

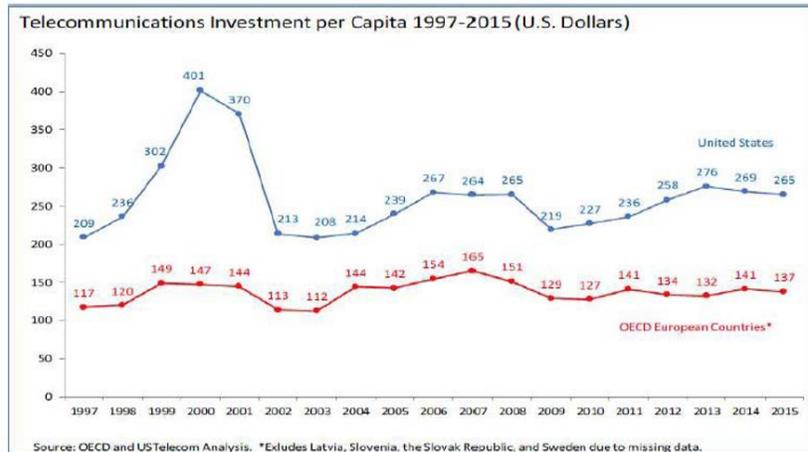
American Broadband: Competitive Prices & Extraordinary Networks

During the pandemic, our country's broadband networks met the challenge of COVID-19, enabling Americans to work from home, learn from home, stay connected with loved ones, and otherwise meet their daily needs with the help of online services. But not everyone benefited from the strength and reach of America's networks. As we build a more equitable society, the pandemic has highlighted the importance of getting everyone connected by ending the digital divide and closing the two persistent connectivity gaps – deployment (where broadband is available) and adoption (which households get connected). These challenges can be met through targeted policies that do not undermine the strength, resiliency, and innovation of our nation's competitive, privately-funded broadband ecosystem.

America's Broadband Networks are Among the World's Best.

- **Traffic Load:** Americans use more broadband data per capita than any other major economy in the world,ⁱⁱⁱ and U.S. household broadband lines carry 60% more data than networks in Europe.^{iv}
- **Geographic Reach and Speed:** About 86% of U.S. households have access to gigabit networks and about 92% have access to networks providing downstream speeds of at least 100 Mbps.ⁱ Notwithstanding the broad geographic reach of its networks, the deployment of high-speed networks is at least 25 percentage points higher in the United States, with U.S. households receiving speeds twice that of the world average and 6th fastest among all 37 OECD member countries.ⁱⁱ Looking at the service to which households actually subscribe, the U.S. has a 20+ point lead compared with Europe on adoption of 100 Mbps or better service.
- **Performance under Stress:** America's networks performed superbly during the pandemic,^v better than networks in many other places in the world.^{vi}
- Overall, the U.S. leads Europe with greater deployment, higher adoption, and twice the facilities- based competition.^{vii}

This is the result of the massive private-sector capital investment of nearly \$2 trillion over the last 25 years^{viii} – an average of \$70 billion to \$80 billion each year.^{ix} U.S. per capita investment is more than double that of Europe and the OECD countries.^x



