

SLOWER AND MORE EXPENSIVE

SOUNDING THE ALARM: DISPARITIES IN ADVERTISED PRICING FOR FAST, RELIABLE BROADBAND

TABLE OF CONTENTS

P1. Executive Summary

P4. Background

P7. Key Findings: Internet is Slower and More Expensive in High

Poverty Neighborhoods

P12. Case Studies

P17. Impact: Price, Demographics, and Disconnection in Two Los Angeles

Communities

P21. Impact: Reduced Efficacy of

Subsidies

P23. Call to Action

P26. Appendix A: Map and Tables

P45. Appendix B: Definitions and

Methodology Notes

P47. Appendix C: Beyond LA County

P50. Endnotes





Over the last two years, in California and across the country, billions of public dollars have been allocated to end the digital divide. The Digital Equity LA coalition, supported by the California Community Foundation (CCF) Digital Equity Initiative, has mobilized to ensure these investments are directed to the communities that need them most - those that have been historically marginalized and are disproportionately disconnected - and deployed in support of the most effective long-term solutions.

Low-income households, people of color, and immigrants are significantly more likely to be stranded on the wrong side of the digital divide than people living in wealthy, white neighborhoods. The most common reason disconnected people report for not having a fast and reliable connection is affordability; the price is too high, or the service they can afford isn't fast or reliable enough to justify the expense.

Digital Equity LA and the CCF Digital Equity Initiative set out in this report to document what people are being asked to pay for home internet in diverse neighborhoods across Los Angeles County. The findings of this report are sobering, raising significant red flags about the higher prices many poorer communities are being charged for the same or inferior service, and the implications of those pricing disparities on the effectiveness of current interventions to close the digital divide.

This report is action-driven research intended to lift up the experience of those most affected by inequitable access to broadband. It represents a snapshot documenting the prices on offer to residents of diverse neighborhoods across LA County.





This community-led and community-driven effort is intended to shine a light on what is a well-known reality on the ground, in communities that live the consequences of historic and persistent underinvestment and disinvestment: **systemic discrimination is incessant, underinvestigated, and too rarely addressed head-on.**

This report raises critical questions, speaking truth to the barriers that continue to limit equitable access to broadband in Los Angeles County.

Pricing information was obtained directly from internet service provider (ISP) websites using residential addresses in each of the neighborhoods examined. The monopoly provider in much of LA County is Charter Communications, operating as Spectrum. According to Charter's filings with the California Public Utilities Commission (CPUC), it serves approximately 97% of households in the county. The next largest provider, Frontier, serves 21%. Therefore, most of the pricing data included in this research is for Charter Spectrum service.



Published pricing for Charter Spectrum service shows a clear and consistent pattern of the provider reserving its best offers - high speed at low cost - for the wealthiest neighborhoods in LA County.

SUNDINGS:

People who live in higher poverty neighborhoods are not only routinely offered slower service at higher prices, but are offered **contracts with worse terms and conditions.** For example, Charter Spectrum's promotional offers - guaranteeing a period of time before prices will increase - are for two years in wealthy communities, but for just one year in high-poverty communities.



Charter Spectrum's **low-cost plans are not consistently advertised to households in high-poverty neighborhoods.**





Digital Equity LA and CCF call on leaders in Los Angeles County, cities across the County, the CPUC, and the California legislature to:

- Investigate these findings of potentially discriminatory disparities in advertised pricing for fast and reliable internet service and their implications for closing the digital divide.
- Make equal access the policy of the State of California.
- Build equal access into state, county, and local procurement policy.
- Support independent, community-driven options for internet service.

About the CCF Digital Equity Initiative and Digital Equity LA

CCF launched the Digital Equity Initiative in 2021 as a multi-year project to advance system change solutions to ensure equitable access to fast, reliable, and affordable broadband for every resident of Los Angeles County. More: calfund.org/digital-equity-initiative

Digital Equity LA is a coalition of more than forty community-basedorganizations working in Los Angeles communities delivering vital education, housing, immigration, health care, and civic engagement services, supporting Los Angeles' vulnerable communities, and working together to advance digital equity as a necessary precondition to meet their core missions. The CCF Digital Equity Initiative provides financial and programmatic resources in support of Digital Equity LA. More: digitalequityla.org





BACKGROUND

One of the most durable images of the COVID pandemic was two elementary school students in Salinas, California, sitting in a Taco Bell parking lot with their school computers on their laps, trying to connect to the restaurant's Wi-Fi because they had no connectivity at home.¹

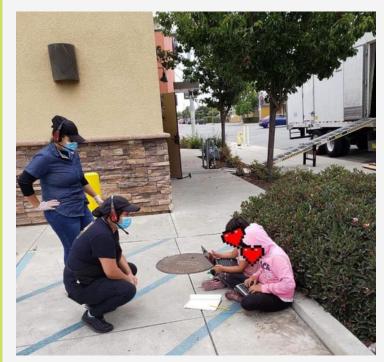


Photo <u>tweeted</u> by Monterey County Supervisor Luis Alejo with the text, "we must do better & solve this digital divide once & for all for all California students."

The image documented a reality that COVID exacerbated but which persisted long before the pandemic in communities across California and Los Angeles County: deeply inequitable access to fast, reliable, and affordable internet left far too many of our communities on the wrong side of the digital divide, cut off from a basic necessity.

Lack of access to fast, reliable and affordable broadband is a long-standing barrier to equity in Los Angeles County and beyond, but the COVID pandemic made plain its catastrophic impacts across all sectors in our communities.

The tragedy of thousands of Los Angeles students from pre-K to college unable to access their virtual classrooms due to poor or absent broadband connectivity is well documented. Less examined, but equally unacceptable, are the ways the digital divide deepens Angelenos' persistent barriers to health care, economic opportunity, government services, and housing support, as well as to participation in the community's civic life through Census 2020, voter registration, and public meetings which all moved inexorably online.





Post-pandemic, equitable access to a high-speed and reliable internet connection at a price that is sustainably affordable remains a vital necessity for full participation in society. With many healthcare providers switching to telehealth, rent relief programs going online, online education becoming more widespread, job applications moving online, and nearly every aspect of modern life moving (and staying) online, the need to close the digital divide is no less urgent today than it was during the peak of pandemic "safer at home" measures.

Research has consistently identified a simple reason that many families do not have access: they cannot afford it. A 2021 study documenting connectivity in California found that 30% of households with income below \$20,000 per year (just under the federal poverty line for a three-person household) do not have a broadband subscription, compared to 9% of households overall. 25% of Spanish-speaking households are disconnected. Los Angeles and the Central Valley lag behind the rest of the state in terms of connectivity: 19% of Angelenos are disconnected - nearly two million people. 70% of unconnected and underconnected people report they don't have the internet because it is "too expensive." This tracks with national research findings that cost or cost-benefit reasons are offered by nearly 75% of people who don't have broadband at home. ³

The primary approach to addressing this affordability crisis in recent years has been subsidies. First was the Emergency Broadband Benefit (EBB), a \$50 per month subsidy paid by the federal government to participating ISPs to be passed on in the form of bill credits to enrolled eligible households. The program expired and was renewed as the Affordable Connectivity Program (ACP), a \$30 per month subsidy, again paid directly to ISPs to pass through as bill credits to enrolled eligible

Research has consistently identified a simple reason that many families do not have internet at home: they cannot afford it.

households.⁴ \$14.2 billion in funding was allocated to the ACP; without a renewed budget the program will end sometime between March 2024 and December 2025 when funding runs out.⁵

In 2021, Governor Newsom signed into law three bills, SB156, SB4, and AB14,⁶ that together provide for billions of dollars in funding to build broadband infrastructure to every corner of the state and every disconnected neighborhood in rural, exurban, suburban, and urban communities.⁷ The subsequently passed federal Infrastructure Investment and Jobs Act provides an additional \$42.5 billion in taxpayer funding to close the digital divide; California's share of that allocation may be more than \$2 billion to fund broadband infrastructure deployment.⁸



Other states' broadband work offers cautionary tales. Examples of national publicly traded internet service providers (ISPs) laying claim to hundreds of millions of taxpayer dollars with dubious benefit to the public are myriad. In Montana, half of the state's broadband grants were awarded to Charter Communications (providing service as "Spectrum") before watchdogs rang alarm bells about the company's documented history of "cherry picking" their coverage areas to maximize profit over equitable service. Yet in late 2020, Charter was awarded \$1.22 billion in public funding to expand its service footprint and build its subscriber base in rural areas in 24 states, and as of August 2022 Charter and Comcast were the largest beneficiaries of state broadband grants, with each receiving more than \$100 million in public funding.

In recent weeks, the Attorneys General of both Connecticut ¹² and Indiana ¹³ won settlement agreements from Frontier Communications, requiring the company to invest tens of millions of dollars to build out their infrastructure to deliver service they had long promised residents (and charged them for) but failed to deliver. In both states, the company was found to be charging customers for service speeds they were not delivering, charging hidden and confusingly labeled "fees", and failing to provide reliable service in areas where they were the monopoly provider. At the same time, Frontier has announced its intentions to leverage public dollars to expand its footprint. ¹⁴ As reported by Fierce Telecom, "all told, since it began pursuing grants in mid-2021 after emerging from bankruptcy in April, Frontier has received more than \$70 million in state funding, with more than \$22.4 million of that coming in 2022 alone."

How a monopoly incumbent ISP operates in Los Angeles' historically marginalized and underserved communities deserves attention and further exploration.

Charter, Comcast, and other national incumbent providers have aggressively moved to block municipalities and other public agencies from building out broadband solutions even in geographies where they were not competing for those dollars. In many cases, those challenges so overwhelmed community efforts that they quashed community-driven solutions almost without a fight. 17

With that context in mind and as the CPUC, California Department of Technology, California Broadband Council, and county and municipal governments across the state, including in Los Angeles County, are engaged in planning and preparation to make investments to finally, and for generations to come, eradicate the digital divide, this analysis of how a monopoly incumbent ISP operates in Los Angeles' historically marginalized and underserved communities deserves attention and further exploration.

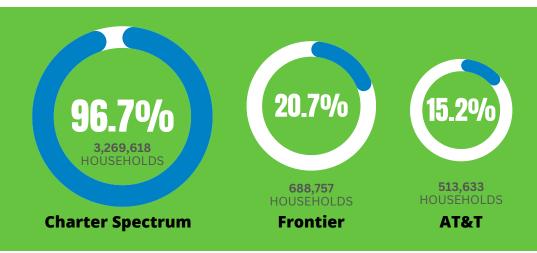




KEY FINDINGS

Internet is Slower and More Expensive in High-Poverty Neighborhoods

Digital Equity LA and CCF documented advertised service options at a sample of 165 residential addresses across LA County by shopping for service on ISP's websites. Advertised offers were documented for each of the ISPs that report to the CPUC that they deploy internet service with technology meeting current broadband standards to at least 5% of households in Los Angeles County. Three ISPs met that threshold at the end of 2020:¹⁸



Cox is the next largest provider in LA County, serving just 43,244 households in the County (1.3%), in Rancho Palos Verdes and one community in Torrance.¹⁹ Charter, Frontier, and AT&T provide "fixed" residential service - service via a stationary, usually wired, connection, rather than over a mobile network. The largest wireless provider of home internet in the County, GeoLinks, reports serving just over 30,000 households in the County - less than 1%.²⁰

US census tract data, including the poverty rate and percentage of nonwhite residents in that census tract, was recorded for each residential address and the pricing data analyzed across those data points. Census tracts are stable geographies of roughly 4,000 people - a proxy for a "neighborhood." ²¹





Charter Spectrum, the Monopoly ISP for Most Angelenos, Offers Better Pricing for High Speed Internet in Wealthier Neighborhoods

Analysis of advertised prices for a range of service tiers offered at 165 residential addresses in Los Angeles County's 88 cities and unincorporated communities reveals several clear patterns:



Most Angelenos are subject to a broken monopoly market for broadband

Charter Spectrum is the only internet service option for the majority of addresses examined for this study. This is not a surprise given the coverage areas reported to the CPUC: Charter Spectrum claims to serve 96.7% of the County, AT&T and Frontier each claim to cover about a fifth of the County, with all other providers claiming coverage of 1.5% or less.



