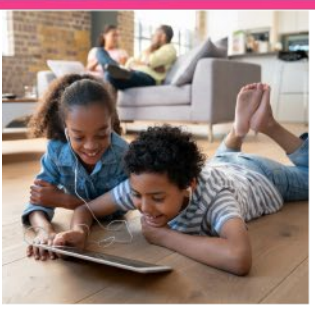

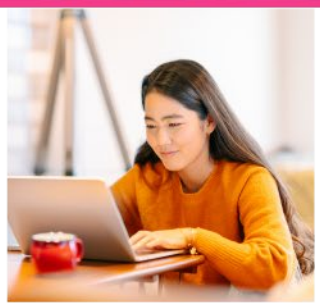





Regional Digital Equity Strategy and Action Plan

December 2021

San Diego Association of Governments (SANDAG)

SANDAG

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SANDAG'S Commitment to Equity

The following Equity Statement was adopted by the SANDAG Board of Directors at its meeting on February 12, 2021:

Our Commitment to Equity

We hold ourselves accountable to the communities we serve. We acknowledge we have much to learn and much to change; and we firmly uphold equity and inclusion for every person in the San Diego region. This includes historically underserved, systemically marginalized groups impacted by actions and inactions at all levels of our government and society.

We have an obligation to eliminate disparities and ensure that safe, healthy, accessible, and inclusive opportunities are available to everyone. In 2021, SANDAG will develop an equity action plan that will inform how we plan, prioritize, fund, and build projects and programs; frame how we work with our communities; define how we recruit and develop our employees; guide our efforts to conduct unbiased research and interpret data; and set expectations for companies and stakeholders that work with us.

We are committed to creating a San Diego region where every person who visits, works, and lives can thrive.

Executive Summary

> **"I couldn't communicate well with people when the pandemic hit. I had to drop my City College class"**
>
> *San Diego Futures Foundation Participant*

Since the COVID-19 pandemic began, access to the internet has become vital for essential daily tasks such as doctor visits, remote work, access to government assistance programs, and attending school. For members of our community that do not have access to affordable internet or devices at home, the challenges brought on by the pandemic have been enormous.

Consider the young middle school student trying to navigate video conferencing menus while using a shared connection in the parking lot of the library.

Consider the service employee at a local retail business whose hours were reduced during the pandemic, trying to apply for unemployment insurance, rental assistance, and reduced cost benefits from utilities on the 4-inch screen of the smartphone that she can afford.

Consider the owner of the local taco shop applying online for grants and loans from the Small Business Administration, having to download tax documents from the Internal Revenue Service, bank account statements, payroll documents, and uploading them from an internet connection that comes and goes while the website login times out.

Consider the senior on a fixed income, struggling to balance the cost of living, and having to choose between food, medical expenses, and an expensive internet subscription needed to connect to family or access online health appointments.

Consider the visually impaired person unable to safely use online services such as grocery delivery or telehealth services during shelter in place orders because of a lack of digitally accessible services.

Access to ***broadband***—high-quality, high-speed internet service—is vital for a good quality of life, economic development, sustainability, and prosperity. Yet, many households do not have access to affordable broadband service or the skills and devices necessary to use it.

The growing gap between people who do and do not have reliable access to high-speed, high-quality, and affordable internet service, as well as a suitable device for connecting to the internet, is known as the ***digital divide*** (Figure 1). This divide for many people results in a lack of accessibility to digital content and overall deficits in digital literacy. The COVID-19 pandemic has worsened the digital divide, and without new policies and programs to address this issue – including investments in necessary infrastructure – the divide will continue to worsen.

The digital divide impacts many San Diego communities, especially our rural areas, tribes, and low-income neighborhoods. Many households have limited access to the internet or no access at all, and many lack computers, tablets, or other devices needed to fully connect to modern society. Additionally, not everyone knows how to securely use digital devices or programs for chat or video calls, online healthcare, banking, or online learning.

Percentage of San Diego County households with no internet subscription at home (by income):

Less than 20K – 29.6%

$20K - $75K – 12.9%

More than $75K – 3.2%

Source: American Community Survey, 2019

- Data from the Federal Communications Commission (FCC) show that 94% of people in the region's urban areas have **access to fixed broadband service**, compared with only **66% of people in the region's rural areas**.[1]
- There are high concentrations of **low-income households without a broadband subscription** in certain neighborhoods, including Barrio Logan/Logan Heights (21%), National City (18%), San Ysidro (17%), and City Heights (16%). This lack of access is worsened by a lack of affordability and availability.[2]
- **39% of businesses and 42% of employees reported connectivity issues** during the pandemic that affected their ability to do their jobs.[3]
- 17% of seniors age 65 and older do not have a broadband subscription.[4]
- 20% to 40% of students in many local districts do not have a broadband subscription.[5]

This lack of investment in broadband infrastructure, reliable broadband access, devices, and digital literacy skills creates the digital divide that contributes to economic, social, and educational inequities.

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[1] https://www.fcc.gov/general/broadband-deployment-data-fcc-form-477

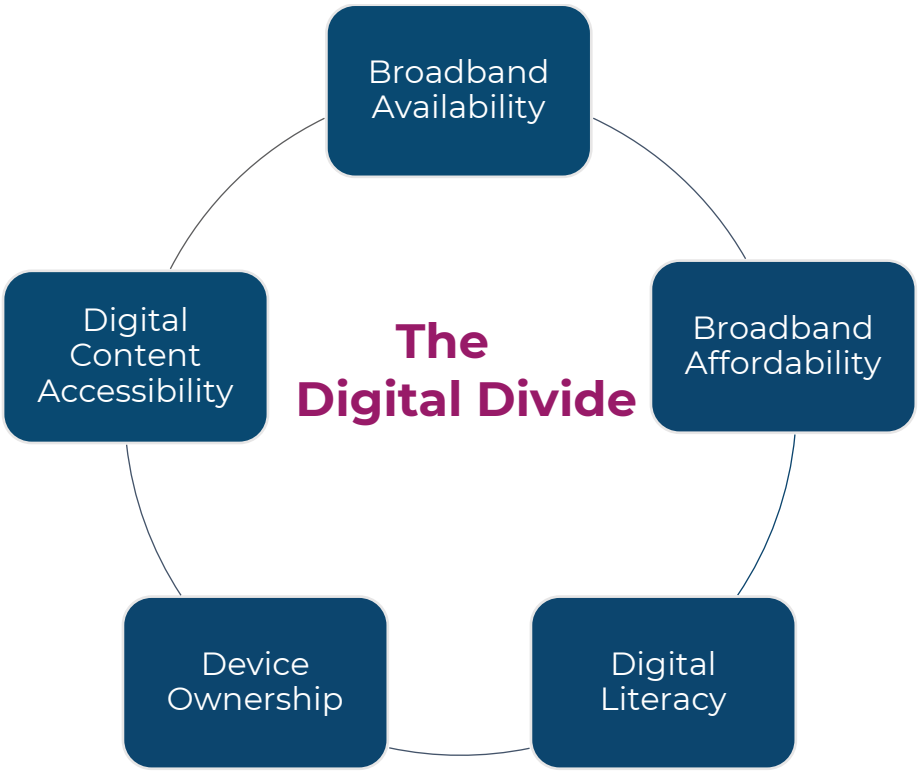
[2] https://data.census.gov/cedsci/table?q=B28004&g=0500000US06073%248600000&tid=ACSDT5Y2019.B28004&hidePreview=true

[3] sandag.org/uploads/publicationid/publicationid_4772_29106.pdf

[4] https://data.census.gov/cedsci/table?q=B28005&g=0500000US06073%248600000&tid=ACSDT5Y2019.B28005&hidePreview=true

[5] https://wp.classroomofthefuture.org/get-involved/covid-19-public-education-response-fund/

Figure 1. Key Challenges of the Digital Divide



> ""Javier" is a 16-year-old foster youth who lives in a foster home with two other school-aged foster youths. Javier's foster caregivers have one personal computer, which the children must share. As a result, Javier is not always able to access the computer during the hours when his teachers are available for instruction."
>
> *– Voices for Children, Participant of San Diego Futures Foundation*

With the help of the Regional Digital Divide Taskforce, SANDAG's Regional Digital Equity Strategy will help enable the San Diego region to expand access to broadband to everyone. The Strategy aims to bridge the digital divide by:

- Building consensus that **broadband is an essential public service,** contributes to greater equity, and that it is critical that our public sector and municipalities develop comprehensive broadband plans to ensure a prosperous future both in the short- and long-term.
- Developing and encouraging local adoption of regionally consistent broadband **supportive policies** and streamlined permitting practices.
- Strengthening **partnerships** with private providers and community-based organizations to coordinate initiatives and share successes and best practices.
- Expanding infrastructure in areas of greatest need. In urban areas, existing public sector fiber could also be used to expand service, increase competition, and reduce cost.
- Supporting the collection of more **reliable data about connectivity** by attaining accurate and transparent information on broadband access and adoption, which are critical to understanding community needs.

Regional Digital Equity Strategy – A Holistic and Integrated Approach

This Regional Digital Equity Strategy examines why equal access to the internet is important, the status of connectivity in the region, and how we must work together to ensure greater equity and in turn, prosperity, and well-being for everyone.

