Order Instituting Rulemaking Regarding Broadband Infrastructure Deployment and to Support Service Providers in the State of California.	Rulemaking 20-09-001 (Filed September 10, 2020*)

**Comments of the Advanced Communications Law & Policy Institute
at New York Law School to the Assigned ALJ's Ruling Filed May 28, 2021**

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**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

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1.   <u>INTRODUCTION</u>

In accordance with Rule 6.2 of the California Public Utilities Commission ("Commission") Rules of Practice and Procedure, the Advanced Communications Law & Policy Institute (ACLP) at New York Law School submits comments in Rulemaking 20-09-001.

2.   <u>OVERVIEW OF COMMENTS</u>

The ACLP's interest in this proceeding stems from the Commission's focus on examining broadband deployment dynamics and determining whether certain actions rise to the level of "digital redlining." Although confined to California, the Commission's docket potentially has broad-reaching implications; its actions here could inform potential action by other state utility commissions, legislatures, and other related policymaking bodies. Given the ACLP's focus on assisting policymakers in the development and implementation

of rational policies impacting broadband connectivity, we respectfully offer our perspective on the issues at hand.[1]

Allegations of "digital redlining" are serious, particularly because they reference a heinous set of practices used decades ago to intentionally discriminate against people based on their race.[2] Those practices largely stemmed from "government's purposeful imposition of racial segregation," which took the form of officially sanctioned policies like literally drawing red lines on maps to identify the neighborhoods in which people of color could and could not secure a mortgage.[3] The vestiges of such nefarious, government-sanctioned discrimination against people based on the color of their skin remain to this day in the form of a "persistent pattern of both economic and racial residential exclusion."[4] This translates

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[1] The ACLP at New York Law School regularly provides insight and analysis to decision-makers as they consider how to craft policies that can bolster broadband connectivity on both the supply-side and the demand-side. These activities have encompassed, among many others: current service on the Federal Communications Commission's Consumer Advisory Committee; past service on the Removing State and Local Barriers to Broadband Deployment Working Group, which supported the FCC's Broadband Deployment Advisory Committee; service on the New York State Broadband Task Force; testimony before state legislatures in Connecticut and New York on broadband policy issues; development, at the request of the FCC, of a first-in-kind assessment of barriers to broadband adoption among senior citizens, people with disabilities, and other user groups; development, for the U.S. Chamber of Commerce, of a first-in-kind series of papers evaluating the impact of broadband on seniors, people with disabilities, education, and healthcare; expert testimony before the New York PSC on broadband regulation issues; and the organization of nonprofit groups, subject-matter experts, and other stakeholders, under the banner of the Digital Equity, Adoption & Literacy (DEAL) Coalition, to highlight the need for allocating significantly more resources in support of broadband adoption and digital literacy programs in New York City.

[2] *See, e.g.,* Richard Rothstein, The Color of Law: A Forgotten History of How Our Government Segregated America (2017).

[3] *Id.*

[4] Bruce Mitchell and Juan Franco, *HOLC "Redlining" Maps: The Persistent Structure of Segregation and Economic Inequality,* p. 5-6, NCRC (2018), https://ncrc.org/wp-content/uploads/dlm_uploads/2018/02/NCRC-Research-HOLC-10.pdf.

to lower homeownership rates, less wealth, and fewer opportunities for upward mobility among certain communities of color.[5]

Viewed against this historical backdrop, using the term "redlining" to describe the alleged refusal by private ISPs to "serve certain communities or neighborhoods within their service or franchise areas" seems inappropriate, unless there is evidence that government itself has explicitly facilitated or otherwise sanctioned these actions.[6] This does not appear to be the case. Nor does it appear that ISPs have intentionally refused to serve areas with broadband. As discussed below, broadband internet access at different speeds and enabled by different technologies is widely available across the state. The broadband connectivity landscape in California – much like the nation as a whole – appears to be a patchwork of varying adoption rates, which have long corresponded with socioeconomic characteristics like household income.[7]

These dynamics are not new. To the contrary, they have been evident since the advent of the commercial internet in the mid-1990s.[8] As discussed below, significant

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[5] *See, e.g.,* Kilolo Kijakazi, Jonathan Schwabish, and Margaret Simms, *Racial Inequities Will Grow Unless We Consciously Eliminate Them,* July 1, 2020, Urban Institute – Urban Wire Blog, https://www.urban.org/urban-wire/racial-inequities-will-grow-unless-we-consciously-work-eliminate-them.

[6] *Order Instituting Rulemaking Regarding Broadband Infrastructure Deployment and to Support Service Providers in the State of California,* Assigned Administrative Law Judge's Ruling, at p. 1, Rulemaking 20-09-001, California PUC (May 28, 2021), https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M385/K618/385618661.PDF.

[7] *See, e.g.,* Emily A. Vogels, *Digital Divide Persists Even as Americans with Lower Incomes Make Gains in Tech Adoption,* June 22, 2021, Pew Research Center, https://www.pewresearch.org/fact-tank/2021/06/22/digital-divide-persists-even-as-americans-with-lower-incomes-make-gains-in-tech-adoption/.

[8] *See, e.g.,* Charles M. Davidson & Michael J. Santorelli, *Understanding the Debate over Government-Owned Broadband Networks: Context, Lessons Learned, and a Way Forward for Policy Makers,* at p. 20-27, ACLP at New York Law School (June 2014), http://comms.nyls.edu/ACLP/ACLP-Government-Owned-Broadband-Networks-FINAL-June-2014.pdf ("*Understanding the Debate*").

progress has been made in closing this digital divide, both in California specifically and across the country generally. Much of this progress has come from a focus on demand-side issues – *i.e.,* raising awareness of the benefits of broadband and assisting in the development of digital literacy skills to encourage those with limited means to invest scarce resources in a subscription and access device.[9] Recent action to greatly increase the subsidies available to offset the price of broadband and access devices is poised to further accelerate this progress.[10]

As broadband adoption increases in communities, additional investment and higher speeds usually follow. This pattern of supply responding to demand has long characterized not only the broadband space, but many other segments of the broader retail marketplace.[11] As such, focusing government resources on addressing demand-side issues can help to reverse the longstanding correlation between household income and adoption.[12] Continued use of the term "redlining" in this context therefore risks clouding the focus on a solvable set of issues by leveraging a term with a very specific connotation, one that suggests an intentional withholding of broadband service based on the race of would-be users. That does not appear to be the case. Rather, broadband is widely available. In served

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[9] *See infra,* Section 2.

[10] *See* FCC, Emergency Broadband Benefit, https://www.fcc.gov/broadbandbenefit.

[11] *See, e.g.,* Michael J. Santorelli & Alexander Karras, *The Value of Context & Rigor: A Review of OTI's Cost of Connectivity 2020 Report,* at p. 3-12, ACLP at New York Law School (July 2020), http://comms.nyls.edu/ACLP/ACLP-Review-of-OTI-COC-2020-Report-July-2020.pdf (discussing this textbook economic dynamic in the broadband space) ("*Value of Context & Rigor*").

[12] *See, e.g.,* John B. Horrigan and Jorge Schement, *Competition Won't Solve the Digital Divide – Communities Will,* June 24, 2021, The Hill, https://thehill.com/opinion/technology/560101-competition-wont-solve-the-digital-divide-communities-will?rl=1.

markets, therefore, demand-side issues are the most pressing concern and require more attention and resources from stakeholders.

