

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)
)
Implementing the Infrastructure Investment and) GN Docket No. 22-69
Jobs Act: Prevention and Elimination of Digital)
Discrimination)

COMMENTS BY ELECTRONIC FRONTIER FOUNDATION, CENTER FOR ACCESSIBLE TECHNOLOGY, NTEN, COMMUNITIES IN SCHOOLS OF LA, MOHUMAN, UNITE-LA, MEDIA ALLIANCE, THE PEOPLE’S RESOURCE CENTER, INDIVISIBLE SACRAMENTO, THE GREENLINING INSTITUTE, CALIFORNIA CENTER FOR RURAL POLICY, ACCESS HUMBOLDT, COMMON SENSE, OPEN MIC, ACTIVE SAN GABRIEL VALLEY, SPEAK UP, CALIFORNIA COMMUNITY FOUNDATION DIGITAL EQUITY INITIATIVE, MONTEREY BAY ECONOMIC PARTNERSHIP, NEW AMERICA’S OPEN TECHNOLOGY INSTITUTE, GREAT PUBLIC SCHOOLS NOW, SHARED HARVEST FOUNDATION, INNERCITY STRUGGLE, PARA LOS NINOS, LA-TECH.ORG, X-LAB, MEDIA JUSTICE, INNOVATE PUBLIC SCHOOLS, SAN FRANCISCO TECH COUNCIL, ALLIANCE FOR BETTER COMMUNITY, COMMUNITY COALITION OF THE ANTELOPE VALLEY, CENTER FOR POWERFUL PUBLIC SCHOOLS, NEXTGEN CALIFORNIA, INSURE THE UNINSURED PROJECT, DESTINATION CRENSHAW, LA VOICE, LATINO COALITION FOR A HEALTHY CALIFORNIA, MICHELSON CENTER FOR PUBLIC POLICY, BENTON INSTITUTE FOR BROADBAND AND SOCIETY, and #OAKLANDUNDIVIDED COALITION

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Electronic Frontier Foundation, Center for Accessible Technology, NTEN, Communities in School of LA, mohuman, UNITE-LA, Media Alliance, The People’s Resource Center, Indivisible Sacramento, The Greenlining Institute, California Center for Rural Policy, Access Humboldt, Common Sense, Open MIC, Active San Gabriel Valley, Speak UP, California Community Foundation Digital Equity Initiative, Monterey Bay Economic Partnership, New America’s Open Technology Institute, Great Public Schools Now, Shared Harvest Foundation, InnerCity Struggle, Para Los Ninos, LA-TECH.Org, X-Lab, MediaJustice, Innovative Public Schools, San Francisco Tech Council, Alliance for a Better Community, Community Coalition of the Antelope Valley, Center for Powerful Public Schools, NextGen California, Insure the Uninsured Project, Destination Crenshaw, LA Voice, Latino Coalition for a Healthy California, Michelson Center for Public Policy, Benton Institute for Broadband & Society, and #OaklandUndivided Coalition (collectively, Joint Advocates) collectively submit the following comments in the above captioned proceeding.

Joint Advocates represent a wide range of entities and individuals including local elected officials, advocates in health policy, education advocacy, digital equity, racial equity, and economic development in both rural and urban markets. Joint Advocates strongly support the Notice of Inquiry as well as a pending robust rule to make good on the law’s promise to promote equal access to the internet.

There is broad systemic discrimination occurring in the deployment of 21st century broadband infrastructure that cuts across income lines. Three extensive independent studies by the National Digital Inclusion Alliance, Communications Workers of America, Greenlining Institute, and University of Southern California all show the same pattern of preferential treatment for high-income broadband users over the needs of low-income users. We have no doubt that if the Federal Communications Commission (FCC) conducts its own study, the results of that study will match the findings of these organizations. Accordingly, Joint Advocates respectfully request that the FCC produce such a study this year as it begins to contemplate a digital discrimination rulemaking. Broadband users are experiencing discriminatory impacts of deployment that are no different than the impacts of past redlining policies in housing, banking, and other venues of economic activity. History has shown us that these problems do not go away without enforcement of non-discrimination laws. It is critical that the Commission act immediately to remedy these historical disparities.

A rule against discriminatory deployment of broadband infrastructure will prevent the outcomes we are seeing continue to unfold today. Specifically, next generation broadband access, primarily driven with fiber optics, is being deployed to those on the higher income scale while low-income users are being left with legacy or inferior alternatives. Without intervention by the FCC, Americans will be segregated into “first class” and “second class” broadband access market where the wealthy enjoy faster speeds at lowering prices while those less fortunate—disproportionately low-income communities and communities of color—are left with inferior options with limited speeds and increasing prices. This will compound the gross harms of past discriminatory actions that created much of the income and wealth divides which follow on government efforts have been working on remedying for years. The FCC cannot allow the continuation of a “separate but equal” approach to broadband infrastructure deployment.

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ARGUMENT

I. The Commission Should Analyze Digital Discrimination Based on the Infrastructure Deployed as Well as the Type of Services Being Offered

The Commission should begin defining digital discrimination in broadband as *discriminatory infrastructure deployment choices made based on socio-economic status*. This discrimination in 21st century access is primarily driven by where ISPs are choosing to deploy fiber within their network and, most importantly, where they are not deploying it. It is not appropriate for the Commission to premise this inquiry on speeds as speeds alone, depending on the metric adopted, will often obfuscate the nature of the infrastructure deployment. For example, several broadband services can achieve 100 Mbps download, but only a select few can go beyond those speeds at a low-cost basis. Sorting out the type of infrastructure being deployed, and whether it is being deployed ubiquitously, should be at the core of the FCC's inquiry. The speeds of a broadband service are naturally dependent on the infrastructure used, as is the cost of delivery for that service.

For 21st century access, the transmission medium that stands at the heart of all high-speed services (both wireless and wired) without exception is fiber optics. Make no mistake: communities that do not receive investments in fiber infrastructure will gradually face more expensive plans for worse access. They will miss out on the benefits of faster services and, over time, the costs of provisioning broadband to them will increase as capacity fails to keep up with demand. As applications and services continue to require more bandwidth (both upload and download), communities left with underinvested legacy infrastructure will be unable to fully utilize the internet. No amount of government subsidy effort can reverse that without remedying the infrastructure gap.