How we got here

In August 2020, Governor Gavin Newsom signed Executive Order N-73-20 to address the digital divide. The order directs California state agencies to pursue a minimum broadband speed goal of 100 megabits per second (Mbps) download speed to benefit all Californians through infrastructure investments and program implementation.[6] Subsequently, the California Broadband for All Plan[7] was published in December 2020 and outlines the California Broadband Council's goals and key actions for establishing more widespread digital equity among all California residents.

In January 2021, the SANDAG Board of Directors adopted Resolution No. 2021-09 to support increased broadband access throughout San Diego County.[8] The resolution calls for the development of a Digital Equity Strategy and Action Plan to expand broadband access and adoption in the San Diego region. To assist in the development of a plan that directly addresses the needs of the region, SANDAG formed the Regional Digital Divide Taskforce.[9] Taskforce membership[10] includes representation from government organizations, educational institutions, community-based organizations, internet service providers (ISPs), community technology training and network providers, and other social service and civic organizations to ensure a holistic and integrated approach to digital equity.

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[6] https://www.gov.ca.gov/wp-content/uploads/2020/08/8.14.20-EO-N-73-20.pdf

[7] https://broadbandcouncil.ca.gov

[8] sandag.org/uploads/committeeid/committeeid_124_29031.pdf

[9] sandag.org/uploads/committeeid/committeeid_124_29032.pdf

[10] sandag.org/uploads/committeeid/committeeid_124_29637.pdf

Vision, goals, and guiding principles

This Strategy is guided by a bold and clear vision, specific goals, and set of guiding principles – all developed collaboratively with the Taskforce (Figure 2).

We envision a region where everyone has access to high-quality broadband connectivity and the tools and skills needed to use technology to improve their lives.

Figure 2. SANDAG's Vision and Goals

Access

- High-quality broadband service is available to every household in every community.
- Affordable high-quality broadband plans are available to everyone regardless of income.
- A secure device and privacy preserving access are available to everyone regardless of income.

Adoption

- Everyone has the digital skills, tools, and resources needed to safely, securely, and privately use information and communication technology to improve their lives.
- Digital content is designed for everyone to access with ease regardless of ability, age, income, or language.

Data Driven. Collect, share, and use relevant and reliable data to identify service disparities and gaps in infrastructure.

Reduce Barriers. Identify and reduce barriers to rapid and equitable broadband deployment.

Capacity Building. Build capacity across organizations working to advance digital equity and inclusion.

Needs Based. Prioritize investment in the communities most affected by the digital divide.

Performance. Focus on meeting speed, reliability, and performance standards that meet future application needs while remaining technology agnostic.

Choice. Promote competition in the broadband market in all areas of the region.

Resiliency. Plan for a capable network that is resilient to changing environmental conditions and that keeps communities connected during emergencies or natural disasters.

Alignment. Align with strategic areas like transportation and land-use planning, economic and workforce development, public health, and education.

Collective Action. Build consensus on a common agenda and work collectively to make the greatest impact.

Continuity. Create a roadmap for addressing the long-standing issue of digital equity beyond the immediate crisis presented by the pandemic.

Expediency. Identify and prioritize those strategies that can be implemented quickly to provide relief.

Accountability. Identify specific and measurable actions with roles and responsibilities for various agencies and monitor performance and measure progress.

Transparency. Communicate progress frequently and clearly, and seek feedback on goals, strategies, actions, performance, etc.

Educate. Inform the public and policy makers on the wide-ranging benefits of digital equity. Be a resource for accurate and credible information that is easy to access and understand.

The Role of Broadband in the Digital Divide

The digital divide is a complex issue, and a multitude of factors related specifically to broadband have caused the issue to persist, including a lack of broadband infrastructure, a limited number of ISPs, and unaffordable internet plans. This results in communities that are left unserved or underserved:

- **Unserved** communities are those that do not have the broadband network infrastructure that provides broadband service.
- **Underserved** are those communities that do not have sufficient service.

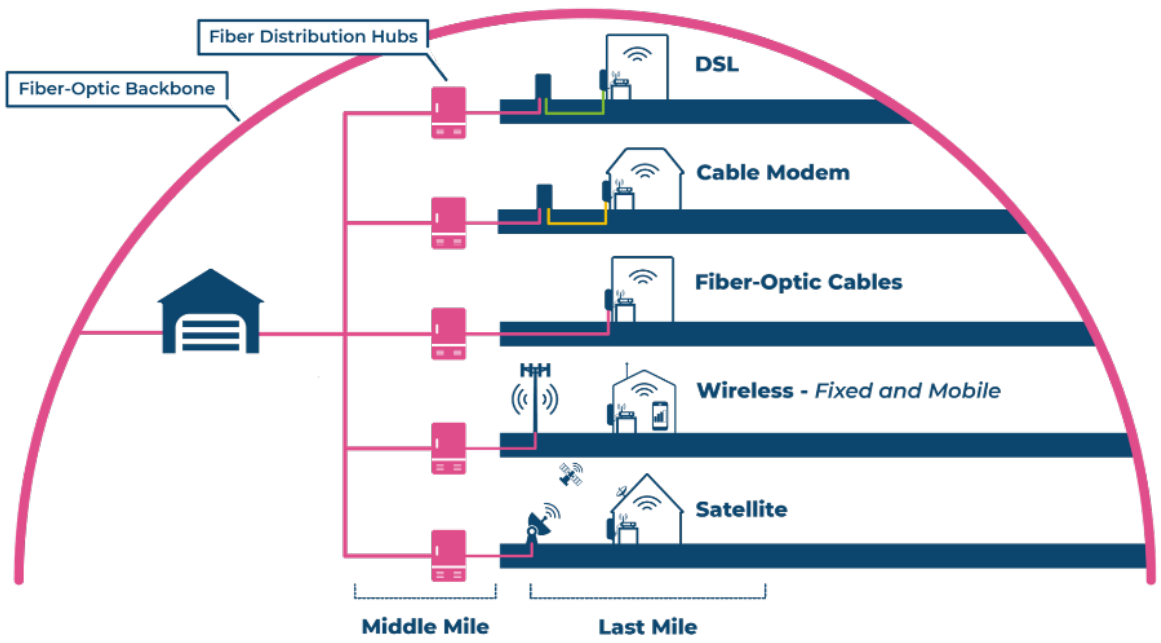
Helpful definitions of digital divide terms are available in Appendix A: Broadband and Digital Divide Glossary.

The anatomy of modern broadband

Broadband, or high-speed internet access, is provided via a variety of wired and wireless networks.

The provision of broadband service relies on a network of communications infrastructure, and this infrastructure is lacking in many of the region's communities – a reality that causes the digital divide. Long haul fiber-optic cables transmit data along the "**backbone**" of the internet. The **middle-mile** brings the internet to network hubs at population centers. From there, the **last mile** connection to homes and businesses can be wired or wireless. (Figure 3). Fiber-optic cables transfer data signals in the form of light on optical fibers about the size of a human hair. The more strands of fiber in a cable, the more capacity there is to transmit data at a faster rate. High speed broadband is required to support applications like video conference calling (e.g., Zoom, Teams, WebEx), streaming music, gaming, or to transfer large amounts of data. Learn more about the broadband and why it's important for everyone to get connected in Appendix B: Broadband and Digital Equity 101.

Figure 3. Broadband Network Diagram



Not all internet connections are technically considered "broadband." The FCC defines a broadband connection as one with a minimum download speed of 25 Mbps and a minimum upload speed of 3 Mbps, or 25/3 Mbps. This has been the federal threshold since 2015, even though these speeds may not be adequate in today's environment where we may have multiple people in a household doing critical activities online such as school assignments, work, and scheduling doctor appointments, along with other connected devices in our homes that require a lot of bandwidth. For this reason, our state has set a speed goal of 100 Mbps as part of Governor Newsom's Executive Order N-73-20 last August.[11] In January 2021, Senate Bill 156[12] was signed into law and set forth that state funded- efforts shall provide broadband access at minimum speeds of 100 Mbps download and 20 Mbps upload. As such, this Strategy seeks to provide everyone in the San Diego region with internet service that achieves a minimum of 100/20 Mbps. The Digital Equity Strategy does not prescribe which types of technology are needed to close the divide. Broadband access could be achieved through physical wired infrastructure, wireless connections, or satellite access. The objective is to ensure that everyone has access to adequate, reliable, and affordable service.

California's New Broadband Standard

100/20 Mbps

Download and upload speeds

[11] https://www.gov.ca.gov/wp-content/uploads/2020/08/8.14.20-EO-N-73-20.pdf

[12] https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220SB156

The benefits of broadband

When more people have access to affordable, high-speed internet, the digital divide can narrow significantly and result in new opportunities for communities that have been historically underserved and systemically marginalized. Among the benefits:

- People with disabilities, seniors, and students can communicate more efficiently.
- Internet access provides residents with an effective way to participate in civic life. Residents can communicate directly with public officials and receive essential government services.
- Police departments, fire departments, and other public safety agencies rely on broadband infrastructure in the neighborhoods they serve. During disasters, it allows them to communicate early warnings, and respond more rapidly in emergencies.