Charter Spectrum's advertised prices vary widely from neighborhood to neighborhood



Charter Spectrum's standard service tier is "Internet Ultra"

"Internet Ultra" is Charter Spectrum's branded service offering of up to 500 megabits per second (Mbps) download speed. Internet Ultra is the only tier of service offered at every address in this study, with slower "Internet" (300Mbps) offered to just over three-quarters of households and "Internet" (100Mbps) advertised to less than a quarter of households.



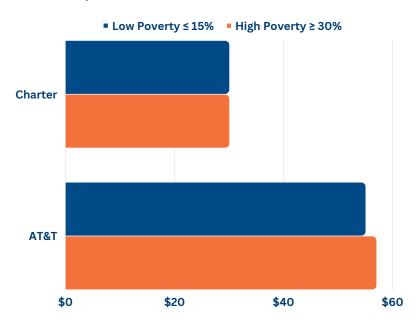
Charter Spectrum offers better pricing, under better terms and conditions, to residents in wealthier neighborhoods





Average Advertised Prices: Higher Prices for High Speed Service Tiers in High Poverty Neighborhoods²²

100Mbps Service Tier Advertised Price: \$30



"Internet 100", the brand name for Charter Spectrum's service tier offering up to 100Mbps download speeds, is advertised at 34 of the 165 addresses in this study, in census tracts with poverty rates ranging from 3% to 34%. The price for this tier of service is a consistent \$30 per month at every address it is offered.

AT&T's 100Mpbs or slower service tiers, offered as "Internet 100," "Internet 75," and "Internet 50," are advertised to 26 of the 165

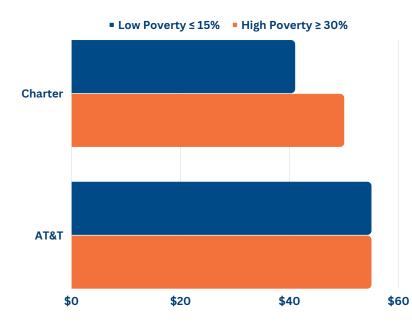
addresses in this study, in census tracts with poverty rates ranging from 3% to 45%. Of note: where AT&T offers Internet 100 or slower, that is the only AT&T service available - faster speeds are not on offer. This is likely because the slower service is available on outdated technology that has not been upgraded. The advertised price of AT&T's slowest service offering is \$55 per month at every address save one in this study, where it is offered for \$60.

Frontier does not offer a 100Mbps service tier.





300Mbps Service Tier Average Charter Spectrum Offer: \$41 in low poverty neighborhoods, \$50 in high poverty neighborhoods



"Internet", the brand name for Charter Spectrum's service tier offering up to 300Mbps download speeds, is advertised at 133 of the 165 addresses in this study. The average price for this faster service tier is \$9 per month higher in high poverty neighborhoods than in wealthy neighborhoods: \$50 per month versus \$41 per month.

The best advertised price for Charter Spectrum"Internet" 300Mbps service tier is \$20 per month for two years before the

price will go up, and is available to residents in census tracts with poverty rates ranging from 2% to 19%. At every address in a high poverty census tract (those with a poverty rate of 30% or higher), Charter Spectrum's advertised rate for their "Internet" service tier is \$30 per month higher that their best advertised rate: \$50 per month, with a guarantee that prices will not be increased for just one year.

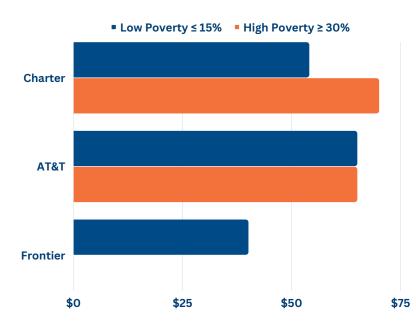
"Internet 300", the brand name for AT&T's 300Mbps offering is available at 18 of the addresses in this study, five of them in high poverty census tracts. AT&T's pricing for this service tier is consistent at \$55 per month for one year.

Frontier does not advertise a 300Mbps service tier at any of the addresses in this study.





500Mbps Service Tier Average Charter Spectrum Offer: \$54 in low poverty neighborhoods, \$70 in in high poverty neighborhoods



"Internet Ultra", the brand name for Charter Spectrum's service tier offering up to 500Mbps download speeds, is the only Charter service tier advertised at every address examined in this study.

The average price for this standard Charter Spectrum service tier is \$16 per month higher in high poverty neighborhoods than in wealthy neighborhoods: \$70 versus \$54 per month.

The best advertised price for Charter Spectrum "Internet Ultra" service is \$30 per month, guaranteed not to go up for two years. This deal is only offered in census tracts with poverty rates ranging from 2% - 19%; we did not find a single example of an address in a high poverty census tract that was offered this lowest price.

At every address in a high poverty census tract (those with a poverty rate of 30% or higher), Charter Spectrum's advertised price for "Internet Ultra" service is \$40 per month higher than its best advertised rate: \$70 per month, guaranteed not to go up for one year.

"Internet 500", the brand name for AT&T's 500Mpbs offering is available at 16 of the addresses in this study, split about evenly between high poverty and low poverty census tracts and offered at a standard price of \$65/month for one year.

Frontier's 500Mbps offering is available at 39 of the addresses in this study, all but six in census tracts with poverty rates lower than 15% and none in 30%+ poverty rate census tracts. Frontier advertises a standard price of \$40 per month.

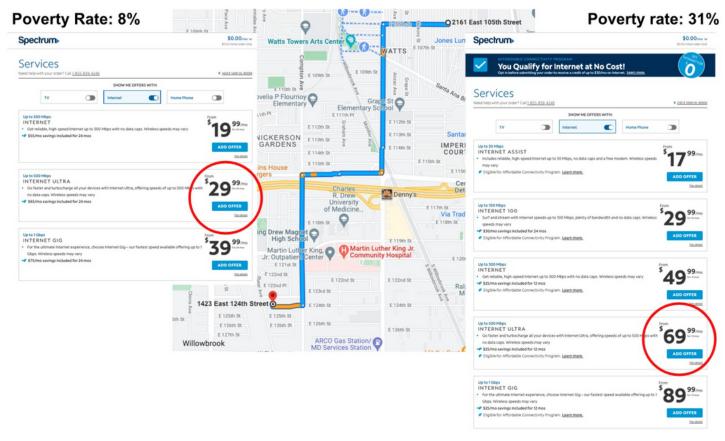




CASE STUDIES

Case Study 1

Watts and Willowbrook: Charter Spectrum service is \$40 more expensive in a high poverty neighborhood than in a low poverty neighborhood just two miles away.



In South LA, a Willowbrook neighborhood with a low poverty rate (8% of residents in the census tract live below the federal poverty line) Charter Spectrum advertises affordable offers for fast internet service. For just \$30 per month, a price guaranteed not to rise for 2 years, households can access Charter Spectrum's "Internet Ultra" service tier providing up to 500Mbps download speeds, enough for a household of three or more people to engage in online education, remote work, and telehealth as well as powering "smart home" connected devices like thermostats and video baby monitors. (We note here that Willowbrook is generally considered a higher poverty community; the neighborhood examined here happens to be one of its lower poverty census tracts.)



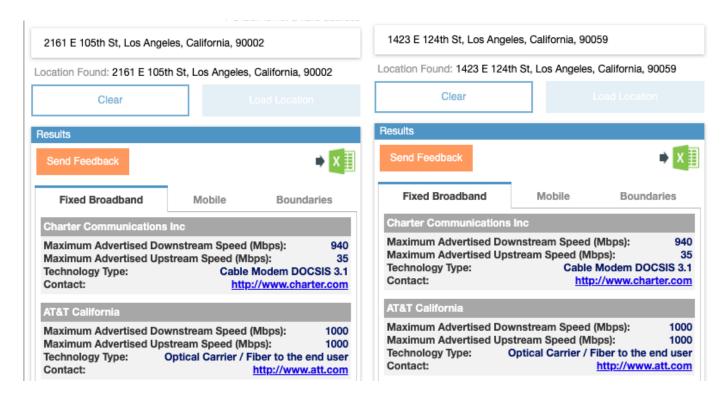


About 2 miles away, in a neighborhood in Watts with a poverty rate of 31% - just under a third of residents live below the federal poverty line - the same Internet Ultra service tier is offered at \$70 per month, a price that will increase to \$95 after one year.

Over the first two years of Internet Ultra service, a low-income household in Watts will pay Charter Spectrum \$1,980, while a wealthier household two miles away will pay only \$720 - a \$1,260 disadvantage for the household that can least afford it.

Even if the household in Watts qualifies for and successfully enrolls in ACP, which provides for a \$30 per month subsidy (paid directly to the internet service provider), they will pay Charter Spectrum \$540 more out of pocket over the same two-year period than their wealthier neighbors.²⁴

Competitive pressures do not explain the disparity. According to the California Interactive Broadband Map,²⁵ which relies on data supplied by ISPs, both addresses are served at the same maximum advertised speeds of one gigabit download by both Charter Spectrum and AT&T, and AT&T has deployed its fiber optic infrastructure to both locations. AT&T offers its 500Mbps service at both addresses for \$65 per month, guaranteed for one year.

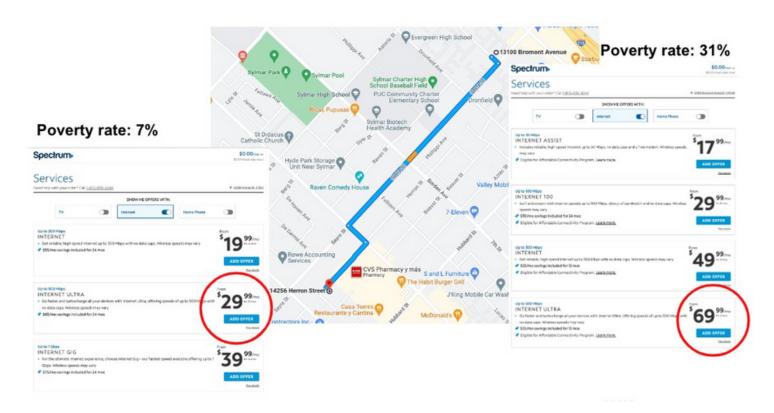






Case Study 2

Sylmar: One mile apart, 24% poverty rate difference, and \$40 price disparity for high speed Charter Spectrum service.



Two neighborhoods less than a mile apart in Sylmar get very different advertised offers for internet service from Charter Spectrum. One, centered around Bromont Avenue, is a community of apartment buildings and home to a higher proportion of people living in poverty (31%.) The other, centered on Herron Street, is a community of single family homes and a lower rate of poverty (7%.)

Charter Spectrum advertises its Internet Ultra service for \$70 per month, guaranteed not to increase for one year, in the higher poverty community on Bromont Ave. About seven blocks away, on Herron Street, Charter Spectrum advertises the same service tier for \$30 per month, guaranteed to stay that affordable for two years.



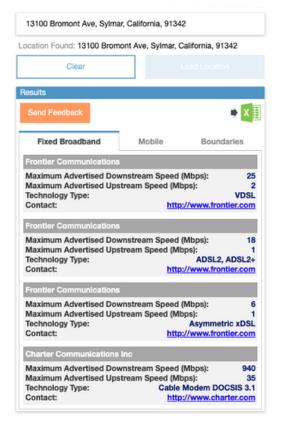


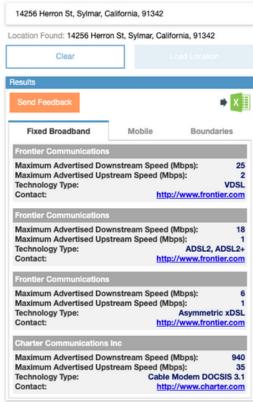
Again, over the first two years of Internet Ultra service, a low-income household on Bromont will pay Charter Spectrum \$1,980, while a better-heeled household a few blocks away on Herron St. will pay only \$720 - a \$1,260 disadvantage for the lower income household. If the household on Bromont qualifies for ACP, they will still pay Charter Spectrum \$540 more out of pocket over the same two-year period than their wealthier neighbors on Herron.

