

Broadband investment and deployment both increased with Title II in place, but decreased every year under Chairman Pai and after he removed Title II

With FCC nominations moving ahead at last, and the FCC on the path to having its entire complement of commissioners again, persistent but entirely unfounded cable and phone company talking points about Title II are reappearing.

In its simplest form, the lie so often repeated by past FCC Chairman Pai -- and, unfortunately, parroted by some Republican members of the Senate Commerce Committee too -- is that classifying broadband internet access as a telecommunications service under Title II of the Communications Act somehow suppressed investment in broadband networks by internet service providers.

The back half of this false claim, trumpeted loudly and proudly quite often even after the pandemic proved once and for all what an essential utility service broadband has become, is that broadband investment rebounded only once Chairman Pai abdicated all FCC authority over broadband and abandoned Title II at the end of 2017, his first year as Chairman.

Every part of the broadband lobby's story on investment is false, for a number of reasons.

As Free Press has [repeatedly explained](#), throughout more than a decade of rebutting repetitive and meritless arguments about Title II's supposed impact on broadband investment, aggregate investment statistics are a poor metric and a blunt tool for measuring anything meaningful.

There are several reasons for this. Broadband providers don't all invest at the same time and in the way. Technology advances and upgrade cycles don't occur at exactly the same time for cable companies, fiber providers and wireless carriers, all of whom cycle through investment increases when they are upgrading their networks (for instance, going from 4G to 5G) but then pause to reap the benefits of those upgrades.

In other words, broadband companies don't need to spend the same amount every year, and [as AT&T itself explained](#) to the Commission long ago, that makes broadband investment "lumpy" (AT&T's word, not ours). There's no reason to expect more investment each year at a constantly accelerating pace.

Industry aggregate investment totals obscure this reality that individual companies' numbers may move in opposite directions from one another each year: AT&T may invest more while Comcast invests less, or vice versa. They spend more to upgrade, and then it's actually [good for business](#) to spend less going forward, with newer technologies that are more efficient and cheaper to maintain.

Potentially different investment trajectories at two different companies do not stem from only one of those companies understanding the supposed impacts of Title II while the other is oblivious. It's because these companies plan their network investments years in advance, and [explain to Wall Street](#) in painstaking detail that their investments are driven by demand and technological evolutions, not by FCC regulations.

Yet even accounting for the fact that aggregate investment metrics are a blunt tool at best, and that he ought not to have relied on them at all -- let alone made the demonstrably false claim that his decisions swung this aggregate total -- we can see that Chairman Pai's claims about what happened to aggregate broadband investment on his watch are just plain false.

The chart showing inflation-adjusted investment totals for US publicly traded ISPs from 2012 through the end of 2020 is a little overwhelming, but it's an important baseline, as it shows precisely what we should expect and what ISPs tell their own shareholders. They may make different investment decisions from one another each year, depending on individual companies' technological upgrade cycles and the demand they see from the customers they serve; not the same exact decisions about whether to invest more or less based on broadband's regulatory classification status at the FCC.

Capital Expenditures (\$ thousands, infl.-adjusted)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Comcast (cable segment)	5,560,730	6,051,360	6,833,160	7,744,000	8,203,680	8,456,680	8,031,920	6,978,090	6,605,000
Charter (pro forma)	6,114,430	6,272,000	7,827,720	7,665,900	8,148,600	9,201,860	9,490,000	7,266,950	7,415,000
Altice USA (pro forma)	1,467,288	1,431,153	1,414,005	1,424,326	1,032,126	1,008,430	1,199,733	1,368,904	1,073,955
Mediacom	284,719	296,113	285,915	317,070	361,987	362,271	347,075	299,563	320,953
Wide Open West	178,766	248,528	279,609	255,090	310,500	319,378	326,664	249,975	234,100
Cable ONE (1)	176,964	158,983	196,914	178,023	158,775	190,125	226,477	264,976	293,229
GCI (2)	165,023	202,220	195,481	193,859	211,116	200,728	170,456	149,966	147,095
AT&T (pro forma w/ ATN & Leap) (3)	22,862,239	23,969,049	23,790,630	22,016,500	24,200,640	22,843,000	22,101,040	19,831,350	15,675,000
Verizon (total company)	18,277,750	18,596,480	19,082,010	19,552,500	18,423,720	18,281,820	17,324,320	18,118,390	18,192,000
CenturyLink (pro forma)	4,138,060	4,264,960	4,392,270	4,511,100	4,660,200	4,478,500	3,302,000	3,664,280	3,729,000
Frontier	845,700	710,847	763,787	949,300	1,513,080	1,259,280	1,239,680	1,238,260	1,181,000
Windstream (4)	1,244,356	941,920	873,015	1,160,830	1,068,984	963,116	853,008	887,285	951,200
Cincinnati Bell (pro forma)	502,752	317,173	309,697	420,897	414,980	324,144	276,573	226,038	223,600
TDS Telecom (Wireline and Cable)	179,201	166,190	190,304	211,207	175,151	212,856	241,280	319,160	368,000
US Cellular	945,525	826,001	618,953	586,358	481,713	497,614	535,600	717,100	940,000
Consolidated Comm. (pro forma)	303,939	294,529	276,471	275,102	261,589	244,712	254,609	234,525	217,563
Shenandoah Telecom. Co. (pro forma)	100,630	131,071	75,738	76,647	187,089	155,278	142,107	140,180	120,450
Alaska Communications System	66,549	53,953	56,872	53,325	43,525	34,540	41,792	45,958	50,186
Otelco	7,183	6,976	6,677	7,273	7,429	9,021	8,302	12,564	10,036
Sprint	4,809,280	7,825,440	6,282,600	12,071,400	8,055,720	10,261,860	12,751,440	11,776,600	2,338,000
T-Mobile	3,278,130	4,508,000	4,791,870	5,196,400	5,078,160	5,551,220	5,762,640	6,454,910	11,034,000
Aggregate Total	71,509,215	77,272,947	78,543,695	84,867,107	82,998,766	84,856,432	84,626,716	80,245,023	71,119,367
Aggregate Total w/ Historical DirecTV	75,293,585	81,513,267	82,123,445	86,583,107	82,998,766	84,856,432	84,626,716	80,245,023	71,119,367
Aggregate Total Less Sprint and AT&T (6)	43,837,696	45,478,458	48,470,465	50,779,207	50,742,406	51,751,572	49,774,236	48,637,073	N/A
All Wired Telecom Capex - Census Bureau	49,336,930	55,829,760	53,830,560	56,295,800	57,568,320	56,726,960	55,037,840	47,613,420	N/A
All Wireless Telecom Capex - Census Bureau	37,232,370	38,124,800	38,901,060	33,187,000	33,823,440	39,107,640	38,189,840	40,750,470	N/A
All Other Telecom and Sat. Capex - Census Bureau	5,003,640	3,754,240	3,428,790	3,465,000	3,279,960	4,305,720	5,569,200	34,592,500	N/A
Total Telecom Industry Capex - Census Bureau	91,572,940	97,708,800	96,160,410	92,947,800	94,671,720	100,140,320	98,796,880	91,823,140	N/A