In addition to speed, other components of broadband service that the Commission should include in its analysis are latency and data caps. The deeper an ISP pushes fiber infrastructure, the lower the latency the last-mile connection enjoys. A complete fiber network, or a short-range wireless network connected to fiber, enjoys near instantaneous transmission of data allowing for any real-time service or application. A legacy network or distant wireless connection results in substantially higher latency. This range of latencies is regularly studied by the FCC and provides

useful data for the FCC to rely on to determine if differently performing infrastructure is being deployed by the same provider throughout a community.¹

With respect to data caps, the Commission should consider how data caps are producing a discriminatory effect in access in broadband plans. Historically, the ISP practice of zero-rating certain services was linked with the creation of a data cap which incentivized consumers to prioritize use of the zero-rated services as a means of staying under the cap. But data caps are just artificial maximums on data usage set by the ISPs under the guise of congestion management. They are in fact a method of rent-seeking, either extracting more expensive plans from consumers or leveraging fines on consumers who violate these artificial caps.² Because data caps are normally linked to wireless plans and low-income users rely on these services to a higher degree, it creates a scenario where similar looking plans might be priced very differently, with a data capped service being more expensive than an unlimited data service.³ The Commission should define what ‘comparable terms and conditions’ means in relation to digital discrimination and, in creating this definition, should consider whether data caps are placing real limits on usage and access in broadband along the protected classes Congress laid out in the bipartisan infrastructure law. As has been noted in an international study, wireless plans that engaged in zero rating were generally more expensive than plans without such policies.⁴

II. Historical Context of Past Discrimination is Necessary to Understand the Importance of an Anti-Discrimination Rule for Broadband Infrastructure

In the 1930s, the federal government enacted several discriminatory policies, including public housing that purposefully segregated previously mixed communities; subsidies for constructing whites-only suburbs; tax exemptions for institutions that enforced segregation; and

¹ FEDERAL COMMUNICATIONS COMMISSION, Measuring Fixed Broadband – Tenth Report (Jan. 4, 2021) *available at* <https://www.fcc.gov/reports-research/reports/measuring-broadband-america/measuring-fixed-broadband-tenth-report>.

² Dante D’Orazio, *Leaked Comcast memo reportedly admits data caps aren’t about improving network performance*, The Verge (November 7, 2015), <https://www.theverge.com/smart-home/2015/11/7/9687976/comcast-data-caps-are-not-about-fixing-network-congestion>.

³ Monica Anderson, *Mobile Technology and Home Broadband 2019*, Pew Research Center (June 13, 2019), <https://www.pewresearch.org/internet/2019/06/13/mobile-technology-and-home-broadband-2019/>.

⁴ Epicenter.Works study, Jan, 29, 2019, *available at* [2019 netneutrality in eu-epicenter.works-r1.pdf](#)

support for violent resistance to Black residents in white neighborhoods, and redlining.⁵ "Redlining" describes a historical federal government-sponsored policy of approving loans and access to other financial services in white communities while denying loans and access to other financial services in communities of color.⁶ In the 1930s, the American government systematically imposed residential segregation through undisguised racial zoning. The 1933 Home Owners' Loan Act created the Home Owners' Loan Corporation (HOLC) to "provide emergency relief with respect to home mortgage indebtedness, to refinance home mortgages, to extend relief to the owners occupied by them and who are unable to amortize their debt elsewhere...."⁷ HOLC's Research and Statistics department drew upon its network of realtors, developers, lenders, and appraisers to create a neighborhood-by-neighborhood assessment of more than 200 cities in the country.⁹ These assessments included color-coded "Security Maps" which ranked neighborhoods on an A-D scale:

- Grade A = "homogeneous," in demand during "good times or bad."
- Grade B = "like a 1935 automobile-still good, but not what the people are buying today who can afford a new one."
- Grade C = becoming obsolete, "expiring restrictions or lack of them," and "infiltration of a lower grade population."
- Grade D = "those neighborhoods in which the things that are now taking place in the C neighborhoods have already happened."¹⁰

This Security Map of Sacramento, California is a typical example:

Figure 7. Security Map, City of Sacramento, California

⁵ Richard Rothstein, *The Color of Law: A Forgotten History of How Our Government Segregated America* 13 (purposeful segregation), 64 (redlining) 70 (whites-only suburbs) 102 (tax exemptions for whites-only facilities), 139-151 (state-sanctioned violence) (2017).

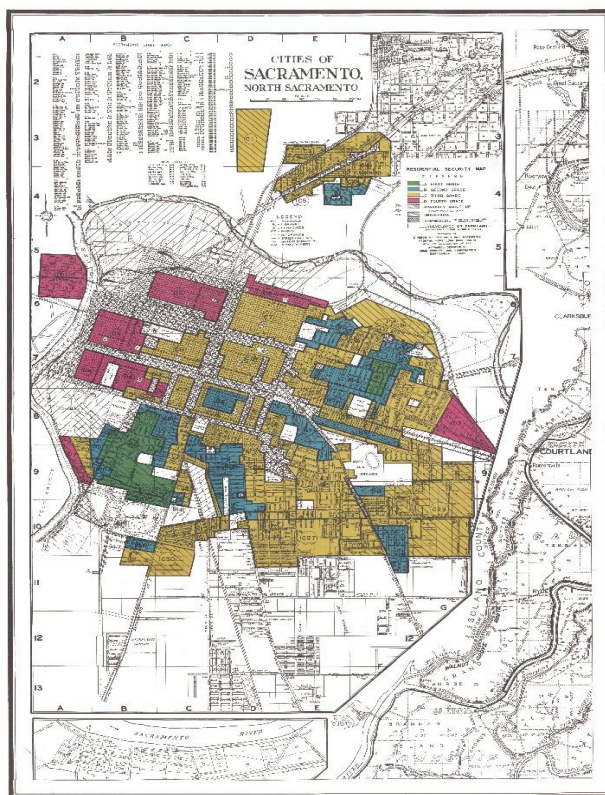
⁶ Richard Rothstein, *pg* 64 (2017).

⁷ 12 U.S.C. §§ 1461-1468 (1934)

⁸ *Id.*

⁹ Mapping Inequality: Redlining in New Deal America, available at <https://dsl.richmond.edu/panorama/redlining/#loc=13/37.855/-122.519&city=san-francisco-ca&text=intro>.

¹⁰ Amy Hillier, Residential Security Maps and Neighborhood Appraisals: The Home Owners' Loan Corporation and the Case of Philadelphia," 29 *Social Science History* 207-233 (2005).