Looking at the slower service tiers, the disparities persist. Charter Spectrum offers its "Internet" service tier of up to 300Mbps speeds for \$20 per month on Herron Street (and locks that price in for two years) but advertises the same service for \$50 per month, guaranteed for just one year, on Bromont Ave, in the higher poverty neighborhood.

The \$20 per month 300Mbps Internet service tier is the slowest Charter Spectrum offers in the low poverty neighborhood on Herron Street. In the high poverty neighborhood on Bromont Ave they offer a barely-qualifies-as-broadband 30Mbps "Internet Assist" service tier for \$18 per month, with no guarantee for how long that price will stay stable. Internet Assist is advertised for just \$2 per month less than the 10-times-faster service on offer less than a mile away.

Competitive pressures do not explain the disparity between Charter Spectrum's advertised offers in these two Sylmar neighborhoods. At both addresses, Charter Spectrum is the monopoly option for internet service that meets the federal minimum standard for broadband, 25Mbps download and 3Mbps upload.



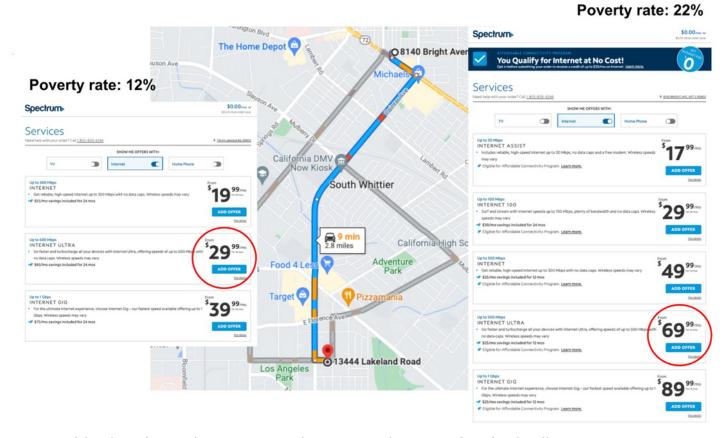






Case Study 3

Whittier: Three miles apart, 10% poverty rate difference, \$40 advertised price disparity for Charter Spectrum Internet Ultra service.



Two neighborhoods in Whittier, one with a preponderance of multi-dwelling units (i.e. apartment buildings) and the other a neighborhood of single family homes, have three miles and a 10% difference in poverty rate between them and are receiving very different Charter Spectrum advertised offers.

One, on Lakeland Road in a census tract with a poverty rate of 12%, can purchase Charter Spectrum's Internet Ultra for \$30 per month, guaranteed not to increase for two years. The other, an apartment on Bright Avenue in a census tract with a poverty rate of 22%, can purchase the same service tier for \$70 per month, a rate that will increase after just one year.

Competitive pressures do not appear to be a factor, as both addresses have access to the identical Charter and Frontier services, per reporting to the CPUC.





IMPACT EXPLORATION:

PRICE, DEMOGRAPHICS, AND DISCONNECTION IN TWO LOS ANGELES COMMUNITIES

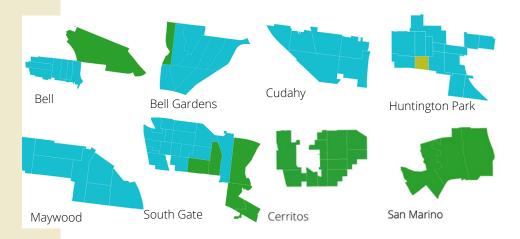
The hypothesis that in neighborhoods where prices for service are higher, fewer households will subscribe to that service, should not be controversial, especially in the context of survey data spanning years and geographies demonstrating that, where access is technically available, cost is the primary barrier to connectivity.

To examine that hypothesis, we explored two regions of Los Angeles County with low connectivity rates, high relative poverty rates, and high relative proportions of residents of color, and the advertised prices for internet service in those regions: The Southeast Los Angeles (SELA) cities, and the historically Black communities of South LA.

Disconnected and Priced Out in SELA

According to the CPUC, most census tracts in the SELA cities of Bell, Bell Gardens, Cudahy, Huntington Park, Maywood, and South Gate have a broadband adoption rate - the percentage of people in the neighborhood with a subscription to home internet service providing at least the bare minimum service level defined by the FCC as "broadband" - much lower than nearby comparison cities. In most SELA census tracts at least 20% of people are disconnected, versus a universal 80%+ connectivity rate in Cerritos and San Marino.²⁶





Addresses we examined in the SELA cities were advertised high speed service at a higher cost per month than addresses in comparison cities of Cerritos and San Marino. The pricing data set for addresses in SELA cities and comparison cities is included below (Charter Spectrum is the only ISP offering service at every addresses included; where AT&T and/or Frontier also offered service those details are noted in italics):

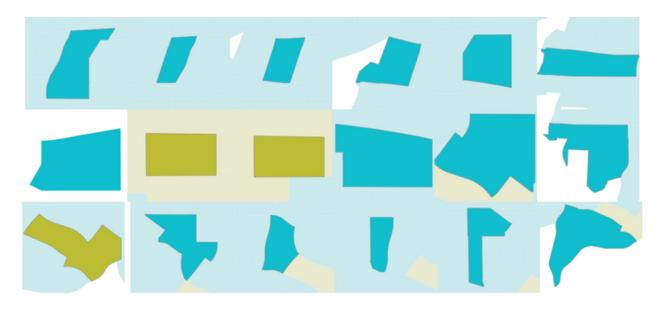
Address	Poverty Rate	% Nonwhite	Spectrum Internet 100 (100Mbps)	Spectrum Internet (300Mpbs)	Spectrum Internet Ultra (500Mbps)
Alderton Ln Cerritos, CA 90703	1%	89%			\$40 Frontier \$40
Shakespeare Dr San Marino, CA 91108	3%	77%		AT&T \$65	\$40 AT&T \$65
N Crescent Dr Beverly Hills, CA 90210	6%	12%		AT&T \$65	\$40 AT&T \$65
Santa Ana St South Gate, CA 90280	10%	66%		\$50	\$70
California Ave Huntington Park, CA 90255	16%	67%		\$50 <i>AT&T \$55</i>	\$70 AT&T \$65
Granger Ave Bell Gardens, CA 90201	20%	87%		\$50	\$70
Carmelita Ave Maywood, 90270	24%	86%	AT&T \$55	\$50	\$70
Live Oak St Cudahy, CA 90201	28%	99%		\$50	\$70
Otis Ave Bell, CA 90201	34%	81%	\$30	\$50	\$70

At the addresses in the very low poverty neighborhoods, the slowest service tier Charter Spectrum advertises is 500Mbps ("Internet Ultra"); they offer it at \$40 per month for two years. In those neighborhoods, connectivity approaches 100% - nearly everyone has a fast, reliable, and affordable connection.

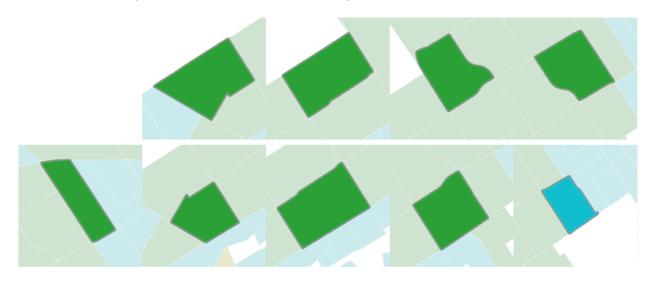
At the addresses in the higher poverty neighborhoods, the entry level service tier Charter Spectrum advertises is 300Mbps ("Internet"); they advertise it for \$10 more per month than the nearly twice as fast service they offer in high income neighborhoods: \$50 per month until it increases in one year. In these higher poverty neighborhoods, 20-40% of residents remain disconnected.

Disproportionately High Prices and Disconnectivity in LA's Historically Black Neighborhoods

CPUC maps indicate that in every one of the census tracts in South LA's historically Black neighborhoods of Baldwin Hills, Crenshaw, and West Adams, at least 20% of residents remain disconnected at even the slowest broadband speeds.²⁷ Census tracts are color-coded by connectivity rate in the images below; turquoise designates a rate of 60-80% - at least 60% of people in those census tracts have service that meets the minimum definition of broabdband at home. Olive green designates a census tract with just 40-60% of residents connected.²⁸

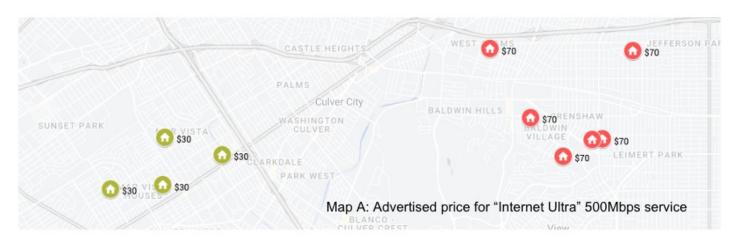


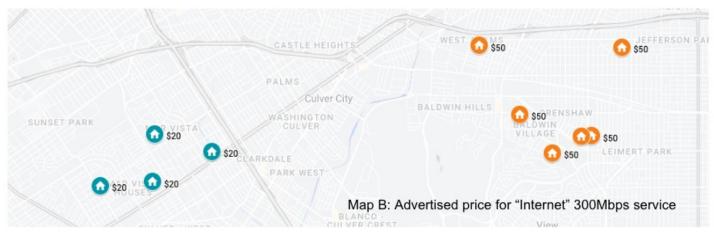
In the nearby community of Mar Vista, also in the City of Los Angeles and about five miles away, there is near universal connectivity in all but one census tract. Again, the census tracts are color-coded: green means at least 80% of residents are connected, turquoise means the connectivity rate is 60-80%.²⁹



Charter Spectrum advertises much higher prices, at less favorable terms, in the historically Black communities of Baldwin Hills, Crenshaw, and West Adams than in whiter, wealthier neighborhoods in Mar Vista just a few miles away.

The advertised prices marked in in Map A below are for Charter Spectrum's "Internet Ultra" 500Mpbs service tier, and those in Map B are for Charter Spectrum's "Internet" 300Mbps service tier. The slower 100Mbps service tier is not offered in the Mar Vista neighborhoods, and is offered for \$30 per month in the historically Black neighborhoods.





It is theoretically possible that the fact of higher prices for the best tiers of service is coincidental to fewer families in historically Black communities having internet at home than in nearby whiter, wealthier Mar Vista, where the advertised cost for service is significantly more affordable. However, the correlation is strong enough that further investigation by the City of Los Angeles, the County of Los Angeles, the CPUC and these communities' representatives in the California legislature is warranted.

IMPACT EXPLORATION: REDUCED EFFICACY OF SUBSIDIES

Cost is far and away the most consistent reason provided by families without high speed internet for why they remain disconnected. Indeed, the households that tend to be unconnected also tend to have the least wealth, suggesting a significant link. To address this affordability barrier, Congress created the EBB, a \$50 per month subsidy paid by the federal government to participating ISPs to be passed on in the form of bill credits to enrolled eligible households. EBB expired in early 2021 and was renewed as the ACP, a \$30 per month subsidy, again paid directly to ISPs to pass through as bill credits to enrolled eligible households.30

Research on the impacts of the EBB on closing the digital divide paints a disappointing picture. National data suggests that, "the primary impact of the EBB program was to alleviate the cost burden for households that were already connected pre-pandemic, with only modest impact in bringing new households online." In other words, the subsidy made the internet more affordable for those that were already connected but did not make connectivity possible for the households who were, and largely remain, disconnected. Moreover, data from both the EBB and the ACP reveal that most

people apply their benefit to their cell phone plan rather than home internet, leaving them still underconnected, without access to the fast, reliable service needed for high-bandwidth activities like remote work and telehealth, and vulnerable to data caps.³²

Have these public subsidy programs been unsuccessful in part because ISPs charge more in poor communities, thus keeping fast, reliable service out of reach?

The ACP is a \$14.2 billion public investment in closing the digital divide and millions, perhaps tens of millions, of additional public dollars have been spent advertising the program, building out teams of people to assist eligible households in enrolling, and funding local nonprofits' capacity to do the hard work of selling the program to affected communities and getting people enrolled. But the available evidence does not point to its effectiveness in getting people connected.



