the additional program demand of \$1.5 billion (equal to \$4.36). Accordingly, the annual increase in

spending per household attributable to the federal USF program is \$2.014 billion (equal to \$1.38 per month increase x 12 months x 121.7 million households).

Moving Forward

The federal charges imposed on broadband providers under a Title II reclassification go into effect unless Congress were to explicitly exempt them. Likewise, it would take state or local legislative action to repeal the state and local charges. So not only will Title II regulation of Internet prices discourage ISPs from investing in broadband infrastructure—leading to more congestion and higher access prices—but it will also mean higher fees for U.S. broadband consumers.

It doesn't need to come to this. A less financially punitive solution is available to preserve an Open Internet: The FCC could employ its powers under its Section 706 authority to prevent ISPs from blocking access, throttling traffic, or engaging in harmful paid priority. This course gives federal regulators all the power they need to protect upstart websites and consumers—without subjecting the Internet to archaic telephone rules that would undermine investment, slow innovation and hit U.S. consumers with stiff new broadband fees.

Endnotes

Hal Singer, Obama Picks A Fight With Broadband Providers Forbes, Nov. 13, 2014: http://www.forbes.com/sites/halsinger/2014/11/13/the-dystopia-of-a-common-carrier-world-obama-picks-a-fight-with-broadband-providers/.

The White House, Net Neutrality: President Obama's Plan for a Free and Open Internet, Nov. 10, 2014: http://www.whitehouse.gov/net-neutrality.

- Brian Fung, The FCC wants to give educators an extra \$1.5 billion a year for Internet, The Washington Post, Nov. 17, 2014: http://www.washingtonpost.com/blogs/the-switch/wp/2014/11/17/the-fcc-wants-to-give-educators-an-extra-1-5-billion-a-year-for-internet/.
- ⁴ Nick Russo, Robert Morgus, Danielle Kehl, Sarah Morris, The Cost of Connectivity 2014: Data and analysis on broadband offerings in 24 cities across the world, New America Foundation, Oct. 30, 2014: http://www.newamerica.org/oti/the-cost-of-connectivity-2014/.
- ⁵ Christopher S. Yoo, U.S. vs. European Broadband Deployment: What Do the Data Say? Univ. of Penn, Inst for Law & Econ Research Paper No. 14-35, June 3, 2014: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2510854.
- 6 CTIA The Wireless Association, Background on CTIA's Wireless Industry Survey, 2014: http://www.ctia.org/docs/default-source/Facts-Stats/ctia_survey_ye_2013_graphics-final.pdf?sfvrsn=2.
- Industry Analysis and Technology Division Wireline Competition Bureau, Internet Access Services: Status as of December 31, 2012 FCC, Dec. 2013: http://transition.fcc.gov/Daily_Releases/Daily_Business/2013/db1224/DOC-324884A1.pdf.
- Sean Buckley, Broadband service revenue to climb to \$251 billion by 2018, says ABI Research Fierce Telecom, Feb. 11, 2013: http://www.fiercetelecom.com/story/broadband-service-revenue-climb-251-billion-2018-says-abi-research/2013-02-11.
- Robert Roche, Mid-Year 2012 CTIA Wireless Industry Indices Report Now Available CTIA, Nov. 15, 2012: http://blog.ctia.org/2012/11/15/mid-year-2012-ctia-wireless-industry-indices-report-available/.

Edward Wyatt, F.C.C. Chief Aims to Bolster Internet for Schools The New York Times, Nov. 17, 2014: http://www.nytimes.com/2014/11/17/business/fcc-chief-aims-to-bolster-internet-for-schools.html?_r=o.

About the Authors

Robert Litan is a Non-Resident Senior Fellow at Brookings, a Special Consultant at Economists Incorporated, and a regular contributor to the Wall Street Journal's "Think Tank" blog. Hal Singer is a Principal at Economists Incorporated, a Senior Fellow at Progressive Policy Institute, and an Adjunct Professor at Georgetown University's McDonough School of Business. They are the coauthors of the e-book The Need for Speed: A New Framework for Telecommunications Policy for the 21st Century (Brookings Press 2013). They have written extensively on net neutrality, including a chapter on the subject in The Economists' Voice 2.0: The Financial Crisis, Healthcare Reform, and More (Columbia University Press 2012).