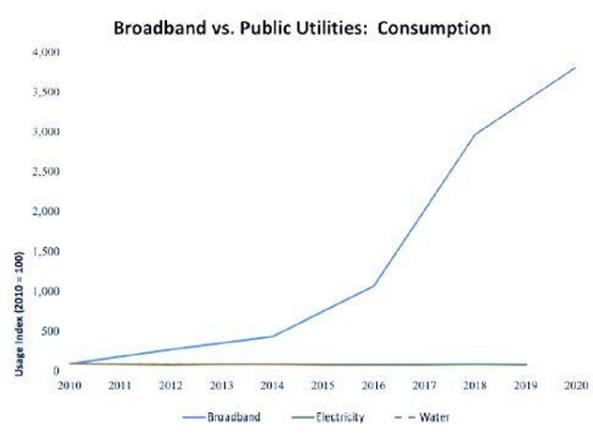
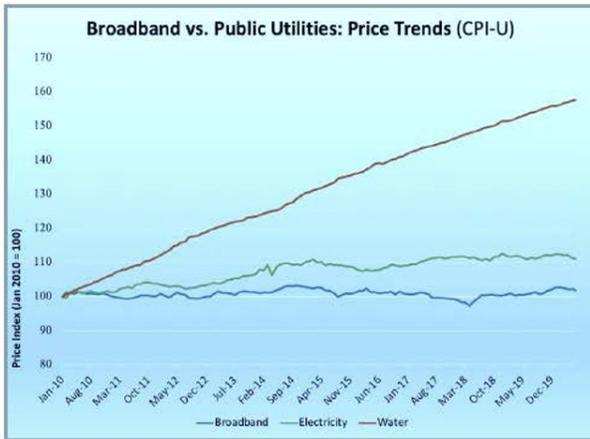
Americans Pay Competitive Prices for Broadband Services.

- According to the U.S. Bureau of Labor Statistics, U.S. broadband prices have remained essentially flat over the past decade, rising only 2.8% before inflation into account – when adjusted for inflation, broadband prices have actually declined by nearly 11% over the 2011-2020 period.^{xi}
- The FCC’s pricing data shows positive trends on prices, speeds, and value from 2015 to 2020.
 - Adjusting for inflation, the **price** of the **most popular tiers** fell by 28% and the price of the **highest-speed tiers** fell by 44%.^{xii}
 - At the same time, **speeds** increased by 16% for the **most popular tiers** and 28% for the **fastest speed tier**.^{xiii}
- The **least expensive tiers** in 2020 are 13.6% less expensive and 64% faster than those in 2015.^{xiv}



- With these price declines and speed increases, per megabit-per-second prices have declined even more substantially – 98% over the last twenty years^{xv}. In just the last five years, per-megabit prices dropped 37.9% for the most popular services and 56.1% for the highest speed services.^{xvi}
- **Low Income Offerings:** Every major U.S. broadband provider offers home broadband for prices for qualifying low-income households ranging from \$10-\$20 per month.
 - AT&T offers Access that costs \$10/month for speeds up to 25 Mbps and \$5/month for lower speeds.
 - Charter offers Spectrum Internet Assist that costs \$17.99 or less per month for 30 Mbps high-speed internet, along with Security Suite and an internet modem.
 - Comcast offers Internet Essentials, with a connection speed of 50 Mbps download/5 Mbps upload for \$9.95/month.
 - Cox offers Connect2Compete, with a connection speed of 50 Mbps for \$9.95/month.
 - Verizon offers a plan priced at \$19.99/month for connection speeds of 200 Mbps with no contracts, no data caps, and no hidden fees.
- These are hallmarks of a competitive market. As Jonathan Nuechterlein and Howard Shelanski explain,^{xvii} network deployment is a high fixed and sunk costs business, so there are “unusually strong incentives” to maximize use of the networks. This drives intense marketplace rivalry and result in a “significantly competitive” market in most areas of the country today, and presents the likelihood of disruptive competitive entry in other areas in the foreseeable future.
- Indeed, broadband is nothing like a public utility, with price and demand characteristics reflecting its dynamic and competitive nature.^{xviii}