The pricing disparities documented in this report raise a disturbing but unavoidable question: have these public subsidy programs been unsuccessful in part because ISPs charge more in poor communities, thus keeping fast, reliable service out of reach? To the extent that ISPs, in this case Charter Spectrum, raise their prices for high speed service tiers in high poverty communities, the impact of

the subsidy is potentially minimized or erased. An additional question emerges from this data set: how consistently do ISPs advertise low-cost options and subsidy programs to the households that could most benefit from them?

To explore this question, we made two baseline assumptions:

- 1. Of the 165 addresses we examined, 64 are in census tracts that have poverty rates above the countywide rate of 14.2%. These addresses are most likely to house families that are eligible for the federal ACP subsidy.
- 2. In May 2022, the White House announced that it had secured commitments from 20 ISPs, including Charter Spectrum, Frontier, and AT&T, to offer all ACP-eligible households plans meeting at least 100Mbps speed threshold for no more than \$30 per month.³³ So, we included only advertised offers meeting those speed and price parameters.

Of the 64 likely eligible households in this data set:

- Charter Spectrum advertised its "Internet 100" plan to just 22 addresses for \$30 per month, and advertised a \$30 per month price for service faster than 100Mbps to a single address.
- Neither AT&T nor Frontier advertised any service tier for \$30 or less to any of the likely ACP-eligible addresses.

Only a third of likely ACP-eligible addresses are advertised an offer meeting the commitments announced by the White House a few months ago, even while offers far exceeding those commitments are advertised to households far less likely to qualify for a subsidy.

Setting aside any of the myriad additional substantive questions surrounding the efficacy of funneling public dollars to ISPs as a mechanism for addressing the affordability crisis preventing families from accessing fast and reliable internet, for it to work, plans meeting the promised standards must be consistently offered to those most likely to benefit from them.



This report is a snapshot documenting the experience of people in neighborhoods across Los Angeles County. It is a community-led and community-driven effort to shine a light on what is a well-known reality on the ground, in communities that live the consequences of historic and persistent under- and disinvestment: systemic discrimination is incessant, under-investigated, and too rarely addressed head-on. **This report raises critical questions that demand action.**

We offer four places to start.

Action #1 Investigate and Validate Findings of Potentially Discriminatory Disparities in Advertised Pricing

The City of Los Angeles, along with other cities within Los Angeles County, the County of Los Angeles, the CPUC, and state legislative committees with oversight responsibilities have the authority, mechanisms, and resources to thoroughly investigate the potentially discriminatory pricing practices documented in this report.

Data points from 165 households across the County illuminate a very clear and disturbing pattern of pricing practices on the part of the ISP that holds a near-monopoly on fixed residential internet service in Los Angeles County.

Government should pick up where community advocates leave off and expand the analysis to thousands, if not hundreds of thousands of data points given the number of people affected and the billions of public dollars at stake in the coming months and years.

We anticipate that Charter Spectrum will take issue with these findings; the company should not only be required to participate in further public investigations but should welcome them if indeed the grassroots research presented here paints an inaccurate picture. In public on-the-record comments before the Los Angeles County Board and the California Assembly Communications and Conveyance Committee,³⁴ Charter Spectrum government affairs professionals have claimed that they have a national pricing model that affords the same price for the same service to every consumer in their national service area. If that is true, despite what CCF and Digital Equity LA have documented here with screenshots from the Charter Spectrum website, Charter should welcome the opportunity to set the record straight.





Action #2 Make Equal Access (Equal Service at Equal Price, Terms, and Conditions) and Truth in Advertising the Policy of the State of California

Federal law prevents the State from regulating certain aspects of broadband pricing and offerings. It may not prevent the State and localities from requiring equal access in exchange for the public rights-of-way and other public benefits ISPs must have to operate.

Today, there is no California statute requiring plainly that ISPs operating under a state license or receiving state money in support of infrastructure deployment must provide services equitably, offering equal access at equal price, terms, and conditions across their publicly-licensed and supported service areas.

A very long overdue reform of the state's outdated and anachronistic 2006 franchising law (known as DIVCA) is a reasonable place to start.³⁵ Assemblymember Chris Holden authored the most recent bill to do so,³⁶ staking a bold claim to advance digital equity by making equal access the state policy, and giving the CPUC the tools it needs to enforce it. The bill was stopped short in the Senate Utilities Committee. California legislators should take another look, keeping in mind the consequences of inaction such as those documented in this report.

In recent weeks the Attorneys General of Connecticut³⁷ and Indiana³⁸ secured settlements to remedy some specific harms ISPs - in these two cases, Frontier Communications - have visited on communities by advertising and charging for service they ultimately did not deliver. California's state leadership in the legislature, the Governor's office, and the Attorney General's office should examine whether the California Attorney General has the authority to do the same, and if not, remedy that gap legislatively.

Action #3 Build Equal Access into State, County, and Local Procurement Practices

Incumbent ISPs contract with state, county, and local government agencies for tens if not hundreds of millions of dollars every year. Those contracts should include enforceable commitments to equitable service delivery within the jurisdiction, ensuring public dollars are not spent in service of undermining equity and thereby exacerbating the digital divide.





Action #4 Support Independent, Community-Driven Options for Broadband Service

Multinational publicly traded companies have a core mission of maximizing profit - it is their legal, enforceable obligation.³⁹ Their constituents are their shareholders, not the families who rely on - and deserve, as a civil right - equitable access to fast, reliable, and affordable internet. As long as the market for high-speed broadband is an effective monopoly, dominated by a single multinational corporation without roots or commitments in our communities, the kinds of disparities documented in this report are unlikely to abate, and the digital divide will be much harder, if not impossible, to close for good.

Public open-access networks and publicly-driven public-private partnerships, operated for the benefit of our communities and accountable to residents, are proven alternatives that deliver faster, more reliable, and more affordable internet to communities around the country. Independent ISPs, those that are not publicly traded, are rooted in our communities, and are open to more responsive outcomes with respect to profit margins and timelines for return-on-investment on infrastructure, also offer attractive alternatives. Decision-makers at all levels of California government should enthusiastically and aggressively support making these alternatives a reality in our communities.



APPENDIX A: MAPS AND TABLES

While zooming in on community case studies is instructive, zooming out to a County-wide view of pricing disparities demonstrates the scale of the potential implications. The map below plots the advertised price for Charter Spectrum's Internet Ultra 500Mbps service at every address we examined in this study, and the complete data set for all three ISPs.⁴²

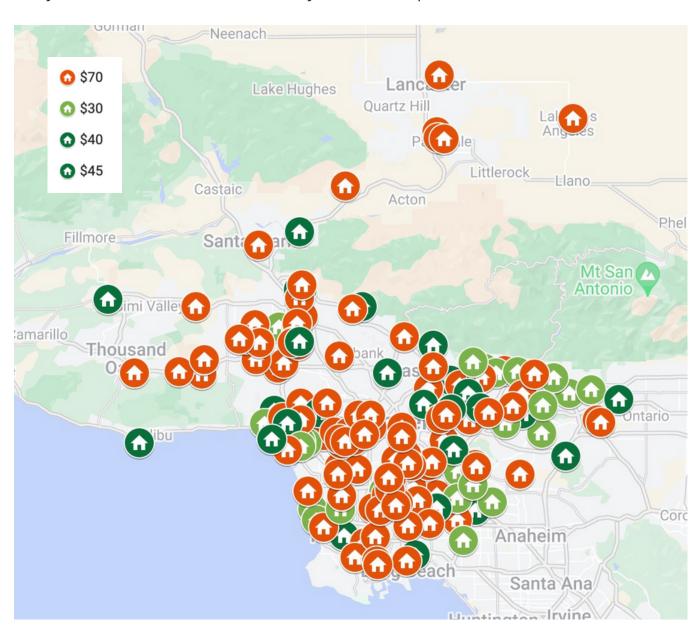


Table: Charter Spectrum Advertised Monthly Price for Service

Address	<u>Census</u> <u>Tract</u>	Poverty Rate	% Nonwhite		Charter up to 300Mbps	Charter up to 500Mbps
Alderton Ln, Cerritos 90703	5545.11	1%	89%			\$40
Redwood Ave, Los Angeles 90066	2714	1%	26%		\$20	\$30
Benik Rd, La Habra Heights 90631	5001	1%	48%		\$50	\$70
Borson St, Downey 90242	5518.01	2%	77%		\$50	\$70
15th St, Manhattan Beach 90266	6203.05	2%	20%		\$20	\$30
Boca De Canon Ln, Los Angeles 90049	2624	3%	17%			\$40
Hayman Ave, La Cañada Flintridge 91011	4605.02	3%	48%		\$50	\$70
La Condesa Dr, La Mirada 90638	5038.02	3%	66%		\$20	\$30
Noeline Ave, Encino 91436	1397.05	3%	7%		\$50	\$70
Shakespeare Dr, San Marino 91108	4642	3%	77%			\$40
Opal St, Torrance 90503	6504.01	3%	52%			\$40
Lucas St, San Fernando 91340	3201.01	3%	26%	\$30	\$20	\$30
Crenshaw Blvd, Los Angeles 90008	2342	4%	83%	\$30	\$50	\$70
Galloway St, Pacific Palisades	2625.01	4%	8%		\$20	\$30
Palmilla Dr, Calabasas 91302	8002.04	4%	19%		\$50	\$70
The Strand, Hermosa Beach 90254	6210.05	4%	18%		\$20	\$30
Valencia Way, Arcadia 91006	4304	4%	74%		\$20	\$30
Morning Canyon Rd, Diamond Bar 91765	4033.28	4%	80%			\$40
Haskell Ave, Encino 91436	1414	4%	27%		\$50	\$70
Benedict Canyon Drive, Beverly Hills 90210	7007	4%	14%			\$45
Plainview Ave, Tujunga 91042	1031.01	4%	22%			\$40
N Lucia Ave, Redondo Beach 90277	6212.01	4%	32%		\$50	\$70
Cedar Ridge Ct, Walnut 91789	4034.08	4%	85%		\$20	\$30
Lemon Ave, Bradbury 91008	4302	5%	48%		\$50	\$70
Bonita St, Arcadia 91006	4308.01	5%	85%			\$45
E Youngdale St, San Gabriel 91775	4800.12	5%	81%		\$50	\$70
Homewood Rd, Los Angeles 90049	2623.03	5%	17%		\$50	\$70
E Olive Ave, Monrovia 91016	4311	5%	75%		\$20	\$30
El Dorado St, Arcadia 91006	4308.01	5%	85%		\$50	\$70
Blue Aspen Ln, Canyon Country 91387	9200.43	5%	45%			\$40
S Glengrove Ave, San Dimas 91773	4013.12	5%	51%		\$20	\$30