Broadband infrastructure can support business development, job growth, and economic prosperity. Studies have shown that broadband increases access to economic opportunity, boosting productivity and personal income.

- This is particularly true in rural areas, where new firms are likely to be created if access to broadband is plentiful.
- Widely accessible broadband infrastructure can make the region a more attractive place for companies and the talent they recruit – resulting in increased productivity and lower unemployment.
- Other cities have quantified direct benefits from investing in broadband infrastructure:
  - In New York City, the NYC Internet Master Plan[13] found that with universal internet access New York City gains up to $142 billion in incremental Gross City Product, 165,000 new jobs, and a $49 billion increase in personal income.
  - Over a five-year period, Chattanooga, Tennessee's gigabit internet generated $1 billion in direct economic benefits, according to a University of Tennessee study.[14]
- Every dollar invested in broadband returns nearly four dollars to the economy, a Purdue University study[15] found.

SANDAG is conducting a regional analysis on the economic impacts of investing in broadband infrastructure in the San Diego region. The study will be completed in 2021.

[13] https://www1.nyc.gov/assets/cto/downloads/internet-master-plan/NYC_IMP_1.7.20_FINAL-2.pdf

[14] http://ftpcontent2.worldnow.com/wrcb/pdf/091515EPBFiberStudy.pdf

[15] https://www.purdue.edu/newsroom/releases/2018/Q3/report-broadband-access-would-benefit-rural-areas,-state.html

Gap Analysis

The internet is a fundamental part of life today. Yet, there are inequities in broadband availability and affordability that impact households and businesses across the region. To inform the development of a holistic digital equity strategy that directly addresses the needs of communities, a broadband gap analysis was conducted to identify infrastructure gaps, service disparities, and areas where adoption is low. It is also important to highlight that detailed data on broadband infrastructure, service availability, and adoption are not available to the public. ISPs are not required to provide data at a granular level that is useful for community planning initiatives. Despite challenges with data availability, the information used to conduct the gap analysis for the San Diego region was sufficient to provide a regional view of broadband deployment and adoption in the region.

The gap analysis focused primarily on the accessibility of fixed broadband services or those that are delivered through wired infrastructure or a fixed wireless transmission. This does not include cellular or satellite services. Improving accessibility to broadband services via satellite or mobile technologies can help address the digital divide for some people. However, for many communities, particularly those that are historically underserved and systemically marginalized, affordable and reliable cellular or satellite services are not accessible. Cellular mobile services today are often inadequate to qualify as broadband by the current federal definition of 25/3 Mbps and much below the State's new target of 100 /20 Mbps[16]. Though satellite services can provide greater land coverage and deliver adequate broadband speeds to households, it is not yet readily affordable to communities in the region. For these reasons, the broadband gap analysis focused on fixed broadband services. The Regional Digital Equity Strategy does not intend to exclude mobile or satellite broadband providers as viable technologies to close the digital divide and deliver affordable broadband services to underserved households in the region. SANDAG intends to continue evaluating the accessibility of broadband services as more data on the availability and performance of non-fixed broadband services become readily available.

More detailed information on data used to conduct the broadband gap analysis are available in Appendix C: Broadband Gap Analysis Data Documentation.

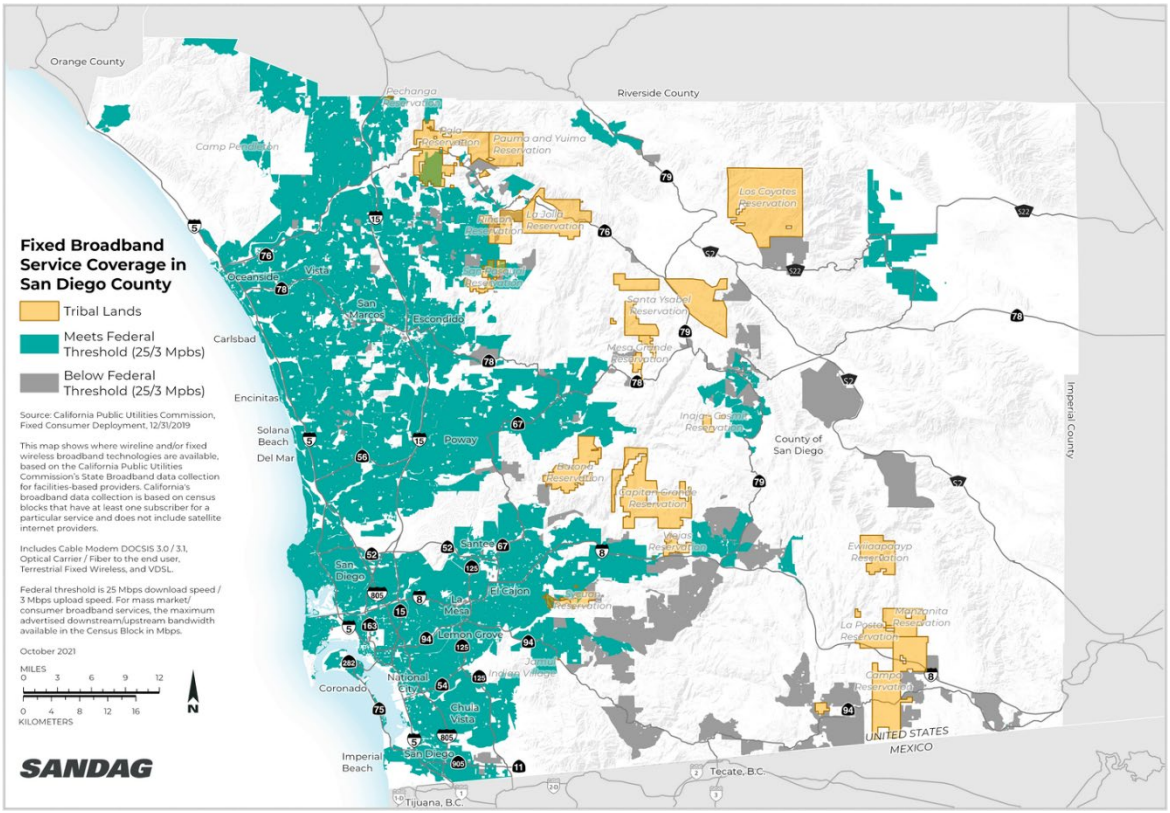
Findings from the broadband gap analysis are also available in an interactive data tool: The Digital Divide in the San Diego Region.

[16] Data published by the FCC illustrates areas where cellular service provided by the four largest mobile wireless carriers offer broadband service of only 5/1 Mbps https://www.fcc.gov/BroadbandData/MobileMaps/mobile-map

Broadband access today

The digital divide affects urban and rural communities differently. The lack of fixed broadband infrastructure in rural portions of the region means only 66% of rural communities have access to fixed broadband that meets the FCC's low broadband threshold of 25/3 Mbps (Figure 4).[17]

Figure 4. Fixed Broadband Services are Not Available in Rural Parts of the San Diego Region

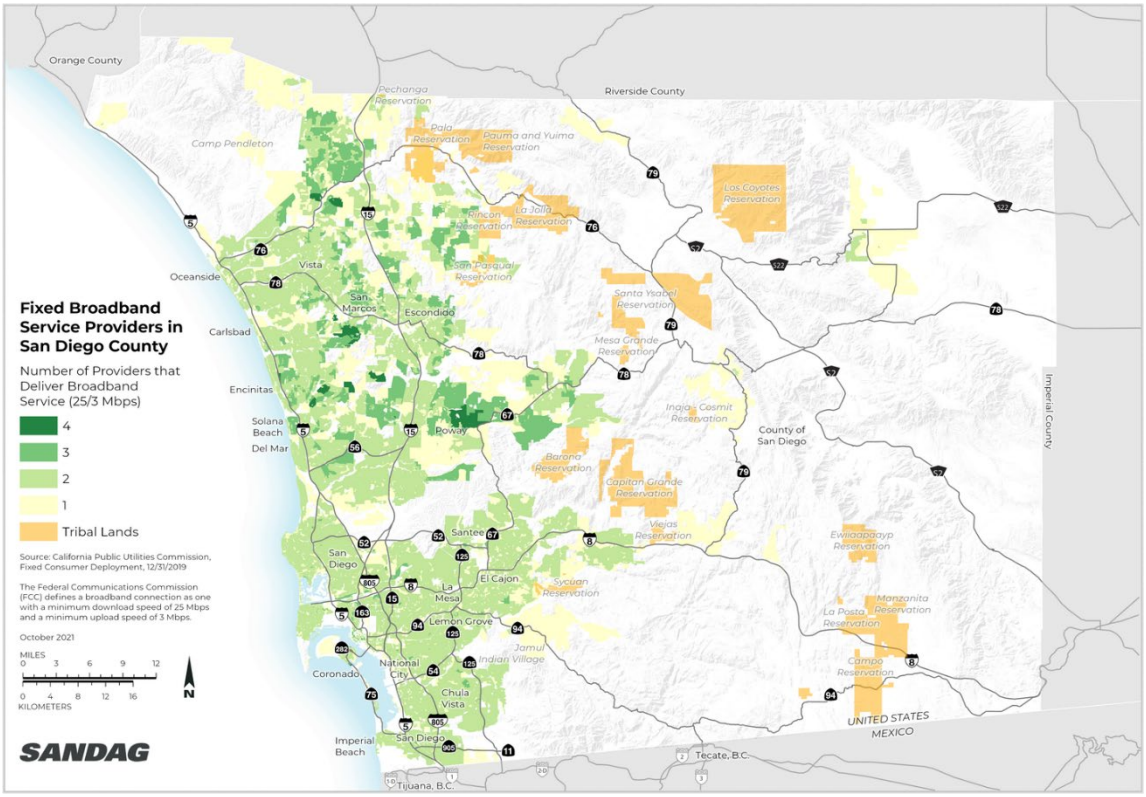


The majority of the San Diego region is served by only one or two fixed broadband providers.

