

Digital Divide

in the Asian American,
Native Hawaiian, and
Pacific Islander Communities





Thank You

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01

Executive Summary

While the pandemic heightened awareness of the digital divide and the staggering number of households unable to benefit from digital services and opportunities, Asian American, Native Hawaiians, and Pacific Islander (AANHPI) communities throughout the country have been fighting to achieve digital equity and inclusion for years.

Broadband challenges vary by community but include a lack of high-speed internet network availability, a lack of access to digital readiness tools and devices, insufficient access to information and resources that can help non-adopters get online safely. For example, greater knowledge sharing and application support for programs like the Affordable Connectivity Program (ACP), a federal program dedicated to helping low-income families connect to high-speed internet service, is critical to getting more people online and improving digital equity and inclusion outcomes.

The National Telecommunications and Information Administration's (NTIA) 2019 Internet Use Survey found that while the overall population increased their use of the internet from 2017 to 2019, Asian Americans were 4% less likely to go online compared to White non-Hispanics¹. In many ways, the COVID-19 pandemic's challenges accelerated innovation and the adoption of emerging technologies. But as services, media, and communications increasingly move to online platforms, those without access to affordable, high-speed internet will be left behind. For unserved and rural areas of the country, lack of availability to broadband networks creates a significant barrier for those who are waiting for broadband deployment to reach their communities, including AANHPI communities that live in rural areas.

01 EXECUTIVE SUMMARY

Very few digital divide studies include Asian Americans and Pacific Islanders in their analysis. The few that do include AANHPIs fail to include complete samples of this group, excluding non-English speakers altogether, even though they make up a significant portion of the population. By excluding non-English speakers and/or Low-English Proficiency (LEP) individuals, studies omit some of the most vulnerable communities that may be most negatively affected by the digital divide. To effectively bridge the digital divide, these communities must be identified and prioritized.

In addition to collating anecdotal evidence and lived experiences at the community level, more research must be conducted to better understand the unique needs and diverse challenges that the AANHPI communities face in achieving digital literacy and empowerment. This study aims to begin these efforts. Through generous funding by Charter Communications, a leading broadband connectivity company and cable operator serving more than 32 million customers in 42 states through its Spectrum brand, Asian Americans Advancing Justice | AAJC developed a digital survey to assess how AANHPI communities are connecting to the internet. Advancing Justice | AAJC interviewed 2,100 AANHPI individuals via phone and online surveys in English and 7 Asian languages about their experiences getting online.

These surveys confirmed what advocates and community leaders have been reporting for years—significant subsets of Asian American, Native Hawaiian, and Pacific Islander communities are still being left behind by the digital divide. According to the interviews, approximately 17% of AANHPIs still do not have access to high-speed internet at home, and 14% reported that the connections that they did have were poor or could be better. Of the 17% that did not have access to high-speed internet, 11% rely on dial up connections and 5% are only able to connect to the internet through a mobile phone or tablet connection. Still, others reported that these issues were compounded because they did not have access to appropriate devices such as a laptop or tablet.

Factors such as income level, education attainment level, and English-speaking ability exacerbate these challenges. The types of barriers individuals may report may also vary along geography, age, ethnicity, and other demographic characteristics. For example, those who lived in rural or small town areas reported having fewer mobile/smartphone devices compared to those in urban and suburban areas. Almost half of those who had inadequate access to the internet said that price, language barriers, digital literacy, limited high-speed offerings in their areas, and the lack of devices were significant contributing factors.

However, even those who reported having issues with their connections overwhelmingly rated online services, products, and media as being essential and helpful for everyday tasks. Respondents across different demographic categories consistently said that online communications services, news media, and financial services were important to them. This suggests that Asian American, Native Hawaiian, and Pacific Islander individuals understand the value, opportunity, and convenience that online services can offer. Indifference or lack of awareness does not seem to significantly contribute to the digital divide in this context.

02

Key Findings

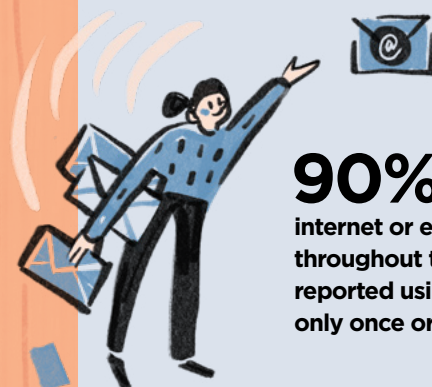


Many are not satisfied with their current internet access. **14%** of AANHPIs report that their access to reliable and high-speed internet was poor or could be better, and some disclosed that they did not have an internet connection.



AANHPIs overwhelmingly say that **online communication channels for messaging and connecting with others are an important use of the internet**; they also find that online financial services and platforms are critically important.

While AANHPI communities understand how critical and useful the internet and other technology is, **there are still literacy and information gaps that prevent communities from being able to use online services to their full extent.** Despite this acknowledgment, fewer respondents expressed confidence in their ability to navigate essential tasks that can be done online.



90% of AANHPIs report using the internet or email regularly throughout the day, but **10%** reported using the internet only once or less a day.



Most households do have some kind of internet connection at home, but the quality of connection varies. While **90%** of respondents have some internet connection, the speed and capacity vary. **Some members of the community only have mobile and dial-up connections, while 1% do not have connection at all.** The ability to connect to high-speed and high-quality broadband varies across the population.

More than 10% of the population still do not have the right devices at home, limiting the type of internet services they can readily utilize.

11.8% of respondents only had access to one device.

11% only had access to a smart phone and/or tablet and

6% only had access to a desktop and/or laptop.



