

Valley Vision 2020 Six County Broadband Infrastructure Report Card

Valley Vision Six County Primary Broadband Infrastructure Grades				
	Grade	GPA	Change since 2019	Change since 2016
El Dorado County	D-	0.7	0.1	(0.1)
Placer County	D-	0.8	0.2	(0.4)
Sacramento County	C+	2.3	0.3	0.0
Sutter County	D+	1.5	0.2	0.2
Yolo County	D-	0.7	0.1	(0.8)
Yuba County	D+	1.4	0.2	0.3
Region	D+	1.6	0.2	(0.2)

Broadband infrastructure grades compare the primary, wireline infrastructure in a region, county, town or census block to the Californian average:

- A Superior infrastructure.** At least two competing primary wireline providers. At least one advertizing fiber-to-the-premise service at a minimum of 1 Gbps download/500 Mbps upload speeds, and another offering service at a minimum of 400 Mbps download/20 Mbps upload speeds using any technology.
- B Above average infrastructure.** At least two competing primary wireline providers. At least one advertizing service at a minimum of 900 Mbps download/35 Mbps upload speeds, and another offering service at a minimum of 100 Mbps download/20 Mbps upload speeds.
- C Average infrastructure.** At least two competing primary wireline providers. At least one advertizing service at a minimum of 400 Mbps download/20 Mbps upload speeds, and another offering service at a minimum of 30 Mbps download/5 Mbps upload speeds.
- D Barely passing.** At least one wireline provider that meets the Central Coast Broadband Consortium/Monterey Bay Economic Partnership minimum standard of 100 Mbps download and 20 Mbps upload speeds.
- F Fail.** At least one wireline provider offers service, but no service is available that meets the Central Coast Broadband Consortium/Monterey Bay Economic Partnership minimum standard of 100 Mbps download and 20 Mbps upload speeds.
- F- Unserved.** No broadband service available

El Dorado County	2020 Grade	2020 GPA	2016 Change	Pop 2019	<i>Population at download/upload speed (Mbps)</i>				1,000/ 500
					6/1	10/1	25/3	100/20	
Auburn Lake Trails CDP	F+	0.5	0.0	3,629	81%	81%	81%	43%	43%
Cameron Park CDP	C-	1.7	0.1	19,311	96%	96%	96%	96%	0%
Camino CDP	D-	0.9	0.1	1,854	98%	98%	98%	98%	0%
Cold Springs CDP	B+	3.3	3.0	472	100%	100%	100%	100%	89%
Coloma CDP	D-	0.9	0.9	560	95%	95%	95%	95%	95%
Diamond Springs CDP	D+	1.6	0.8	11,692	90%	90%	90%	90%	42%
El Dorado Hills CDP	C-	1.8	0.1	44,609	97%	97%	97%	97%	8%
Georgetown CDP	F+	0.6	0.3	2,387	68%	68%	68%	48%	48%
Grizzly Flats CDP	F	0.0	0.0	1,129	79%	79%	0%	0%	0%
Placerville city	D	1.1	0.2	10,917	96%	96%	95%	95%	8%
Pollock Pines CDP	D-	0.9	0.1	7,279	99%	99%	99%	99%	0%
Shingle Springs CDP	D+	1.5	0.0	4,695	97%	97%	97%	97%	0%
South Lake Tahoe city	F	0.0	(1.0)	22,799	98%	98%	97%	3%	0%
Tahoma CDP	D-	0.7	0.7	826	75%	75%	75%	75%	0%
Rest of El Dorado County	F	0.2	(0.1)	59,565	50%	49%	46%	29%	10%
El Dorado County total	D-	0.7	(0.1)	191,726	81%	81%	79%	62%	10%