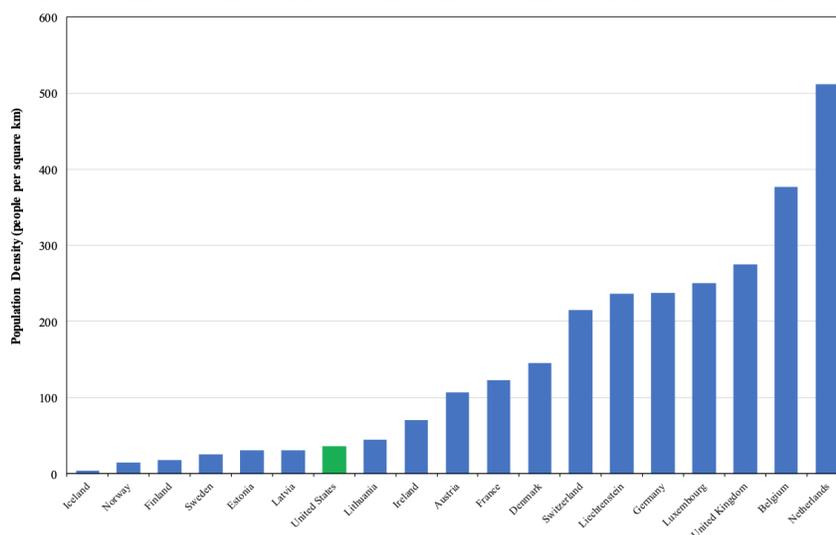


International Price Comparisons Do Not Show That Americans Pay “Too Much” for Broadband Services.

- Studies that purportedly show that U.S. prices are “too high” typically rely on data that fail to account for differences in service plans, speeds, quality, product features, connection charges, and government subsidies. They also typically fail to account for the fact that the U.S. has vast, low density geographic areas.^{xxix}
- The most recent OECD price comparisons (2017) reflect these limitations and biases.^{xxx} The comparisons are based on selecting a single “representative” plan for each country. The selection fails to adjust for population density differences, the presence of government network subsidies, or other important factors.^{xxxi}
 - Population density alone is a significant driver of differing costs. The U.S. is a vast nation with a population density (35.7/sq km) that is a fraction of those of the EU (111.7), Japan (374.1), South Korea (529.2), and most European countries (e.g., France, 122.3; Germany, 237.3; Italy, 202.9; Spain, 93.7; and the UK, 274.7)).^{xxxii}



Population Densities of Selected Countries



Source: World Bank, "Population density (people per sq. km of land area)," available at <https://data.worldbank.org/indicator/EN.POP.DNST>, site accessed May 19, 2021.

Note: World Bank population density estimates are as of 2018.

- Moreover, OECD analyses use only advertised speeds. The FCC’s Measuring Broadband America^{xxiii} program shows that U.S. ISPs generally exceed advertised speed; by contrast, in other countries, experienced speeds can, as the OECD acknowledges, “be significantly lower”.^{xxiv}
 - The FCC’s 2020 Communications Marketplace Report compared U.S. fixed broadband prices with those in 25 other OECD countries. The FCC found that the U.S. ranked as the 21st least expensive before adjusting for quality, cost, and demographic differences across countries. When these adjustments were made, the U.S. ranked as the second cheapest on the list.^{xxv}
 - Even the study by New America’s Open Technology Institute that claims Europe has more affordable broadband makes this important acknowledgement: “standardizing costs and speeds while also factoring in differences in population density reveals that U.S. providers on average advertise similar prices for similar speeds as European providers.”^{xxvi}