Most fixed service providers only serve the region's urban communities, leaving rural and tribal communities with little to no choice of service and speed (Figure 5).

[17] https://www.fcc.gov/general/broadband-deployment-data-fcc-form-477

Figure 5. Most of the Region is Served by One or Two Broadband Providers



Of the fixed broadband service providers available in San Diego County, only half provide internet services that meet the state's new 100/20 Mbps (Table 1).

Table 1. Summary of Fixed Broadband Internet Service Providers in San Diego County

Internet Service Providers in the San Diego Region (Residential)	
Total number of internet service providers	20
Total number of providers that offer broadband service that achieves the federal standard (25 Mbps download / 3 Mbps upload)	18
Total number of providers that meet 100 Mbps state target	13
Total number of providers that offer a subsidy for low-income residents	3

While some providers offer alternative internet services such as satellite or cellular in these areas, the performance or affordability may vary. Mobile services today may not meet the demands of modern-day households in many parts of the region (Table 2).

Table 2. Mobile and fixed service download speeds (Jan – March 2021)

Percentage of ZIP Codes without service that meets the 25/3 Mbps broadband download speeds	
Fixed Broadband	6%
Mobile Broadband	46%

Source: Ookla

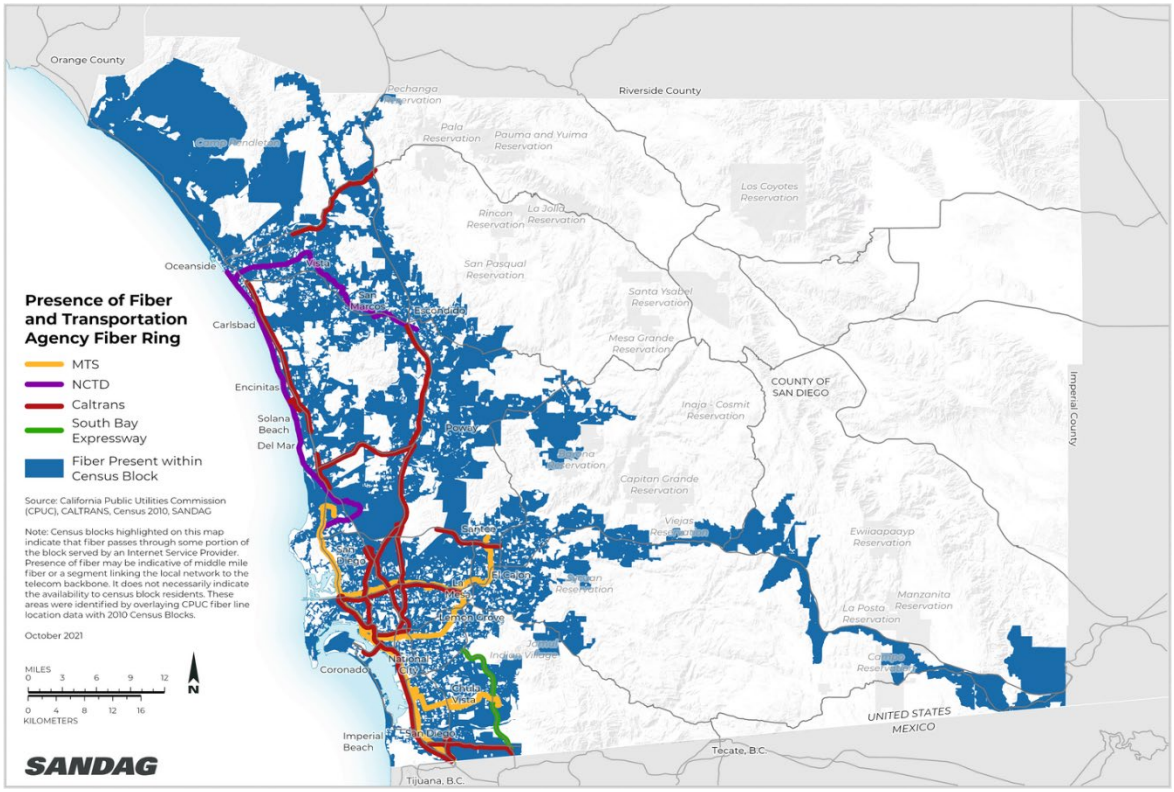
These gaps in broadband service throughout the region are also where the greatest gaps in infrastructure exist. Although more granular data on broadband infrastructure is unavailable, SANDAG, with the help of Caltrans and data from the California Public Utilities Commission (CPUC),[18] was able to identify the census blocks where broadband providers have invested in fiber. The ***most notable infrastructure gaps exist in the county's rural and tribal areas*** (Figure 6[19]).

In addition to fiber that is owned and managed by private companies, government agencies such as SANDAG, Caltrans, the North County Transit District, and the Metropolitan Transit System have invested in fiber to operate transportation services and systems (Figure 6). Currently, this public sector fiber is exclusively used for transportation purposes. However, there is excess capacity that could be shared to expand broadband service and bring down the cost of service. Other public infrastructure projects such as roadway improvements, transit infrastructure enhancements, electrical undergrounding, and utility improvements could also serve as strategic opportunities to expand the broadband communications infrastructure network.

[18] The CPUC regulates privately-owned utilities including electricity, natural gas, water, rail transit, passenger transportation companies, and telecommunications. Internet service providers are regulated by the CPUC in the State of California.

[19] It is important to note that the presence of fiber in Figure 6 does not indicate that fiber or broadband service is widely available throughout that community, but simply that fiber is present within that census block. Expanding middle-mile fiber is an essential strategy in achieving the state and local standards of speed and reliability.

Figure 6. Fiber Presence by Census Block and Transportation Agency Fiber in the San Diego Region



Broadband planning and permitting

Deployment of broadband infrastructure requires close coordination and partnerships among public and private agencies.[20] Though ISPs are typically the primary providers of broadband services and infrastructure, public agencies play a key role in permitting those projects. Public agency oversight and involvement in broadband planning and permitting can help ensure that areas that have been historically underserved also have access to broadband.

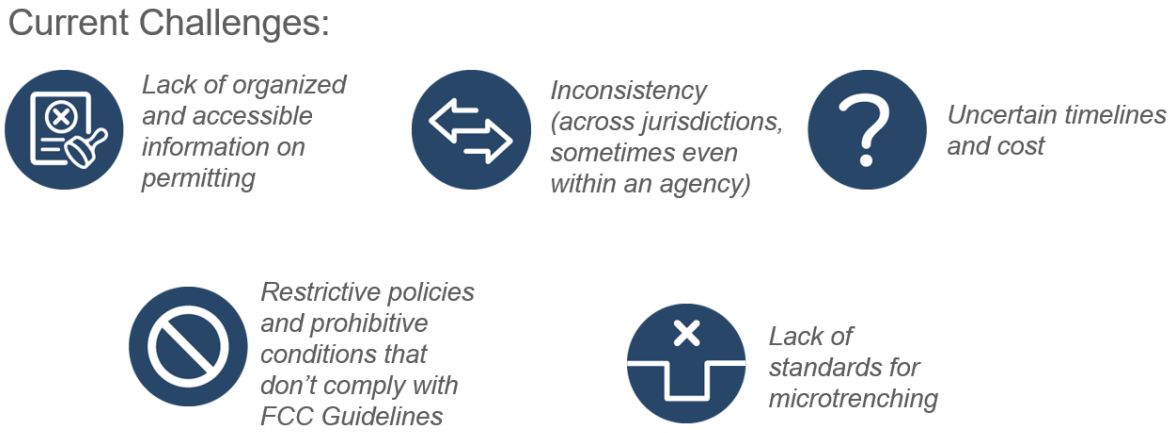
Historically underserved communities in our region have been impacted by "digital redlining" – in which service providers have neglected to invest in infrastructure and provide service to certain areas of cities and regions that do not offer high returns on investment. Public agencies can help focus investments on underserved communities that would not otherwise be served because of low profit margins. More data is needed to identify where digital redlining may be occurring in the San Diego region.