The broadband equity framework detailed in **Section 2** sets forth an inclusive, user-centric vantage from which to view and approach the issue of bolstering broadband connectivity in California and the nation as a whole. Among other aspects, the framework prioritizes communities and individual users over particular kinds of broadband technology as the main driver of policymaking. Approaching issues in this manner yields tailored responses that reflect the unique needs of under-adopting communities. Continuing to approach these issues only from a supply-side vantage risks replacing real consumer need as the driver of policy with the assumptions of those seeking to drive policy to a particular outcome. Ultimately, the broadband equity framework set forth herein will align policy responses with what has worked in the real world to bring more people online.

The broadband equity framework is also instructive in examining the three studies referenced by the Commission in its request for comments. Applying the framework to the studies highlights myriad shortcomings in their analyses and recommendations. These results are discussed in **Section 3.**

The filing closes in **Section 4** with a summary of guiding principles that might inform the Commission's efforts in this docket – and that of policymakers in the broadband context generally – vis-à-vis enhancing broadband connectivity.

3. **BUILDING A BROADBAND EQUITY FRAMEWORK BY GROUNDING POLICY IN DATA & FOCUSING EFFORTS IN SERVED MARKETS ON DEMAND-SIDE ISSUES**

The Commission has launched its inquiry into broadband infrastructure deployment issues by requesting comment on three studies that, together, attempt to paint

a dire picture of broadband in parts of California. By choosing these studies as its jumping-off point, the Commission has narrowed the initial focus of this critical discussion to reflect the issues teed up by the studies' authors. The practical impact of this choice is that respondents are encouraged to engage in a debate to prove or disprove a negative – *i.e.,* why a certain kind of broadband platform or level of speed is allegedly unavailable in certain parts of the state.

This focus is not productive for several reasons.

First, by positioning these studies at the heart of this rulemaking, the Commission has extended an imprimatur of legitimacy to them right out of the gate. This creates a high bar for those seeking to refute the studies' sweeping conclusions because it appears that the Commission may have already accepted their conclusions as fact.

Second, embracing these studies means embracing their subjective take on core issues implicated by this docket. Foremost among these is the focus on a particular kind of broadband technology (fiber) and certain levels of broadband speed. As discussed below, this is an incredibly narrow view of the broadband marketplace.

Third, choosing to view the market in this manner also overlooks real problems facing communities across the state and country. If the goal is to ensure that as many people as possible are using broadband, then the Commission's focus – and the focus of policymakers generally – must be broader and more solution-oriented. As discussed in this section, it is respectfully submitted that policymakers should avoid legitimating controversial, divisive, and erroneous notions like "digital redlining" and instead embrace a more inclusive approach to connectivity issues.

This section details a broadband equity framework that encompasses efforts to ensure that every community can harness the transformative power of broadband on a level playing field. This does not necessarily mean making the same kind of technology available to everyone all at once and then hoping people adopt and use it. Such a technology-first, rather than a people-first, approach is (1) unrealistic because it views all those who remain offline in a monolithic manner and (2) unsustainable and ultimately counterproductive because such top-down, government-driven approaches to enhancing broadband connectivity are mostly ineffective in closing the digital divide.

Section 3.1 offers initial context and perspective on the general notion of broadband equity. An equity orientation, rather than one just focused on the supply of a particular kind of broadband offering (*e.g.,* a specific level of speed or network technology), recognizes that improving broadband connectivity has become largely a demand-side challenge in served markets and that ongoing efforts by state and federal entities, including the California Advanced Services Fund, are helping to quickly narrow availability gaps in unserved areas. This section provides a data-driven analysis of gaps in broadband connectivity in an attempt to begin broadening the focus of the Commission and policymakers generally when grappling with these issues.[13]

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[13] It is not the intent of these comments to conflate what some label as "digital redlining" with the more broadly accepted term "digital divide." As noted above and discussed in more detail below, use of "digital redlining" to describe the dynamic of different markets receiving different levels and kinds of broadband service seems inappropriate. These comments propose reorienting the response to connectivity challenges in served markets around the notion of broadband equity, which seeks to harness consumer demand – and a demand-side bearing generally – as a primary driver of change in local markets and in policymaking.

Section 3.2 uses this analysis to develop a framework for addressing the issues being explored by the Commission. The framework encourages policymakers to take a comprehensive, holistic, and realistic view of the current broadband marketplace and use data to identify actual challenges facing consumers. More often than not, these challenges fall on the demand-side of the connectivity equation rather than on the supply-side. In section 4, this framework will serve as the analytical lens through which the three "redlining" studies currently guiding the Commission's inquiry are considered.

3.1   *The Digital Divide in Context*

The general dynamics of the digital divide in the Unites States have remained largely unchanged for the last 25 years.

Early surveys by the U.S. Department of Commerce found that internet usage tended to correlate with demographic factors like age, race, income, and educational attainment.[14] By and large, these same dynamics are evident today: broadband adoption still lags among seniors, in certain communities of color, and among low-income households.[15] What has changed in served markets is a significant narrowing of the gap between adopters and non-adopters across user groups and the general population.

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[14] *See, e.g., Falling Through the Net: A Survey of the "Have Nots" in Rural and Urban America,* U.S. Dept. of Commerce (July 1995), https://www.ntia.doc.gov/ntiahome/fallingthru.html; *Falling Through the Net II: New Data on the Digital Divide,* U.S. Dept. of Commerce (July 1998), https://www.ntia.doc.gov/ntiahome/net2; *Falling Through the Net: Defining the Digital Divide,* U.S. Dept. of Commerce (July 1999), https://www.ntia.doc.gov/legacy/ntiahome/fttn99/FTTN.pdf.

[15]   *See, e.g., Internet/Broadband Fact Sheet,* April 7, 2021, Pew Research Center, https://www.pewresearch.org/internet/fact-sheet/internet-broadband/?menuItem=2ab2b0be-6364-4d3a-8db7-ae134dbc05cd ("*Internet/Broadband Fact Sheet*").

All the while, broadband has continued to push deeper into communities, spurring competitive responses by service providers of all ilk. Consequently, the broadband challenges facing many communities across the state and the nation tend to fall into one of two categories: either broadband is (1) unavailable, rendering a city or town unserved, or (2) not being adopted despite being readily available, making this a demand issue rather than an infrastructure access issue.[16]

This section relies on the most recent data available to examine trends in broadband adoption across California and how consistent increases in usage across every community have resulted in additional availability of a range of broadband services.

3.1.1 *Broadband Adoption Trends in California*

Consider the following data-points regarding broadband adoption in California:

- Statewide, broadband adoption has risen from 55% in 2008 to 91% in 2021.[17]

- Among low-income households, broadband adoption rose from 33% to 82% over the same period.[18] Similar gains – from 34% to 84% – were observed among Latino households.[19]

- Broadband adoption has risen across every income group in the state:[20]