ENDNOTES

- i <https://censusnbn.com/doc/CensusNBM%20303%20Fixed%20Providers%20at%20940M%20D%20Total.pdf> (gigabit networks, including 940Mbps service); FCC, Fourteenth Broadband Deployment Report (Jan. 13, 2021), <https://docs.fcc.gov/public/attachments/FCC-21-18A1.pdf>, at p. 24, Fig. 4 (100/10Mbps).
- ii <https://www.speedtest.net/global-index> (visited April 8, 2021).
- iii <https://www.ustelecom.org/wp-content/uploads/2020/04/USTelecom-State-of-Industry-2020-Update.pdf>, pp. 30 -31
- iv <https://openvault.com/complimentary-report-4q20/> v https://www.bitag.org/documents/bitag_report.pdf
- vi <https://www.phoenix-center.org/PolicyBulletin/PCPB49Final.pdf>
- vii <https://www.ustelecom.org/no-contest-u-s-leads-europe-in-broadband-deployment-adoption-investment-and-competition/>
- viii <https://www.ustelecom.org/ustelecom-statement-on-white-house-broadband-infrastructure-plan/>
- ix <https://www.ustelecom.org/wp-content/uploads/2020/04/USTelecom-State-of-Industry-2020-Update.pdf>, p. 7.
- x <https://etno.eu/news/all-news/694-state-of-digi-2021-pr.html> (Europe, €94.8/capita; US, €214/capita); OECD Telecommunications and Internet Statistics, <http://www.oecd.org/sti/broadband/9b.Investment.xls> and https://stats.oecd.org/Index.aspx?DataSetCode=EDU_DEM; USTelecom, Industry Metrics and Trends 2020, <https://www.ustelecom.org/wp-content/uploads/2020/04/USTelecom-State-of-Industry-2020-Update.pdf>, at 10
- xi See U.S. Bureau of Labor Statistics, Consumer Price Index for Internet services and electronic information providers in U.S. city average, all urban consumers, not seasonally adjusted https://data.bls.gov/timeseries/CUUR0000SEEE03?output_view=data and Consumer Price Index for All items in U.S. city average, all urban consumers, not seasonally adjusted; https://data.bls.gov/timeseries/CUUR0000SA0?output_view=data, (last accessed Aug. 6, 2020)
- xii Arthur Menko, 2020 Broadband Pricing Index: An Analysis of Decreasing Prices and Increasing Value for Broadband Service Over Time, USTelecom, at Table 2 (Sep. 16, 2020), <https://www.ustelecom.org/wp-content/uploads/2020/09/USTelecom-2020-Broadband-Pricing-Index.pdf> (“USTelecom 2020 Broadband Pricing Index”). This table reflects real (inflation-adjusted) prices.
- Confirming the magnitude of these declines, a separate study of the same FCC data applies several additional price indexing methods and shows that average real broadband prices have fallen as much as 36% since 2015. George S. Ford, “Are Broadband Prices Declining? A Look at the FCC’s Price Survey Data,” Phoenix Center Policy Perspective #20-07 at 5 (October 26, 2020) <https://www.phoenix-center.org/perspectives/Perspective20-07Final.pdf>
- xiii USTelecom 2020 Broadband Pricing Index, <https://www.ustelecom.org/wp-content/uploads/2020/09/USTelecom-2020-Broadband-Pricing-Index.pdf>
- xiv <https://www.ustelecom.org/wp-content/uploads/2021/03/Doing-Our-Part-on-Broadband-Affordability-handout.pdf>
- xv <https://www.ncta.com/broadband-facts>
- xvi USTelecom 2020 Broadband Pricing Index, <https://www.ustelecom.org/wp-content/uploads/2020/09/USTelecom-2020-Broadband-Pricing-Index.pdf>
- xvii Building on What Works: An Analysis of U.S. Broadband Policy, Jonathan E. Nuechterlein and Howard A. Shelanski, September 2020, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3698055, pp. 11 - 15
- xviii Analysis includes CPI-U for Internet services and electronic information providers (broadband), electricity, and water and sewer maintenance (water) in U.S. city average. See U.S. Bureau of Labor Statistics, Consumer Price Index for All Urban Consumers (CPI-U), Internet services and electronic information providers in U.S. city average, seasonally adjusted [CUSR0000SEEE03], <https://data.bls.gov/timeseries/CUSR0000SEEE03>, (last accessed Aug. 6, 2020); U.S. Bureau of Labor Statistics, Consumer Price Index for All Urban Consumers (CPI-U), Electricity in U.S. city average, seasonally adjusted [CUSR0000SEHF01], <https://data.bls.gov/timeseries/CUSR0000SEHF01> (last accessed Aug. 6, 2020); U.S. Bureau of Labor