While purporting to give neighborhood ratings to guide investment, the HOLC "devised a rating system that undervalued neighborhoods that were dense, mixed, or aging" and "applied [existing] notions of ethnic and racial worth to real-estate appraising on an unprecedented scale."¹¹ These maps were used to exclude Jewish and Black families from designated white neighborhoods.¹² For example, for decades, the Federal Housing Administration and Veterans Administration and state-regulated insurance companies refused to insure mortgages for Black applicants in designated white neighborhoods.¹³ These policies led to increased segregation: between 1930 and 1970 or 1980, "D" neighborhoods became more segregated than "C" neighborhoods, and "C" neighborhoods became more segregated than "B" neighborhoods.¹⁴

¹¹ Mapping Inequality: Redlining in New Deal America, available at <https://dsl.richmond.edu/panorama/redlining/#loc=13/37.855/-122.519&city=san-francisco-ca&text=intro>, citing Kenneth T. Jackson, *Crabgrass Frontier: The Suburbanization of the United States* (1987).

¹² *Id.*

¹³ Richard Rothstein, *The Color of Law: A Forgotten History of How Our Government Segregated America* 64-73 (2017).

¹⁴ Daniel Aaronson, Daniel Hartley, and Bhashkar Mazumder, The effects of the 1930s HOLC "redlining" maps at p. 5(2017), available at <https://www.econstor.eu/bitstream/10419/200568/1/1010730592.pdf>.

Additionally, redlining had an "economically important negative impact on homeownership and house values" and contributed to the growing racial wealth gap in the United States.¹⁵ In other words, redlining deprived residents in "C" and "D" neighborhoods—typically Black and low-income—of the opportunity to build generational wealth through homeownership.

a. The Historical Practice of Redlining Created Disinvestment in Communities of Color and Overinvestment in White Communities

The story of redlining is not solely a story of disinvestment. It is a story of extracting investments that should have gone to communities of color and instead transferring them to white communities. Lenders who refused to lend in communities of color did not let their money lie fallow. Instead, they used it to provide loans and other financial instruments to white men, resulting in fewer loans for women and black borrowers.¹⁶ In other words, white communities benefited from "double" investment by lenders and insurers while communities of color got nothing. These practices led to "the disproportionate accumulation of wealth held by white households while exacerbating the economic fragility of many Black households."¹⁷

Additionally, any money that was invested in Black communities did not go to Black households. Instead, that money was used by speculators to buy homes in those communities and charge inflated rents to Black families that had few housing options.¹⁸ As a result, HOLC funds, which were ostensibly supposed to be used to help families in redlined communities with mortgage payments, property taxes, home insurance, and home maintenance, were instead extracted from those communities.¹⁹

¹⁵ *Id.* at p. 6.

¹⁶ Angela Hanks, Danyelle Solomon, and Christian E. Weller, *Systematic Inequality: How America's Structural Racism Helped Create the Black-White Wealth Gap* (2018), available at <https://www.americanprogress.org/issues/race/reports/2018/02/21/447051/systematic-inequality/>. Similarly, "black veterans' educational benefits were only available for a limited number of black colleges—in many cases, the only institutions of higher education open to blacks—which led to overcrowding at those schools." *Id.*

¹⁷ Emily Moss, Kriston McIntosh, Wendy Edelberg, and Kristen Broady, *The Black-white wealth gap left Black households more vulnerable* (2020), available at <https://www.brookings.edu/blog/up-front/2020/12/08/the-black-white-wealth-gap-left-black-households-more-vulnerable/>.

¹⁸ Amy Scott, *Inequality by design: How redlining continues to shape our economy* (2020), available at <https://www.marketplace.org/2020/04/16/inequality-by-design-how-redlining-continues-to-shape-our-economy/>.

¹⁹ C. Lowell Harris, *History and Policies of the Home Owners' Loan Corporation*, New York at pp. 127-133 (1951), available at [http://babel.hathitrust.org/cgi/pt?id=uc1.\\$b37493;view=1up;seq=9](http://babel.hathitrust.org/cgi/pt?id=uc1.$b37493;view=1up;seq=9).

b. Redlining Policies Discouraged Retailers from Building Stores in Redlined Neighborhoods, Leading to "Retail Redlining."

The effects of redlining persist today. Decades of public policies supporting segregation and concentrations of high-poverty communities made it harder for black families to build wealth.²⁰ As a result of redlining and other government policies, in 2016, median Black wealth was less than ten percent of median white wealth, even though Black wealth increased at a faster rate.²¹ Neither differences in income nor differences in educational attainment, indebtedness, or a host of other demographic and socioeconomic indicators can fully account for the persistence of this Black-white wealth gap.²²²³²⁴ The Black-white wealth gap remains even among households of similar incomes.²⁵

Families in redlined and "yellow-lined" neighborhoods found themselves unable to move elsewhere or improve their homes and communities because they did not have access to capital to make it happen.²⁶ Additionally, the lack of access to capital made it much more difficult for redlined communities to improve their neighborhoods. For example, even today, historically redlined communities have disproportionately less greenspace—parks, water features, tree canopy coverage—and elevated ambient temperatures compared to non-redlined areas.²⁷

²⁰ Angela Hanks, Danyelle Solomon, and Christian E. Weller, Center for American Progress, Systematic Inequality: How America's Structural Racism Helped Create the Black-White Wealth Gap (Feb. 21, 2018), *available at* <https://www.americanprogress.org/issues/race/reports/2018/02/21/447051/systematic-inequality/>.

²¹ Angela Hanks, Danyelle Solomon, and Christian E. Weller, Center for American Progress, Systematic Inequality: How America's Structural Racism Helped Create the Black-White Wealth Gap (Feb. 21, 2018), *available at* <https://www.americanprogress.org/issues/race/reports/2018/02/21/447051/systematic-inequality/>. The survey authors' calculations are based on data in survey year 2016 from the Board of Governors of the Federal Reserve System, "Survey of Consumer Finances (SCF)," *available at* <https://www.federalreserve.gov/econres/scfindex.htm>

²² Darrick Hamilton and Trevon Logan, This is Why the Wealth Gap Between Black and White Americans Persists (February 08, 2020), *available at* <https://www.fastcompany.com/90461708/why-wealth-equality-remains-out-of-reach-for-black-americans>.

²³ Kriston McIntosh Emily Moss, Ryan Nunn, and Jay Shambaugh, Examining the Black-White Wealth Gap (February 26, 2020), *available at* https://www.hamiltonproject.org/blog/examining_the_black_white_wealth_gap.

²⁴ Darrick Hamilton and William Darity Jr., Can 'Baby Bonds' Eliminate the Racial Wealth Gap in Putative Post-Racial America? (January 1, 2010), *available at* <https://journals.sagepub.com/doi/abs/10.1007/s12114-010-9063-1>

²⁵ Emily Moss, Kriston McIntosh, Wendy Edelberg, and Kristen Broady, The Black-white wealth gap left Black households more vulnerable (2020), *available at* <https://www.brookings.edu/blog/up-front/2020/12/08/the-black-white-wealth-gap-left-black-households-more-vulnerable/>.