Appendix

Fixed

Cost	State	Wireline Broadband	Low %	Low Fee	Annual Increase	High %	High Fee	Annual Increase
Alaska 44.75 4.42 6.00 95.76 11.42 7.25 148.34 Arizona 44.75 9.25 0.20 52.07 17.00 0.20 93.69 Arkansas 44.75 7.00 0.05 38.20 22.00 0.05 118.74 California 44.75 5.21 0.00 27.98 24.21 3.09 167.09 Colorado 44.75 3.85 0.60 27.88 9.35 5.50 116.20 Connecticut 44.75 6.41 0.70 42.82 6.41 0.70 42.82 Delaware 44.75 11.00 0.93 70.23 15.10 1.50 99.09 Hawaii 44.75 11.35 0.66 68.87 11.35 0.66 68.87 Idaho 44.75 11.35 0.66 68.87 11.35 0.66 68.87 Idaho 44.75 11.35 0.66 68.87 11.35 0.66 68.87					<u>/</u>			
Arizona 44.75 9.25 0.20 52.07 17.00 0.20 93.69 Arkansas 44.75 7.00 0.05 38.20 22.00 0.05 118.74 California 44.75 5.21 0.00 27.98 24.21 3.09 167.09 Colorado 44.75 5.21 0.00 27.88 9.35 5.50 116.21 Connecticut 44.75 6.41 0.70 42.82 6.41 0.70 42.82 Delaware 44.75 N/A 0.68 8.16 N/A 0.68 8.16 Florida 44.75 11.00 0.93 70.23 15.10 1.55 69.56 Georgia 44.75 11.03 0.66 68.87 11.35 0.66 68.87 Idaho 44.75 11.03 0.66 68.87 11.35 0.66 68.87 Idaho 44.75 7.60 0.48 46.58 13.60 5.48 138.79 <	Alabama							
Arkansas 44.75 7.00 0.05 38.20 22.00 0.05 118.74 California 44.75 5.21 0.00 27.98 24.21 3.09 167.09 Colorado 44.75 3.85 0.60 27.88 9.35 5.50 116.21 Connecticut 44.75 0.41 0.70 42.82 6.41 0.70 42.82 Delaware 44.75 N/A 0.68 8.16 N/A 0.68 8.16 Florida 44.75 2.37 1.55 31.33 9.49 1.55 69.56 Georgia 44.75 11.35 0.66 68.87 11.35 0.66 68.87 11.35 0.66 68.87 11.35 0.66 68.87 11.35 0.66 68.87 11.35 0.66 68.87 11.35 0.66 68.87 11.35 0.66 68.87 11.35 0.66 68.87 11.35 0.66 68.87 11.35 0.66 68.87 11.35	Alaska	44.75	4.42	6.00	95.76	11.42	7.25	148.34
California 44.75 5.21 0.00 27.98 24.21 3.09 167.09 Colorado 44.75 3.85 0.60 27.88 9.35 5.50 116.21 Connecticut 44.75 6.41 0.70 42.82 6.41 0.70 42.82 Delaware 44.75 N/A 0.68 8.16 N/A 0.68 8.16 Florida 44.75 N/A 0.68 8.16 N/A 0.68 8.16 Florida 44.75 11.00 0.93 70.23 15.10 1.50 99.09 Georgia 44.75 11.35 0.66 68.87 11.35 0.66 68.87 Idaho 44.75 N/A 1.03 N/A N/A 1.28 N/A Illinois 44.75 7.60 0.48 46.58 13.60 5.48 138.79 Indiana 44.75 8.40 0.93 56.27 8.40 0.93 56.27 Iowa	Arizona	44.75	9.25	0.20	52.07	17.00	0.20	93.69
Colorado 44.75 3.85 0.60 27.88 9.35 5.50 116.21 Connecticut 44.75 6.41 0.70 42.82 6.41 0.70 42.82 Delaware 44.75 N/A 0.68 8.16 N/A 0.68 8.16 Florida 44.75 N/A 0.68 8.16 N/A 0.68 8.16 Florida 44.75 11.00 0.93 70.23 15.10 1.50 99.09 Hawaii 44.75 11.35 0.66 68.87 11.35 0.66 68.87 Idaho 44.75 N/A 1.03 N/A N/A 1.28 N/A Illinois 44.75 7.60 0.48 46.58 13.60 5.48 138.79 Indiana 44.75 8.40 0.93 56.27 8.40 0.93 56.27 Indiana 44.75 8.40 0.93 56.27 8.40 0.93 56.27 Kansas	Arkansas	44.75	7.00	0.05	38.20	22.00	0.05	118.74