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[16] These comments focus primarily on offering insight into how to bolster broadband connectivity in areas where some form of broadband service is already available. As discussed throughout, this is a complex and multifaceted challenge that is not amenable to one-size-fits-all solutions. The challenge of bringing broadband to parts of the state and country that remain unserved is relatively straightforward by comparison, with solutions revolving around marshaling resources to support network buildout in these areas.
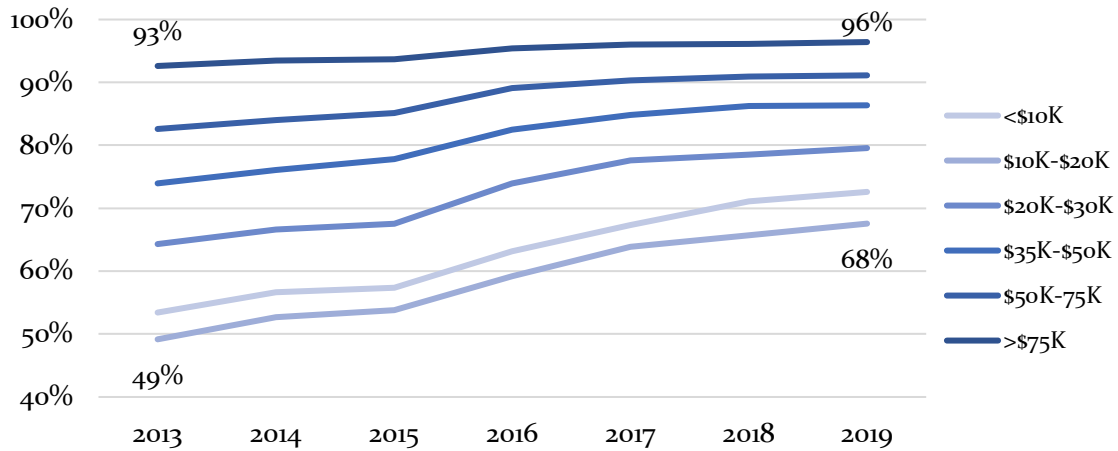
[17] *State Survey on Broadband Adoption 2021,* at p. 3, CETF and USC (March 2021), https://www.cetfund.org/wp-content/uploads/2021/03/Annual_Survey_2021_CETF_USC_Final_Summary_Report_CETF_A.pdf ("*State Survey on Broadband Adoption 2021*").

[18] *Id.* at p. 4.

[19] *Id.*

[20] ACLP Analysis of ACS Data (on file).

Broadband Adoption by Household Income Category – California – 2013-2019

- This dynamic – of rising broadband adoption across income groups – is evident in Los Angeles, Glendale, Compton, Fresno, and Oakland, the primary cities implicated in the analyses of the three studies cited by the Commission:[21]

Change in Broadband Adoption by Household Income Category – 2013-2019

	Overall	Under $10K	$10K to $20K	$20K to $30K	$35K to $50K	$50K to $75K	Over $75K
California	+12%	+19%	+18%	+15%	+12%	+9%	+4%
Compton	+20%	+26%	+22%	+8%	+35%	+6%	+12%
Fresno	+19%	+23%	+25%	+19%	+14%	+14%	+9%
Glendale	+9%	0%	+11%	+5%	+14%	-1%	+6%
Los Angeles	+14%	+19%	+21%	+15%	+14%	+10%	+4%
Oakland	+8%	+7%	+11%	+1%	+4%	+7%	+2%

- Rising broadband adoption is also evident across communities of color statewide:[22]

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[21] ACLP Analysis of ACS Data (on file).

[22] ACLP Analysis of ACS Data (on file).

Broadband Adoption by Race/Ethnicity – California – 2015-2019
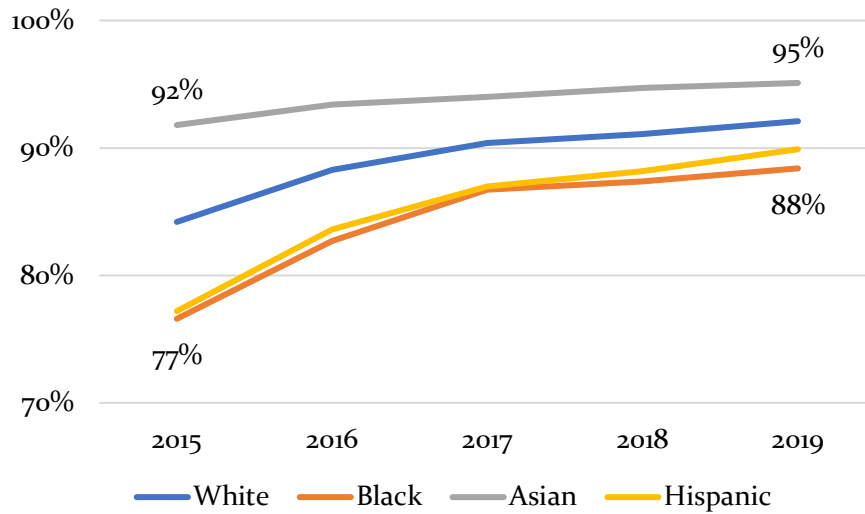
These data make clear that broadband adoption has risen consistently across every demographic group in every part of the state. Gaps remain, with under-adoption still evident among certain groups. However, that adoption rates in these groups have grown in tandem with, and sometimes much faster than, other groups suggests that access to a broadband connection has not proven to be a barrier in served markets. For those who choose to remain offline in these markets, common barriers to adoption include the perception that broadband is unaffordable based on a household's income or a sense that the service is irrelevant to their lives; lack of an access device; lack of digital literacy skills; and concerns about the safety of being online.[23] An overarching barrier remains lack of interest in broadband among those without it, which can inform how a person views various aspects of the service, including its price.[24] If a person has little interest in using

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[23] *State Survey on Broadband Adoption 2021* at p. 20.

[24] *See* Andrew Perrin, *Mobile Technology and Home Broadband 2021,* June 3, 2021, Pew Research Center, https://www.pewresearch.org/internet/2021/06/03/mobile-technology-and-home-broadband-2021/.

broadband, then they are more likely to view it as unaffordable at most price-points.[25] Addressing these barriers should be the primary focus of policymakers examining how to bolster connectivity in served markets.

3.1.2   *Broadband Availability & Competition Trends in California*

At the same time, broadband availability has increased largely in tandem with rising broadband adoption in California. Consider the following data points:

- A wireline broadband connection of at least 25/3 Mbps was available to 96.4% of households in 2020, up from 93.9% of households in 2015.[26]

- A similar upward trajectory in broadband availability has been evident in cities and counties across the state. In many instances, these gains have been small because broadband has long been available throughout much of the state. For example, in Los Angeles County, the availability of at least one wireline broadband connection capable of delivering a minimum of 25/3 Mbps inched up from 99.4% in 2015 to 99.7% in 2020.[27] Similar gains have been made in Oakland (99% to 99.4%) and Fresno (98.1% to 98.9%) during the same timeframe.[28] In Compton, availability has been at 100% since at least 2015.[29]

Equally as important has been the growth of competitive options across California.

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[25] *See, e.g.,* Charles M. Davidson, Michael J. Santorelli & Thomas Kamber, *Toward an Inclusive Measure of Broadband Adoption*, 6 International Journal of Communication 2555–2575 (2012), http://comms.nyls.edu/ACLP/Davidson-Santorelli-Kamber-Toward-an-Inclusive-Measure-of-Broadband-Adoption-IJOC-2012.pdf ("*Toward an Inclusive Measure*").

[26] ACLP analysis of FCC Form 477 data (on file).

[27] ACLP analysis of FCC Form 477 data (on file).

[28] ACLP analysis of FCC Form 477 data (on file).

[29] ACLP analysis of FCC Form 477 data (on file).

- The percentage of households across the state with access to at least two wireline offerings of 25/3 Mbps broadband rose from 26.6% in 2015 to 74.2% in 2020.[30] Once again, this dynamic has been evident in LA County (31.5% to 74.4%), Compton (9.6% to 74.6%), Oakland (54.6% to 97.1%), Fresno (4.9% to 89.1%), and most other cities and counties in the state.[31]

These impressive gains in wireline competition do not reflect similarly remarkable gains in the availability and robustness of non-wireline broadband offerings, specifically mobile broadband, fixed wireless, and satellite.

- Fixed wireless services are proliferating, especially in difficult-to-serve areas where this cost-effective solution is delivering increasingly robust speeds. With access to additional spectrum resources, speeds on offer could increase significantly.[32] Fixed wireless is poised to play a major role in bringing broadband to unserved parts of California, as evidenced by the award of significant federal funding via the FCC's Rural Digital Opportunity Fund.[33] (Examples of how fixed wireless is being leveraged throughout California are provided below.)