²⁶ "Yellowlined" refers to C-grade neighborhoods, typically marked on security maps in yellow.

²⁷ Anthony Nardone, Kara E. Rudolph, Rachel Morello-Frosch, and Joan A. Casey, Redlines and Greenspace: The Relationship between Historical Redlining and 2010 Greenspace across the United States (Jan. 27, 2021) *available at* <https://ehp.niehs.nih.gov/doi/10.1289/EHP7495>. Elevated ambient temperatures are attributed "in part, to highway construction through worse-graded neighborhoods and building construction using heat-retaining materials,

Redlining deprived Black and low-income families of capital and resulted in retailers moving out of redlined neighborhoods. For example, during the sixties, seventies, and eighties, supermarket chains engaged in widespread "retail redlining," closing existing supermarkets, relocating supermarkets in the suburbs, and not investing in the construction of new supermarkets in traditionally redlined areas.²⁸²⁹ As a result, historically redlined neighborhoods are far more likely to lack a supermarket.³⁰ Residents of those neighborhoods are, "at the very least 'vulnerable' to exploitation and at worst exploited by retailers who charge them higher prices for shoddy merchandise" and must travel significant distances to purchase groceries or must purchase groceries from bodegas and liquor stores at significant markups.³¹³² Similarly, redlined communities face greater distances to clothing stores, electronics stores, fitness clubs, or pharmacies in their neighborhood, despite identical retail demand levels.³³

Retailers often justify their lack of presence in historically redlined neighborhoods by "citing stagnant or low populations, high crime rates and therefore high insurance rates, low numbers of comparable retailers already in the area, insufficient household incomes, and downscale tastes and preferences."³⁴ However, there is a substantial body of research demonstrating that "chain stores willingly cede profitable, inner-city locations to independents while they saturate suburban, less-profitable locations with their stores."³⁵ In other words, retailers' failure to invest in retail locations in historically redlined areas is contrary to claims that

activities that took place predominantly in redlined neighborhoods in the decades that followed the HOLC Security Map creation." *Id.*

²⁸ "Retail redlining refers to spatial discrimination whereby retailers, particularly chain stores, fail to serve neighborhoods or target them for unfavorable treatment based on the racial composition of the customers and/or the store operators." Naa Oyo A. Kwate, Ji Meng Loh, Kellee White, and Nelson Saldana ,Retail Redlining in New York City: Racialized Access to Day-to-Day Retail Resources (July 10, 2012), available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3732689/>.

²⁹ Mengyao Zhang and Ghosh Debarchana, Spatial Supermarket Redlining and Neighborhood Vulnerability: A Case Study of Hartford, Connecticut (2016), available at <http://europepmc.org/backend/ptpmcrender.fcgi?accid=PMC4810442&blobtype=pdf>.

³⁰ *Id.*

³¹ 'Rozario D, Williams JD. Retail redlining: definition, theory, typology, and measurement. 25 Journal of Macromarketing 177 (2005).

³² Naa Oyo A. Kwate, Ji Meng Loh, Kellee White, and Nelson Saldana ,Retail Redlining in New York City: Racialized Access to Day-to-Day Retail Resources (July 10, 2012), available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3732689/>.

³³ *Id.*

³⁴ *Id.*

³⁵ D'Rozario D, Williams JD. Retail redlining: definition, theory, typology, and measurement. 25 Journal of Macromarketing 175–186 (2005).

firms' business decisions are driven solely by the desire to maximize profits.³⁶ Rather, it appears that retailers may be making business decisions based on some other motivation and that these decisions replicate and perpetuate disinvestment in historically redlined communities and overinvestment in wealthy communities. Additionally, even if retailers' business decisions are made for a legitimate business purpose, the fact remains that those decisions create disparate impacts for communities of color, individuals with disabilities, and other unserved and underserved populations.

Whatever retailers' motivations for refusing to serve historically redlined communities, the examples discussed above illustrate the impacts that a lack of access to capital has on a community. Additionally, these impacts are often intergenerational and ongoing. Thus, redlining negatively impacted homeownership and wealth-building for families in redlined communities and led to "retail redlining," which caused disinvestment by retailers, further depriving families in historically redlined communities of economic opportunity.

c. ISPs' Perpetuation of Historical Discrimination Has Severe Negative Societal Implications, and the Commission Must Act to Remedy Long-Standing Disparate Treatment

Discrimination against low-income communities and communities of color has historically deprived residents of those communities of the opportunity to build wealth for themselves or their community. As discussed above, this was then aggravated by decisions of retailers who then declined to invest in those neighborhoods and instead invested in wealthier, theoretically more lucrative neighborhoods. This "retail redlining" further deprived the residents of the education, jobs, and resources necessary to build wealth. Unsurprisingly, ISPs' network deployment and upgrade decisions have continued to follow this pattern, and digital redlining has left unserved and underserved neighborhoods on the wrong side of the digital divide. Thus, much like retailers, ISPs make broadband deployment decisions that replicate and perpetuate disinvestment in historically redlined communities and overinvestment in wealthy communities. Similarly, even if the ISPs' business decisions are made for legitimate business purposes, the fact

³⁶ *Id.*

remains that those decisions create disparate impacts for communities of color and individuals with disabilities.

Race and income are strong predictors of broadband infrastructure underinvestment and low fiber service availability.³⁷ Regardless, ISPs will undoubtedly argue that their decisions regarding network deployment and upgrades are purely based on business rationales and that their decisions about where to place high-speed broadband are based on maximizing profitability and minimizing costs. However, the ISPs' business decisions could be economically “rational” while still having a disparate impact on consumers of color, consumers with disabilities, and other unserved and underserved communities:

The broadband companies’ attempt to maximize their expected profitability by minimizing some of their expected costs in allocating their investment in the deployment of infrastructure. So for that infrastructure that the broadband companies expect great demand for, they will devote more resources than to those for which they expect demand to be less. If the expected demand for infrastructure in minority areas is expected to be less than the expected demand for lines in non-minority areas, then the deployment of infrastructure areas will be superior to its demographic counterpart....[b]roadband companies may bypass minority urban areas and rural residential neighborhoods for more lucrative urban business areas. Therefore, it should also be no surprise that these rural and urban areas with a higher concentration of minority residents may have less broadband infrastructure.³⁸