SANDAG conducted interviews with local government agencies and broadband service providers to understand opportunities and challenges for rapid broadband infrastructure deployment. ***The interviews with ISPs revealed that government permitting practices are a barrier for the deployment and maintenance of broadband infrastructure.*** This

[20] Several public agencies in the State are also partially or fully funding broadband service, or municipal broadband. https://www.connectcalifornia.com/internet-service/municipal-broadband-providers

includes uncertainties with permitting timelines and costs, and a lack of standards across local jurisdictions leading to slow and costly deployment of essential infrastructure. Key takeaways from the interviews with ISPs can be found in Appendix D: Summary of Provider Interviews.

Figure 7. Broadband Provider Interviews



Interviews with local jurisdictions confirmed the concerns of ISPs. Key findings show that the permitting process across municipalities are not uniform, making regional coordination for broadband deployment a difficult process. Furthermore, most cities are not proactively planning for broadband or recognizing it as an essential public service. However, many jurisdictions recognize the importance of addressing the digital divide and are willing to partner with ISPs on practical solutions for bringing more and better service to unserved and underserved communities.

Figure 8. Broadband Local Jurisdiction Interview Key Findings

Planning

- Most cities have not done a comprehensive broadband gap analysis, but 11 cities have mapped fiber infrastructure
- Chula Vista is the only city with a master plan for broadband and digital equity
- Coordinated planning for broadband infrastructure to connect Tribal Nations is lacking

Permitting

- Permitting fees, processes, and timelines vary significantly between cities
- Many cities meet FCC requirements for wireless
- Many jurisdictions don't have accessible information on broadband permitting, policies and guidelines
- Some cities allow micro-trenching, few have policies

Implementation

- There is a desire to work with providers to find solutions for underserved areas
- 5 jurisdictions use Master Agreements
- 2 jurisdictions have formal programs/policies for sharing fiber and other assets

Findings from the comprehensive analysis of existing local broadband permitting practices and policies can be found in Appendix E: Local Broadband Policy – Interview Findings.

Broadband adoption today

Regardless of broadband service availability, it is difficult to make significant progress on the digital divide if residents are not provided with the necessary knowledge and tools to use the internet. Lack of a computer and/or broadband subscription disproportionately impacts low-income households, seniors, and minority populations (Figure 9).

A recent statewide survey on internet adoption found that people listed cost, privacy concerns, lack of adequate technology, and comfort with navigating computers and the internet as reasons for being unconnected or under-connected.[21]

Broadband affordability

Affordability is the top barrier preventing people from subscribing to an internet service plan. The cost for internet plans differs throughout San Diego County; however, many rural and tribal communities experience disproportionally higher costs for internet. Costs can reach as high as $90 per month for slow and unreliable service. The higher cost internet services tend to be located in areas with limited choices of providers, directly impacting rural, tribal, and low-income communities.

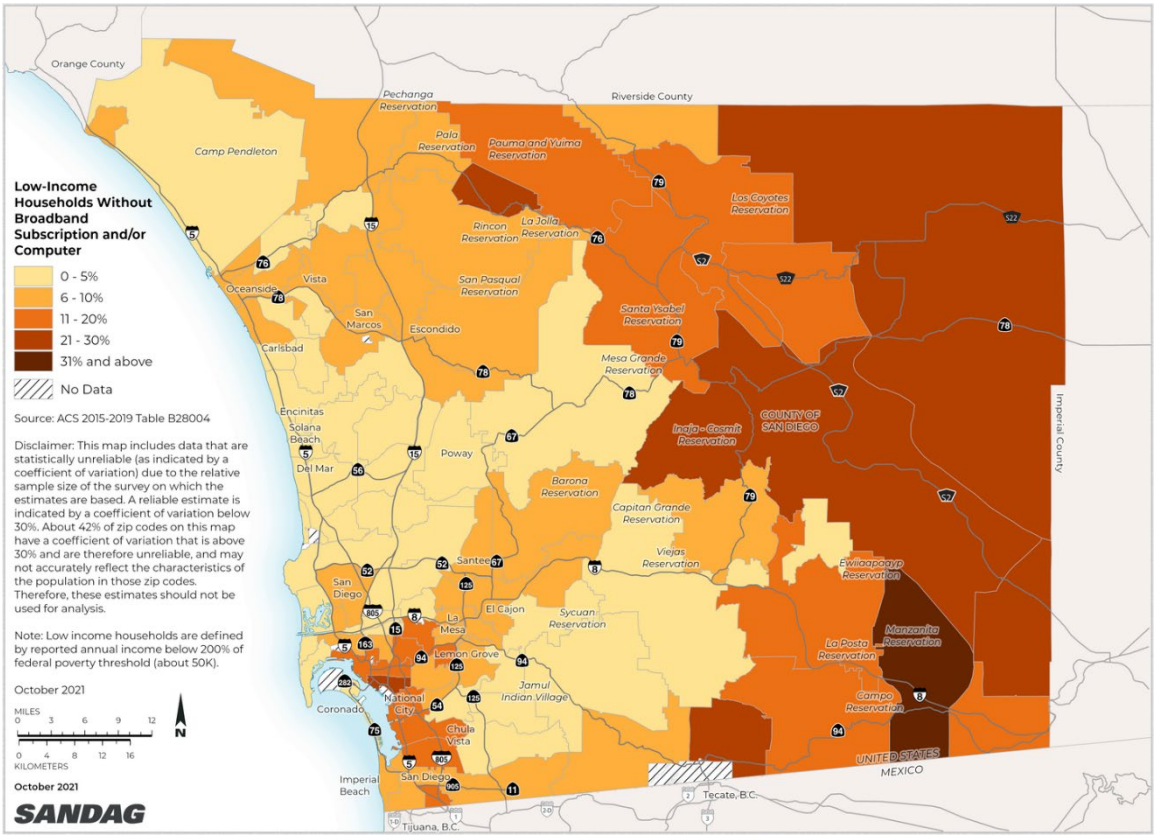
68%

of respondents indicated that internet being "too expensive" is one of the reasons why they lack a connection at home.

Source: CETF 2021 Statewide Broadband Adoption Survey

[21] https://www.cetfund.org/wp-content/uploads/2021/04/Statewide-Survey-on-Broadband-Adoption-Sustainability-and-Green-Strategies.pdf

Figure 9. Low-Income Households Without Broadband Access



This directly impacts many of the same communities in the region that are facing high unemployment rates and that were impacted most by the COVID-19 pandemic.[22]

Nonetheless, ***paying a higher cost for a service plan does not always equate to faster or better service***. Rural and tribal communities are often constrained in their choice of ISPs and often end up having to pay more for speeds that do not meet the minimum 25/3 broadband threshold (Table 3[23]). It is important to note that several fixed broadband service providers in the region, AT&T, Spectrum, and Cox, offer affordable internet plans for

Table 3. Summary of Internet Service Plans in San Diego County

Download Speeds	Monthly Cost
501 Mbps – 1000 Mbps	$60.00 - $109.99
101 Mbps – 500 Mbps	$45.00 - $69.99
25 Mbps – 100 Mbps	$14.99 - $350.00
1 Mbps – 24 Mbps	$19.99 - $250.00

[22] sandag.org/unemploymentdata

[23] This summary reflects internet service providers that provide fixed broadband services. This does not include ISPs that provide mobile or cellular broadband services.

qualifying households (Table 3[24]).
Low-cost internet plans provide a pathway toward reliable broadband connections for community members who may not be able to attain comparable speed plans otherwise. Eligibility for these programs varies based on the provider, but it is typically is driven by household enrollment in other social service programs such as the Supplemental Nutrition Assistance Program, National School Lunch Program, or other assistance programs. Data on the number of households subscribed to these programs is not publicly available.

17%

of seniors lack a computer and/or broadband subscription

9%

of San Diego County's minority residents lack a computer and/or broadband subscription

Source: American Community Survey, 2020

Even with the availability of low-income plans, a significant number of seniors in California do not have internet service and computers in their own homes. With many seniors struggling to keep up with the high costs of living, medical expenses, food, or other utilities, high-speed internet service is unattainable.

Minority populations are also at a disadvantage, with 9% not having a computer and broadband subscription at home, compared with 5.8% of the White Non-Hispanic population. American Indian and Alaska Native, Hispanic/Latino, and Black or African American households are less likely to have internet or a computer at home.[25]

There have been many efforts to help bridge gaps in affordability. In 2020, the FCC established a temporary Emergency Broadband Benefit program that subsidizes the cost of broadband services through eligible providers up to $50/month for eligible households and up to $75/month for qualifying Tribal lands.[26]

Device ownership

A goal of the Regional Digital Equity Strategy is that a secure device with privacy preserving access to the internet is available to everyone, regardless of income.

The advent of smartphones has enabled us to readily access the internet and information from our phones. This has undoubtedly provided greater connectivity for many, allowing us to book a ride from a

Table 4. How San Diego County Residents Access the Internet

Computer, laptop, or tablet	
2019	78%
2021	85%
Smartphone only	
2019	10%
2021	6%

Source: CETF 2021

[24] Some ISPs that provide mobile or cellular broadband services, such as Verizon Wireless or T-Mobile, also offer low-cost options to eligible households.