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[30] ACLP analysis of FCC Form 477 data (on file).

[31] ACLP analysis of FCC Form 477 data (on file).

[32] *See, e.g.,* Joan Engebretson, *WISPA: Path to Gigabit Plan Could Reduce Rural Broadband Subsidies,* March 24, 2021, Telecompetitor, https://www.telecompetitor.com/wispa-path-to-gigabit-plan-could-reduce-rural-broadband-subsidies/.

[33] *See, e.g.,* Steve Blum, *WISPs are the Big California Winners in FCC's Broadband Subsidy Auction,* Dec. 8, 2020, Tellus Venture Blog, https://www.tellusventure.com/wisps-are-the-big-california-winners-in-fccs-broadband-subsidy-auction/.

- Providers of 5G mobile broadband are also rapidly deploying this next generation of wireless service, which promises to deliver speeds of 1 Gbps or more.[34] Indeed, providers like T-Mobile are positioning 5G as a way to provide immediate broadband access to unserved rural areas and to introduce another competitor in served areas.

- The next generation of satellite broadband is beginning to emerge and promises to deliver even greater speeds at lower latency. These offerings stem mostly from a constellation of low-earth orbiting satellites, which together are well positioned to provide more reliable and faster service. Starlink, for example, has delivered speeds of up to 100 Mbps, with coverage and capacity varying depending on a variety of factors (this service is still in beta).[35]

3.1.3 *Understanding Why Not Every Community Has the Same Broadband Services Available to Them*

The fact that some communities might remain without certain kinds of broadband offerings does not appear to be indicative of a conscious or intentional choice to discriminate against those areas. Rather, it is likely due to two factors: (1) the widespread embrace of intermodal competition, which has long supported the use of multiple platforms to enable internet access, and (2) business decisions by ISPs to deploy networks in response to consumer demand for certain services.

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[34] *See, e.g.,* Brad Gillen, *5G – The Missing Ingredient to Closing the Digital Divide,* May 27, 2021, CTIA, https://www.ctia.org/news/5g-the-missing-ingredient-to-closing-the-digital-divide.

[35] *See, e.g.,* Michael Kan, *Starlink: Here are the Download Speeds You Can Expect Across North America,* May 5, 2021, PCMag, https://www.pcmag.com/news/starlink-here-are-the-download-speeds-you-can-expect-across-north-america.

Regarding intermodal competition, the United States, on a bipartisan basis, has long encouraged and sought to facilitate the provision of broadband via a range of different platforms.[36] These dynamics are evident across California as multiple broadband networks – *e.g.,* cable, fiber, mobile, fixed wireless, satellite, etc. – have slowly spread to nearly every corner of the state.

Many entities, including the FCC, focus primarily on wireline availability at a residence when assessing whether markets are served and whether there is sufficient competition. However, such a focus is becoming increasingly quaint in a world where multiple platforms can deliver high-speed internet access anywhere at any time, and where consumers are embracing non-wireline options as their primary on-ramp to the internet. For example, while smartphone-only connectivity has plateaued in recent years, it is becoming a popular option for younger uses. Indeed, smartphone-only internet connectivity has risen most prominently among adults aged 18-29 in recent years.[37] These trends, which might proliferate even more as 5G becomes widely available, will likely inform deployment decisions in certain areas as ISPs seek to match supply with demand. In areas where there appears to be an obvious preference for mobile broadband, deploying additional wireline offerings would seem to make little sense.

Moreover, areas where demand for services like 5G appears most intense will likely see those offerings made available before areas where demand is less apparent. ISPs

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[36] *See, e.g.,* Charles M. Davidson & Michael J. Santorelli, *Federalism in Transition: Recalibrating the Federal-State Regulatory Balance for the All-IP Era,* 29 Berkeley Technology Law Journal 1131-1204 (2014), https://btlj.org/data/articles2015/vol29/29_2/29-berkeley-tech-l-j-1131-1204.pdf ("*Federalism in Transition*").

[37] *Internet/Broadband Fact Sheet.* These data generally align with the findings of CETF/USC in its most recent broadband adoption survey. *See State Survey on Broadband Adoption 2021* at p. 17-18, 24.

respond to market signals when choosing where to make investments. This is why some areas remain unserved: in the absence of subsidies, there is no economic case to build certain networks in sparsely populated and/or geographically challenging areas. ISPs might also choose to deploy services in certain markets first as a way to build market share, test services, fine-tune offerings, and then roll them out elsewhere. Rather than being nefarious or exclusionary, these are typical product-, service-, and market-development strategies followed by providers of many different services.[38]

The key point is that differences in the availability of certain services is not unusual or unexpected – in the broadband context or retail context generally. A blanket approach that requires retailers to make the same goods available everywhere can prove to be wasteful and not reflective of the unique demands of specific communities. The array of non-traditional business models being deployed by relatively new ISPs in California and elsewhere reflect many of these dynamics – and further demonstrate that there is no "one size fits all" model for enhancing broadband connectivity.

Consider the following business models that leverage alternative deployment strategies and non-traditional technology choices to bring broadband to select markets:

- *Demand-Driven Deployment.* Google Fiber developed an alternative broadband deployment strategy that allows ISPs, with the permission of the localities with

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[38] There is broad acceptance of and significant literature detailing the underlying mechanics of broadband deployment decisions in the United States. For broad overviews, *see Connecting America: The National Broadband Plan*, FCC (2010), https://transition.fcc.gov/national-broadband-plan/national-broadband-plan.pdf; Jonathan E. Nuechterlein & Howard Shelanski, *Building on What Works: An Analysis of U.S. Broadband Policy*, 73 Fed. Comm. L. J. 219 (2021), http://www.fclj.org/wp-content/uploads/2021/04/73.2.1.US-Broadband-Policy.Nuechterlein-Shelanski.FINAL_.pdf.

which they are partnering, to prioritize network buildout in areas where there is sufficient demand for its services.[39] A version of this approach appears to have been deployed by the firm in Orange County, where it offers broadband services to "a select few high-end apartment buildings in neighborhoods like Irvine, Cypress Village, and Woodbury."[40]

- *Fixed Wireless in Public Housing Developments in San Francisco and L.A.* Wireless internet service providers like Monkeybrains in San Francisco[41] and Starry in Los Angeles[42] have deployed fixed wireless networks to bring broadband connectivity to several public housing complexes in those cities. These efforts have been applauded as a cost-effective way to quickly bring robust connectivity to these buildings.[43] In both cases, speeds and pricing appear to vary depending on where the service is available due to a range of considerations.[44]

- *Wi-Fi to Offer Additional Internet Access.* In an effort to plug gaps in availability and to provide an additional – and free – internet on-ramp in already served areas during

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[39] *See, e.g.,* Michael Hiltzik, *As Google Fiber Scales Down its Broadband Business, San Francisco Moves Ahead on its Own,* Nov. 18, 2016, L.A. Times, https://www.latimes.com/business/hiltzik/la-fi-hiltzik-sf-municipal-broadband-20161120-story.html.

[40] *See Google Fiber Expansion Status in California (2020),* Connect California, https://www.connectcalifornia.com/internet-service/google-fiber-expansion-status-california. *See also* Google Fiber, Orange County, https://fiber.google.com/cities/orangecounty/.

[41] *See* Monkeybrains, How it Works, https://www.monkeybrains.net/how-it-works.php#residential.

[42] *See Starry and Microsoft Team Up to Expand Low-Cost Broadband Access in Public Housing,* Oct. 9, 2020, Starry – The Download blog, https://starry.com/blog/news/starry-and-microsoft-team-up-to-expand-low-cost-broadband-access-in-public-housing.