Placer County	2020 Grade	2020 GPA	2016 Change	Pop 2019	Population at download/upload speed (Mbps)				1,000/ 500
					6/1	10/1	25/3	100/20	
Alta CDP	F	0.0	(0.1)	655	0%	0%	0%	0%	0%
Auburn city	D-	0.8	(0.1)	14,384	99%	99%	99%	48%	47%
Carnelian Bay CDP	F	0.0	(1.0)	563	100%	100%	100%	0%	0%
Colfax city	F	0.0	(0.2)	2,073	87%	87%	86%	0%	0%
Dollar Point CDP	F	0.0	(1.0)	1,305	95%	95%	95%	4%	0%
Dutch Flat CDP	F	0.0	0.0	172	34%	34%	0%	0%	0%
Foresthill CDP	F	0.0	(0.9)	1,593	85%	85%	85%	0%	0%
Granite Bay CDP	F	0.1	(1.6)	21,919	96%	96%	92%	9%	0%
Kings Beach CDP	F	0.0	(1.0)	4,078	99%	99%	99%	1%	0%
Kingvale CDP	F	0.0	0.0	2	0%	0%	0%	0%	0%
Lincoln city	D-	0.9	(1.9)	48,263	100%	100%	98%	70%	19%
Loomis town	F+	0.5	(0.3)	6,887	96%	96%	95%	47%	43%
Meadow Vista CDP	F	0.0	(0.7)	3,456	99%	99%	99%	18%	18%
Newcastle CDP	F	0.0	(0.3)	1,315	77%	77%	39%	0%	0%
North Auburn CDP	F+	0.6	(0.2)	13,281	95%	95%	95%	52%	51%
Penryn CDP	F	0.1	(0.4)	893	86%	86%	78%	13%	0%
Rocklin city	D-	0.7	(1.4)	68,957	99%	99%	99%	71%	18%
Roseville city	C-	1.9	(0.8)	139,540	100%	100%	99%	98%	20%
Sheridan CDP	F	0.0	0.0	1,330	1%	1%	1%	0%	0%
Sunnyside-Tahoe City CDP	D-	0.7	(0.3)	1,673	94%	94%	93%	48%	0%
Tahoe Vista CDP	F	0.0	(1.0)	1,540	89%	89%	89%	0%	0%
Tahoma CDP	F	0.1	0.1	442	48%	48%	37%	37%	0%
Rest of Placer County	F	0.2	(0.2)	61,053	60%	60%	57%	22%	8%
Placer County total	D-	0.8	(0.7)	395,377	92%	92%	91%	64%	18%

Sacramento County	2020 Grade	2020 GPA	2016 Change	Pop 2019	Population at download/upload speed (Mbps)				1,000/500
					6/1	10/1	25/3	100/20	
Antelope CDP	D+	1.6	(0.6)	49,044	98%	98%	96%	96%	0%
Arden-Arcade CDP	B	3.0	(0.7)	98,779	99%	99%	99%	99%	32%
Carmichael CDP	C+	2.5	(0.2)	66,179	99%	99%	99%	99%	9%
Citrus Heights city	D	1.1	(0.7)	88,094	98%	98%	97%	97%	0%
Clay CDP	F	0.0	0.0	1,280	0%	0%	0%	0%	0%
Courtland CDP	F	0.0	0.0	380	32%	32%	0%	0%	0%
Elk Grove city	C	2.2	(1.1)	174,025	99%	99%	99%	98%	1%
Elverta CDP	D	1.0	0.0	5,885	100%	100%	100%	100%	0%
Fair Oaks CDP	C	2.2	0.4	33,123	98%	98%	98%	98%	0%
Florin CDP	D+	1.4	(0.4)	50,910	99%	99%	99%	99%	2%
Folsom city	C	2.0	0.1	79,835	99%	99%	99%	99%	1%
Foothill Farms CDP	C-	1.8	0.2	35,490	95%	95%	95%	94%	0%
Franklin CDP	D-	0.7	(1.0)	166	63%	63%	63%	63%	0%
Freeport CDP	F	0.0	0.0	41	0%	0%	0%	0%	0%
Fruitridge Pocket CDP	A-	3.9	0.5	6,215	100%	100%	100%	100%	99%
Galt city	C-	1.7	0.0	26,489	99%	99%	99%	99%	0%
Gold River CDP	C	2.1	0.2	8,478	100%	100%	100%	100%	0%
Herald CDP	F	0.1	0.0	1,269	29%	29%	16%	16%	16%
Hood CDP	F	0.0	0.0	290	0%	0%	0%	0%	0%
Isleton city	F	0.0	(1.0)	871	19%	19%	19%	0%	0%
La Riviera CDP	C	2.2	0.4	11,575	100%	100%	100%	100%	0%
Lemon Hill CDP	B+	3.3	1.5	14,711	100%	100%	100%	100%	67%
Mather CDP	C+	2.5	0.5	4,769	100%	100%	100%	100%	10%
McClellan Park CDP	D+	1.5	(0.8)	796	99%	99%	72%	72%	0%
North Highlands CDP	C	2.2	0.1	45,748	98%	98%	98%	98%	4%
Orangevale CDP	D+	1.6	0.0	36,389	98%	98%	98%	98%	3%
Parkway CDP	B	3.1	1.2	15,719	100%	100%	100%	100%	73%
Rancho Cordova city	C+	2.4	0.4	74,464	99%	99%	99%	99%	15%
Rancho Murieta CDP	F	0.0	0.0	5,881	28%	28%	1%	1%	0%
Rio Linda CDP	C-	1.9	0.8	16,186	100%	100%	100%	100%	31%
Rosemont CDP	C+	2.4	0.5	24,303	100%	100%	100%	100%	10%
Sacramento city	B-	2.9	0.5	504,896	98%	98%	98%	98%	37%
Vineyard CDP	D	1.0	(0.7)	26,612	99%	99%	98%	98%	0%
Walnut Grove CDP	F	0.0	(0.8)	1,652	44%	44%	44%	0%	0%
Wilton CDP	F	0.1	(0.6)	5,747	88%	88%	75%	15%	0%
Rest of Sacramento County	F+	0.3	(0.2)	26,522	62%	61%	57%	48%	2%
Sacramento County total	C+	2.3	0.1	1,542,814	97%	97%	97%	96%	18%