[25] 2019 ACS 5-Year Estimates, Types of Internet Subscriptions by Selected Characteristics, https://data.census.gov/cedsci/table?q=2019%20ACS%20Table%20S2802%20&g=0500000US06073&tid=ACSST5Y2019.S2802

[26] https://www.fcc.gov/broadbandbenefit

ride-hailing company or video call friends and family in an instant. However, smartphones can be costly and may not be well suited to complete more complicated tasks such as completing online school assignments, doing remote work, and accessing tele-health; these sorts of activities require the use of a computer or similar device that is more reliable, has greater bandwidth, and possesses a larger screen to complete online activities.

According to a recent survey, the number of California residents who use a computer or tablet to access the internet from home has jumped, while the number of residents who use a smartphone only has fallen by nearly 50%. This suggests that fewer people are relying on a smart phone only to access the internet. Other sources, however, indicate that the dependency on smartphones to stay connected is much higher.[27]

During the pandemic, many local jurisdictions, organizations, and educational institutions distributed mobile hotspots and devices to households. While many households have benefited from these temporary programs, a permanent solution is needed to make broadband services readily available for the long-term.

Despite steps taken to help people gain internet access during the pandemic – even temporarily – device ownership and broadband accessibility across California remains uneven across income, age groups, education, and race/ethnicity lines.

- **Education.** Nearly half of residents without a high school degree are unconnected or smartphone only, a stark contrast to those with higher educational attainment.
- **Race/Ethnicity.** Nearly 25% of Hispanic households remain unconnected or are smartphone only, a significant gap relative to other racial/ethnic groups. Hispanic households where Spanish is the primary language (65%) are even less connected.
- **Age.** Broadband adoption among those ages 65 and over continues to rise, but still lags behind other age groups with 23% unconnected.
- **Gender.** More women (13%) than men (6%) are unconnected, while more men (7%) are smartphone-only users than women (4%).
- **Geography.** Metro areas in California are more connected (88%) than users in non-metro areas (76%).
- **People with a disability** are more than twice as likely to be unconnected or under-connected. However, the overall adoption for people with disabilities continues to increase.
- **Income.** More than one in four low-income households are unconnected or under-connected in contrast to near universal adoption among higher-income households. Progress here has slowed during COVID-19 pandemic.

[27] https://www.pewresearch.org/internet/fact-sheet/mobile/

Digital literacy

"Digital literacy" refers to the skills and knowledge needed to use a device and navigate the internet. Examples of digital literacy include the ability to:

- Read a book on a tablet or other mobile device
- Assess the validity and security of a website
- Maintain privacy and a secure connection while using the internet.
- Safely and securely use internet services – including navigating device authentication and websites without falling prey to malware, scams, hacking, and other online dangers.
- Read, write, send, and manage emails
- Create and share YouTube videos
- Update the settings on a device to access a particular Wi-Fi service
- Use special computer tools to aid the visually impaired

Findings from a recent national study indicate that 16% of U.S. adults were not digitally literate.[28] This translates to more than 31.8 million Americans who do not have the comfort or skills with technology to use a computer. Adults without sufficient digital literacy tend to have lower educational attainment and are unable to fully participate in the workforce, posing a significant barrier for economic growth and upward mobility.

...As digital capability increasingly becomes tied to economic activity, the digital divide will widen and further exclude the world's poorest citizens.

Source: Accion International, 2020

For seniors, the lack of digital literacy may exacerbate social isolation and health problems. Even for those who have the tools they need, without proper training on how to use the tools seniors cannot comfortably connect with needed services and caregivers.

Digital content accessibility

Digital content needs to be designed for everyone to access with ease, regardless of ability, age, income, or language. Section 508 of the Rehabilitation Act of 1973 "requires Federal agencies to make their electronic and information technology accessible to people with disabilities."[29] However, there is still significant digital content that is not accessible to people with disabilities limiting their access to information and services.[30] Research has found that

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[28] https://nces.ed.gov/pubs2018/2018161.pdf

[29] GSA Government-Wide IT Accessibility Program, IT Accessibility Laws and Policies, https://www.section508.gov/manage/laws-and-policies

[30] The ADA National Network: https://adata.org/research_brief/digital-access-and-title-iii-ada

private company websites tend to be less accessible than state or federal government websites, although many public agency websites have accessibility barriers.[31]

It is essential for organizations to implement accessible design standards into digital content, especially content on essential services. Some of the factors that must be considered include:

- Video captions
- Colors with good contrast
- Voice recognition
- Text to speech
- Clear layout and design
- Notifications and feedback
- Customizable text

Without Americans with Disabilities Act (ADA) compliant design standards for all digital content, people with disabilities will be limited in their ability to pursue online opportunities and services.

There are some equipment and software enhancing tools that can increase, maintain, or improve the functional capabilities of individuals with disabilities accessing digital content and services. These are referred to as adaptive technologies, such as screen readers, computer magnification programs, braille printers, word prediction software, or assistive communication systems. These technologies, however, can be quite costly and may require custom modification to meet user needs. People with disabilities and limited incomes may not be able to afford or readily access these sorts of expensive technologies. Additionally, training on how to competently use this equipment or software may be limited. In the San Diego region, organizations such as the San Diego Futures Foundation and the United Cerebral Palsy of San Diego County's San Diego Assistive Technology Center provide training and hands-on- experience for people with disabilities. Without consideration for incorporating ADA compliant design standards into all digital content, wider web accessibility barriers can be created for people with disabilities and can hinder their ability to pursue online opportunities and services. ADA compliant design enables access to a variety of government services such as applying for unemployment, applying for rental assistance, and acquiring healthcare through telemedicine.

> "Now that I've finished the Adaptive Technology Program, I'm planning on finding employment, doing more advocacy work, and hopefully starting my own business. The instructors at San Diego Futures Foundation are awesome, because they understand what you're going through since they're also visually impaired or blind themselves."
>
> *- Participant of San Diego Futures Foundation*

[31] https://www.sciencedirect.com/science/article/abs/pii/S0740624X11000530?via%3Dihub

Strategies to Bridge the Digital Divide

Broadband is not only a necessary public service, it is also an essential public good. To achieve our vision for a connected region, SANDAG has developed seven overarching strategies to address the wide range digital inequities that exist in the region today. Each of these strategies will be realized through a comprehensive set of specific near-term and continuous actions (Action Plan), which address both access and adoption of broadband and the tools and skills needed to use the internet.

- ***Build consensus that high-quality, reliable, and affordable broadband is an essential public service that contributes toward greater equity.***

  Standardize the definition of broadband to the state mandated 100/20 Mbps.

  Support policy and legislative initiatives that mandate affordability and service performance standards that improve the reliability and performance of the service including minimum broadband speeds, latency, and jitter.

- ***Incorporate broadband into regional and local plans.***

  Standardize the incorporation of broadband into regional and local development projects.

  Develop and encourage local adoption of regionally consistent broadband supportive policies and streamlined permitting practices with priority to unserved, underserved, tribal, and low-income communities.

- ***Drive the expansion of a resilient, reliable, and redundant open-access middle-mile fiber network.***

  Leverage existing public infrastructure through public and private partnerships (state, county, and local agencies, SDG&E, Transportation Agencies, ISPs).

  Develop policies and standardized agreements for sharing conduit, fiber, and infrastructure assets.

- ***Build collaborative partnerships with ISPs to connect middle-mile expansion with last-mile deployment in areas of greatest need.***

  Ensure accountability and transparency in delivering affordable and high-quality broadband.

- ***Strengthen partnerships with and between public agencies, community-based organizations, libraries, and educational and research institutions.***

  Coordinate initiatives and share best practices to expand digital literacy and adoption.

  Expand and implement coordinated outreach and public education activities that raise awareness and build support for digital equity.

  Develop technical assistance, shared resources, and software applications to advance digital equity and inclusion, including accessible content.

- ***Advocate for better public data and greater transparency around household-level service availability, performance, and cost.***

  Expand and improve public broadband data availability and mapping resources to educate stakeholders and inform decision-making.

- ***Advocate for and seek sustainable funding for digital equity programming.***

  Increase broadband availability in underserved areas, broadband affordability in low-income households, and advance digital literacy and broadband adoption.

Equitable access to broadband can be associated with greater civic engagement, increased access to healthcare, advances in disaster response and early warning systems, gains in labor productivity, bringing new businesses and jobs to the region, increases in personal income, household transportation cost savings, and cost savings from greater efficiency in transportation operations.

SANDAG is already taking steps to implement these strategies in its current and future projects. SANDAG is leading statewide efforts for "dig once" or "dig smart" opportunities, through collaboration with Caltrans and the County of San Diego on the development of the SR 67 Pavement Rehabilitation project. This project will expand fiber infrastructure needed to connect many tribal and lower income communities in rural San Diego County. This project is an example of how inter-agency coordination can be leveraged to take advantage of unique opportunities to strategically place fiber infrastructure in rural communities as well as reinforce fiber technologies in urban areas with existing coverage. Existing and new partnerships between government entities, public utilities, non-government and charitable groups, and private entities are necessary to ensure digital equity. As we move forward, strengthening partnerships to coordinate initiatives and share successes and best practices will be key.