Connecticut 44.75 6.41 0.70 42.82 6.41 0.70 42.82 Delaware 44.75 N/A 0.68 8.16 N/A 0.68 8.16 Florida 44.75 2.37 1.55 31.33 9.49 1.55 69.56 Georgia 44.75 11.00 0.93 70.23 15.10 1.50 99.09 Hawaii 44.75 11.35 0.66 68.87 11.35 0.66 68.87 Idaho 44.75 N/A 1.03 N/A N/A 1.28 N/A Illinois 44.75 7.60 0.48 46.58 13.60 5.48 138.79 Indiana 44.75 8.40 0.93 56.27 8.40 0.93 56.27 Iowa 44.75 6.00 1.00 44.23 7.00 1.00 49.59 Kansas 44.75 6.40 0.53 40.73 9.15 0.53 55.50 Kentucky	California	44.75	5.21	0.00	27.98	24.21	3.09	167.09
Delaware 44.75 N/A 0.68 8.16 N/A 0.68 8.16 Florida 44.75 2.37 1.55 31.33 9.49 1.55 69.56 Georgia 44.75 11.00 0.93 70.23 15.10 1.50 99.09 Hawaii 44.75 11.35 0.66 68.87 11.35 0.66 68.87 Idaho 44.75 N/A 1.03 N/A N/A 1.28 N/A Illinois 44.75 7.60 0.48 46.58 13.60 5.48 138.79 Indiana 44.75 8.40 0.93 56.27 8.40 0.93 56.27 Iowa 44.75 6.00 1.00 44.23 7.00 1.00 49.59 Kansas 44.75 6.40 0.53 40.73 9.15 0.53 55.50 Kentucky 44.75 8.83 0.44 52.70 11.83 4.62 118.97 Louisiana	Colorado	44.75	3.85	0.60	27.88	9.35	5.50	116.21
Florida 44.75 2.37 1.55 31.33 9.49 1.55 69.56 Georgia 44.75 11.00 0.93 70.23 15.10 1.50 99.09 Hawaii 44.75 11.35 0.66 68.87 11.35 0.66 68.87 Idaho 44.75 N/A 1.03 N/A N/A 1.28 N/A Illinois 44.75 7.60 0.48 46.58 13.60 5.48 138.79 Indiana 44.75 8.40 0.93 56.27 8.40 0.93 56.27 Iowa 44.75 6.00 1.00 44.23 7.00 1.00 49.59 Kansas 44.75 6.40 0.53 40.73 9.15 0.53 55.50 Kentucky 44.75 8.83 0.44 52.70 11.83 4.62 118.97 Louisiana 44.75 5.70 0.45 36.01 5.70 0.45 36.01 Maryland 44.75 12.41 3.20 105.04 12.41 5.40 131.44 Massachusetts 44.75 6.25 0.83 43.52 6.25 0.83 43.52 Michigan 44.75 9.25 0.95 61.07 9.25 1.15 63.47 Mississippi 44.75 9.25 0.95 61.07 9.25 1.15 63.47 Missouri 44.75 7.50 0.02 40.52 13.75 1.02 86.08 Nevada 44.75 7.00 0.63 45.15 7.00 0.63 45.15 New Jersey 44.75 7.00 0.90 48.39 7.00 0.90 48.39 New Hampshire 44.75 7.00 0.90 48.39 7.00 0.90 48.39 New Mexico 44.75 10.65 0.04 57.67 13.40 1.54 90.44 North Dakota 44.75 13.30 0.30 75.01 19.17 1.00 114.96 North Carolina 44.75 13.30 0.30 75.01 19.17 1.00 114.96 North Carolina 44.75 6.75 0.74 45.13 7.00 0.74 46.47 North Dakota 44.75 13.30 0.30 75.01 19.17 1.00 114.96	Connecticut	44.75	6.41	0.70	42.82	6.41	0.70	42.82
Georgia 44.75 11.00 0.93 70.23 15.10 1.50 99.09 Hawaii 44.75 11.35 0.66 68.87 11.35 0.66 68.87 Idaho 44.75 N/A 1.03 N/A N/A 1.28 N/A Illinois 44.75 7.60 0.48 46.58 13.60 5.48 138.79 Indiana 44.75 8.40 0.93 56.27 8.40 0.93 56.27 Iowa 44.75 6.00 1.00 44.23 7.00 1.00 49.59 Kansas 44.75 6.40 0.53 40.73 9.15 0.53 55.50 Kentucky 44.75 8.83 0.44 52.70 11.83 4.62 118.97 Louisiana 44.75 5.70 0.45 36.01 5.70 0.45 36.01 5.70 0.45 36.01 Maryland 44.75 5.70 0.45 36.01 5.70 0.45	Delaware	44.75	N/A	0.68	8.16	N/A	0.68	8.16
Hawaii 44.75 11.35 0.66 68.87 11.35 0.66 68.87 Idaho 44.75 N/A 1.03 N/A N/A 1.28 N/A Illinois 44.75 7.60 0.48 46.58 13.60 5.48 138.79 Indiana 44.75 8.40 0.93 56.27 8.40 0.93 56.27 Iowa 44.75 6.00 1.00 44.23 7.00 1.00 49.59 Kansas 44.75 6.40 0.53 40.73 9.15 0.53 55.50 Kentucky 44.75 8.83 0.44 52.70 11.83 4.62 118.97 Louisiana 44.75 5.70 0.45 36.01 5.70 0.45 36.01 5.70 0.45 36.01 5.70 0.45 36.01 5.70 0.45 36.01 5.70 0.45 36.01 5.70 0.45 36.01 Maryland 44.75 6.25 0.83 43.52 <td>Florida</td> <td>44.75</td> <td>2.37</td> <td>1.55</td> <td>31.33</td> <td>9.49</td> <td>1.55</td> <td>69.56</td>	Florida	44.75	2.37	1.55	31.33	9.49	1.55	69.56