There is substantial evidence that ISPs' network upgrade decisions have been influenced by, and perpetuate, historical discrimination regardless of those ISPs' intentions. ISPs cannot explain away this discrimination as purely an effect of profit-maximizing decisions: Black and

³⁷ Vinhcent Le and Gissela Moya, *On the Wrong Side of the Digital Divide: Life Without Internet Access, And Why We Must Fix It In The Age Of Covid-19* (June 2020), available at <https://greenlining.org/publications/online-resources/2020/on-the-wrong-side-of-the-digital-divide/>; National Digital Inclusion Alliance, *AT&T’s Digital Redlining: Leaving Communities Behind for Profit* at pp. 5-6 (Oct. 2020), available at https://www.digitalinclusion.org/wp-content/uploads/dlm_uploads/2020/10/ATTs-Digital-Redlining-Leaving-Communities-Behind-for-Profit.pdf; Hernan Galperin, Thai Le, and Kurt Daum, *Who gets access to Fast Broadband? Evidence from Los Angeles County 2014-17*, at p. 2 (Oct. 2019), available at <https://arnicusc.org/publications/who-gets-access-to-fast-broadband-evidence-from-los-angeles-county-2014-17/>.

³⁸ Leonard M. Baynes, “The Mercedes Divide?”—American Segregation Shapes the Color of Electronic Commerce, 29 *Western New England Law Review* 165, 176 (2006).

Latino/Latina consumers spend more, on average, on telecommunications services than white consumers.³⁹

III. The Economic Outcomes of Current Discrimination Are Significant and Addressing Discriminatory Infrastructure Deployment Will Improve the American Economy

As noted above, ISPs will likely conflate the intent behind deployment investment decisions with the impact of their deployment investment decisions. Congress made clear that the “federal policies *promote equal access* to robust broadband internet access service by prohibiting *deployment discrimination*.” The FCC should focus on the effects of deployment decisions to see if they run afoul of the new federal law commanding equal access to broadband. Nowhere under the federal statute is *intent* a necessary prerequisite to determine liability. Reading more into the law than the words on the document risks entertaining the highly problematic and deeply flawed argument that providing inferior broadband infrastructure to low-income communities, communities of color, and other historically marginalized communities is sufficient and justified. We do not believe it would be lawful for the FCC to adopt a digital discrimination rule that effectively ratifies a “separate but equal” deployment of broadband to low-income communities and communities of color.

The impacts of the deployment of 1st class and 2nd class broadband will be profound on the larger scale than the current digital divide. The lack of 21st century ready broadband has significant economic impacts because it deprives redlined communities of the economic benefits of future advances in applications and services. Increasing broadband speed contributes to economic growth because businesses and families can do more with their connections.⁴⁰ If we look at speeds beyond 100 Mbps, where typically the differences between 21st century and legacy access start to become most apparent, the results are even more striking. A 2014 study showed that communities with widely available 1 Gbps access enjoy per capita GDP that is 1.1 percent higher than communities with little or no availability of 1 Gbps services.⁴¹ A study of 14

³⁹ *Id.*

⁴⁰ Chatchai and Bohlin, "Impact of broadband speed on economic outputs: An empirical study of OECD countries," 25th European Regional Conference of the International Telecommunications Society (2014).

⁴¹ Dan Mahoney and Greg Rafert, The Analysis Group, Broadband Competition Helps to Drive Lower Prices and Faster Download Speeds for U.S. Residential Consumers, Fiber to the Home Council (2016), *available at* https://www.analysisgroup.com/uploadedfiles/content/insights/publishing/broadband_competition_report_november_2016.pdf.

communities revealed that their 1 Gbps networks helped generate \$1.4 billion in additional GDP, while the 41 communities without 1 Gbps had an estimated forgone GDP of as much as \$3.3 billion.⁴²

Additionally, a one percent increase in broadband penetration would result in thousands of more jobs.⁴³ Past studies have shown that home broadband access also increases the likelihood of employment by 12 percent compared to homes without access, and this likely has been magnified with the shift towards distributed work.⁴⁴ Unemployed individuals who used the internet in job searches were re-employed 25 percent faster than comparable individuals using traditional methods.⁴⁵ In the business context, firms with high-speed connections had 29 percent more value per worker than firms without.⁴⁶ Given how essential the internet is to everyday life, 21st century ready fiber broadband is a high value amenity sought in multi-dwelling units and can add nearly \$10,000 in value to a \$300,000 single-family home.⁴⁷

Similarly, improving broadband adoption is one of the most cost-effective ways to help close the digital divide.⁴⁸ More connected households mean a bigger market for internet-based services and applications and more opportunities for communication and collaboration. For every 10 percent growth in home broadband adoption a corresponding growth in GDP will occur.⁴⁹ A 90 percent adoption rate would generate over multiple billions of economic activity.⁵⁰ Recent

⁴² *Id.*

⁴³ Crandall, Lehr, and Litan, The effects of broadband deployment on output and employment: A cross-sectional analysis of US data, (2007), available at <https://www.brookings.edu/research/the-effects-of-broadband-deployment-on-output-and-employment-a-cross-sectional-analysis-of-u-s-data/>; California Economic Development Department, “Report 400C – Monthly Labor Force Data for Counties: January 2018,” (2018), available at <http://www.labormarketinfo.edd.ca.gov/file/1fmonth/countyr-400c.pdf>.

⁴⁴ Council of Economic Advisors, The Digital Divide and Economic Benefits of Broadband Access, (2016), available at https://obamawhitehouse.archives.gov/sites/default/files/page/files/20160308_broadband_cea_issue_brief.pdf.

⁴⁵ *Id.*

⁴⁶ Murray, Davies, *et al.*, Economic value of the take-up of ultra-fast broadband in New Zealand, (2016), available at https://srgexpert.com/wp-content/uploads/2018/02/Sapere_economic_value_of_UFB_uptake.pdf.

⁴⁷ Michael C. Render, “The Tangible Value of Advanced Broadband to MDUs, Fiber to the Home Council (2016), available at <https://www.fiberbroadband.org/d/do/2108>.

⁴⁸ Levin, Schmidt, and Graham, Broadband Adoption: Translating the Digital Divide Literature into Effective Government Policies and Actions, 27th European Regional Conference of the International Telecommunications Society (2016), available at <https://www.econstor.eu/bitstream/10419/148684/1/Levin-et-al.pdf>.