[43] *See, e.g.,* Hannah Rank and Christopher Mitchell, *A Public Housing Digital Inclusion Blueprint,* Institute for Local Self-Reliance (May 2019), https://ilsr.org/wp-content/uploads/2019/03/sf-broadband-public-housing-2019.pdf.

[44] *See, e.g.,* Monkeybrains, Residential Service, https://www.monkeybrains.net/residential.php.

the pandemic, some cities in California – including "San Jose, West Contra Costa County, Kings County and Oakland among others" – built small-scale Wi-Fi networks.[45] More broadly, the state itself partnered with firms like Google to deliver thousands of wireless hotspots and tablets to students to ease the transition to remote learning.[46]

These are just some examples of the myriad broadband deployment strategies evident in California right now. These efforts further underscore how business decisions tend to be shaped by a range of forces and yield broadband offerings that vary greatly from city to city and sometimes from neighborhood to neighborhood. It does not appear that any of the examples cited above have been described as "digital redlining."[47] Instead, many have been applauded for helping close the digital divide.

3.1.4 Takeaways

These data support several takeaways regarding efforts to bolster broadband connectivity.

First, broadband is iterative by nature. It is difficult to serve everyone all at once with the exact same technology. That has never been the goal of U.S. broadband policy, nor

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[45] *See, e.g.,* Ali Tadayon & Sydney Johnson, *California Schools Build Local Wireless Networks to Bridge Digital Divide,* Jan. 4, 2021, EdSource, https://edsource.org/2021/california-schools-build-community-wireless-networks-to-bridge-digital-divide/645919.

[46] *See, e.g.,* Ben Christopher, *Hot Spots: Pandemic Pushes California to Bridge a Digital Divide,* April 3, 2020, Cal Matters, https://calmatters.org/economy/2020/04/california-google-hotspot-covid-internet-digital-divide/.

[47] *Cf.* Khalil Abdullah, *Google's Broadband War Redlining Black Communities,* Jan. 6, 2017, Philadelphia Tribune, https://www.phillytrib.com/commentary/googles-broadband-war-redlining-black-communities/article_78510d50-d377-59ef-8032-2db568d647c4.html.

should it be. Instead, network upgrades and new service offerings tend to be phased in, with areas of highest demand being prioritized.

Second, broadband is adaptable. The ability to provide broadband over several different platforms has proven invaluable to helping plug gaps in availability and to bringing more people online. Advances in non-wireline options in particular provide consumers with the ability to access the internet at broadband speeds wherever they go. A broader perspective of the broadband market is therefore critical to ensuring that policy accurately reflects and advances real consumer demand and not what some think consumers *should* be demanding or using.

Third, the broadband market is highly responsive. In general, the sector, based on the data provided above, appears to have consistently responded to the ever-changing demands of consumers. Broadband availability and competition have risen in tandem with growing adoption rates across the board.

3.2   *A Broadband Equity Framework*

As the Commission – and policymakers generally – endeavor to identify and respond to broadband connectivity challenges, they should approach this analysis from the vantage of enhancing broadband equity across the board. To do so, the following six-pronged framework should be deployed in order to generate an accurate assessment of local broadband connectivity and develop appropriate solutions to those issues.

(1) Availability Assessment. As a threshold matter, officials should undertake a comprehensive inventory of broadband availability in the city/county/region. This should encompass all forms of broadband regardless of technology and catalog

available speeds, price points, and service offerings (*e.g.,* triple-play). If the area is served – *i.e.,* if residents can readily subscribe to a broadband connection of some kind – then officials should continue forward with the framework. If the area is deemed unserved, then different remedies are appropriate.

(2) Adoption Assessment. In served areas, the next step is to evaluate broadband adoption in the community. What are the adoption rates across relevant demographic groups? What kinds of services and speeds are consumers using? Who isn't online?

(3) Barriers Assessment. For those who aren't online, better understanding specifically why they have not adopted broadband is essential. What are the major barriers impeding their adoption? Is it the cost of a broadband connection? The lack of a computing device? A hesistance or fear of going online? A lack of appreciation for how broadband can positively impact one's life? General disinterest? A granular understanding of these issues within each under-adopting user group will increase the chances that policy responses are impactful.

(4) Partnership Assessment. Once the nuanced landscape of broadband connectivity is fully understood, the next step is to identify potential partners for bringing more people online. ISPs are natural partners given their presence in the locality. Partnerships with them could yield greater promotion of existing low-cost offerings, additional Wi-Fi deployments, or other appropriate responses to connectivity challenges facing certain communities. Indeed, there appears to be a significant gap in awareness of the availability of low-cost broadband programs

among users who might qualify.[48] Closing that gap should be a priority for policymakers and other stakeholders. Other partners might include anchor institutions, nonprofits, foundations, healthcare associations, community groups, senior centers, and other stakeholders with established roots in the community.

(5) Strategy Development. After the data has been gathered and assessed; the issues identified; and resources marshaled, local officials are then in a better position to begin aligning these myriad assets to address the challenges at hand. An inclusive process that brings all stakeholders to the table for collaborative, solution-focused discussions will be best vis-à-vis generating workable strategies.

(6) Solution Deployment. Once strategies have been developed, officials, in tandem with the network of partners convened to assist, can focus on the tactical deployment of actual solutions. Priority should be assigned to those communities where broadband adoption rates are lowest.

The benefits of the framework proposed above are myriad. The framework is:

- *Realistic.* Using the framework ensures that responses to broadband challenges are reflective of actual supply and demand characteristics. Moreover, the framework intentionally avoids starting from the perspective that a certain kind of technology or speed or price point is optimal. Rather, the framework embraces what is already available and works from there.

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[48] *State Survey on Broadband Adoption 2021* at p. 21.

- ***Data Driven.*** The framework revolves around accurate and fresh data collected from the communities where challenges are evident. Wielding data in this manner helps to ensure that the identification of connectivity issues is as precise as possible.

- ***Holistic.*** This ground-up assessment will help to assure a more comprehensive understanding of any nuances in local broadband availability and adoption.

- ***Hyperlocal.*** The most impactful broadband equity strategies tend to be those that tap into partners, institutions, and other resources that are already available in communities.[49]

- ***Technology Neutral.*** The framework does not value one kind of broadband technology over another. Rather, it embraces any platform that can provide reliable high-speed access to the internet.[50]

- ***Flexible.*** Deploying the framework avoids having to shoehorn communities into one-size-fits-all "solutions." Instead, communities are empowered to develop strategies that reflect the unique characteristics of their local broadband market.

- ***Amenable to Public-Private Solutions.*** The framework orients government intervention around leveraging private and nonprofit partners whenever possible to address both supply-side issues (*e.g.,* identifying issues like rights-of-way access for regulatory reform in an effort to facilitate greater investment and hasten buildout) and on the demand-side (*e.g.,* working together to promote low-cost offerings). This

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[49] *See, e.g., Understanding the Debate; Toward an Inclusive Measure.*

[50] For additional discussion about the importance of this issue, *see infra,* Section 5.4.

allows public officials to serve as conveners and coordinators, which are their optimal roles in the broadband space.[51]

Respectfully, the Commission should embrace the above framework rather than pursue the "redlining" line of inquiry that currently serves as its lodestar. The broadband equity framework is more positively focused on engaging with broadband challenges that are currently evident in California and deploying solutions in a timely manner. Applying the framework in California would highlight how many of the challenges facing communities across the state are amenable to tailored demand-side initiatives rather than sweeping and unnecessary supply-side interventions. Aligning service offerings with digital literacy training and subsidies for subscriptions and devices will likely go much further in boosting demand for offerings and nudging ISPs to meet those demands.