Idaho 44.75 N/A 1.03 N/A N/A 1.28 N/A Illinois 44.75 7.60 0.48 46.58 13.60 5.48 138.79 Indiana 44.75 8.40 0.93 56.27 8.40 0.93 56.27 Iowa 44.75 6.00 1.00 44.23 7.00 1.00 49.59 Kansas 44.75 6.40 0.53 40.73 9.15 0.53 55.50 Kentucky 44.75 8.83 0.44 52.70 11.83 4.62 118.97 Louisiana 44.75 20.00 0.43 112.57 24.00 1.05 141.49 Maine 44.75 5.70 0.45 36.01 5.70 0.45 36.01 Maryland 44.75 12.41 3.20 105.04 12.41 5.40 131.44 Massachusetts 44.75 6.25 0.83 43.52 6.25 0.83 43.52 Mich	Georgia	44.75	11.00	0.93	70.23	15.10	1.50	99.09
Illinois 44.75 7.60 0.48 46.58 13.60 5.48 138.79 Indiana 44.75 8.40 0.93 56.27 8.40 0.93 56.27 Iowa 44.75 6.00 1.00 44.23 7.00 1.00 49.59 Kansas 44.75 6.40 0.53 40.73 9.15 0.53 55.50 Kentucky 44.75 8.83 0.44 52.70 11.83 4.62 118.97 Louisiana 44.75 20.00 0.43 112.57 24.00 1.05 141.49 Maine 44.75 5.70 0.45 36.01 5.70 0.45 36.01 5.70 0.45 36.01 5.70 0.45 36.01 5.70 0.45 36.01 5.70 0.45 36.01 5.70 0.45 36.01 49.24 5.40 36.01 44.75 36.01 44.75 40.01 36.01 45.40 43.52 6.25 0.83 43.52 <t< td=""><td>Hawaii</td><td>44.75</td><td>11.35</td><td>0.66</td><td>68.87</td><td>11.35</td><td>0.66</td><td>68.87</td></t<>	Hawaii	44.75	11.35	0.66	68.87	11.35	0.66	68.87
Indiana 44.75 8.40 0.93 56.27 8.40 0.93 56.27 lowa 44.75 6.00 1.00 44.23 7.00 1.00 49.59 Kansas 44.75 6.40 0.53 40.73 9.15 0.53 55.50 Kentucky 44.75 8.83 0.44 52.70 11.83 4.62 118.97 Louisiana 44.75 20.00 0.43 112.57 24.00 1.05 141.49 Maine 44.75 5.70 0.45 36.01 5.70 0.45 36.01 Maryland 44.75 12.41 3.20 105.04 12.41 5.40 131.44 Massachusetts 44.75 6.25 0.83 43.52 6.25 0.83 43.52 Michigan 44.75 6.68 0.36 40.19 6.68 4.06 84.59 Minnesota 44.75 9.25 0.95 61.07 9.25 1.15 63.47	Idaho	44.75	N/A	1.03	N/A	N/A	1.28	N/A
Iowa 44.75 6.00 1.00 44.23 7.00 1.00 49.59 Kansas 44.75 6.40 0.53 40.73 9.15 0.53 55.50 Kentucky 44.75 8.83 0.44 52.70 11.83 4.62 118.97 Louisiana 44.75 20.00 0.43 112.57 24.00 1.05 141.49 Maine 44.75 5.70 0.45 36.01 5.70 0.45 36.01 Maryland 44.75 12.41 3.20 105.04 12.41 5.40 131.44 Massachusetts 44.75 6.25 0.83 43.52 6.25 0.83 43.52 Michigan 44.75 6.68 0.36 40.19 6.68 4.06 84.59 Minnesota 44.75 7.03 1.54 56.20 7.88 1.54 60.77 Mississispipi 44.75 9.25 0.95 61.07 9.25 1.15 63.47	Illinois	44.75	7.60	0.48	46.58	13.60	5.48	138.79
Kansas 44.75 6.40 0.53 40.73 9.15 0.53 55.50 Kentucky 44.75 8.83 0.44 52.70 11.83 4.62 118.97 Louisiana 44.75 20.00 0.43 112.57 24.00 1.05 141.49 Maine 44.75 5.70 0.45 36.01 5.70 0.45 36.01 Maryland 44.75 12.41 3.20 105.04 12.41 5.40 131.44 Massachusetts 44.75 6.25 0.83 43.52 6.25 0.83 43.52 Michigan 44.75 6.68 0.36 40.19 6.68 4.06 84.59 Minnesota 44.75 7.03 1.54 56.20 7.88 1.54 60.77 Mississisppi 44.75 9.25 0.95 61.07 9.25 1.15 63.47 Missouri 44.75 4.03 0.08 23.66 16.43 0.83 98.16 <tr< td=""><td>Indiana</td><td>44.75</td><td>8.40</td><td>0.93</td><td>56.27</td><td>8.40</td><td>0.93</td><td>56.27</td></tr<>	Indiana	44.75	8.40	0.93	56.27	8.40	0.93	56.27