<u>Address</u>	<u>Census</u> <u>Tract</u>	Poverty Rate	% Nonwhite		Charter up to 300Mbps	Charter up to 500Mbps
St Cloud Rd, Los Angeles 90077	2621	5%	20%		\$50	\$70
Tynebourne Ct, Westlake Village 91361	8003.25	5%	9%		\$50	\$70
Wesley St, Culver City 90232	7024	6%	47%		\$50	\$70
Oakdale St W, West Covina 91790	4067.02	6%	81%			\$40
W 225th St, Torrance 90502	5436.06	6%	81%		\$50	\$70
N Crescent Dr, Beverly Hills 90210	7006	6%	12%			\$40
N Pepper St, Burbank 91505	3112	6%	40%	\$30	\$50	\$70
Darling Rd, Agua Dulce 91390	9108.14	6%	29%		\$50	\$70
Gain St, Arleta 91331	1190.03	7%	30%	\$30	\$50	\$70
Esward Dr, Calabasas CA 91301	8002.02	7%	8%		\$50	\$70
S Minnesota Ave, Glendora 91741	4011.02	7%	53%		\$20	\$30
S Chester Ave, Compton 90221	5424.02	7%	75%		\$50	\$70
Herron St, Sylmar 91342	1070.1	7%	36%			\$40
Conata St, Duarte 91010	4300.03	7%	57%		\$20	\$30
E Poppyfields Dr, Altadena 91001	4602	7%	57%			\$40
Biona Dr, Los Angeles 90066	2719.01	7%	46%		\$20	\$30
Lucero Ave, La Verne 91750	4089	7%	40%		\$20	\$30
Arline Ave, Artesia 90701	5548.02	7%	76%		\$50	\$70
Ruth Ave, Moorpark 93021	76.11	7%	73%			\$40
E 124th St, Los Angeles CA 90059	5408	8%	84%			\$30
Alburtis Ave, Santa Fe Springs 90670	5027	8%	67%		\$20	\$30
Little Valley Rd, Hidden Hills 91302	8002.06	8%	22%		\$50	\$70
Loma Vista St, El Segundo 90245	6201.02	8%	32%		\$50	\$70
Grand View Blvd, Los Angeles 90066	2715	8%	24%		\$20	\$30
E Highland Ave, Sierra Madre 91024	4305.02	8%	23%		\$20	\$30
Glendon Ave, Los Angeles 90024	2655.23	8%	34%		\$50	\$70
Stratford Ave, South Pasadena 91030	4805	8%	33%		\$50	\$70
Steele St, Rosemead 91770	4329.02	8%	89%		\$50	\$70
Calle De Paseo, Irwindale 91706	4046	9%	75%	\$30	\$50	\$70
N 12th St, Montebello 90640	5301.02	9%	72%	\$30	\$50	\$70
E Los Angeles Ave, Simi Valley 93063	83.04	9%	37%		\$50	\$70
Golden West Ave, Temple City 91780	4320.02	9%	80%			\$45

Address	<u>Census</u> <u>Tract</u>	Poverty Rate	% Nonwhite		Charter up to 300Mbps	Charter up to 500Mbps
E Green St, Claremont 91711	4020.02	9%	52%			\$40
N Hillcrest Blvd, Inglewood 90301	6010.01	9%	94%		\$50	\$70
N Holmar Ave, Azusa 91702	4006.02	9%	44%	\$30	\$50	\$70
159th St, Lawndale 90260	6041.01	10%	82%		\$20	\$30
Santa Ana St, South Gate 90280	5357.01	10%	66%		\$50	\$70
S Clymar Ave, Compton 90220	5430	10%	92%		\$50	\$70
San Miguel Ave, South Gate 90280	5357.01	10%	66%			\$40
Mayfield Ave, Los Angeles 90049	2643.06	10%	28%			\$40
Rugby Dr, West Hollywood 90069	7004	10%	18%		\$50	\$70
Boise Ave, Los Angeles 90066	2721	10%	28%		\$20	\$30
Kalnor Ave, Norwalk 90650	5521	10%	79%		\$20	\$30
E 157th St, Gardena CA 90248	5410.03	11%	77%			\$70
Amigo Ave, Tarzana 91356	1394.01	11%	37%		\$50	\$70
Orchard Ave, Bellflower 90706	5540.02	12%	77%			\$40
E Puente St, Covina 91723	4061.03	12%	69%		\$20	\$30
N Hagar St, San Fernando 91340	3202.01	12%	81%		\$50	\$70
Lakeland Rd, Whittier 90605	5031.02	12%	65%		\$20	\$30
Andreo Ave, Lomita 90717	6700.02	12%	61%		\$50	\$70
Klingerman St, South El Monte 91733	4341	12%	60%	\$30	\$50	\$70
Indiana Ave, Venice 90291	2732	13%	44%		\$50	\$70
E 214th St, Carson 90745	5438.03	13%	88%		\$50	\$70
Cypress Ave, El Monte CA 91731	4327	13%	43%			\$40
Bullis Rd, Lynwood 90262	5401.02	13%	55%			\$40
Linden St, Lynwood 90262	5401.01	13%	49%		\$50	\$70
Londelius St, North Hills 91343	1173.03	13%	59%		\$20	\$30
Milton Ave, Whittier 90602	5018.03	14%	77%	\$30	\$50	\$70
Nordhoff St, Panorama City 91402	1193.41	14%	85%		\$50	\$70
Sandsprings Dr, La Puente 91746	4071.01	14%	76%		\$20	\$30
W 131st St, Compton 9022	5413	14%	74%	\$30	\$50	\$70
W 133rd St, Hawthorne 90250	6024.03	14%	85%		\$50	\$70
Winthrop Dr, Alhambra 91803	4808.02	14%	83%			\$40
Dulin Ave, Pico Rivera 90660	5007	14%	77%			\$40

<u>Address</u>	<u>Census</u> <u>Tract</u>	Poverty Rate	% Nonwhite		Charter up to 300Mbps	Charter up to 500Mbps
Cerritos Ave, Signal Hill 90755	5734.02	14%	75%			\$40
Sherman Grove Ave, Sunland 91040	1032.01	14%	15%	\$30	\$50	\$70
W Spruce St, Compton 90220	5426.02	15%	92%		\$50	\$70
W Arbutus St, Compton 90220	5426.02	15%	92%		\$50	\$70
Hatillo Ave, Canoga Park 91306	1347.2	15%	73%		\$50	\$70
Richfield St, Paramount 90723	5536.01	15%	86%	\$30	\$50	\$70
Palisades Beach Rd, Santa Monica 90403	7014.02	16%	24%			\$40
Valerio St, Reseda 91335	1318.01	16%	71%		\$50	\$70
Oliva Ave, Lakewood 90712	5707.01	16%	70%		\$50	\$70
Eames Ave, Northridge 91324	1152.02	16%	64%		\$50	\$70
California Ave, Huntington Park 90255	5345.01	16%	67%		\$50	\$70
W School St, Compton 90220	5427	17%	92%		\$50	\$70
N Chester Ave, Compton CA 90221	5416.05	17%	72%	\$30	\$50	\$70
S Burnside Ave, Los Angeles 90016	2199.01	17%	46%		\$50	\$70
E Norwood Pl, San Gabriel 91776	4814.03	17%	91%			\$40
Bluewater Rd, Malibu 90265	8004.12	17%	16%			\$40
Russell Ave, Monterey Park 91755	4822.01	17%	94%	\$30	\$50	\$70
S Western Ave, Los Angeles 9004	2381	18%		\$30	\$50	\$70
Claretta Ave, Hawaiian Gardens 90716	5552.12	19%	82%		\$20	\$30
Millbury Ave, Baldwin Park CA 91706	4052.03	19%	63%	\$30	\$50	\$70
Etiwanda Ave, Reseda 91335 (Apt. 3)	1323.01	19%	68%		\$50	\$70
Wyandotte St, Van Nuys 91405	1272.2	19%	52%		\$50	\$70
W 4th St, Pomona CA 91766	4025.01	20%	58%	\$30	\$50	\$70
E Arbor Vitae St, Inglewood 90301	6011	20%	90%		\$50	\$70
N Fries Ave, Wilmington CA 90744	2945.2	20%	37%	\$30	\$50	\$70
W 27th St, Los Angeles 90018	2189	20%	79%	\$30	\$50	\$70
Granger Ave, Bell Gardens 90201	5340.01	20%	87%		\$50	\$70
Cimarron St, Los Angeles 90062	2314	20%	90%		\$50	\$70
Buckingham Rd, Los Angeles 90008	2361.02	21%	78%	\$30	\$50	\$70
E 107th St, Los Angeles 90002	2430.02	21%	91%		\$50	\$70
Maxson Rd, El Monte CA 91732	4333.06	21%	45%		\$50	\$70
Bright Ave, Whittier 90602	5018.04	22%	68%	\$30	\$50	\$70

Address	Census Tract	Poverty Rate	% Nonwhite		Charter up to 300Mbps	Charter up to 500Mbps
Toberman St, Los Angeles 90015	2242	22%	59%		\$50	\$70
Hazeltine Ave, Van Nuys 91405	1279.1	22%	73%		\$50	\$70
Tyrone Ave, Van Nuys 91405	1279.1	22%	71%		\$50	\$70
Ave P-4, Palmdale 93550	9102.18	23%	66%	\$30	\$50	\$70
Gleason Ave, Los Angeles 90033	2043	23%	86%		\$50	\$70
S Serrano Ave, Los Angeles 90020	2118.02	24%	84%		\$50	\$70
Pacific Dr, Commerce 90040	5323.04	24%	83%	\$30	\$50	\$70
Carmelita Ave Maywood, 90270	5334.02	24%	86%		\$50	\$70
Stafford Ave, Huntington Park 90255	5326.06	25%	85%	\$30	\$50	\$70
E Harvard St, Glendale 91205	3021.03	25%	38%			\$45
S Clymar Ave, Compton CA 90220	5411	27%	82%		\$50	\$70
Saticoy St, Winnetka 91306	1347.1	27%	79%	\$30	\$50	\$70
Santa Barbara St, Pasadena 91101	4622.01	27%	65%		\$50	\$70
Bevis Ave, Van Nuys 91405	1278.03	27%	70%		\$50	\$70
Cedar Rd., Van Nuys 91405	1271.02	27%	72%			\$40
176th St E, Lancaster 93535	9001.03	27%	66%	\$30	\$50	\$70
4639 Live Oak St, Cudahy 90201	5344.03	28%	99%		\$50	\$70
E Market St, Long Beach 90805	5717.01	28%	14%	\$30	\$50	\$70
E <u>Ivesbrook</u> St, Lancaster 93535	9006.06	29%	77%		\$50	\$70
Chestnut Ave, Long Beach 90813	5754.01	29%	89%	\$30	\$50	\$70
W 10th St, Pomona CA 91766	4088	30%	59%		\$50	\$70
Coliseum St., Los Angeles 90016	2362.05	30%	94%	\$30	\$50	\$70
Marlton Ave, Los Angeles 90008	2361.01	30%	84%		\$50	\$70
Whitmore St, Rosemead 91770	4823.04	31%	82%		\$50	\$70
E 105th St, Los Angeles 90002	2430.02	31%	92%	\$30	\$50	\$70
Bromont Ave, Sylmar 91342	1064.07	31%	26%	\$30	\$50	\$70
Chestnut St, Santa Clarita 91321	9203.41	31%	82%		\$50	\$70
E I St, Wilmington 90744	2947.01	32%	31%		\$50	\$70
S Willowbrook Ave, Compton 90222	5406	32%	69%		\$50	\$70
Stanridge Ave, Palmdale 93550	9104.05	34%	84%	\$30	\$50	\$70
Alameda St, Compton 90220	5425.02	34%	92%		\$50	\$70
Otis Ave, Bell 90201	5336.03	34%	81%	\$30	\$50	\$70

Address	<u>Census</u> <u>Tract</u>	Poverty Rate	% Nonwhite	 Charter up to 300Mbps	Charter up to 500Mbps
10th PI E, Palmdale 93550	9105.01	38%	85%	\$50	\$70
S Rampart Blvd, Los Angeles 90057	2087.02	40%	46%	\$50	\$70
Estrada Street, Los Angeles 90023	2051.2	42%	86%		\$70
Grape St, Los Angeles 90002	2422.02	45%	72%	\$50	\$70
S Catalina St, Los Angeles 90007	2219	65%	61%	\$50	\$70