4. APPLYING THE BROADBAND EQUITY FRAMEWORK TO THE "REDLINING" STUDIES REVEALS NUMEROUS FLAWS THAT UNDERMINE THEIR VALUE & SUPPORTS SHIFTING THE POLICY FOCUS TO DEMAND-SIDE ISSUES

When viewed through the inclusive equity framework detailed above, the studies at the heart of the CPUC's "redlining" docket espouse a biased view of broadband connectivity. In particular, each study advances a supply-side mindset and seeks to prove that the absence of a specific kind of broadband technology (fiber) or specific level of speed means that ISPs are intentionally withholding those offerings in certain communities. As discussed at length in Section 2, this does not appear to be the case.

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[51] For additional discussion, *see infra,* Section 5.3.

The flawed perspective of the broadband marketplace evident in each study is further compounded by the selective use of data and problematic methodologies to analyze that information. In addition, none of the studies advance the more granular demand-side analysis that these comments argue would provide stakeholders with the kind of textured, community-level look at real unmet demands and other barriers to connectivity that would prove useful to solution-focused policymaking. Consequently, the Commission should avoid relying on these studies to guide efforts vis-à-vis enhancing broadband connectivity.

The following subsections evaluate each study in turn.

4.1   *USC Study*[52]

This policy brief utilizes broadband availability and adoption data from 2014 to 2017 to "probe[] for evidence that ISPs are neglecting investments in low-income areas and communities of color."[53] When compared with the other two studies, the USC policy brief considers broadband connectivity from an academic and statistically-minded perspective. It also approaches the issue from a supply-side vantage, overlooking key successes and challenges on the demand-side.

4.1.1   *Methodological Shortcomings*

Despite its academic approach, the USC study's analysis involves several factors that yield an incomplete picture of broadband realities in Los Angeles. These include:

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[52] *Who Gets Access to Fast Broadband? Evidence from Los Angeles County 2014-17*, Policy Brief #4, USC Annenberg (Sept. 2019), http://arnicusc.org/wp-content/uploads/2019/10/Policy-Brief-4-final.pdf ("*USC Study*").

[53] *Id.* at p. 1.

- *Outdated data* – the USC analysis uses data collected between 2014 and 2017, which describe a broadband market three years disconnected from today. This lack of recency omits the strong progress made over the last three years in continuing to enhance broadband offerings and close adoption gaps.[54]

- *A focus on inaccurate "proxies"* – the study focuses its analysis on two "proxies" of broadband investment: competition and the availability of fiber. Competition does not directly reflect the experiences of consumers in a given market, and its accuracy in reflecting investment levels is dubious thanks to the varying activities of different ISPs and their utilization of a wide array of technologies.[55] Likewise, the focus on fiber artificially limits that portion of the analysis to a single technology. At best, fiber availability is a rough proxy of demand for ultra-high speeds, but even that relationship has been muddled by technological advancements across an array of platforms, which have greatly increased the throughput of service delivered via cable and wireless infrastructure.[56]

- *A short time-period* – the study's claims of inequitable infrastructure investments are predicated on four years of data that provide only a brief window into nearly three decades of internet service deployments. As noted above, broadband deployment tends to be iterative in nature and driven by demand.

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[54] *See supra,* Section 2.1.

[55] *See supra,* Section 2.1, for additional discussion.

[56] For additional discussion, *see Value of Context & Rigor* at p. 4-7.

- *An inadequate consideration of key trends* – the authors begin the study by briefly acknowledging "considerable infrastructure investments" between 2014 and 2017 that boosted both competition and access to fiber. Despite that admission, the remainder of the study attempts to dismiss positive trends, downplaying clear evidence that broadband availability and adoption rates continue to grow, and that the digital divide continues to narrow. These gains are subordinated to the study's myopic focus on fiber. Such greatly undermines the objectivity of the study and results in a greatly skewed view of the broadband market in L.A. County.

- *A narrow look at L.A. County's cities* – beyond its county-level calculations, the USC study looks only at two individual cities/areas within the county: Glendale and South LA. Intended to "illustrate" their claims, this limited look neglects to mention the strong positive trends occurring in these markets. As shown previously, cities like Compton have shown double-digit increases in broadband adoption that far exceed those seen in cities like Glendale.[57] In addition, it is critical to note that L.A. County encompasses some 88 cities and approximately 125 unincorporated areas.[58] That the study focuses on only a handful of these areas to make its point suggests a selective data analysis.

While the authors attempt to argue for the presence of "market failure," they stop well short of claiming that ISPs are intentionally passing over low-income areas and/or communities of color. Instead, the authors make their conclusions "regardless of intent,"

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[57] ACLP analysis of ACS data (on file).

[58] County of Los Angeles, About, https://lacounty.gov/government/about-la-county/.

and do not speculate on the actual root of these observed "inequalities." Given their lack of certainty regarding the true cause of these effects, the study provides only two short recommendations: (1) leveraging local assets to "promote private investments" and (2) government provision of broadband, which they admit is "yet to be seen if this model is replicable at scale."[59]

4.1.2   *Analytical Shortcomings*

The report's supposition that "market failure" has led to inequities is not supported by available broadband data. Instead, both during and since the period analyzed by USC, significant progress has been made in L.A. County to narrow broadband gaps and bolster availability and adoption.

Competition, USC's metric of choice, has shown consistent growth:

– As mentioned previously, the proportion of households in L.A. County with access to two or more wired internet connections providing speeds at or above the FCC's 25/3 Mbps threshold has more than doubled, from 31.5% in 2015 to 75.4% in 2020.[60]

– Of the county's 88 incorporated cities, 81 saw an increase in the number of households with access to two or more broadband connections between 2015 and 2020.[61] The remaining seven cities make up less than 1% of the county's total population.[62]

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[59] *USC Study* at p. 5.

[60] ACLP analysis of FCC Form 477 data (on file).

[61] ACLP analysis of FCC Form 477 data (on file).

[62] ACLP analysis of FCC Form 477 data (on file).

Broadband adoption in the county has also shown strong growth, with a notable narrowing of gaps by income, and by race and ethnicity: An adoption gap of 19% in 2015 between the highest- and lowest-adopting race/ethnicity groups narrowed to 7% by 2019.

Broadband Adoption by Race/Ethnicity – LA County – 2015-2019
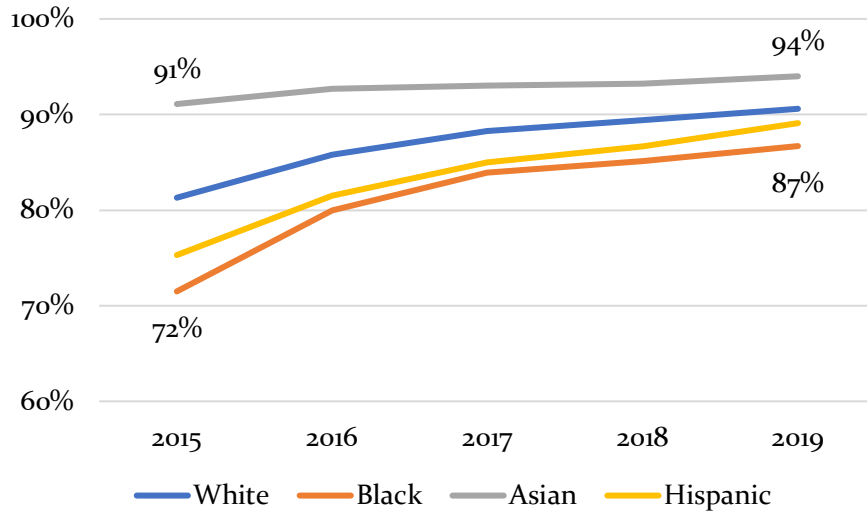
- Likewise, the adoption gap between households of different income levels also narrowed from 45% in 2013 to 30% in 2019.