Kentucky 44.75 8.83 0.44 52.70 11.83 4.62 118.97 Louisiana 44.75 20.00 0.43 112.57 24.00 1.05 141.49 Maine 44.75 5.70 0.45 36.01 5.70 0.45 36.01 Maryland 44.75 12.41 3.20 105.04 12.41 5.40 131.44 Massachusetts 44.75 6.25 0.83 43.52 6.25 0.83 43.52 Michigan 44.75 6.68 0.36 40.19 6.68 4.06 84.59 Minnesota 44.75 7.03 1.54 56.20 7.88 1.54 60.77 Mississispi 44.75 9.25 0.95 61.07 9.25 1.15 63.47 Missouri 44.75 4.23 0.08 23.66 16.43 0.83 98.16 Montana 44.75 4.05 1.10 34.95 4.05 1.10 34.95 <tr< td=""><td>Iowa</td><td>44.75</td><td>6.00</td><td>1.00</td><td>44.23</td><td>7.00</td><td>1.00</td><td>49.59</td></tr<>	Iowa	44.75	6.00	1.00	44.23	7.00	1.00	49.59
Louisiana 44.75 20.00 0.43 112.57 24.00 1.05 141.49 Maine 44.75 5.70 0.45 36.01 5.70 0.45 36.01 Maryland 44.75 12.41 3.20 105.04 12.41 5.40 131.44 Massachusetts 44.75 6.25 0.83 43.52 6.25 0.83 43.52 Michigan 44.75 6.68 0.36 40.19 6.68 4.06 84.59 Minnesota 44.75 7.03 1.54 56.20 7.88 1.54 60.77 Mississisppi 44.75 9.25 0.95 61.07 9.25 1.15 63.47 Missouri 44.75 4.03 0.08 23.66 16.43 0.83 98.16 Montana 44.75 4.05 1.10 34.95 4.05 1.10 34.95 Nebraska 44.75 7.50 0.02 40.52 13.75 1.02 86.08 <tr< td=""><td>Kansas</td><td>44.75</td><td>6.40</td><td>0.53</td><td>40.73</td><td>9.15</td><td>0.53</td><td>55.50</td></tr<>	Kansas	44.75	6.40	0.53	40.73	9.15	0.53	55.50
Maine 44.75 5.70 0.45 36.01 5.70 0.45 36.01 Maryland 44.75 12.41 3.20 105.04 12.41 5.40 131.44 Massachusetts 44.75 6.25 0.83 43.52 6.25 0.83 43.52 Michigan 44.75 6.68 0.36 40.19 6.68 4.06 84.59 Minnesota 44.75 7.03 1.54 56.20 7.88 1.54 60.77 Mississisppi 44.75 9.25 0.95 61.07 9.25 1.15 63.47 Missouri 44.75 4.23 0.08 23.66 16.43 0.83 98.16 Montana 44.75 4.05 1.10 34.95 4.05 1.10 34.95 Nebraska 44.75 7.50 0.02 40.52 13.75 1.02 86.08 New Hampshire 44.75 7.00 0.63 45.15 7.00 0.63 45.15 <tr< td=""><td>Kentucky</td><td>44.75</td><td>8.83</td><td>0.44</td><td>52.70</td><td>11.83</td><td>4.62</td><td>118.97</td></tr<>	Kentucky	44.75	8.83	0.44	52.70	11.83	4.62	118.97
Maryland 44.75 12.41 3.20 105.04 12.41 5.40 131.44 Massachusetts 44.75 6.25 0.83 43.52 6.25 0.83 43.52 Michigan 44.75 6.68 0.36 40.19 6.68 4.06 84.59 Minnesota 44.75 7.03 1.54 56.20 7.88 1.54 60.77 Mississippi 44.75 9.25 0.95 61.07 9.25 1.15 63.47 Missouri 44.75 4.23 0.08 23.66 16.43 0.83 98.16 Montana 44.75 4.05 1.10 34.95 4.05 1.10 34.95 Nebraska 44.75 7.50 0.02 40.52 13.75 1.02 86.08 Nevada 44.75 7.00 0.63 45.15 7.00 0.63 45.15 New Jersey 44.75 7.00 0.90 48.39 7.00 0.90 48.39	Louisiana	44.75	20.00	0.43	112.57	24.00	1.05	141.49