Table: AT&T Advertised Monthly Price for Service

Address	Census Tract	Poverty Rate	% Nonwhite	AT&T up to 100Mbps	AT&T up to 300Mbps	AT&T up to 500Mbps
Alderton Ln, Cerritos 90703	5545.11	1%	89%			
Redwood Ave, Los Angeles 90066	2714	1%	26%			
Benik Rd, La Habra Heights 90631	5001	1%	48%			
Borson St, Downey 90242	5518.01	2%	77%			
15th St, Manhattan Beach 90266	6203.05	2%	20%			
Boca De Canon Ln, Los Angeles 90049	2624	3%	17%			
Hayman Ave, La Cañada Flintridge 91011	4605.02	3%	48%			
Noeline Ave, Encino 91436	1397.05	3%	7%	\$55		
La Condesa Dr, La Mirada 90638	5038.02	3%	66%		\$55	\$65
Shakespeare Dr, San Marino 91108	4642	3%	77%		\$55	\$65
Opal St, Torrance 90503	6504.01	3%	52%		\$55	\$65
Lucas St, San Fernando 91340	3201.01	3%	26%			
Crenshaw Blvd, Los Angeles 90008	2342	4%	83%			
Palmilla Dr, Calabasas 91302	8002.04	4%	19%	\$55		
Galloway St, Pacific Palisades	2625.01	4%	8%			
The Strand, Hermosa Beach 90254	6210.05	4%	18%			
Valencia Way, Arcadia 91006	4304	4%	74%			
Morning Canyon Rd, Diamond Bar 91765	4033.28	4%	80%			
Haskell Ave, Encino 91436	1414	4%	27%			
Benedict Canyon Drive, Beverly Hills 90210	7007	4%	14%			
Plainview Ave, Tujunga 91042	1031.01	4%	22%			
N Lucia Ave, Redondo Beach 90277	6212.01	4%	32%			
Cedar Ridge Ct, Walnut 91789	4034.08	4%	85%			
Lemon Ave, Bradbury 91008	4302	5%	48%			
Bonita St, Arcadia 91006	4308.01	5%	85%			
E Youngdale St, San Gabriel 91775	4800.12	5%	81%			
Homewood Rd, Los Angeles 90049	2623.03	5%	17%			
E Olive Ave, Monrovia 91016	4311	5%	75%			
El Dorado St, Arcadia 91006	4308.01	5%	85%	\$55		
Blue Aspen Ln, Canyon Country 91387	9200.43	5%	45%			

<u>Address</u>	<u>Census</u> <u>Tract</u>	Poverty Rate	% Nonwhite	AT&T up to 100Mbps	AT&T up to 300Mbps	AT&T up to 500Mbps
S Glengrove Ave, San Dimas 91773	4013.12	5%	51%			
St Cloud Rd, Los Angeles 90077	2621	5%	20%			
Tynebourne Ct, Westlake Village 91361	8003.25	5%	9%			
Wesley St, Culver City 90232	7024	6%	47%			
W 225th St, Torrance 90502	5436.06	6%	81%	\$55		
Oakdale St W, West Covina 91790	4067.02	6%	81%			
N Crescent Dr, Beverly Hills 90210	7006	6%	12%		\$55	\$65
N Pepper St, Burbank 91505	3112	6%	40%			
Darling Rd, Agua Dulce 91390	9108.14	6%	29%	\$55		
Gain St, Arleta 91331	1190.03	7%	30%			
Esward Dr, Calabasas CA 91301	8002.02	7%	8%			
S Chester Ave, Compton 90221	5424.02	7%	75%	\$55		
S Minnesota Ave, Glendora 91741	4011.02	7%	53%			
Herron St, Sylmar 91342	1070.1	7%	36%			
Conata St, Duarte 91010	4300.03	7%	57%			
E Poppyfields Dr, Altadena 91001	4602	7%	57%			
Biona Dr, Los Angeles 90066	2719.01	7%	46%			
Lucero Ave, La Verne 91750	4089	7%	40%			
Arline Ave, Artesia 90701	5548.02	7%	76%			
Ruth Ave, Moorpark 93021	76.11	7%	73%		\$55	\$65
E 124th St, Los Angeles CA 90059	5408	8%	84%		\$55	\$65
Alburtis Ave, Santa Fe Springs 90670	5027	8%	67%			
Little Valley Rd, Hidden Hills 91302	8002.06	8%	22%			
Loma Vista St, El Segundo 90245	6201.02	8%	32%	\$55		
Stratford Ave, South Pasadena 91030	4805	8%	33%	\$55		
Grand View Blvd, Los Angeles 90066	2715	8%	24%			
E Highland Ave, Sierra Madre 91024	4305.02	8%	23%			
Glendon Ave, Los Angeles 90024	2655.23	8%	34%			
Steele St, Rosemead 91770	4329.02	8%	89%			
Calle De Paseo, Irwindale 91706	4046	9%	75%			
N 12th St, Montebello 90640	5301.02	9%	72%	\$55		
E Los Angeles Ave, Simi Valley 93063	83.04	9%	37%			

<u>Address</u>	<u>Census</u> <u>Tract</u>	Poverty Rate	% Nonwhite	AT&T up to 100Mbps	AT&T up to 300Mbps	AT&T up to 500Mbps
Golden West Ave, Temple City 91780	4320.02	9%	80%			
E Green St, Claremont 91711	4020.02	9%	52%			
N Hillcrest Blvd, Inglewood 90301	6010.01	9%	94%	\$55		
N Holmar Ave, Azusa 91702	4006.02	9%	44%		-	
159th St, Lawndale 90260	6041.01	10%	82%			
Santa Ana St, South Gate 90280	5357.01	10%	66%			
S Clymar Ave, Compton 90220	5430	10%	92%			
San Miguel Ave, South Gate 90280	5357.01	10%	66%			
Mayfield Ave, Los Angeles 90049	2643.06	10%	28%			
Rugby Dr, West Hollywood 90069	7004	10%	18%	\$55		
Boise Ave, Los Angeles 90066	2721	10%	28%			
Kalnor Ave, Norwalk 90650	5521	10%	79%			
E 157th St, Gardena CA 90248	5410.03	11%	77%			
Amigo Ave, Tarzana 91356	1394.01	11%	37%			
Orchard Ave, Bellflower 90706	5540.02	12%	77%			
E Puente St, Covina 91723	4061.03	12%	69%			
N Hagar St, San Fernando 91340	3202.01	12%	81%			
Lakeland Rd, Whittier 90605	5031.02	12%	65%			
Andreo Ave, Lomita 90717	6700.02	12%	61%			
Klingerman St, South El Monte 91733	4341	12%	60%			
Indiana Ave, Venice 90291	2732	13%	44%			
E 214th St, Carson 90745	5438.03	13%	88%			
Cypress Ave, El Monte CA 91731	4327	13%	43%	\$55		
Bullis Rd, Lynwood 90262	5401.02	13%	55%		\$55	\$65
Linden St, Lynwood 90262	5401.01	13%	49%	\$55		
Londelius St, North Hills 91343	1173.03	13%	59%			
Milton Ave, Whittier 90602	5018.03	14%	77%			
Nordhoff St, Panorama City 91402	1193.41	14%	85%			
W 131st St, Compton 9022	5413	14%	74%	\$55		
Sandsprings Dr, La Puente 91746	4071.01	14%	76%			
W 133rd St, Hawthorne 90250	6024.03	14%	85%			
Winthrop Dr, Alhambra 91803	4808.02	14%	83%		\$55	\$65



<u>Address</u>	<u>Census</u> <u>Tract</u>	Poverty Rate	% Nonwhite	AT&T up to 100Mbps	AT&T up to 300Mbps	AT&T up to 500Mbps
Dulin Ave, Pico Rivera 90660	5007	14%	77%			
Cerritos Ave, Signal Hill 90755	5734.02	14%	75%			
Sherman Grove Ave, Sunland 91040	1032.01	14%	15%			
W Spruce St, Compton 90220	5426.02	15%	92%			
W Arbutus St, Compton 90220	5426.02	15%	92%			
Hatillo Ave, Canoga Park 91306	1347.2	15%	73%		\$55	\$65
Richfield St, Paramount 90723	5536.01	15%	86%			
Palisades Beach Rd, Santa Monica 90403	7014.02	16%	24%			
Valerio St, Reseda 91335	1318.01	16%	71%			
Oliva Ave, Lakewood 90712	5707.01	16%	70%			
Eames Ave, Northridge 91324	1152.02	16%	64%			
California Ave, Huntington Park 90255	5345.01	16%	67%		\$55	\$65
W School St, Compton 90220	5427	17%	92%			
N Chester Ave, Compton CA 90221	5416.05	17%	72%	\$55		
E Norwood Pl, San Gabriel 91776	4814.03	17%	91%	\$55		
S Burnside Ave, Los Angeles 90016	2199.01	17%	46%			
Bluewater Rd, Malibu 90265	8004.12	17%	16%			
Russell Ave, Monterey Park 91755	4822.01	17%	94%		\$55	\$65
S Western Ave, Los Angeles 9004	2381	18%				
Claretta Ave, Hawaiian Gardens 90716	5552.12	19%	82%			
Etiwanda Ave, Reseda 91335 (Apt. 3)	1323.01	19%	68%			
Millbury Ave, Baldwin Park CA 91706	4052.03	19%	63%			
Wyandotte St, Van Nuys 91405	1272.2	19%	52%	\$55		
W 4th St, Pomona CA 91766	4025.01	20%	58%			
E Arbor Vitae St, Inglewood 90301	6011	20%	90%		\$55	\$65
N Fries Ave, Wilmington CA 90744	2945.2	20%	37%		\$55	\$65
W 27th St, Los Angeles 90018	2189	20%	79%			
Granger Ave, Bell Gardens 90201	5340.01	20%	87%			
Cimarron St, Los Angeles 90062	2314	20%	90%			
Buckingham Rd, Los Angeles 90008	2361.02	21%	78%			
E 107th St, Los Angeles 90002	2430.02	21%	91%	\$55		
Maxson Rd, El Monte CA 91732	4333.06	21%	45%			

<u>Address</u>	<u>Census</u> <u>Tract</u>	Poverty Rate	% Nonwhite	AT&T up to 100Mbps	AT&T up to 300Mbps	AT&T up to 500Mbps
Bright Ave, Whittier 90602	5018.04	22%	68%			
Toberman St, Los Angeles 90015	2242	22%	59%			
Hazeltine Ave, Van Nuys 91405	1279.1	22%	73%			
Tyrone Ave, Van Nuys 91405	1279.1	22%	71%	\$55		
Ave P-4, Palmdale 93550	9102.18	23%	66%			
Gleason Ave, Los Angeles 90033	2043	23%	86%			
S Serrano Ave, Los Angeles 90020	2118.02	24%	84%			
Pacific Dr, Commerce 90040	5323.04	24%	83%			
Carmelita Ave Maywood, 90270	5334.02	24%	86%	\$55		
Stafford Ave, Huntington Park 90255	5326.06	25%	85%	\$55		
E Harvard St, Glendale 91205	3021.03	25%	38%	\$55		
S Clymar Ave, Compton CA 90220	5411	27%	82%			
Saticoy St, Winnetka 91306	1347.1	27%	79%			
Bevis Ave, Van Nuys 91405	1278.03	27%	70%			
Cedar Rd., Van Nuys 91405	1271.02	27%	72%			
Santa Barbara St, Pasadena 91101	4622.01	27%	65%			
176th St E, Lancaster 93535	9001.03	27%	66%	\$55		
4639 Live Oak St, Cudahy 90201	5344.03	28%	99%			
E Market St, Long Beach 90805	5717.01	28%	14%			
E lvesbrook, St, Lancaster 93535	9006.06	29%	77%			
Chestnut Ave, Long Beach 90813	5754.01	29%	89%			
W 10th St, Pomona CA 91766	4088	30%	59%	\$60		
Coliseum St, Los Angeles 90016	2362.05	30%	94%			
Marlton Ave, Los Angeles 90008	2361.01	30%	84%			
Whitmore St, Rosemead 91770	4823.04	31%	82%		\$60	
E 105th St, Los Angeles 90002	2430.02	31%	92%		\$55	\$65
Chestnut St, Santa Clarita 91321	9203.41	31%	82%	\$55		
Bromont Ave, Sylmar 91342	1064.07	31%	26%			
E I St, Wilmington 90744	2947.01	32%	31%		\$55	5
S Willowbrook Ave, Compton 90222	5406	32%	69%			
Stanridge Ave, Palmdale 93550	9104.05	34%	84%		\$55	\$65
Alameda St, Compton 90220	5425.02	34%	92%			

Address	<u>Census</u> <u>Tract</u>	Poverty Rate	% Nonwhite	AT&T up to 100Mbps	AT&T up to 300Mbps	AT&T up to 500Mbps
Otis Ave, Bell 90201	5336.03	34%	81%		\$55	\$65
10th Pl E, Palmdale 93550	9105.01	38%	85%			
S Rampart Blvd, Los Angeles 90057	2087.02	40%	46%	\$55		
Estrada Street, Los Angeles 90023	2051.2	42%	86%		\$55	\$65
Grape St, Los Angeles 90002	2422.02	45%	72%			
S Catalina St, Los Angeles 90007	2219	65%	61%			