⁴⁹ Assuming GDP growth of 1.5 percent. See Czernich, Falck, *et al.*, Broadband Infrastructure and Economic Growth, The Economic Journal (2011), available at <https://www.econstor.eu/bitstream/10419/30590/1/615363539.pdf>; Qiang, Rossotto, and Kimura, 2009: Extending Economic impacts of broadband (2009), available at https://www.cetfund.org/wp-content/uploads/2020/08/09_World-Bank_IC4D_Broadband_35_50.pdf.

⁵⁰ California Department of Food and Agriculture, California Agricultural Production Statistics, available at <https://www.cdafa.ca.gov/Statistics/>.

studies are even more optimistic, finding that a one percent increase in broadband adoption would lead to a short-term increase of \$475 and a long-term increase of \$1,789 in GDP per capita.⁵¹

a. Many Low-Income Areas Are Profitable to Serve in the Long Term

A driving factor of digital discrimination is the three-to-five year return-on-investment (ROI) formulas that major ISPs follow when determining where to invest fiber. This tight time frame exists as a general industry standard despite the longevity of fiber optic wires being at least 30 years, potentially up to 70 years. Limited to a three-to-five year time frame for profitability, upgrading networks with fiber becomes acceptable in only the wealthiest neighborhoods who can pay major ISPs much higher prices to rapidly repay the investment. This short time frame however is discriminatory towards lower income households and wholly unnecessary because it takes long term profitable communities out of consideration. New rules prohibiting deployment decisions based on socioeconomic status will bring a stop to the short term ROI approach that inherently carries a discriminatory impact.

It is critical for the FCC to understand that prohibiting discrimination will not force ISPs to deploy into unprofitable markets. Rather it will drive them to take a holistic look at whole communities where the aggregated revenues will still repay overall costs of full deployment and generate expected profit, just over a longer time frame. The adoption of a longer time frame, like a 10-year ROI formula, radically changes the viewpoint of what areas are viewed as profitable for a large ISP. For example, as part of Frontier Communications' bankruptcy filing to the Securities Exchange Commission, Frontier explained that it intended to escape bankruptcy by deploying fiber to areas that Frontier had previously rejected as insufficiently profitable.⁵² Specifically, Frontier adopted a ten-year plan to deploy fiber in 2021 with the expectation of a 20 percent return on investment by 2031. Frontier's shift from a short-term strategy to one with a longer time frame should be informative to the FCC because Frontier's cost projections show a

⁵¹ Results adjusted for inflation. Fiorini, Castaldo, and Maggi, Measuring (in a time of crisis) the impact of broadband connections on economic growth: an OECD panel analysis (2016), available at https://www.dss.uniroma1.it/RePec/sas/wpaper/20161_CFM.pdf.

⁵² Frontier Communications Presentation to Unsecured Bondholders (Jan. 2020), available at https://www.sec.gov/Archives/edgar/data/20520/000114036120007104/nc10009883x2_ex99-1.htm.

loss for the first five years of deployment, making this deployment plan unthinkable to any ISP adopting a short-term view. However, by 2031 Frontier will have had a projected return of \$1 billion. Furthermore, Frontier will have deployed fiber to 3 million households that were previously not in consideration. A simple shift in time frame can have significant changes in what is viewed as a viable market. When considering “economic feasibility,” the FCC will need to decide the appropriate balance that large ISPs with large revenue streams stemming from legacy and new deployments should adopt.

Additionally, when considering economic feasibility, there should be no doubt that major cities are completely profitable to serve *in their entirety* for large incumbent ISPs *without* government subsidy because those ISPs have sufficient density and subscriber base to generate profits at the aggregate level while deploying ubiquitous upgrades. Yet, the absence of rules requiring large incumbent ISPs to adopt universal deployment plans that reach everyone results in discriminatory deployment. For example, Oakland, California has a density of 7,004 people per square mile, making it one of the most densely populated cities in the U.S. However, systemic digital redlining coinciding with housing discrimination patterns of the past has occurred in low-income areas of Oakland.⁵³⁵⁴ By comparison, Chattanooga, Tennessee has around 1/5th the population density with 1,222 people per square mile and full deployment of fiber to the home (FTTH) occurred with revenues far exceeding costs.⁵⁵ Chattanooga’s public financial data shows that revenue from only a fraction of the population is necessary to cover the costs of providing a FTTH to an entire community—with revenues outpacing the costs of adding new customers year after year.

The reality is that most areas are economically feasible to serve when adopting a longer time frame; it is a matter of when the provider expects profitability. Fiber is expected to last between 30 to 70 years once laid, and the cost of maintenance, repair, and upgrade are significantly lower than the legacy alternatives. This longevity of infrastructure gives providers a much longer window of flexibility to recover their investment and make a profit, turning economic feasibility into a question of expected ROI. The Commission will need to consider the discriminatory effect

⁵³ UNITED STATES CENSUS, Oakland, available at <https://www.census.gov/quickfacts/oaklandcitycalifornia>.

⁵⁴ Vincent Le and Gissela Moya, *On the Wrong Side of the Digital Divide: Life Without Internet Access, and Why We Must Fix It in the Age of COVID-19*, THE GREENLINING INSTITUTE (June 2, 2020), <https://greenlining.org/publications/online-resources/2020/on-the-wrong-side-of-the-digital-divide>.

⁵⁵ UNITED STATES CENSUS, Chattanooga city, Tennessee, available at <https://www.census.gov/quickfacts/chattanooga-city-tennessee>.

of ROI time frames when taking into consideration economic feasibility with the clear-eyed recognition that it is not required under the law to adopt existing industry expectations of fast-paced profits for a service. Broadband is a service viewed by a super majority of Americans as essential as water and electricity.⁵⁶ Rules governing equal access to an essential service must balance the public interest with reasonable ROIs.

IV. Projected Broadband Demand Growth Must be Part of the Discrimination Analysis and To Avoid Justifying ‘Separate But Equal’ Infrastructure

In arguing that the existence of inferior broadband options in unserved and underserved communities should be sufficient, providers are sending a clear message to those communities: those communities do not matter. Accepting provider arguments that different infrastructure should be weighted equally invites a dangerous justification that mirror arguments that have been used to justify race-based discrimination in the past.

Despite the critical importance of broadband, providers will argue that the Commission should not be concerned because the providers are offering unserved and underserved communities the functional equivalent of “**separate but equal**” service. As was always the case, the separate service is not in any way equal in the face of differential options and in the actual service provided. Rather, providers’ discriminatory deployment of broadband effectively relegates communities of color and low-income communities to the back of the digital bus. These arguments should be plainly unacceptable.