Massachusetts 44.75 6.25 0.83 43.52 6.25 0.83 43.52 Michigan 44.75 6.68 0.36 40.19 6.68 4.06 84.59 Minnesota 44.75 7.03 1.54 56.20 7.88 1.54 60.77 Mississippi 44.75 9.25 0.95 61.07 9.25 1.15 63.47 Missouri 44.75 4.23 0.08 23.66 16.43 0.83 98.16 Montana 44.75 4.05 1.10 34.95 4.05 1.10 34.95 Nebraska 44.75 7.50 0.02 40.52 13.75 1.02 86.08 Nevada 44.75 0.00 2.78 33.37 5.00 2.78 60.21 New Hampshire 44.75 7.00 0.63 45.15 7.00 0.63 45.15 New Jersey 44.75 10.76 0.51 63.90 17.26 0.51 98.81 <tr< td=""><td>Maine</td><td>44.75</td><td>5.70</td><td>0.45</td><td>36.01</td><td>5.70</td><td>0.45</td><td>36.01</td></tr<>	Maine	44.75	5.70	0.45	36.01	5.70	0.45	36.01
Michigan 44.75 6.68 0.36 40.19 6.68 4.06 84.59 Minnesota 44.75 7.03 1.54 56.20 7.88 1.54 60.77 Mississippi 44.75 9.25 0.95 61.07 9.25 1.15 63.47 Missouri 44.75 4.23 0.08 23.66 16.43 0.83 98.16 Montana 44.75 4.05 1.10 34.95 4.05 1.10 34.95 Nebraska 44.75 7.50 0.02 40.52 13.75 1.02 86.08 Nevada 44.75 0.00 2.78 33.37 5.00 2.78 60.21 New Hampshire 44.75 7.00 0.63 45.15 7.00 0.63 45.15 New Jersey 44.75 7.00 0.90 48.39 7.00 0.90 48.39 New Mexico 44.75 10.76 0.51 63.90 17.26 0.51 98.81 New York 44.75 13.30 0.30 75.01 19.17 1.00	Maryland	44.75	12.41	3.20	105.04	12.41	5.40	131.44
Minnesota 44.75 7.03 1.54 56.20 7.88 1.54 60.77 Mississippi 44.75 9.25 0.95 61.07 9.25 1.15 63.47 Missouri 44.75 4.23 0.08 23.66 16.43 0.83 98.16 Montana 44.75 4.05 1.10 34.95 4.05 1.10 34.95 Nebraska 44.75 7.50 0.02 40.52 13.75 1.02 86.08 Nevada 44.75 0.00 2.78 33.37 5.00 2.78 60.21 New Hampshire 44.75 7.00 0.63 45.15 7.00 0.63 45.15 New Jersey 44.75 7.00 0.90 48.39 7.00 0.90 48.39 New Mexico 44.75 10.76 0.51 63.90 17.26 0.51 98.81 New York 44.75 13.30 0.30 75.01 19.17 1.00 114.96 North Carolina 44.75 10.65 0.74 45.13 7.00 0.74<	Massachusetts	44.75	6.25	0.83	43.52	6.25	0.83	43.52
Mississippi 44.75 9.25 0.95 61.07 9.25 1.15 63.47 Missouri 44.75 4.23 0.08 23.66 16.43 0.83 98.16 Montana 44.75 4.05 1.10 34.95 4.05 1.10 34.95 Nebraska 44.75 7.50 0.02 40.52 13.75 1.02 86.08 Nevada 44.75 0.00 2.78 33.37 5.00 2.78 60.21 New Hampshire 44.75 7.00 0.63 45.15 7.00 0.63 45.15 New Jersey 44.75 7.00 0.90 48.39 7.00 0.90 48.39 New Mexico 44.75 10.76 0.51 63.90 17.26 0.51 98.81 North Carolina 44.75 13.30 0.30 75.01 19.17 1.00 114.96 North Dakota 44.75 10.65 0.04 57.67 13.40 1.54 90.44	Michigan	44.75	6.68	0.36	40.19	6.68	4.06	84.59
Missouri 44.75 4.23 0.08 23.66 16.43 0.83 98.16 Montana 44.75 4.05 1.10 34.95 4.05 1.10 34.95 Nebraska 44.75 7.50 0.02 40.52 13.75 1.02 86.08 Nevada 44.75 0.00 2.78 33.37 5.00 2.78 60.21 New Hampshire 44.75 7.00 0.63 45.15 7.00 0.63 45.15 New Jersey 44.75 7.00 0.90 48.39 7.00 0.90 48.39 New Mexico 44.75 10.76 0.51 63.90 17.26 0.51 98.81 New York 44.75 13.30 0.30 75.01 19.17 1.00 114.96 North Carolina 44.75 6.75 0.74 45.13 7.00 0.74 46.47 North Dakota 44.75 10.65 0.04 57.67 13.40 1.54 90.44	Minnesota	44.75	7.03	1.54	56.20	7.88	1.54	60.77