Sutter County	2020 Grade	2020 GPA	2016 Change	Pop 2019	<i>Population at download/upload speed (Mbps)</i>				1,000/ 500
					6/1	10/1	25/3	100/20	
East Nicolaus CDP	F	0.0	0.0	222	64%	64%	0%	0%	0%
Live Oak city	D	1.0	0.0	8,840	100%	100%	100%	100%	0%
Meridian CDP	D-	0.9	0.9	353	95%	95%	95%	95%	95%
Nicolaus CDP	F	0.0	0.0	208	9%	9%	0%	0%	0%
Rio Oso CDP	F	0.0	0.0	351	0%	0%	0%	0%	0%
Robbins CDP	F	0.0	0.0	318	0%	0%	0%	0%	0%
Sutter CDP	B-	2.8	1.0	2,863	100%	100%	100%	100%	50%
Trowbridge CDP	F	0.0	0.0	223	53%	53%	0%	0%	0%
Yuba City city	C+	2.3	0.5	67,333	99%	99%	99%	99%	13%
Rest of Sutter County	F+	0.5	0.1	16,567	68%	68%	66%	65%	7%
Sutter County total	D+	1.5	0.3	97,277	93%	93%	92%	92%	12%

Yolo County	2020 Grade	2020 GPA	2016 Change	Pop 2019	<i>Population at download/upload speed (Mbps)</i>				1,000/ 500
					6/1	10/1	25/3	100/20	
Clarksburg CDP	F	0.0	0.0	535	55%	55%	55%	0%	0%
Davis city	C	2.2	0.3	69,723	100%	100%	100%	100%	7%
Dunnigan CDP	F	0.0	0.0	1,811	44%	44%	0%	0%	0%
Esparto CDP	F	0.0	0.0	3,976	81%	81%	0%	0%	0%
Guinda CDP	F	0.0	0.0	325	0%	0%	0%	0%	0%
Knights Landing CDP	F	0.0	0.0	1,273	82%	82%	82%	0%	0%
Madison CDP	F	0.0	(0.7)	641	97%	97%	97%	0%	0%
Monument Hills CDP	F	0.0	(0.7)	1,972	55%	55%	55%	0%	0%
University of California Davis CDP	F+	0.3	(0.2)	5,374	14%	14%	14%	14%	0%
West Sacramento city	F+	0.6	(1.3)	53,777	98%	98%	98%	60%	15%
Winters city	F	0.1	(0.8)	7,417	99%	99%	98%	23%	18%
Woodland city	F+	0.5	(1.4)	59,755	98%	98%	98%	60%	10%
Yolo CDP	F	0.0	0.0	576	0%	0%	0%	0%	0%
Rest of Yolo County	F	0.0	(0.1)	12,674	27%	27%	25%	15%	0%
Yolo County total	D-	0.7	(0.6)	219,828	91%	91%	89%	64%	9%

Yuba County	2020 Grade	2020 GPA	2016 Change	Pop 2019	Population at download/upload speed (Mbps)				1,000/ 500
					6/1	10/1	25/3	100/20	
Beale AFB CDP	D-	0.7	(0.3)	1,435	68%	68%	68%	68%	0%
Camptonville CDP	F	0.0	0.0	172	0%	0%	0%	0%	0%
Challenge-Brownsville CDP	F	0.0	0.0	1,249	0%	0%	0%	0%	0%
Dobbins CDP	F	0.0	0.0	679	2%	2%	2%	0%	0%
Linda CDP	B-	2.8	0.9	19,329	99%	99%	99%	99%	43%
Loma Rica CDP	F	0.0	0.0	2,575	0%	0%	0%	0%	0%
Marysville city	B-	2.7	0.6	11,934	100%	100%	100%	100%	22%
Olivehurst CDP	C	2.2	0.4	14,852	100%	100%	100%	100%	5%
Plumas Lake CDP	C-	1.8	0.3	6,366	100%	100%	100%	100%	11%
Smartsville CDP	F+	0.5	0.5	193	76%	76%	49%	49%	49%
Wheatland city	D	1.0	0.0	3,703	100%	100%	100%	100%	0%
Rest of Yuba County	F	0.2	0.1	14,289	33%	33%	32%	28%	5%
Yuba County total	D+	1.4	0.3	76,773	80%	80%	80%	79%	17%