Providers will undoubtedly point out that nearly all consumers enjoy access at the outdated federal standard of 25/3 mbps. This misses the point of investigating infrastructure discrimination. Multiple services can deliver defined minimum download and upload speeds if the Commission lowers the bar of what constitutes “high speed” internet enough. Such a standard will ignore how people actually use the internet and what uses become foreclosed by inferior access. The Commission must study future capacity of the infrastructure deployed and whether ISP’s deployment decisions violate the new federal law. The providers’ expected effort to support low minimum standards would paper over the fact that proper “future proof”

⁵⁶ Jonathan Schwantes, *Time to Treat Broadband Like the Essential Service It Is*, TECHDIRT GREENHOUSE (Nov. 2, 2020), available at <https://www.techdirt.com/2020/11/02/time-to-treat-broadband-like-essential-service-it-is>.

broadband infrastructure (enjoyed already by a large percentage of wealthy Americans) will accommodate anticipated levels of annual growth of internet consumption (currently at 21% per year) for decades to come.⁵⁷ Not all infrastructure options in the broadband market are equally ready for the future. As a result, the decisions providers make when deploying future proof infrastructure will bring with it more than just the connectivity delivered today, but the available speeds for the future. Ensuring non-discriminatory deployment now will ensure equal access to that high-speed future.

In any decision about building out a broadband network, that network’s usefulness and capacity to handle the projected growth of consumption are vitally important factors to analyzing discrimination. For years without fail, data consumption has continued to rise as more applications and services require greater amounts of capacity. Because these trends have been so consistent for so many years, it is imperative that the Commission assess the future capacity of the various last mile deployments being chosen by providers to ensure that future needs are also being met in a non-discriminatory fashion. Cisco’s Annual Report indicates the extent to which North American usage has risen in recent years:⁵⁸

	North America IP Based Traffic in Exabytes Per Month
Year	
2012	14.4
2018	43
2022	90

Source: Cisco Visual Predictions 2012-2017 and 2017 - 2022

⁵⁷ Doug Dawson, *Why Fiber*, POTs and PANs (Feb. 1, 2021), available at <https://potsandpansbyccg.com/2021/02/01/why-fiber>.

⁵⁸ Cisco, *Annual Internet Report (2018-2023) White Paper* (Mar. 9, 2020), available at <https://www.cisco.com/c/en/us/solutions/collateral/executive-perspectives/annual-internet-report/white-paper-c11-741490.html>.

The COVID-19 pandemic has only accelerated usage trends, with distributed (i.e., work-from-home) work models becoming the norm even as the pandemic recedes.⁵⁹ In other words, members of the public will continuously need more data capacity, and carriers must decide how to meet those future needs with deployment decisions – and the rules that govern them – today. A successful non-discrimination rule will ensure that low-income communities and communities of color have equitable access to broadband infrastructure for future needs as well as today.

V. The Nature of ISP Digital Discrimination Takes Many Forms

The application of an anti-discrimination rule in deployment will be different depending on the characteristics of the provider in question. For example, a new entrant delivering modern access with few customers will not have the same obligations as a legacy provider already serving an entire community undergoing an upgrade. That is because a key goal of an anti-discrimination rule would be to ensure every community is receiving equal prioritization for reinvestments of revenues obtained from monthly subscriptions from that community. This ensures that the new entrant will eventually serve all equally while the legacy provider is prevented from seeking profits based off discrimination.

An anti-discrimination analysis will look different depending on the type of infrastructure an ISP relies on to deliver its core product. But in each of these the proximity of fiber optics will impact the subsequent speeds, costs, and prices an ISP can offer to a community or neighborhood. For example, cable companies have adopted an incremental approach of phasing in replacements of their legacy coaxial cable system with fiber optics. The closer they push fiber through a specific segment of their cable network, the greater the performance they can obtain from their coaxial connection to the home. From the cable headend to the outside plant to eventually the lines that go directly to the homes themselves (and ultimately the wires inside homes), cable systems have been replacing their network with fiber optics in stages (generally known as a hybrid approach) to improve their service at an incremental cost as compared to an entire fiber to the home deployment, though ultimately their total aggregate costs by the end are likely the same. Given that this phased approach will happen with isolated and distinct portions

⁵⁹ Caroline Castrillon, *This is the Future of Remote Work in 2021*, FORBES (Dec. 27, 2020), available at <https://www.forbes.com/sites/carolinecastrillon/2021/12/27/this-is-the-future-of-remote-work-in-2021/?sh=1019985f1e1d>.

of the cable network, the Commission can analyze which component of the cable network has been replaced with fiber and as a result, the proximity of fiber infrastructure to communities and neighborhoods to detect digital redlining.

It cannot be understated how important it is for the Commission to investigate the status of fiber deployment within cable networks because underinvestment to certain communities based on socio-economic status will lead to the creation of a 1st class and 2nd class broadband access. The end of the cable industry's incremental approach lies the greatest inequities in deployment. If only higher income households have fiber pushed right up to their homes, those homeowners need only to shoulder a one-time cost of replacing the internal wiring of their home to switch to 21st century fiber optic connectivity. Meanwhile homes that lack fiber optics in close proximity will not have this option and cannot simply conjure up an equivalent substitute. Their choices will be cemented in by their ISP's deployment strategy.

The Incumbent Local Exchange Carriers (ILECs) on the other hand have a very different set of choices before them when it comes to investing in their networks. ILECs cannot adopt the phased incremental approach to deployment in the way cable companies can because copper wire does not have the inherent capacity to leverage fiber in the same way that coaxial cable does.⁶⁰ Accordingly, ILECS have to replace larger portions of their legacy copper network with fiber optics and cannot do so incrementally within a neighborhood. Fortunately, this makes the inquiry for the Commission significantly more simplified. The main question the Commission would need to answer in an inquiry into digital redlining by an ILEC is simply whether the ILEC has scheduled a community or neighborhood to be transitioned over to fiber. Many areas likely to be already connected are communities with high value customers from which the ISPs can extract the highest revenue possible.

