

UPDATED CAPITAL SPENDING DATA SHOW RISING BROADBAND INVESTMENT IN NATION'S INFORMATION INFRASTRUCTURE

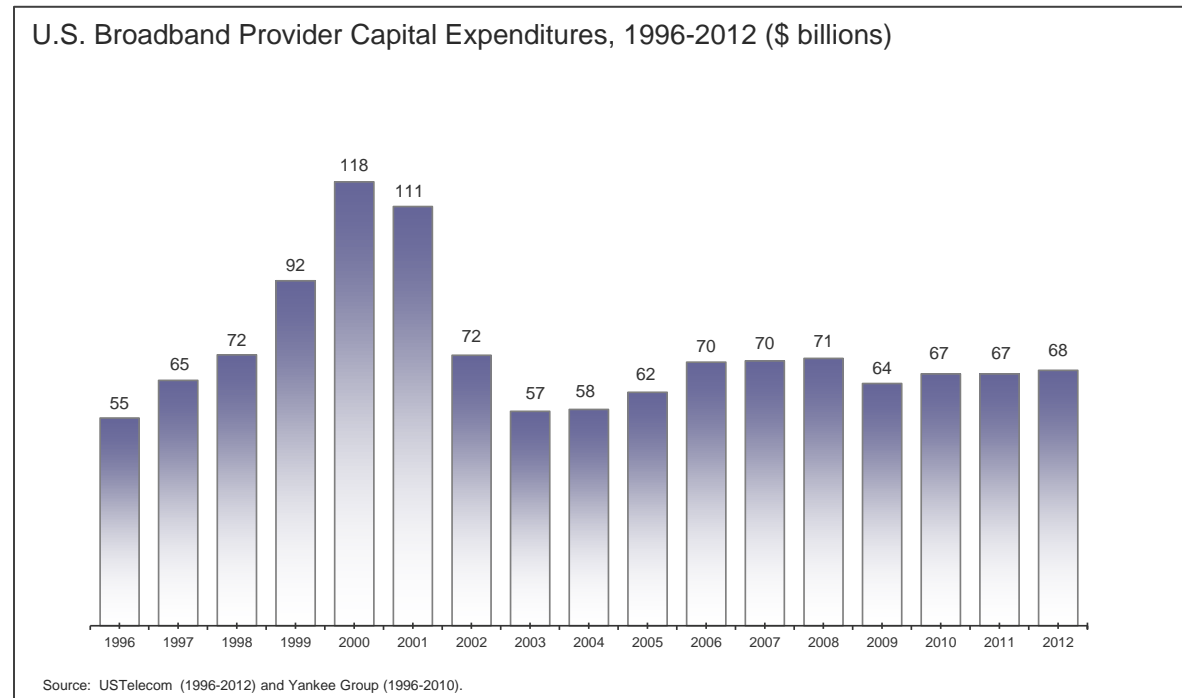
By Patrick Brogan, Vice President of Industry Analysis

U.S. broadband providers invested \$68 billion in 2012, according to a new USTelecom analysis of company capital expenditures data. The analysis demonstrates that the industry continues to make a significant effort to [deploy more and better broadband](#) across the country. Nearly all Americans have a choice of multiple broadband providers. Ninety-six percent of Americans now have access to fixed broadband and 88 percent of households can choose from two or more fixed providers.

The 2012 release updates the [data series USTelecom published last year](#). This research indicates that 2012 capital expenditures for the industry as a whole—including wireline, wireless, and cable operators—grew from a revised estimate of \$67 billion in 2011 to \$68 billion in 2012. Furthermore, the data show that broadband providers have made more than \$1.2 trillion in capital investments from 1996 through 2012. (*See Chart 1, U.S. Broadband Provider Capital Expenditures, 1996-2012.*) There are several methodological adjustments in this release resulting in minor adjustments to the historical series. These adjustments are discussed in detail in the methodology discussion below.