Methodology

In a study conducted for the East Bay Broadband Consortium (EBBC) in 2013¹, in cooperation with the Central Coast Broadband Consortium, core broadband infrastructure was evaluated in Alameda, Contra Costa and Solano Counties using data submitted to the California Public Utilities Commission by Internet service providers. A comparative report card was developed, with the average grade – “C” – set at the most prevalent infrastructure, and corresponding service levels, available to residents of California.

This methodology has been used by the Central Coast Broadband Consortium to evaluate Californian broadband infrastructure and service on a statewide basis, on behalf of the California Emerging Technology Fund and the California Center for Rural Policy, and to do in-depth analysis of broadband service and infrastructure in Monterey, Santa Cruz and San Benito counties.

Although the broadband speeds offered by cable and telephone companies have increased over the past seven years, the relationship between average cable company service and average telephone company service has remained stable, as have comparisons of various telephone company service offerings across different communities in California.

The average Californian has access to broadband service from a cable and a telephone company offering, respectively, relatively high speed cable modem and mid-range telephone company DSL facilities. Availability of fiber to the premise service is growing, but it is not yet the norm.

The primary data for assessing the quantity and quality of broadband infrastructure comes from the California Public Utilities Commission, which collects service level reports submitted by providers to the Federal Communications Commission annually, and then runs that data through a validation process. The most recent data available was submitted by carriers as of 31 December 2018. This data can be broken down to the census block level, and shows what level of service Internet companies claim to provide, but not necessarily what they deliver. The accuracy of this data and the definition of service levels varies from company to company, although it is generally consistent within any given company. In other words, if Company Z exaggerates the speeds and availability of home Internet service, it tends to do so to more or less the same extent everywhere. By using a comparative system for ranking, rather than using the absolute values provided, the variation in the accuracy of the data can be smoothed out and an apples-to-apples comparison can be achieved.

Consumer-grade service throughout California was assessed, and the averages of available service (median, mode and mean) used as one of the two primary grading benchmarks. The other benchmark was the minimum level of service of 100 Mbps download and 20 Mbps upload speeds, which was determined by a 2018 study conducted by the Central Coast Broadband Consortium and the Monterey Bay Economic Partnership² to be the minimum necessary to conduct business, do homework, enjoy online entertainment and otherwise fully participate in today’s digital economy.

¹ *East Bay Broadband Report Card*, Tellus Venture Associates, 28 January 2014.

² *Achieving Ubiquitous Broadband Coverage in the Monterey Bay Region*, Monterey Bay Economic Partnership, November 2018.

Upload speed was given equal weight to download speed because upload speed provides a reliable indication of the capacity of the underlying infrastructure. It is increasingly important to consumers and businesses alike. When a service provider skimps on upload speeds, as frequently happens, it is usually because its cables and other core equipment have a limited capacity.

The data was examined, and irrelevant data points that skewed results were removed. Grades were then assigned according to the criteria in the table above.

A "C" grade indicates that consumer grade broadband service, and consequently the underlying core infrastructure, in a given area meets the statewide average. A "D" grade means it meets the minimum service standard determined by the CCBC/MBEP study. "F" grades indicate full or partial failure. "A" and "B" grades show that service in an area is superior to the California average.

The first step in grading was to give a letter grade to each census block in California. Then, the grade points were tallied, weighted by population and averaged for the census blocks within cities, counties and unincorporated areas, to produce a numerical grade on a four point scale, which was rounded to the nearest tenth.

The numerical grade point average for an area was then converted to a letter grade on the following scale:

Infrastructure Grade Point Scale					
A	4.0	C+	2.3-2.6	D-	0.7-0.9
A-	3.7-3.9	C	2.0-2.2	F+	0.3-0.6
B+	3.3-3.6	C-	1.7-1.9	F	0.0-0.2
B	3.0-3.2	D+	1.3-1.6	F-	No service available
B-	2.7-2.9	D	1.0-1.2		