Statistics, Consumer Price Index for All Urban Consumers (CPI-U), Water and sewerage maintenance in U.S. city average, seasonally adjusted [CUSR0000SEHG01], <https://data.bls.gov/timeseries/CUSR0000SEHG01> (last accessed Aug. 6, 2020). For an empirical analysis that refutes arguments that broadband should be regulated like a utility, see Scott Wallsten, "Is Broadband a Public Utility? Let's Hope Not," Technology Policy Institute Blog (May 21, 2020), <https://techpolicyinstitute.org/2020/05/21/is-broadband-a-public-utility-lets-hope-not/>, pointing to price increases, slow innovation, and low productivity growth in the electric sector, and arguing that a similar regulatory structure would not solve the underlying cost structure or challenges of reaching those who do not have access to broadband.

xix For a description of the complexities in performing valid price comparisons across countries, see Viktor Grechyn and Ian McShane, "What Influences International Differences in Broadband Prices?" *Journal of Telecommunications and the Digital Economy* (January 2017)

https://www.researchgate.net/publication/312405190_What_Influences_International_Differences_in_Broadband_Prices/link

[/5ccad412a6fdcce35cd2ddb5/download](https://www.researchgate.net/publication/312405190_What_Influences_International_Differences_in_Broadband_Prices/link), pp. 89-105.

xx See OECD Broadband Portal, Table 4.10 OECD fixed broadband basket, high user, June 2017, available at https://www.oecd.org/sti/broadband/4.10.FBB-High_2017.xls and OECD Digital Economy Outlook 2015, p. 122 and <https://www.oecd.org/digital/oecd-digital-economy-outlook-2015-9789264232440-en.htm>.

xxi The OECD methodology is summarized in the following documents: OECD, "Broadband Methodology," available at <https://www.oecd.org/sti/broadband/broadband-methodology.htm>, site accessed September 22, 2020 (hereinafter OECD Broadband Methodology); Working Party on Communication Infrastructures and Services Policy, OECD, "Revised OECD Telecommunication Price Baskets," December 19, 2017, available at [https://www.oecd.org/sti/broadband/DSTI-CDEP-CISP\(2017\)4FINAL.pdf](https://www.oecd.org/sti/broadband/DSTI-CDEP-CISP(2017)4FINAL.pdf), site accessed September 22, 2020 (hereinafter Revised OECD Telecommunication Price Baskets).

xxii See <https://data.worldbank.org/indicator/EN.POP.DNST?end=2018&start=1961&view=map>

xxiii <https://www.fcc.gov/general/measuring-broadband-america>

xxiv [mdt-roadmap-measuring-broadband-quality.pdf \(oecd.org\)](#) ("these are advertised speeds and not actual experienced speeds, which can be significantly lower"); D. Brake & A. Bruer, Information Technology & Innovation Foundation, "Broadband Myths: Are High Broadband Prices Holding Back Adoption?" (February 8, 2021) <https://itif.org/publications/2021/02/08/broadband-myths-are-high-broadband-prices-holding-back-adoption>.

xxv FCC, 2020 Communications Marketplace Report, at paras. 299-300 and Appendix G, <https://www.fcc.gov/document/fcc-releases-2020-communications-marketplace-report>

xxvi Becky Chao & Claire Park, *The Cost of Connectivity 2020*, Open Technology Institute (July 2020), https://d1u8sb8igg2f8e.cloudfront.net/documents/The_Cost_of_Connectivity_2020_XatkXnf.pdf, at 38. Note that this acknowledgement comes even with the study's significant errors, including improperly comparing prices for foreign plans offered by niche urban providers and in foreign capital cities with prices for plans available in mid-sized and small cities or with nationwide plans; and ignoring sometimes substantial subsidies to foreign operators and additional costs and fees for municipal operators and Google fiber. See, e.g. D. Brake & A. Bruer, Information Technology & Innovation Foundation, "Broadband Myths: Are High Broadband Prices Holding Back Adoption?" (February 8, 2021) <https://itif.org/publications/2021/02/08/broadband-myths-are-high-broadband-prices-holding-back-adoption>