Broadband Adoption by Household Income Category – LA County – 2015-2019
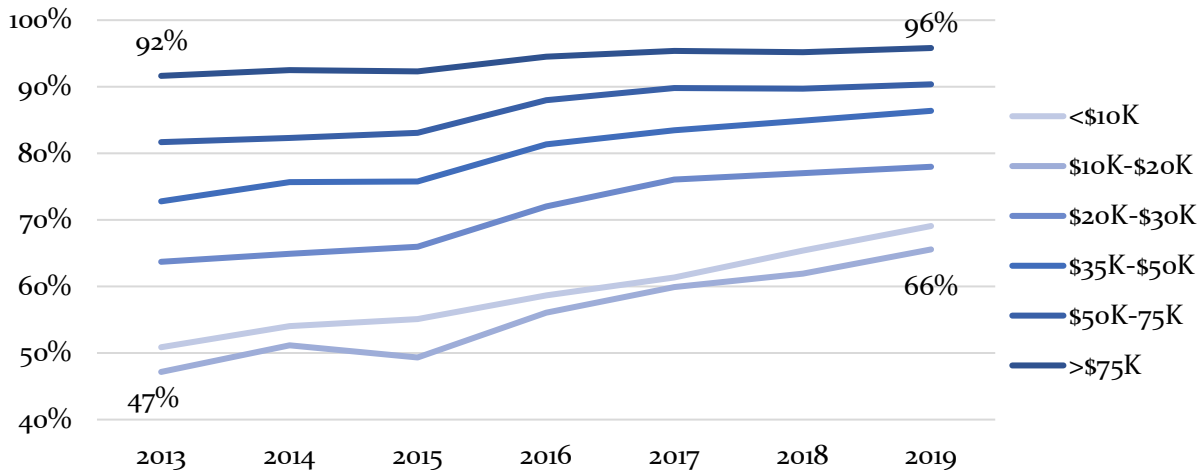
These consistent, positive trends lend little credence to a finding of "market failure" and do not support a major shift in regulatory attitudes. Instead, policymakers should approach these issues from a broadband equity standpoint in an effort to further these positive trends.

4.2   *CWA/NDIA Study*[63]

This study, targeted specifically at AT&T and co-authored by a labor union representing communications workers, appears to be intended primarily as a public-pressure document rather than a rigorous analytical report. The study's primary goal, in its authors' words, is to push AT&T to "stop laying off its skilled, unionized workers and stop outsourcing work to subcontractors."[64] The document repeatedly emphasizes this position, arguing that "job cuts…are devastating communities and hobbling the company's ability to meet the critical need for broadband infrastructure."[65] The report's bottom-line recommendation is to "invest in good jobs;" the rest of the document is clearly intended to support and lead into that point.[66]

The report levies a wide array of allegations against the company, including that it is "making the digital divide worse and failing its customers and workers."[67] These claims are based in part on an "August 2020 survey of CWA members," along with anecdotal

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[63] *AT&T's Digital Redlining: Leaving Communities Behind for Profit,* Communications Workers of America and the National Digital Inclusion Alliance (Oct. 2020), https://www.digitalinclusion.org/wp-content/uploads/dlm_uploads/2020/10/ATTs-Digital-Redlining-Leaving-Communities-Behind-for-Profit.pdf ("*CWA/NDIA Study*").

[64] *Id.* at p. 1.

[65] *Id.*

[66] *Id.* at p. 2.

[67] *Id.* at p. 1.

observations from unnamed "local advocates."[68] Throughout, the report uses accusatory language and does not hesitate to argue for "disinterest" in consumer welfare by AT&T and for intentional "digital redlining" by the company.[69]

4.2.1 *Methodological & Analytical Shortcomings Abound Given the Study's Outcome-Oriented and Biased Nature*

Given the study's obvious bias, it is difficult to evaluate the methodology underlying CWA's claims. That said, putting aside the clear outcome-oriented nature of the report, major, indeed fatal, drawbacks are evident. These include:

– *An unscientific survey* – the main analytical component of the CWA report is a "survey of 1,500 AT&T technicians" conducted by the union.[70] No methodological information regarding the survey is provided, and the potential for significant bias is obvious. Technicians have little reason not to argue that "AT&T could be building more fiber."[71] Indeed, this interest group, which is far removed from decision-making at the company level, has a straightforward incentive to support the union's push for expanded fiber deployments and thus continued work. Therefore, from the perspective of developing a rigorous, objective analysis, the "data" extracted from this survey are ultimately unusable, except for making an array of purely advocacy-oriented points throughout the study.

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[68] *Id.*

[69] *Id.* at p. 5.

[70] *Id.* at p. 7.

[71] *Id.*

- *A single ISP at a single point in time* – in limiting its "analysis" to a single provider over a specific period of time, the report neglects to consider the myriad of positive, established trends in the broadband marketplace. AT&T, along with the nation's numerous other private ISPs, has been instrumental in enabling growing broadband adoption and availability and in helping to address the digital divide. The data referenced throughout Section 2, above, support this more comprehensive assessment of the constantly evolving broadband marketplace in California and the nation.

- *Inaccurate claims* – in the report's brief discussion of broadband in California, CWA claims that, in Fresno County, "30 percent of households lack any type of home internet subscription."[72] The report cites to the 2019 American Community Survey as the source of this statistic, but those figures instead show that only 18% are without an internet subscription.[73] The report also claims that FCC data show 45% of Kings County households and 36% of Tulare County households lack broadband access.[74] However, the most recent FCC Form 477 data indicate those figures are instead 23% and 16%, respectively.[75]

The CWA/NDIA study contributes little to the discussion about broadband realities in the state of California, serving primarily to antagonize a specific provider. Instead of

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[72] *Id.* at p. 5.

[73] ACLP Analysis of ACS Data (on file).

[74] *CWA/NDIA Study* at p. 5.

[75] ACLP Analysis of FCC Data (on file).

encouraging such unproductive and hostile advocacy, which pushes stakeholders apart rather than brings them together, policymakers should pursue a collaborative, holistic assessment of local broadband connectivity and develop appropriate solutions to those issues. In other words, they should embrace the broadband equity framework detailed in Section 2.

4.3   *Greenlining Institute Study*[76]

This "mini-report" sets out to "explore[] what life is like for those who lack internet access."[77] The report's primary contribution to the discussion of broadband connectivity issues in the state is in the form of anecdotes and vignettes that illustrate the experiences of those without home broadband connectivity and/or appropriate devices. While those perspectives are meaningful and should not be overlooked, they ultimately do not support the piece's broad claims of digital redlining.

The only data-driven research offered in the piece is a broadband "heat map," which the authors argue "closely resembles official redlining maps from the 1930s."[78] No methodological information accompanies the map, and only a short description is provided regarding the meaning of the different shaded areas. Beyond the map, the only other figures presented in the report are sourced either from the USC study discussed above, or from a 2019 survey performed by Berkeley IGS.

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[76] *On the Wrong Side of the Digital Divide,* Greenlining Institute (June 2020), https://greenlining.org/publications/online-resources/2020/on-the-wrong-side-of-the-digital-divide/#introduction ("*Greenlining Institute Study*").