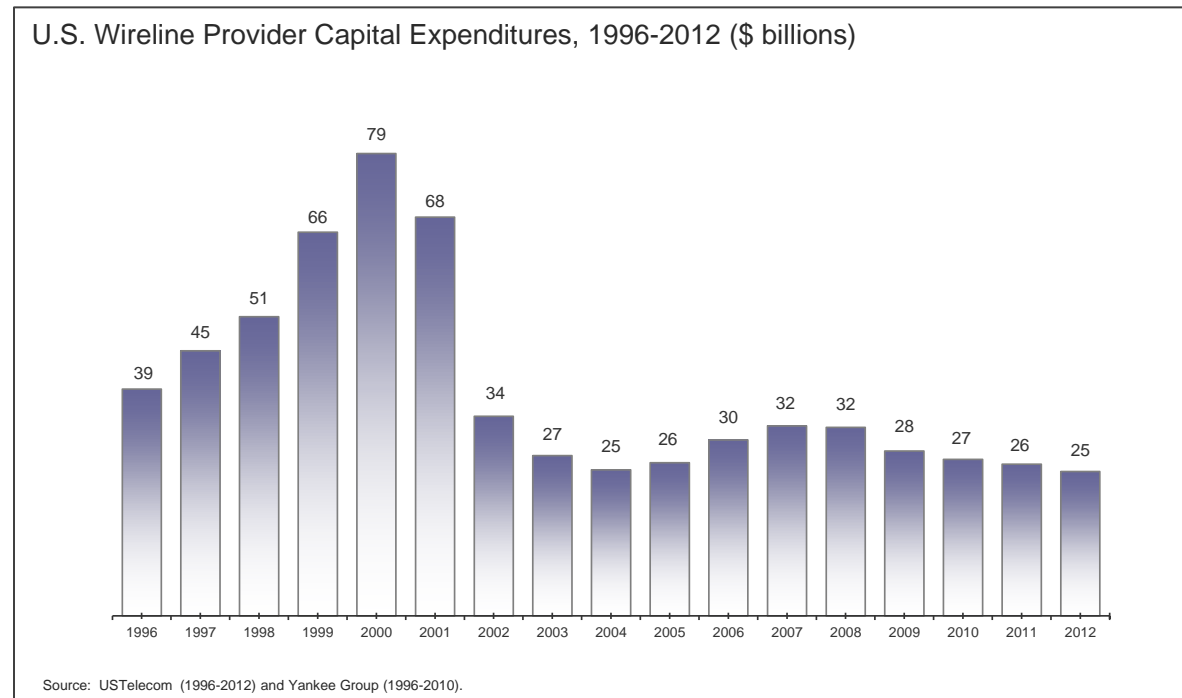
Ongoing broadband investment is essential to accommodate data traffic growth arising from increased adoption of innovative network technologies and services, such as growing online video, mobile broadband, and cloud computing. Broadband capital spending supports the near-term economic recovery and essential long term investment in the U.S. information technology infrastructure that enhances our productivity, international competitiveness, and consumer welfare over time. In fact, broadband provider capital spending is essential to building the innovative communications infrastructure of the future, characterized by an accelerated transition to Internet Protocol (IP), customer mobility, and greater reliance on data center and cloud-based service delivery. The more capital resources network operators can devote to this [transition](#) the sooner consumers and the economy will realize the benefits.