Bridging the Digital Divide Through Partnerships

SR 67 Dig Once Demonstration

This first "Dig-Once" demonstration project in the state will add fiber along an 18-mile stretch of SR 67 from Lakeside to Ramona. This collaborative effort is made possible through a partnership with SANDAG, Caltrans, and the County of San Diego and will provide the infrastructure needed to connect public facilities, implement transportation technology solutions, and could bring broadband connectivity to the 225,000 people living within five miles of the corridor.

Action Plan

Last updated: December 15, 2021

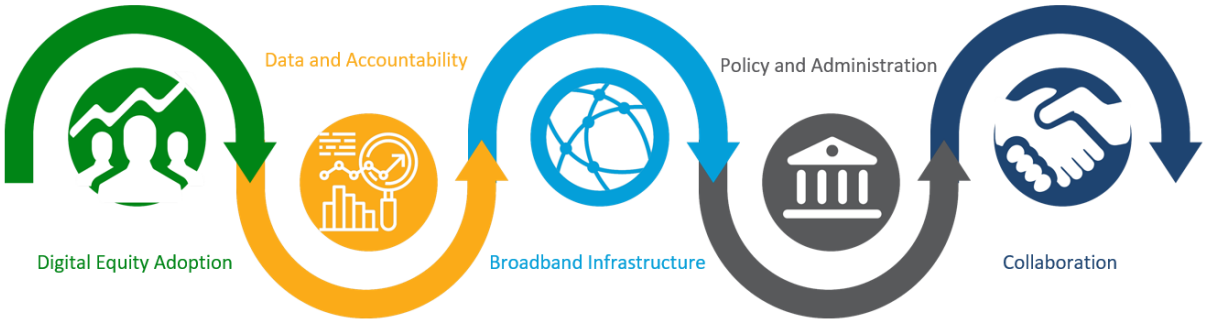
Taking Action

The Action Plan lays out a comprehensive set of actions to outline progress toward achieving each of the seven strategies and bridging the digital divide. The Action Plan identifies a timeline for implementation and the responsible parties involved. It's anticipated that near-term actions will be implemented before 2025 and continuous actions will progress beyond the 2025 horizon. SANDAG has identified many early actions that are already underway. SANDAG will continue to monitor implementation, evaluate priorities, and update the Action Plan on an annual basis to reflect recent progress. Achieving the goals of the Strategy will require collaboration, innovation, and action from many different stakeholders. SANDAG is committed to partnering with stakeholders, including the State, County, and local governments, public agencies, CBOs, educational institutions, and ISPs to enhance digital equity in the San Diego region.

A roadmap for success

SANDAG partnered with global technology and networking solutions company, Cisco Systems, to codevelop a strategic roadmap to guide implementation of the Strategy and Action Plan found in Appendix F: Cisco Systems Community Success Roadmap and help prepare the region for success. Cisco Systems brought a team of experts and a proven community success roadmap process to help the region align stakeholder interests and develop actionable recommendations. To advise Cisco along the way, SANDAG convened a regional leadership team with representatives from organizations spearheading work to close the digital divide including Caltrans, City of Carlsbad, City of Chula Vista, City of San Diego, County of San Diego, County Office of Education, and the Southern California Tribal Chairmen's Association.

Figure 10. The Community Success Roadmap Identified Six Priorities for Bridging the Digital Divide



The Cisco team conducted more than 60 interviews with regional, state, and federal stakeholders to understand barriers and opportunities for digital equity. Following the interviews, the Cisco team worked with the regional digital divide leadership team to map stakeholder feedback into regional priorities (Figure 10) and developed complementary actions. The final output of the SANDAG partnership with Cisco is a roadmap of immediate, medium-, and long-term actions that SANDAG and regional stakeholders can implement to achieve our vision – where everyone has access to high-quality broadband connectivity and the tools and skills needed to use technology to improve their lives. This roadmap informed the Action Plan.

Build consensus that high-quality, reliable, and affordable broadband is an essential public service that contributes toward greater equity.

- Standardize the definition of broadband to the state mandated 100/20 Mbps.
- Support policy and legislative initiatives that mandate affordability and service performance standards that improve the reliability and performance of the service including minimum broadband speeds, latency, and jitter.

Supporting Actions

Action	Timeline	Responsible Parties
Advocate and adopt a definition of "broadband" for the region that reflects the goal of 100/20 Mbps included in the Governor's Executive Order 73-20, and addresses future demands, reliability, and other service level standards (e.g., latency, jitter). Inform state definition.	Near-term	SANDAG, Regional Digital Divide Taskforce (Taskforce), Southern California Transformation, California Emerging Technology Fund (CETF)
Develop a standard definition for "unserved" and "underserved" households and/or census blocks. Inform state definitions.	Near-term	SANDAG, Taskforce, Southern California Transformation, CETF
Prepare a map of unserved and underserved areas to focus investments in areas of greatest need.	Near-term	SANDAG
Identify political champions and digital equity leaders in the region and state.	Near-term	SANDAG, Taskforce, Southern California Transformation, CETF, Broadband Consortia
Incorporate digital equity and broadband deployment into the SANDAG annual legislative program.	Continuous	SANDAG

Action	Timeline	Responsible Parties
Encourage SANDAG member agencies to incorporate digital equity and broadband deployment into their annual legislative programs.	Continuous	Member agencies
Track and participate in federal and state legislation and California Public Utilities Commission (CPUC) rulemakings related to broadband affordability and performance. Inform and encourage Taskforce members and member agencies to participate in relevant legislation and rulemakings.	Continuous	SANDAG, Taskforce, Member agencies
Conduct an Economic Impact Analysis of Universal Broadband to demonstrate and promote the potential impact of a fully connected region.	Near-term	SANDAG

Incorporate broadband into regional and local plans.

- Standardize the incorporation of broadband into regional and local development projects.
- Develop and encourage local adoption of regionally consistent broadband supportive policies and streamlined permitting practices with priority to unserved, underserved, tribal, and low-income communities.

Supporting Actions

Action	Timeline	Responsible Parties
Encourage member agencies to adopt a resolution committing to bridge the digital divide.	Near-term	Member agencies
Identify regional or local policies, practices, or legislation that may inhibit broadband deployment. Determine steps needed to mitigate policy barriers.	Near-term	SANDAG
Integrate digital equity into existing and future SANDAG funding programs (e.g., Smart Growth Incentive Program, Housing Grant Program).	Near-term	SANDAG
Integrate broadband into regional transportation plans (e.g., Interregional Tribal Transportation Strategy and Comprehensive Multimodal Corridor Plans).	Near-term	SANDAG, Caltrans, Tribal Governments
Integrate broadband into local agency plans and programs (e.g., Community Plans, General Plans, Climate Action Plans).	Continuous	Local Jurisdictions

Action	Timeline	Responsible Parties
Establish a work group to develop regional permitting standards and guidelines that expedite broadband infrastructure development in unserved and underserved communities: • Coordinate local efforts with state initiatives (e.g., GoBiz) to streamline local land use approvals and permitting of broadband infrastrcture. • Develop standard agreement templates to streamline permitting processes (e.g., master encroachment permit, digital permitting).	Near-term	SANDAG, Local Jurisdictions
Complete a Digital Infrastructure and Broadband Master Plan to inventory public fiber infrastructure, identify gaps, and develop an implementation strategy for a regional broadband network to connect public facilities in each of the San Diego region's jurisdictions, especially areas of greatest need: • Consider opportunities for municipal broadband deployment to expand service to public facilities including mobility hubs, libraries, parks, community anchor institutions, etc. • Develop guidance for local jurisdictions on contracting with broadband service providers (e.g., construction requirements, service/affordability standards, maintenance standards, term, insurance, etc.).	Near-term	SANDAG, Local Jurisdictions, Tribal Governments, Caltrans
Consistent with the Draft 2021 Regional Plan Environmental Impact Report, conduct a study on the impacts of broadband on greenhouse gas emission reductions to evaluate the potential impact of broadband as a transportation mitigation strategy.	Near-term	SANDAG, Local Jurisdictions, Tribal Governments, Caltrans

Drive the expansion of a resilient, reliable, and redundant open-access middle-mile fiber network.

- Leverage existing public infrastructure through public and private partnerships (state, county, and local agencies, SDG&E, Transportation Agencies, Internet Service Providers (ISPs)).
- Develop policies and standardized agreements for sharing conduit, fiber, and infrastructure assets.

Supporting Actions

Action	Timeline	Responsible Parties
Track and actively participate in CPUC rulemakings and other state initiatives (e.g., California Broadband Council, Middle Mile Advisory Committee, California Advanced Services Fund, SB 156, SB 4, AB 14) to support deployment of a statewide open access middle-mile, last-mile broadband infrastructure, and programming for digital adoption and literacy.	Continuous	SANDAG
Collaborate with the California Department of Technology (CDT), Caltrans, and the State's Third Party Administrator (TPA) to advance initial middle-mile priority locations in San Diego County.	Near-term	CDT, Caltrans, TPA, SANDAG
Pilot a Dig-Once project to deploy conduit and fiber as part of the State Route 67 Pavement Rehabilitation Project. Inform state Dig-Once policies and practices.	Near-term	SANDAG, Caltrans, County of San Diego, ISPs

Action	Timeline	Responsible Parties
Develop a map of strategic projects that can be leveraged to expand broadband infrastructure.	Near-term	SANDAG, Caltrans, Local Jurisdictions, Tribal Governments, SDG&E
Implement a Dig-Once policy to install conduit and fiber as part of SANDAG-funded projects.	Near-term	SANDAG
Inventory local infrastructure assets that can be made available for broadband infrastructure deployment. Provide templates for sharing/leasing assets.	Near-term	SANDAG, Local Jurisdictions, Tribal Governments
Develop and implement a regional fiber sharing agreement template for public and private partners.	Near-term	SANDAG, Caltrans, Member agencies, Tribal Governments, ISPs

Build collaborative partnerships with ISPs to connect middle-mile expansion with last-mile deployment in areas of greatest need.