Table: Frontier Advertised Monthly Price for Service

Address	<u>Census</u> <u>Tract</u>	Poverty Rate	% Nonwhite	Frontier up to 100Mbps	Frontier up to 300Mbps	Frontier up to 500Mbps
Alderton Ln, Cerritos 90703	5545.11	1%	89%			\$40
Redwood Ave, Los Angeles 90066	2714	1%	26%			\$40
Benik Rd, La Habra Heights 90631	5001	1%	48%			
Borson St, Downey 90242	5518.01	2%	77%			\$40
15th St, Manhattan Beach 90266	6203.05	2%	20%			\$40
Boca De Canon Ln, Los Angeles 90049	2624	3%	17%			
Hayman Ave, La Cañada Flintridge 91011	4605.02	3%	48%			
La Condesa Dr, La Mirada 90638	5038.02	3%	66%			
Noeline Ave, Encino 91436	1397.05	3%	7%			
Shakespeare Dr, San Marino 91108	4642	3%	77%			
Opal St, Torrance 90503	6504.01	3%	52%			
Lucas St, San Fernando 91340	3201.01	3%	26%			\$40
Crenshaw Blvd, Los Angeles 90008	2342	4%	83%			
Galloway St, Pacific Palisades	2625.01	4%	8%			
Palmilla Dr, Calabasas 91302	8002.04	4%	19%			
The Strand, Hermosa Beach 90254	6210.05	4%	18%			\$40
Valencia Way, Arcadia 91006	4304	4%	74%			
Morning Canyon Rd, Diamond Bar 91765	4033.28	4%	80%			
Haskell Ave, Encino 91436	1414	4%	27%			
Benedict Canyon Drive, Beverly Hills 90210	7007	4%	14%			
Plainview Ave, Tujunga 91042	1031.01	4%	22%			\$40
N Lucia Ave, Redondo Beach 90277	6212.01	4%	32%			\$40
Cedar Ridge Ct, Walnut 91789	4034.08	4%	85%			
Lemon Ave, Bradbury 91008	4302	5%	48%			
Bonita St, Arcadia 91006	4308.01	5%	85%			
E Youngdale St, San Gabriel 91775	4800.12	5%	81%			
Homewood Rd, Los Angeles 90049	2623.03	5%	17%			\$40
E Olive Ave, Monrovia 91016	4311	5%	75%			\$40
El Dorado St, Arcadia 91006	4308.01	5%	85%			
Blue Aspen Ln, Canyon Country 91387	9200.43	5%	45%			



Address	Census Tract	Poverty Rate	% Nonwhite	Frontier up to 100Mbps	Frontier up to 300Mbps	Frontier up to 500Mbps
S Glengrove Ave, San Dimas 91773	4013.12	5%	51%			\$40
St Cloud Rd, Los Angeles 90077	2621	5%	20%			\$40
Tynebourne Ct, Westlake Village 91361	8003.25	5%	9%			
Wesley St, Culver City 90232	7024	6%	47%			
Oakdale St W, West Covina 91790	4067.02	6%	81%			\$40
W 225th St, Torrance 90502	5436.06	6%	81%			
N Crescent Dr, Beverly Hills 90210	7006	6%	12%			
N Pepper St, Burbank 91505	3112	6%	40%			
Darling Rd, Agua Dulce 91390	9108.14	6%	29%			
Gain St, Arleta 91331	1190.03	7%	30%			\$40
Esward Dr, Calabasas 91301	8002.02	7%	8%			
S Minnesota Ave, Glendora 91741	4011.02	7%	53%			
S Chester Ave, Compton 90221	5424.02	7%	75%			
Herron St, Sylmar 91342	1070.1	7%	36%			\$40
Conata St, Duarte 91010	4300.03	7%	57%			\$40
E Poppyfields Dr, Altadena 91001	4602	7%	57%			
Biona Dr, Los Angeles 90066	2719.01	7%	46%			\$40
Lucero Ave, La Verne 91750	4089	7%	40%			\$40
Arline Ave, Artesia 90701	5548.02	7%	76%			\$40
Ruth Ave, Moorpark 93021	76.11	7%	73%			
E 124th St, Los Angeles 90059	5408	8%	84%			
Alburtis Ave, Santa Fe Springs 90670	5027	8%	67%			\$40
Little Valley Rd, Hidden Hills 91302	8002.06	8%	22%			
Loma Vista St, El Segundo 90245	6201.02	8%	32%			
Grand View Blvd, Los Angeles 90066	2715	8%	24%			\$40
E Highland Ave, Sierra Madre 91024	4305.02	8%	23%			\$40
Glendon Ave, Los Angeles 90024	2655.23	8%	34%			\$40
Stratford Ave, South Pasadena 91030	4805	8%	33%			
Steele St, Rosemead 91770	4329.02	8%	89%			
Calle De Paseo, Irwindale 91706	4046	9%	75%			
N 12th St, Montebello 90640	5301.02	9%	72%			
E Los Angeles Ave, Simi Valley 93063	83.04	9%	37%			

Address	<u>Census</u> <u>Tract</u>	Poverty Rate	% Nonwhite	Frontier up to 100Mbps	Frontier up to 300Mbps	Frontier up to 500Mbps
Golden West Ave, Temple City 91780	4320.02	9%	80%			
E Green St, Claremont 91711	4020.02	9%	52%			
N Hillcrest Blvd, Inglewood 90301	6010.01	9%	94%			
N Holmar Ave, Azusa 91702	4006.02	9%	44%			\$40
159th St, Lawndale 90260	6041.01	10%	82%			
Santa Ana St, South Gate 90280	5357.01	10%	66%			
S Clymar Ave, Compton 90220	5430	10%	92%			
San Miguel Ave, South Gate 90280	5357.01	10%	66%			
Mayfield Ave, Los Angeles 90049	2643.06	10%	28%			
Rugby Dr, West Hollywood 90069	7004	10%	18%			
Boise Ave, Los Angeles 90066	2721	10%	28%			\$40
Kalnor Ave, Norwalk 90650	5521	10%	79%			\$40
E 157th St, Gardena 90248	5410.03	11%	77%			
Amigo Ave, Tarzana 91356	1394.01	11%	37%			
Orchard Ave, Bellflower 90706	5540.02	12%	77%			
E Puente St, Covina 91723	4061.03	12%	69%			\$40
N Hagar St, San Fernando 91340	3202.01	12%	81%			\$40
Lakeland Rd, Whittier 90605	5031.02	12%	65%			\$40
Andreo Ave, Lomita 90717	6700.02	12%	61%			
Klingerman St, South El Monte 91733	4341	12%	60%			
Indiana Ave, Venice 90291	2732	13%	44%			\$40
E 214th St, Carson 90745	5438.03	13%	88%			
Cypress Ave, El Monte 91731	4327	13%	43%			
Bullis Rd, Lynwood 90262	5401.02	13%	55%			
Linden St, Lynwood 90262	5401.01	13%	49%			
Londelius St, North Hills 91343	1173.03	13%	59%			
Milton Ave, Whittier 90602	5018.03	14%	77%			\$40
Nordhoff St, Panorama City 91402	1193.41	14%	85%			\$40
Sandsprings Dr, La Puente 91746	4071.01	14%	76%			\$40
W 131st St, Compton 9022	5413	14%	74%			
W 133rd St, Hawthorne 90250	6024.03	14%	85%			
Winthrop Dr, Alhambra 91803	4808.02	14%	83%			



Address	<u>Census</u> <u>Tract</u>	Poverty Rate	% Nonwhite	Frontier up to 100Mbps	Frontier up to 300Mbps	Frontier up to 500Mbps
Dulin Ave, Pico Rivera 90660	5007	14%	77%			\$40
Cerritos Ave, Signal Hill 90755	5734.02	14%	75%			\$40
Sherman Grove Ave, Sunland 91040	1032.01	14%	15%			
W Spruce St, Compton 90220	5426.02	15%	92%			
W Arbutus St, Compton 90220	5426.02	15%	92%			
Hatillo Ave, Canoga Park 91306	1347.2	15%	73%			
Richfield St, Paramount 90723	5536.01	15%	86%			
Palisades Beach Rd, Santa Monica 90403	7014.02	16%	24%			
Valerio St, Reseda 91335	1318.01	16%	71%			
Oliva Ave, Lakewood 90712	5707.01	16%	70%			
Eames Ave, Northridge 91324	1152.02	16%	64%			
California Ave, Huntington Park 90255	5345.01	16%	67%			
W School St, Compton 90220	5427	17%	92%			
N Chester Ave, Compton 90221	5416.05	17%	72%			
S Burnside Ave, Los Angeles 90016	2199.01	17%	46%			
E Norwood Pl, San Gabriel 91776	4814.03	17%	91%			
Bluewater Rd, Malibu 90265	8004.12	17%	16%			\$40
Russell Ave, Monterey Park 91755	4822.01	17%	94%			
S Western Ave, Los Angeles 9004	2381	18%				
Claretta Ave, Hawaiian Gardens 90716	5552.12	19%	82%			
Millbury Ave, Baldwin Park 91706	4052.03	19%	63%			\$40
Etiwanda Ave, Reseda 91335 (Apt. 3)	1323.01	19%	68%			
Wyandotte St, Van Nuys 91405	1272.2	19%	52%			
W 4th St, Pomona 91766	4025.01	20%	58%			\$40
E Arbor Vitae St, Inglewood 90301	6011	20%	90%			
N Fries Ave, Wilmington 90744	2945.2	20%	37%			
W 27th St, Los Angeles 90018	2189	20%	79%			
Granger Ave, Bell Gardens 90201	5340.01	20%	87%			
Cimarron St, Los Angeles 90062	2314	20%	90%			
Buckingham Rd, Los Angeles 90008	2361.02	21%	78%			
E 107th St, Los Angeles 90002	2430.02	21%	91%			
Maxson Rd, El Monte 91732	4333.06	21%	45%			

Address	<u>Census</u> <u>Tract</u>	Poverty Rate	% Nonwhite	Frontier up to 100Mbps	Frontier up to 300Mbps	Frontier up to 500Mbps
Bright Ave, Whittier 90602	5018.04	22%	68%			
Toberman St, Los Angeles 90015	2242	22%	59%			
Hazeltine Ave, Van Nuys 91405	1279.1	22%	73%			
Tyrone Ave, Van Nuys 91405	1279.1	22%	71%			
Ave P-4, Palmdale 93550	9102.18	23%	66%			
Gleason Ave, Los Angeles 90033	2043	23%	86%			
S Serrano Ave, Los Angeles 90020	2118.02	24%	84%			
Pacific Dr, Commerce 90040	5323.04	24%	83%			
Carmelita Ave Maywood, 90270	5334.02	24%	86%			
Stafford Ave, Huntington Park 90255	5326.06	25%	85%			
E Harvard St, Glendale 91205	3021.03	25%	38%			
S Clymar Ave, Compton 90220	5411	27%	82%			
Saticoy St, Winnetka 91306	1347.1	27%	79%			
Santa Barbara St, Pasadena 91101	4622.01	27%	65%			
Bevis Ave, Van Nuys 91405	1278.03	27%	70%			
Cedar Rd., Van Nuys 91405	1271.02	27%	72%			
176th St E, Lancaster 93535	9001.03	27%	66%			
4639 Live Oak St, Cudahy 90201	5344.03	28%	99%			
E Market St, Long Beach 90805	5717.01	28%	14%			
E <u>lvesbrook</u> .St, Lancaster 93535	9006.06	29%	77%			
Chestnut Ave, Long Beach 90813	5754.01	29%	89%			
W 10th St, Pomona 91766	4088	30%	59%			\$40
Coliseum St, Los Angeles 90016	2362.05	30%	94%			
Marlton Ave, Los Angeles 90008	2361.01	30%	84%			
Whitmore St, Rosemead 91770	4823.04	31%	82%			
E 105th St, Los Angeles 90002	2430.02	31%	92%			
Bromont Ave, Sylmar 91342	1064.07	31%	26%			
Chestnut St, Santa Clarita 91321	9203.41	31%	82%			
E I St, Wilmington 90744	2947.01	32%	31%			
S Willowbrook Ave, Compton 90222	5406	32%	69%			
Stanridge Ave, Palmdale 93550	9104.05	34%	84%			
Alameda St, Compton 90220	5425.02	34%	92%			

Address	<u>Census</u> <u>Tract</u>	Poverty Rate	% Nonwhite	Frontier up to 100Mbps	Frontier up to 300Mbps	Frontier up to 500Mbps
Otis Ave, Bell 90201	5336.03	34%	81%			
10th Pl E, Palmdale 93550	9105.01	38%	85%			
S Rampart Blvd, Los Angeles 90057	2087.02	40%	46%			
Estrada Street, Los Angeles 90023	2051.2	42%	86%			
Grape St, Los Angeles 90002	2422.02	45%	72%			
S Catalina St, Los Angeles 90007	2219	65%	61%			



APPENDIX B: DEFINITIONS + METHODOLOGY

Defining Digital Equity

Digital equity is a condition in which all individuals and communities have equitable access to the connectivity, devices, skills, and information needed for full participation in our society, democracy and economy.