Chart 1



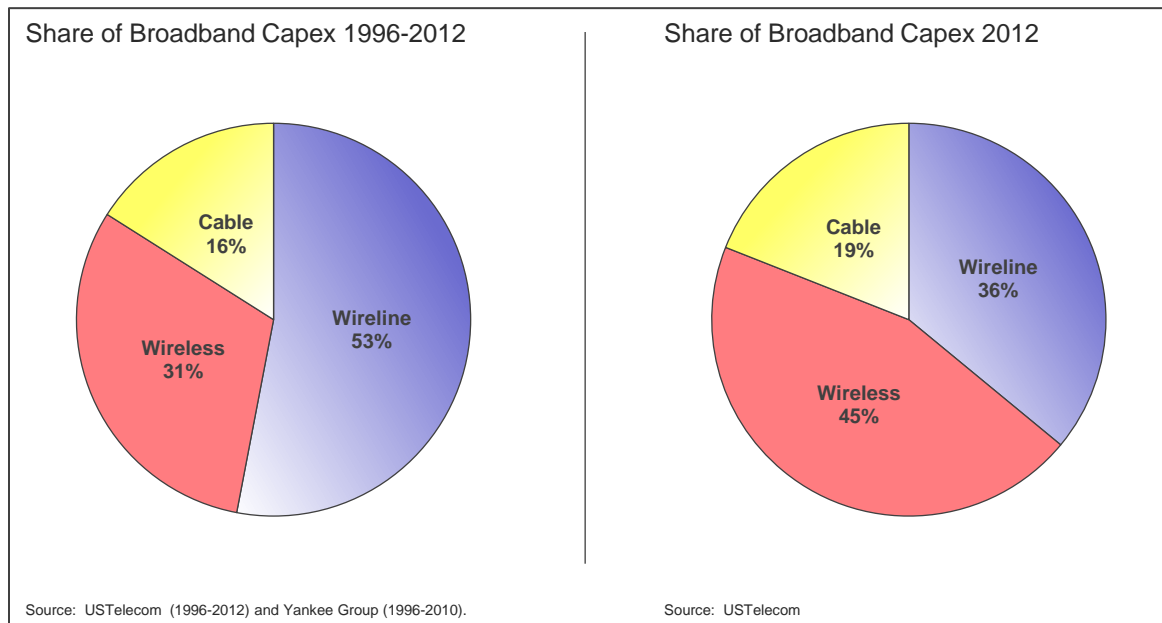
The wireline industry continues to contribute a significant portion of broadband industry capital spending. In 2012, the wireline industry invested nearly \$25 billion and, from 1996 through 2012, it invested approximately \$660 billion. (See Chart 2. *U.S. Wireline Broadband Provider Capital Expenditures, 1996-2012*).

Chart 2



The wireline portion of broadband provider capital expenditures from 1996 through 2012 was 53 percent. The wireline segment continued to contribute a significant portion of industry capital in 2012: 36 percent, compared to 45 percent for wireless and 19 percent for cable. (See Chart 3, *Share of Broadband Capex 1996-2012 and Share of Broadband Capex 2012*). Based on the revised time series, discussed in detail below, it appears that wireless capital spending of \$28 billion was slightly more than wireline spending of \$26 billion in 2011.

Chart 3



The wireline industry nonetheless invests a significant amount of capital in order to provide an essential component of our nation’s network infrastructure. High-speed fixed access and fiber core networks are essential to carry the large volume of data traffic, which has [grown](#) from the equivalent of 100 million DVDs per year in 2000 to more than 36 billion DVDs per year in 2012, and which is expected to [triple](#) again over the next five years. Video over fixed networks remains the largest driver of bandwidth demand at [approximately four-fifths of U.S. data traffic](#) in 2012 and rising. Business applications for enterprises and small businesses, such as cloud computing and video conferencing, require high-speed, low-delay fixed connections using fiber or other high-capacity fixed network technologies. Nearly all of U.S. wireless data traffic, the [fastest growing](#) data traffic segment, utilizes fixed network connections. Fixed backhaul connections link cell towers to the network and, increasingly, mobile data traffic is offloaded onto Wi-Fi enabled fixed network connections via dual-mode Wi-Fi-cellular devices in order to alleviate mobile network capacity limitations.

Wireline provider investment in fiber and other technologies will be essential to meet the consumer demand for faster home connections for video entertainment, video calling, in-home networks, and new applications based on the growing Internet of Things. Small and large businesses will need faster fixed connections to deploy the latest enterprise applications and

leverage new cloud computing capabilities. Demand for data center capacity and computing infrastructure is growing, as is the demand for faster data center connectivity. Demand for faster fixed backhaul connections to cell towers and WiFi routers is growing with increased wireless data usage. Core backbone networks will require more capacity to aggregate and transport the growing volume of end-user traffic across the nation and the globe.

Conclusion

Broadband providers invest tens of billions of dollars annually to accommodate data traffic that has been growing continually over the last two decades and shows no signs of abating in the foreseeable future. Continued investment in broadband networks will be essential to handle the expected data traffic growth arising from increased adoption of more powerful and innovative networked technologies. Wireline broadband providers will play a critical role in building the consumer, business, and data center networks of the future. Maximizing broadband investment in an economically efficient manner can help boost consumer welfare, business productivity, and American competitiveness.