- Ensure accountability and transparency in delivering affordable and high-quality broadband.

Supporting Actions

Action	Timeline	Responsible Parties
Pursue projects to expand service in unserved and underserved rural areas (e.g, Initial Middle-Mile Project Locations, Statewide Rural Connectivity Project).	Continuous	SANDAG, Local Jurisdictions, Tribal Governments, ISPs
Pursue projects to expand last-mile connectivity in underserved urban areas (e.g., Promize Zone Initiative).	Continuous	SANDAG, Local Jurisdictions, ISPs
Develop guidance for local jurisdictions on contracting with broadband service providers (e.g., construction requirements, service/affordability standards, maintenance standards, term, insurance, etc.).	Near-term	SANDAG, Local Jurisdictions
Prequalify ISPs as partners for grants and other digital equity projects through a competitive process (i.e., Request For Partnerships). Require partners to provide household level data that will support planning for deployment in unserved and underserved areas.	Near-term	SANDAG, ISPs
Establish a work group and develop a strategy for providing internet service to residents of all public housing properties in the region.	Near-term	SANDAG, Local Jurisdictions, San Diego Housing Commission, Southern California Transformation, CETF, ISPs

Action	Timeline	Responsible Parties
Coordinate and convene educational institutions (i.e., K-12, colleges, universities) to discuss broadband needs for students.	Near-term	SANDAG, San Diego County Office of Education, School Districts, Colleges/Universities, Parent Teacher Associatons (PTA), Libraries, Southern California Transformation, CETF, ISPs
Coordinate and convene public safety organizations to discuss broadband needs for public safety and disaster preparedness, response, resiliency, recovery, and mitigation capabilities.	Continuous	SANDAG, Local Jurisdictions, Southern California Transformation, CETF, ISPs
Coordinate and convene public health organizations to discuss broadband needs for telehealth capabilities, emergency response systems, etc.	Near-term	SANDAG, County of San Diego, 211, Southern California Transformation, CETF, ISPs

Strengthen partnerships with and between public agencies, community-based organizations, libraries, and educational and research institutions.

- Coordinate initiatives and share best practices to expand digital literacy and adoption.
- Expand and implement coordinated outreach and public education activities that raise awareness and build support for digital equity.
- Develop technical assistance, shared resources, and software applications to advance digital equity and inclusion, including accessible content.

Supporting Actions

Action	Timeline	Responsible Parties
Convene the Taskforce, as needed, to share best practices, resources, and lessons learned and coordinate on regional initiatives.	Continuous	SANDAG, Taskforce
Convene community-based organizations (e.g., SANDAG Social Equity Working Group) to coordinate and advance initiatives that increase broadband adoption, digital literacy, and device ownership. Report back to the Taskforce on a regular basis.	Continuous	SANDAG, Community-Based Organizations
Review existing digital literacy curriculums for seniors, adults and students. Determine gaps, opportunities for improvements, and encourage integration of curriculums into community-based organizations offerings, schools, libraries, etc.	Near-term	San Diego Futures Foundation, Parent Institute for Quality Education (PIQE)
Inventory community-based organizations, libraries, schools, foundations, etc. that promote and offer programs that advance digital literacy. Increase the number of organizations that offer digital equity programming.	Near-term	SANDAG, City of San Diego, San Diego Futures Foundation, Library Friends of San Diego County

Action	Timeline	Responsible Parties
Identify funding resources (federal, state, local, private) to support community-based digital equity solutions.	Continuous	SANDAG, City of San Diego
Coordinate and convene tribal stakeholders to expand digital literacy programs and services in tribal areas.	Continuous	SANDAG, Tribal Governments
Develop and share communications materials to raise awareness, cross promote, and build support for digital equity: • Create a toolkit of resources for taskforce members with newsletter content, speaking points, graphics, one pagers, and sample social media posts. • Engage media through press releases and story pitches when relevant projects reach key milestones, or new local and regional policies are adopted.	Continuous	SANDAG, Taskforce
Identify and promote the use of digital accessibility tools for people with disabilities to use technology and improve digital literacy in partnership with regional stakeholders (e.g, Social Services Transportation Advisory Council, City of San Diego's Accessbility Advisory Board): • Develop standard policy and processes to improve the accessibility of SANDAG work products, website, etc. Encourage Taskforce and member agencies to adopt and promote digital accessibility standards. • Share resources and standards on digital accessibility tools with Taskforce and member agencies.	Continuous	SANDAG, Social Services Transportation Advisory Council, City of San Diego's Accessibility Advisory Board, Taskforce
Work through public housing organizations and other public services to promote enrollment in broadband service subsidy programs and related digital equity services.	Continuous	Public Housing Providers, Local Jurisdictions

Action	Timeline	Responsible Parties
Create a regional portal for resources and information on digital equity data and programing including subsidies for broadband service, as well as programs for digital literacy, accessibility and device ownership. Ensure that 211 is promoting information on digital equity resources.	Near-term	County of San Diego, 211 San Diego
Encourage member agencies, community-based organizations, and businesses to donate retired technology assets to organizations that offer programs advancing device ownership and digital literacy.	Near-term	SANDAG, San Diego Futures Foundation, Taskforce

Advocate for better public data and greater transparency around household-level service availability, performance, and cost.

- Expand and improve public broadband data availability and mapping resources to educate stakeholders and inform decision-making.

Supporting Actions

Action	Timeline	Responsible Parties
Track and actively participate in legislation and California Public Utilities Commission (CPUC) rulemakings to advocate for more granular and accurate broadband data. Advocate for improved Federal Communications Commission's Form 477 reporting. Encourage Taskforce and member agencies to actively participate.	Continuous	SANDAG, Taskforce, Member agencies
Conduct a regional survey to establish a baseline for broadband adoption in the region. Develop a plan for regular surveys to measure progress on broadband adoption.	Near-term	SANDAG, Local Jurisdictions, Tribal Governments, Community-Based Organizations
Publish, maintain and update interactive data portal to track and monitor progress on broadband access and adoption.	Continuous	SANDAG

Advocate for and seek sustainable funding for digital equity programming.

- Increase broadband availability in underserved areas, broadband affordability in low-income households, and advance digital literacy and broadband adoption.

Supporting Actions

Action	Timeline	Responsible Parties
Incorporate digital equity into SANDAG funding programs and work with partners to establish funding for digital divide programs locally.	Near-term	SANDAG
Advocate for and apply for state and federal funding to expand broadband infrastructure and services in the Southern California.	Continuous	SANDAG, Member Agencies, Taskforce, Broadband Consortia
Support legislation to establish sustainable funding for subsidized broadband in areas of greatest need including low-income households, public housing, and anchor institutions.	Continuous	SANDAG, Taskforce
Identify and promote grant funding opportunities. Seek partnerships to assist local jurisdictions, CBOs, and tribes with digital equity initiatives.	Continuous	SANDAG, Local Jurisdictions, Tribal Governments, ommunity-Based Organizations
Work with community based organizations to establish partnerships and a prioritized list of digital equity projects that are ready to go for funding applications.	Near-term	SANDAG, Community-Based Organizations

Action	Timeline	Responsible Parties
Track federal, state, and local grant opportunities to expand broadband services and advance broadband adoption in the region. Support Taskforce members with grant applications (Letter of support, data, etc.): • Planning or technical studies/assessments • Digital Literacy • Subsidized broadband subscriptions • Equipment (computers, hotspots, etc.)	Continuous	SANDAG, Taskforce
Engage with active philanthropy organizations to identify areas of shared interest and potential sources of funding to support digital equity programs and services.	Continuous	SANDAG, Taskforce

Appendix A: Broadband and Digital Divide Glossary

This document is available at: sandag.org/uploads/committeeid/committeeid_124_29189.pdf

Appendix B: Broadband and Digital Equity 101

This document is available at: sandag.org/uploads/committeeid/committeeid_124_29816.pdf

Appendix C: Broadband Gap Analysis Data Documentation

This document is available at: sandag.org/uploads/committeeid/committeeid_124_29689.pdf

Appendix D: Summary of Provider Interviews

This document is available at: sandag.org/uploads/meetingid/meetingid_5841_28872.pdf

Appendix E: Local Broadband Policy – Interview Findings

This document is available at: sandag.org/uploads/meetingid/meetingid_5850_29135.pdf

Appendix F: Cisco Systems Community Success Roadmap

This document is available at: sandag.org/uploads/projectid/projectid_614_31102.pdf.