Montana 44.75 4.05 1.10 34.95 4.05 1.10 34.95 Nebraska 44.75 7.50 0.02 40.52 13.75 1.02 86.08 Nevada 44.75 0.00 2.78 33.37 5.00 2.78 60.21 New Hampshire 44.75 7.00 0.63 45.15 7.00 0.63 45.15 New Jersey 44.75 7.00 0.90 48.39 7.00 0.90 48.39 New Mexico 44.75 10.76 0.51 63.90 17.26 0.51 98.81 New York 44.75 13.30 0.30 75.01 19.17 1.00 114.96 North Carolina 44.75 6.75 0.74 45.13 7.00 0.74 46.47 North Dakota 44.75 10.65 0.04 57.67 13.40 1.54 90.44	Mississippi	44.75	9.25	0.95	61.07	9.25	1.15	63.47
Nebraska 44.75 7.50 0.02 40.52 13.75 1.02 86.08 Nevada 44.75 0.00 2.78 33.37 5.00 2.78 60.21 New Hampshire 44.75 7.00 0.63 45.15 7.00 0.63 45.15 New Jersey 44.75 7.00 0.90 48.39 7.00 0.90 48.39 New Mexico 44.75 10.76 0.51 63.90 17.26 0.51 98.81 New York 44.75 13.30 0.30 75.01 19.17 1.00 114.96 North Carolina 44.75 6.75 0.74 45.13 7.00 0.74 46.47 North Dakota 44.75 10.65 0.04 57.67 13.40 1.54 90.44	Missouri	44.75	4.23	0.08	23.66	16.43	0.83	98.16
Nevada 44.75 0.00 2.78 33.37 5.00 2.78 60.21 New Hampshire 44.75 7.00 0.63 45.15 7.00 0.63 45.15 New Jersey 44.75 7.00 0.90 48.39 7.00 0.90 48.39 New Mexico 44.75 10.76 0.51 63.90 17.26 0.51 98.81 New York 44.75 13.30 0.30 75.01 19.17 1.00 114.96 North Carolina 44.75 6.75 0.74 45.13 7.00 0.74 46.47 North Dakota 44.75 10.65 0.04 57.67 13.40 1.54 90.44	Montana	44.75	4.05	1.10	34.95	4.05	1.10	34.95
New Hampshire 44.75 7.00 0.63 45.15 7.00 0.63 45.15 New Jersey 44.75 7.00 0.90 48.39 7.00 0.90 48.39 New Mexico 44.75 10.76 0.51 63.90 17.26 0.51 98.81 New York 44.75 13.30 0.30 75.01 19.17 1.00 114.96 North Carolina 44.75 6.75 0.74 45.13 7.00 0.74 46.47 North Dakota 44.75 10.65 0.04 57.67 13.40 1.54 90.44	Nebraska	44.75	7.50	0.02	40.52	13.75	1.02	86.08
New Jersey 44.75 7.00 0.90 48.39 7.00 0.90 48.39 New Mexico 44.75 10.76 0.51 63.90 17.26 0.51 98.81 New York 44.75 13.30 0.30 75.01 19.17 1.00 114.96 North Carolina 44.75 6.75 0.74 45.13 7.00 0.74 46.47 North Dakota 44.75 10.65 0.04 57.67 13.40 1.54 90.44	Nevada	44.75	0.00	2.78	33.37	5.00	2.78	60.21
New Mexico 44.75 10.76 0.51 63.90 17.26 0.51 98.81 New York 44.75 13.30 0.30 75.01 19.17 1.00 114.96 North Carolina 44.75 6.75 0.74 45.13 7.00 0.74 46.47 North Dakota 44.75 10.65 0.04 57.67 13.40 1.54 90.44	New Hampshire	44.75	7.00	0.63	45.15	7.00	0.63	45.15
New York 44.75 13.30 0.30 75.01 19.17 1.00 114.96 North Carolina 44.75 6.75 0.74 45.13 7.00 0.74 46.47 North Dakota 44.75 10.65 0.04 57.67 13.40 1.54 90.44	New Jersey	44.75	7.00	0.90	48.39	7.00	0.90	48.39
North Carolina 44.75 6.75 0.74 45.13 7.00 0.74 46.47 North Dakota 44.75 10.65 0.04 57.67 13.40 1.54 90.44	New Mexico	44.75	10.76	0.51	63.90	17.26	0.51	98.81
North Dakota 44.75 10.65 0.04 57.67 13.40 1.54 90.44	New York	44.75	13.30	0.30	75.01	19.17	1.00	114.96
	North Carolina	44.75	6.75	0.74	45.13	7.00	0.74	46.47
Ohio 44.75 6.25 0.52 39.80 8.00 0.52 49.20	North Dakota	44.75	10.65	0.04	57.67	13.40	1.54	90.44
	Ohio	44.75	6.25	0.52	39.80	8.00	0.52	49.20