Defining "Fast and Reliable" Internet

The Federal Communications Commission (FCC) sets the national minimum standard for internet service to qualify as "broadband." The current standard, set in 2015, is 25 megabits per second (Mbps) download and 3 Mbps upload. In July 2022, FCC Chairwoman Rosenworcel proposed to increase the minimum standard to 100 Mbps download and 20 Mpbs upload, noting in a statement (emphasis added):

"The needs of internet users long ago surpassed the FCC's 25/3 speed metric, especially during a global health pandemic that moved so much of life online. The 25/3 metric isn't just behind the times, it's a harmful one because it masks the extent to which low-income neighborhoods and rural communities are being left behind and left offline. That's why we need to raise the standard for minimum broadband speeds now and while also aiming even higher for the future, because we need to set big goals if we want everyone everywhere to have a fair shot at 21st century success."

The FCC's consumer guide to the minimum speeds needed for common household use identify light, moderate, and high use cases for one or more devices or users. For any household of more than one person with more than one device connected to the internet at the same time and any of those devices operating a "moderate" use application - i.e. video conferencing - a minimum service level of 100 Mpbs download and 10 Mbps upload is recommended.⁴³



Methodology Notes

This report includes data from 165 residential addresses: at least one address from every city and a sample from across the unincorporated communities in the County. Note that cities that are primarily industrial or commercial, with few or no residential neighborhoods, were excluded: the City of Industry, Commerce, and Vernon.

For each address, in addition to documenting the service offerings and pricing from Charter Spectrum, as well as Frontier and AT&T at the few addresses served by them, the study documented the census tract and the poverty rate and percentage of non-white residents in that census tract. Census tracts are small subdivisions of counties with roughly 4,000 residents utilized by the Census for statistical analysis - a reasonable proxy for a "neighborhood."

This report's data looks exclusively at Los Angeles County residential internet plans as a new customer shopping for services on the provider website. Many providers offer bundled services including phone, television, and internet. For the purpose of this data collection, we solely looked at stand-alone internet subscription plans. We modeled this methodology on a New America Foundation study, which examined internet costs around the globe and explained that by "studying standalone internet plans it enables us to make more streamlined price comparisons between plans as we take into account the lack of standard speed tiers and other plan aspects."

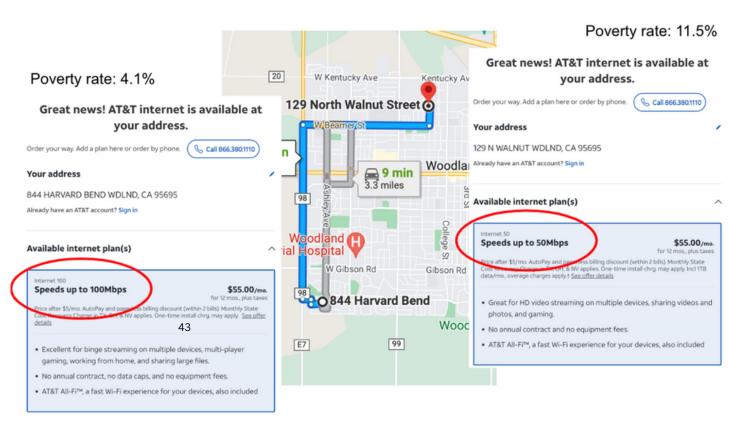


APPENDIX C: BEYOND LOS ANGELES COUNTY

The geographic focus of the CCF Digital Equity Initiative and Digital Equity LA is Los Angeles County.

However, we work with allies and partners across the state in service of advancing digital equity and ensuring every Californian - including every Angeleno - has fast, reliable, and affordable internet. In the course of that work we have identified a few examples of the same kind of price disparities documented here in other regions of California. We offer a few of them here as an invitation to our partners, and as a further nudge to state officials, to investigate these potentially discriminatory pricing practices.

Yolo County

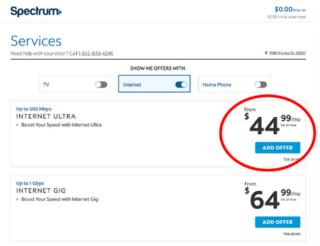




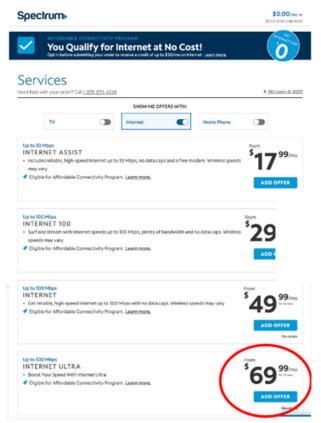


Tulare County



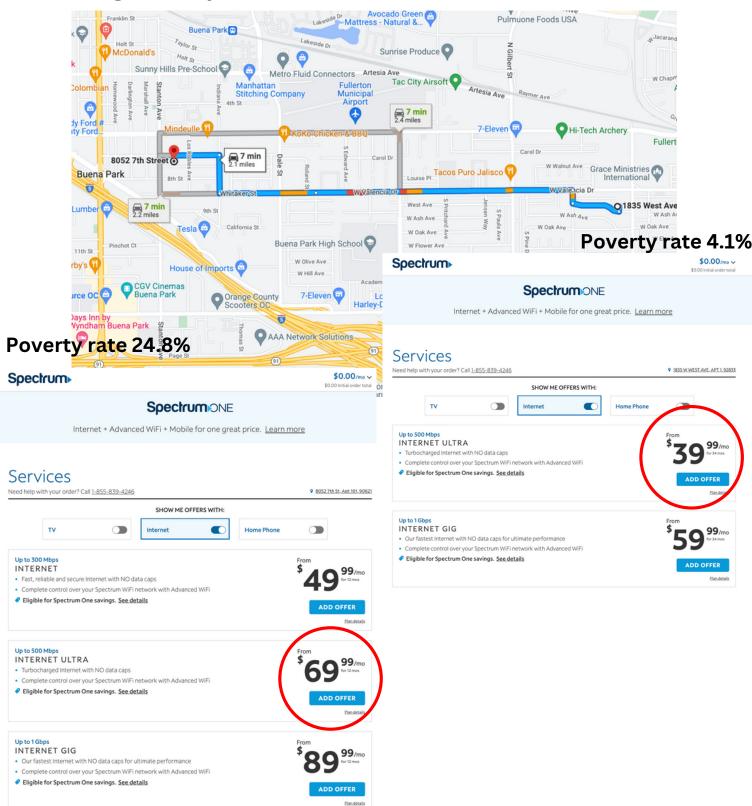








Orange County



ENDNOTES

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- [5] The timeline depends on the rate of enrollment. See a range of potential timelines at ILSR's ACP Dashboard: https://acpdashboard.com
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- [7] "Underconnected" means connected at speeds slower than the federal standard of 25/3 or connected solely via a cell phone.
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- [9] Charter Poised to Haul in Half of Montana's Broadband Grants; Smaller ISPs Raise Questions: https://muninetworks.org/content/charter-poised-haul-half-montanas-broadband-grants-smaller-isps-raise-questions
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- [11] Charter, Comcast lead race for state broadband grants for now: https://www.fiercetelecom.com/telecom/charter-comcast-lead-race-state-broadband-grants-now
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- [13] Attorney General Todd Rokita secures \$15 million settlement with Frontier Communications State of Indiana: https://events.in.gov/event/attorney general todd rokita secures 15 million settlement with frontier communications
- [14] Frontier prepares to pounce on broadband funding from infrastructure bill | Fierce Telecom: https://www.fiercetelecom.com/operators/frontier-prepares-to-pounce-broadband-funding-from-infrastructure-bill
- [15] Frontier, Windstream's 2022 broadband grant tally surpasses \$200M: https://www.fiercetelecom.com/broadband/frontier-windstreams-2022-broadband-grant-tally-surpasses-200m
- [16] Monopoly Internet Service Providers Mire Grant Process With Costly, Empty Challenges: https://ilsr.org/monopoly-internet-service-providers-mire-grant-process-with-costly-empty-challenges
- [17] Beware the Grant Challenges: https://potsandpansbyccg.com/2022/08/29/beware-the-grant-challenges
- [18] EOY2020 CA Residential Fixed BB Deployment LA County, by Internet Service Provider: https://public.tableau.com/shared/S6M95KD27?:display count=n&:origin=viz share link
- [19] California State-Issued Video Franchise Territory Cox in LA County: https://arcg.is/09bq9i
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- [21] Census Tracts | US Census Bureau: https://www2.census.gov/geo/pdfs/education/CensusTracts.pdf
- [22] Per the US Census American Community Survey (ACS), the Los Angeles County poverty rate is 14.2%. For this snapshot, a poverty rate under 15% is classified as "low poverty" and a poverty rate over 30%, double the county-wide rate, is classified as "high poverty."





- [23] The federal poverty level for a household of three is \$23,030 Poverty Guidelines | ASPE: https://aspe.hhs.gov/topics/poverty-economic-mobility/poverty-guidelines
- [24] Affordable Connectivity Program: https://www.affordableconnectivity.gov
- [25] California Interactive Broadband Map: https://www.broadbandmap.ca.gov
- [26] CPUC EOY 2020 Fixed Broadband Adoption by Population at 25/3 Subscription Speed Benchmark: https://public.tableau.com/shared/B6JSPY83R?:display_count=n&:origin=viz_share_link
- [27] CPUC EOY 2020 Fixed Broadband Adoption by Population at 25/3 Subscription Speed Benchmark: https://public.tableau.com/shared/B6JSPY83R?:display_count=n&:origin=viz_share_link
- [28] The census tracts visualized for Baldwin Hills, Crenshaw, and West Adams are: 2197.00, 2198.00, 2199.01, 2199.02, 2200.00, 2201.00, 2247.01, 2247.02, 2215.00, 2195.00, 2361.01, 2360.01, 2361.02, 2362.03, 2362.04, 2362.05, 2362.06, 2364.00, 2189
- [29] The census tracts visualized for Mar Vista are: 2714, 2715, 2716, 2717.02, 2718.01, 2719.01, 2719.02, 2721, 2731, 2736
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- [38] Attorney General Todd Rokita secures \$15 million settlement with Frontier Communications State of Indiana: https://events.in.gov/event/attorney-general-todd-rokita-secures-15-million-settlement-with-frontier-communications?
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 <a href="https://events-io.gov/event-attorney-general-todd-rokita-secures-15-million-settlement-with-frontier-communications-15-million-settlement-with-frontier-communications-15-million-settlement-with-frontier-communications-15-million-settlement-with-frontier-communications-15-million-settlement-with-frontier-communications-15-million-settlement-with-frontier-communications-15-million-settlement-with-frontier-communications-15-million-settlement-with-frontier-communications-15-million-settlement-with-frontier-communications-15-million-settlement-with-frontier-communications-15-million-settlement-with-frontier-communications-15-million-settlement-with-frontier-communications-15-million-settlement-with-frontier-communications-15-million-settlement-with-frontier-communications-15-million-settlement-with-frontier-communication-settlement-with-frontier-communication-settlement-with-frontier-communication-settlement-with-frontier
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