[77] *Id.*

[78] *Id.*

Several findings in the Berkeley IGS poll support the notion that broadband availability is secondary to other, more pressing barriers to broadband adoption. In the survey, a lack of availability was the lowest ranked of four possible reasons for home internet non-adoption, surpassed by cost, connectivity at another location, and not feeling "comfortable using a computer or going online."[79] The survey also found that, among non-adopting households, only 20% are aware of discounted low-income broadband programs.[80]

Despite the report's unfounded claims of digital redlining, some of the anecdotes contained within help to underscore the importance of demand-side solutions to closing the digital divide. Poor awareness of low-income broadband offerings and inadequate access to computing devices are a common theme, and the potential effectiveness of broadband subsidy programs is highly evident.

4.4   *Takeaways*

The preceding analysis supports the following takeaways regarding the three "redlining" studies put forward by the Commission for comment.

First, each study espouses a decided bias towards certain outcomes – *e.g.,* that fiber is the optimal platform for broadband connectivity. This view of the broadband marketplace, which ignores the ability of myriad other broadband platforms to facilitate connectivity and ignores the embrace of these competitive alternatives by consumers, is

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[79] *Internet Connectivity and the "Digital Divide" in California - 2019*, at p. 12, California Emerging Technology Fund (2019), https://www.cetfund.org/wp-content/uploads/2019/08/005_003_002_CETF_2019_002_IGS_Poll_CA_Digital_Divide_ppt.pdf.

[80] *Id.* at p. 13.

too narrow to be of any real use by the Commission in the instant proceeding – or by policymakers elsewhere engaged in similar examinations.

Second, each study includes serious methodological and analytical flaws. Only the USC study offers serious data analytics, but even its approach is undermined by outdated data and erroneous assumptions about what data accurately reflects broadband deployment decisions. The CWA/NDIA lacks rigor and relies almost entirely on the feedback of self-interested parties to support its conclusions. Finally, the only original data provided by the Greenlining Institute study is anecdotal in nature. While compelling, the vignettes included in that study are not dispositive of general broadband connectivity dynamics, nor are they reflective of data depicting a robust and responsive marketplace.

Third, given these many weaknesses, the Commission should not rely on these studies to define or guide the instant proceeding. Instead, the Commission should embrace the equity framework described above if it is serious about addressing real problems facing real consumers throughout the state.

5.   GUIDING PRINCIPLES FOR CRAFTING EFFECTIVE POLICY RESPONSES TO BROADBAND CONNECTIVITY CHALLENGES

As the Commission – and policymakers generally – continue to examine and respond to broadband connectivity challenges, it is respectfully submitted that these efforts should be informed by a core set of guiding principles. Doing so will help to keep the focus on the real issues facing consumers.

As an overview, these principles include:

-   Remain above the fray.

-   Embrace a data-driven equity mindset.

- An optimal role for state PUCs in the broadband space is as a convener of stakeholders to identify collaborative solutions to connectivity issues.

- Advance technology neutrality.

Each principle is summarized in turn below.

5.1   *Remain Above the Fray*

The atmosphere surrounding once-staid debates about telecommunications policy has become charged by the same forces that have upended political discourse in this country. For many years, telecommunications policymaking, while defined by passionate debate, tended to ultimately arrive at rational, bipartisan solutions. Now, advocates of positions far removed from the realities of the U.S. broadband marketplace are seeking to have their perspective and positions define the path forward, to the exclusion of reasoned debate and data that contradict their assertions.

To avoid this outcome, it is the responsibility of institutions like state PUCs, state legislatures, the FCC, and Congress to preserve a collaborative and respectful environment where all voices can be heard and where data guides the way forward.

5.2   *Embrace a Data-Driven Equity Mindset*

As discussed at length above, embracing an equity mindset will assure that analyses of broadband connectivity issues are holistic and reflective of actual consumer needs. Choosing to pursue divisive lines of inquiry, like allegations of "digital redlining," often proves to be a distraction because it forces parties into an antagonistic posture at a time when there needs to be more partnership.

The use of data is also essential to precisely identifying unmet consumer demands. The broadband equity framework detailed in Section 2.2., above, outlines the kinds of granular data points that are necessary to engage in such solution-focused inquiries. Leveraging the availability and adoption data in Section 2.1, above, and examining it through an equity lens illustrates the need for the Commission to refocus its broadband inquiry around two sets of pressing issues in the state: (1) helping to bring broadband to remaining unserved areas and (2) focusing more attention and resources on boosting adoption rates in certain communities where broadband is already readily available.

5.3 *An Optimal Role for State PUCs in the Broadband Space is as a Convener of Stakeholders to Identify Collaborative Solutions to Connectivity Issues*

The role of state PUCs in the broadband space is limited, with significant legal precedent suggesting that state commissions possess little regulatory authority over this inherently interstate service.[81] Accordingly, any regulatory effort by a state commission or legislature vis-à-vis broadband will likely trigger lawsuits, which often take years to resolve as they wind their way through the court system.

Given these limitations, PUCs should embrace a more productive role in this space, one where Commissions serve as a convener and facilitator of collaboration in furtherance

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[81] The legality of state efforts to regulate aspects of broadband service remains an open question in California, where litigation involving the state's net neutrality law is ongoing. However, significant legal precedent from outside the Ninth Circuit, along with a consistent line of FCC analysis of this issue, strongly indicate that state authority over broadband services is extremely limited, with formal regulatory action unlikely to withstand legal challenge. *See, e.g.,* Daniel A. Lyons, *State Net Neutrality,* 80 Pitt. L. Rev. 905 (2019), https://lawdigitalcommons.bc.edu/cgi/viewcontent.cgi?article=2243&context=lsfp; Charles M. Davidson & Michael J. Santorelli, *Broadband, The States & Section 706: Regulatory Federalism in the Open Internet Era,* 8 Hastings Science & Technology Law Journal 211 (2016), http://comms.nyls.edu/ACLP/Davidson-Santorelli-Broadband-Section-706-The-States-Hastings-STLJ-Summer-2016.pdf; *Federalism in Transition.*

of addressing broadband connectivity issues. This notion, which is included in the broadband equity framework outlined above, serves as a means for leveraging the expertise and resources of PUCs in a manner that will prove impactful on actual supply- and demand-side issues. It can also assist in leveraging the expertise and resources of ISPs and other stakeholders, who will likely be eager to enter into such public-private partnerships if they are included in discussions from the beginning.

For example, on the supply-side, such collaboration could lead to the identification of barriers to additional investment and network deployment in certain communities. Issues like reforming frameworks regarding rights-of-way access and pole attachments would likely be prioritized because these regimes appear to be ripe for modernization. Similarly, on the demand-side, collaborative discussions could identify additional opportunities for promoting low-cost offerings, the availability of subsidies, training opportunities, and related efforts aimed at bringing more people online.

5.4   *Advance Technology Neutrality*

Each of the studies put forward by the Commission for comment seeks to position fiber as the only broadband platform capable of meeting consumer demand. As discussed at length in Section 2.1, above, this is not the case. Consumers have a wealth of choices in addition to fiber, many of which are more than capable of meeting their needs now and in the future. In addition, the broadband market has proven adept at responding to consumer demands for faster speeds and different service offerings. This is why policy should focus on boosting adoption and strengthening demand in under-adopting communities where

broadband is already available. Doing so can help to better signal to ISPs when certain demands are not being met.

6.   CONCLUSION

The ACLP at New York Law School appreciates the opportunity to offer its perspective on the issues implicated by the ALJ's ruling issued on May 28, 2021. It is respectfully submitted that the Commission put aside the three studies referenced in the ruling and instead focus on a more collaborative and holistic examination of broadband connectivity dynamics across the state. Doing so will help to ensure that (1) unserved areas receive priority during the development of supply-side response strategies and (2) the focus in served markets, which encompasses the vast majority of California, is on bolstering broadband adoption and enhancing digital literacy skills.

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