(1) Cable One has made five acquisitions of small non-public cable companies since becoming public in 2015. It did not report pro forma results. Thus a portion of its increased capital expenditures during this time are due to these acquisitions.

(2) Liberty Global acquired GCI Liberty in 2020, then later spun itself off into a new company called Liberty Broadband. Results shown are for GCI.

(3) AT&T did not report pro forma w/ DTV. Below we present results that show impact including DTV historical spending.

(4) Windstream exited bankruptcy as a private company. The value shown is trailing-12-months from June 30, 2020.

(5) Accounting standard changes resulted in Sprint substantially revising its values, but only did so historically beginning with June 30, 2016 results. Prior Sprint periods are Free Press' revised estimates.

(6) We present these results because of the accounting complications introduced by the DTV merger and subsequent accounting standard changes impacting a portion of Sprint's capex. We caution against drawing broad conclusions from industry aggregate capital investment trends, particularly those that do not include 100 percent of the industry, and this removal of 2 of the 21 firms demonstrates how the industry aggregate value is impacted by accounting and post-merger issues.

Source: Free Press analysis of company SEC filings; U.S. Census Bureau Annual Capital Expenditures Survey; BLS CPI-U. Values are presented in 2020 inflation-adjusted thousands of dollars. Where possible the most-recent or restated values are presented.

Yet if we zoom in on just the aggregate totals each year, and work out the percentage changes for that industry total investment figure, we can see that investment went down significantly every year after 2017 -- the last year when the Obama-era Net Neutrality rules and Title II classification were still in place, as Chairman Pai's vote to repeal that framework did not take place until well into December 2017.

On an inflation-adjusted basis, investment in every year of Chairman Pai's tenure was below what it was in 2015, when Title II was restored and the FCC adopted its *Open Internet Order*.

In fact, aggregate investment declined every subsequent year of Pai's tenure, after he took the helm in 2017 and then took till the very end of that year to vote against Title II, despite his constantly taking credit for subsequent increases that did not even exist.

And by this metric, the largest single annual decline in U.S. broadband industry capital expenditures -- a drop of 11.4 percent -- came in the last year of Pai's chairmanship in 2020, long after his Title II reversal.

Year-to-Year	Change in Publicly-Traded ISP Capital Expenditures
2012-2013	8.1%
2013-2014	1.6%
2014-2015	8.1%
2015-2016	-2.2%
2016-2017	2.2%
2017-2018	-0.3%
2018-2019	-5.2%
2019-2020	-11.4%

In sum, it's just obviously not true that aggregate investment declined with Title II in place and increased once it had been removed.

But examining the individual investment decisions of the country's largest internet service providers shows even more clearly the fallacy of Pai's claims that his decisions alone rescued broadband investment and changed the trajectory of ISPs' spending.

At AT&T and Comcast in particular, because these companies had finished several upgrade cycles in the year's before Title II's adoption and while Title II was in place, investment fell off a cliff during the very same period when Pai was pretending the opposite.

AT&T invested a whopping 35.2% less in 2020 than it had in 2016, while Comcast invested 19.5% less in 2020 than it had in 2016. These massive declines occurred despite Chairman Pai claiming without qualification that Title II dampened investment, while taking Title II off the table somehow spurred it.

Capital Expenditures 2016-2020 (inflation-adjusted)

	2016	2017	2018	2019	2020	Change From 2016
AT&T	\$24,200,640,000	\$22,843,000,000	\$22,101,040,000	\$19,831,350,000	\$15,675,000,000	-35.2%
Comcast (Cable)	\$8,203,680,000	\$8,456,680,000	\$8,031,920,000	\$6,978,090,000	\$6,605,000,000	-19.5%



One final metric to keep in mind is capital intensity -- the percentage of a firm's revenues that it reinvests in capital expenditures. As the chart below shows, declines in overall investment during Chairman Pai's tenure by the country's publicly-traded ISPs did not come about because broadband providers were making less money.

They simply invested less of their take back into their networks during the Pai years, with capital intensity dwindling from 15.3% his first year as Chairman down to 13.1% during his final year at the agency.