Oklahoma	44.75	4.75	0.53	31.87	24.50	0.53	137.93
Oregon	44.75	5.25	0.86	38.51	7.25	0.86	49.25
Pennsylvania	44.75	19.10	1.25	117.57	20.10	3.08	144.90
Rhode Island	44.75	9.69	1.39	68.72	9.69	1.39	68.72
South Carolina	44.75	9.68	0.55	58.59	14.90	2.25	107.02
South Dakota	44.75	5.00	4.40	79.65	10.00	4.40	106.50
Tennessee	44.75	13.03	1.97	93.61	13.03	4.50	123.97
Texas	44.75	7.12	0.06	38.94	9.12	4.53	103.32
Utah	44.75	5.85	0.78	40.80	10.70	0.78	66.84
Vermont	44.75	7.00	N/A	N/A	7.00	N/A	N/A
Virginia	44.75	5.45	1.72	49.91	5.45	1.95	52.67
Washington	44.75	7.00	0.95	49.00	21.51	0.95	126.91
West Virginia	44.75	1.00	1.03	17.73	2.00	5.00	70.74
Wisconsin	44.75	5.10	0.91	38.31	5.60	1.75	51.07
Wyoming	44.75	5.00	0.52	33.09	6.00	0.77	41.46

Wireless

State	Mobile Broadband Cost	Low %	Low Fee	Annual Increase (Low)	High %	High Fee	Annual Increase (High)
Alabama	48.79	6.00	1.90	57.93	6.00	1.90	57.93
Alaska	48.79	4.42	6.00	97.90	11.42	7.25	153.88
Arizona	48.79	9.25	0.20	56.56	17.00	0.20	101.93
Arkansas	48.79	7.00	0.05	41.59	22.00	0.05	129.41
California	48.79	5.21	0.00	30.51	24.21	3.09	178.82
Colorado	48.79	3.85	0.60	29.75	9.35	5.50	120.74
Connecticut	48.79	6.41	0.70	45.93	6.41	0.70	45.93
Delaware	48.79	N/A	0.68	8.16	N/A	0.68	8.16
Florida	48.79	2.37	1.55	32.48	9.49	1.55	74.16
Georgia	48.79	11.00	0.93	75.56	15.10	1.50	106.41
Hawaii	48.79	11.35	0.66	74.38	11.35	0.66	74.38
Idaho	48.79	N/A	1.03	N/A	N/A	1.28	N/A
Illinois	48.79	7.60	0.48	50.26	13.60	5.48	145.39
Indiana	48.79	8.40	0.93	60.34	8.40	0.93	60.34
Iowa	48.79	6.00	1.00	47.13	7.00	1.00	52.98
Kansas	48.79	6.40	0.53	43.83	9.15	0.53	59.93
Kentucky	48.79	8.83	0.44	56.98	11.83	4.62	124.70
Louisiana	48.79	20.00	0.43	122.26	24.00	1.05	153.12
Maine	48.79	5.70	0.45	38.77	5.70	0.45	38.77
Maryland	48.79	12.41	3.20	111.06	12.41	5.40	137.46

Massachusetts	48.79	6.25	0.83	46.55	6.25	0.83	46.55
Michigan	48.79	6.68	0.36	43.43	6.68	4.06	87.83
Minnesota	48.79	7.03	1.54	59.61	7.88	1.54	64.59
Mississippi	48.79	9.25	0.95	65.56	9.25	1.15	67.96
Missouri	48.79	4.23	0.08	25.71	16.43	0.83	106.13
Montana	48.79	4.05	1.10	36.91	4.05	1.10	36.91
Nebraska	48.79	7.50	0.02	44.15	13.75	1.02	92.74
Nevada	48.79	0.00	2.78	33.37	5.00	2.78	62.63
New Hampshire	48.79	7.00	0.63	48.54	7.00	0.63	48.54
New Jersey	48.79	7.00	0.90	51.78	7.00	0.90	51.78
New Mexico	48.79	10.76	0.51	69.12	17.26	0.51	107.17
New York	48.79	13.30	0.30	81.46	19.17	1.00	124.25
North Carolina	48.79	6.75	0.74	48.40	7.00	0.74	49.86
North Dakota	48.79	10.65	0.04	62.83	13.40	1.54	96.93
Ohio	48.79	6.25	0.52	42.83	8.00	0.52	53.08
Oklahoma	48.79	4.75	0.53	34.18	24.50	0.53	149.80
Oregon	48.79	5.25	0.86	41.06	7.25	0.86	52.77
Pennsylvania	48.79	19.10	1.25	126.83	20.10	3.08	154.64
Rhode Island	48.79	9.69	1.39	73.41	9.69	1.39	73.41
South Carolina	48.79	9.68	0.55	63.28	14.90	2.25	114.24
South Dakota	48.79	5.00	4.40	82.07	10.00	4.40	111.35
Tennessee	48.79	13.03	1.97	99.93	13.03	4.50	130.29
Texas	48.79	7.12	0.06	42.39	9.12	4.53	107.74
Utah	48.79	5.85	0.78	43.63	10.70	0.78	72.02
Vermont	48.79	7.00	N/A	N/A	7.00	N/A	N/A
Virginia	48.79	5.45	1.72	52.55	5.45	1.95	55.31
Washington	48.79	7.00	0.95	52.39	21.51	0.95	137.34
West Virginia	48.79	1.00	1.03	18.21	2.00	5.00	71.71
Wisconsin	48.79	5.10	0.91	40.78	5.60	1.75	53.79
Wyoming	48.79	5.00	0.52	35.51	6.00	0.77	44.37