However, once an ILEC engages in fiber deployment, it should be clear as a policy matter that they are not allowed to simply stop expansion in a community after only capturing the high value customers. Most of the remaining deployment can be financed by that core base of high value customers. In other words, in likely every American city where an ILEC deployed fiber to the home to high-income neighborhoods, sufficient revenues are being generated to

⁶⁰ See Bennett Cyphers, *The Case for Fiber to the Home, Today: Why Fiber is a Superior Medium for 21st Century Broadband*, ELECTRONIC FRONTIER FOUNDATION (Oct 11, 2019), https://www EFF.org/files/2019/10/15/why_fiber_is_a_superior_medium_for_21st_century_broadband.pdf (for a more detailed explanation as to why different wires have different inherent capacities).

finance the entirety of the fiber upgrade for all residents. Not having an obligation to eventually serve an entire community has rewarded discriminatory choices based on socioeconomic status where dollars are being reinvested into high value customers and kept from low-income users, who are disproportionately people of color and people with disabilities. The excess revenues that ISPs are not reinvesting result in perverse outcomes such as multi-billion dollar stock buybacks and dividends to benefit investors rather than reinvested back into the whole community they serve.⁶¹

a. The Commission Should Continue the Presumption That Wireless and Wireline Services Are Not Comparable as Substitutes

The FCC does not consider wireless to be a substitute for wireline connectivity.⁶² This continues to remain the correct conclusion as advancements in expanding capacity in fiber networks, such as time and wavelength division multiplexed passive optical network technologies (TWDM-PON) enable carriers to not only expand networks but also to increase the capacity of fiber to the home (FTTH) networks that were deployed years ago—indeed, symmetrical 10 gigabit speeds became a reality seven years ago.^{63,64}

By comparison, existing wireless LTE (“long-term evolution”) service is typically able to transmit between 100 Mbps to 1 Gbps with 5G tests delivering median user experiences of 490 Mbps up to 1.4 Gbps under certain simulations.^{65,66} Fiber is faster, *period*. In other words, 21st century wireline infrastructure is orders of magnitude ahead of wireless, and the Commission should never consider them equivalents or viable for substitution when assessing infrastructure deployment strategies.

⁶¹ Doug Dawson, *Stock Buybacks, POTs and PANs* (April 22, 2022), available at <https://potsandpansbyccg.com/2022/04/22/stock-buybacks>.

⁶² D.16-12-025 at p. 40, I.15-11-007 (state of competition in communications).

⁶³ Ron Heron, *TWDM-PON: Taking Fiber to New Wavelengths*, NOKIA (Apr. 1, 2014), available at http://origin-prod-blog.nokia.com/en_int/twdm-pon-taking-fiber-new-wavelengths.

⁶⁴ Lightwave Staff, *EPB Brings 10-GBPS FTTH to Chattanooga*, LIGHTWAVE (OCT. 19, 2015), available at <https://www.lightwaveonline.com/articles/2015/10/epb-brings-10-gbps-ftth-to-chattanooga.html>.

⁶⁵ INTERNATIONAL TELECOMMUNICATIONS UNION, *Requirements Related to Technical Performance for IMT-Advanced Radio Interface(s)*, available at <http://www.itu.int/pub/R-REP-M.2134-2008/en>.

⁶⁶ QUALCOMM, *Qualcomm Network Simulation Shows Significant 5G User Experience Gains*, available at <https://www.qualcomm.com/news/releases/2018/02/25/qualcomm-network-simulation-shows-significant-5g-user-experience-gains>.

Setting aside the wide gulf of transmission speed capacity between the two technologies, the Commission should also recognize the differences between wireless 5G and FTTH in terms of infrastructure costs: FTTH is much cheaper to upgrade. Both networks will be expensive to deploy, but future upgrades to wireless capacity are significantly more limited than future upgrades to wireline. As a general matter, the capacity of fiber networks can increase through advancements that increase the number of signals can be transmitted through a fiber strand, or by adding additional fiber strands to the network. Wireless technologies, on the other hand depend on the allocation of finite spectrum and must deal with the limitations of specific frequencies, such as interference and dependency on line-of-sight. Moreover, 5G towers have an early estimated range of around 1000 feet thereby requiring additional towers to achieve these optimal speeds.⁶⁷

VI. A New FCC Study Conducted This Year Will Build on Existing Evidence

The FCC should further develop the record about the existence of digital redlining with its own assessment, using its own data and methodology. By using its own data, the Commission can add to the body of literature that already exists where study after study after study show that major national ISPs have decided to invest fiber optic infrastructure in wealthy neighborhoods in large densely populated cities while skipping low-income neighborhoods in those same cities.⁶⁸⁶⁹⁷⁰

The FCC's current reliance on **self-reported** data from ISPs is deeply problematic. In the past, ISPs have provided the FCC with woefully inaccurate information that significantly overstates deployment. This includes AT&T, which was found to have falsely reported serving

⁶⁷ Marc Vartabedian, *What 5G Will Mean to Consumers – and When*, WALL STREET JOURNAL (Sep. 12, 2018), available at <https://www.wsj.com/articles/what-5g-will-mean-to-consumersand-when-1536804241?redirect=amp#click=https://t.co/5C64nZQYss>.

⁶⁸ Vincent Le and Gissela Moya, *On the Wrong Side of the Digital Divide: Life Without Internet Access, and Why We Must Fix It in the Age of COVID-19*, THE GREENLINING INSTITUTE (June 2, 2020), <https://greenlining.org/publications/online-resources/2020/on-the-wrong-side-of-the-digital-divide>.

⁶⁹ Galperin, H., Bar, F., Kim, A.M., Le, T.V., Daum, K., *Who Gets Access to Fast Broadband? Evidence from Los Angeles County*, Spatial Analysis Lab at USC Price, Annenberg School for Communication (Sept. 2019), <http://arnicusc.org/wp-content/uploads/2019/10/Policy-Brief-4-final.pdf>.

⁷⁰ Communications Workers of America & National Digital Inclusion Alliance, *AT&T's Digital Redlining Leaving Communities Behind for Profit* (Oct. 2020), available at <https://cwa-union.org/sites/default/files/20201005attdigitalredlining.pdf>.

nearly 3,600 census blocks across 20 states.⁷¹ If the Commission does conduct further investigation, it must make every attempt to understand the problem using accurate information with the context that past data collection efforts are ill-suited. Conducting its own assessment of a number of communities to determine the extent providers are deploying broadband infrastructure in a discriminatory basis will properly inform the Commission on its next steps for establishing a digital discrimination rule in 2023.

Respectfully Submitted,

/s/ Ernesto Falcon

/s/ Paul Goodman

/s/ Chao Jun Liu

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⁷¹ Jon Brodtkin, *AT&T gave FCC False Broadband-Coverage Data in Parts of 20 States*, (Apr. 17, 2020), available at <https://arstechnica.com/tech-policy/2020/04/att-gave-fcc-false-broadband-coverage-data-in-parts-of-20-states/>; see also Devin Coldewey, *FCC dings company for \$164k after its false broadband claims distorted national report*, (Sept. 2, 2020), available at <https://techcrunch.com/2020/09/02/fcc-dings-company-for-164k-after-its-false-broadband-claims-distorted-national-report/> (noting that BarrierFree falsely claimed to serve 62 million customers).