Notes on Methodology

USTelecom analyzed capital expenditure data for wireline telecommunications, wireless telecommunications, and cable broadband providers in order to approximate industry aggregates. Other providers, such as satellite providers, telecommunications resellers, and electric utilities are excluded. Figures are rounded. Previous years may include minor revisions.

The majority of telecommunications data were taken from company financial statements, taking into account business segment reporting, mergers, and spin-offs. The analysis is subject to the reporting practices of individual companies. Capital expenditures may include investment in property, plant, and equipment; capitalized software; capitalized interest during construction; corporate, directory, and other capital expenditures; and intra-company eliminations. USTelecom made reasonable efforts to eliminate double-counting, non-U.S. investment, and non-capital spending. We made estimates for non-reporting companies.

Additional market research and government sources were consulted for comparison, including the United States Census Annual Capital Expenditures Survey, the Yankee Group Global Capex Forecast 2010, the Skyline Marketing Capex Report 2010, data from CTIA – the Wireless Association), New Paradigm Resources Group, and the Association for Local Telecommunications Services (ALTS). Cable data are from the National Cable & Telecommunications Association (NCTA), at www.ncta.com, citing SNL Kagan.

The 2012 release of broadband provider capital expenditure data includes several revisions resulting in minor restatements of historical data. First, for prior data series, corporate and other capital spending for large integrated wireline and wireless carriers was allocated to wireline. In this release, corporate and other spending is allocated to wireline in proportion to its share of the combined wireline and wireless capital expenditures. Second, formula adjustments were made to add two small wireless companies to the total and to ensure full elimination of double counting of independent competitive local exchange carriers (CLECs) potentially captured in other line

items. In addition, there were several historical data points for which better data were found, resulting in very minor revisions. For non-reporting wireline and wireless providers, capital expenditures were estimated based on percentage of industry access lines or wireless subscribers, respectively. In the last couple years, we have started to see some volatility in these percentages and therefore have flattened the percentage for 2012 at the 2011 level, which is coincidentally 2.5 percent for both wireline and wireless.

The table below summarizes the net impact of the revisions through 2011, mostly driven by the shift of a portion of corporate and other capital expenditures from wireline to wireless, the inclusion of two new wireless carriers, and adjustments to independent CLECs. The table shows capital expenditures in billions of dollars.

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
2012 Revised																
Total	55	65	72	92	118	111	72	57	58	62	70	70	71	64	67	67
Wireline	39	45	51	66	79	68	34	27	25	26	30	32	32	28	27	26
Wireless	11	13	15	16	24	27	23	19	22	25	28	23	24	23	27	28
Cable	6	7	6	11	15	16	15	11	10	11	12	15	15	13	13	13
Telecom (Wireline + Wireless) Subtotal	50	59	66	81	103	95	57	46	47	52	58	56	57	51	54	54
2011 Original																
Total	55	65	72	91	118	111	72	57	57	62	69	70	70	63	66	66
Wireline	39	45	51	66	79	68	34	28	25	26	30	33	33	29	28	27
Wireless	11	13	15	15	24	27	23	19	22	25	26	22	22	21	26	26
Cable	6	7	6	11	15	16	15	11	10	11	12	15	15	13	13	13
Telecom (Wireline + Wireless) Subtotal	50	59	66	81	103	95	57	46	47	51	57	55	55	50	53	53
Change																
Total	0.0	0.0	0.0	0.7	0.2	0.3	0.3	0.1	0.1	0.3	1.1	0.8	1.4	1.2	0.9	1.3
Wireline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.2	-0.3	-0.4	-0.7	-0.9	-0.7	-0.8	-0.8
Wireless	0.0	0.0	0.0	0.7	0.2	0.4	0.3	0.2	0.3	0.6	1.5	1.4	2.3	2.0	1.7	2.0
Cable	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Telecom (Wireline + Wireless) Subtotal	0.0	0.0	0.0	0.7	0.2	0.3	0.3	0.1	0.1	0.3	1.1	0.8	1.4	1.2	0.9	1.2