Many in AANHPI communities still lack high-speed internet connections at home.

17% of the AANHPI population do not have high-speed internet at home, with 11% relying on dial-up connections, 5% only having access through a mobile phone or tablet connection, and 1% having no internet access at all.



46% say lack of computer/technical skills and digital literacy is a problem/barrier; those in rural areas and small towns were more likely to report this was an issue.

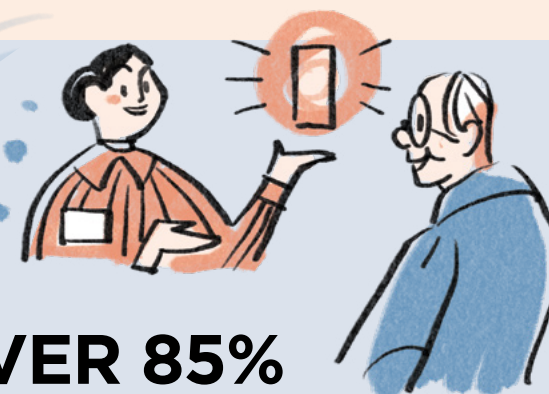
45% reported that they did not have access to a device or enough devices in their household to utilize the internet adequately.

Affordability, lack of computer/tech skills and digital literacy, language barriers, lack of high-speed options, and insufficient devices all pose significant barriers to those trying to improve their digital access. Of those that did not have high-speed internet service at home:

41% say language access issues are a problem/barrier, with **64% of LEP respondents saying it was an issue.** Those who had a language access issue were more likely to say they did not have the right devices to access high-speed internet at home.

44% say they live in areas where high-speed internet was not available due to lack of infrastructure.

53% reported that affordability and/or cost of service was either a big problem/barrier or somewhat a problem/barrier.



OVER 85%

of respondents say programs and benefits like computer literacy courses, Asian language translations for websites, technical assistance in setting up and fixing devices, subsidized and/or discounted services and devices, and **better infrastructure to make high-speed internet service options more widely available would be helpful.**



There are still many in AANHPI communities who are unaware of government connectivity assistance programs, and those who do know about them are still unlikely to successfully enroll. **While 53% of respondents reported having heard about assistance programs like Lifeline and the Emergency Broadband Benefit (the successor to the Affordable Connectivity Program), only 65% of those who heard about it successfully signed up for benefits.**

1. Most of the overall AANHPI population goes online at least once a day, but some subsets of the population have very limited daily connections.

90% of AANHPIs report using the internet or email regularly throughout the day, but 10% reported using the internet only once or less a day. Because these individuals may have limited connections, their adoption and optimal use of the internet may lag.

2. Communities still need more devices. More than 10% of the population still do not have the right devices at home. 1% of the population still does not have access to any device at all at home.

11.8% of respondents only had access to one device. 11% only had access to a mobile device such as a smartphone and 6% only had access to a desktop or laptop device, limiting the type of internet services they can readily utilize.

3. Most households do have some kind of internet connection at home, but the quality of connection varies.

While 90% of respondents have some internet connection at home, the speed and capacity varies. Some members of the community still only have mobile and dial-up connections, while 1% do not have any connection at all. Ability to connect to high-speed and high-quality broadband still varies across the population.

4. Many in Asian American, Native Hawaiian, and Pacific Islander communities still lack high-speed internet connections at home.

In total, 17% of the AANHPI population do not have high-speed internet at home, with 11% relying on a dial-up connection and 5% only able to access through a mobile phone or tablet connection, and 1% having no internet connection at all. Those with lower annual incomes were less connected to high-speed broadband and were more likely to rely on a mobile connection for internet access.

5. Many are not satisfied with their current internet access.

14% of AANHPIs reported that their access to reliable and high-speed internet was poor or could be better, and some disclosed that they did not have internet connection at all. Education attainment level was associated with the quality of connection an individual was connected to (i.e. internet speed and capacity).

6. AANHPIs overwhelmingly say that online communication channels for messaging and connecting with others are an important use of the internet;

they also find that online financial services and platforms are critically important.

7. While AANHPI communities understand how critical and useful the internet and other technology is, there are still literacy and information gaps that prevent communities from being able to use online services to their full extent.

Despite this acknowledgement, fewer respondents expressed confidence in their ability to navigate essential tasks that can be done online.

8. Affordability, lack of computer/tech skills and digital literacy, language barriers, lack of high-speed options, and insufficient devices all pose significant barriers to those trying to improve their digital access. Of the 90% of respondents that had internet service at home:

- 46% say lack of computer/technical skills and digital literacy is a problem/barrier; those in rural areas and small towns were more likely to report this was an issue.
- 41% say language access issues are a problem/barrier, with 64% of LEP respondents saying it was an issue. Those who had a language access issue were more likely to also say they also did not have the right devices to access high-speed internet at home.
- 44% say they live in areas where high-speed internet was not available due to lack of infrastructure.
- 45% reported that they did not have access to a device or enough devices in their household to utilize the internet adequately.
- 53% reported that affordability and/or cost of service was a “big program and barrier” or “somewhat a problem and barrier.”

9. Many in AANHPI communities believe that interventions and assistance programs would be helpful.

Over 85% of respondents say programs and benefits like computer literacy courses, Asian language translations for websites, technical assistance in setting up and fixing devices, subsidized and/or discounted services and devices, and better infrastructure to make high-speed internet service options more widely available could help them overcome some of the barriers preventing them from currently gaining access to high-speed internet service or adoption such service that is available.

10. There are still many in AANHPI communities who are unaware of government connectivity assistance programs, and those who do know about them are still unlikely to successfully enroll.

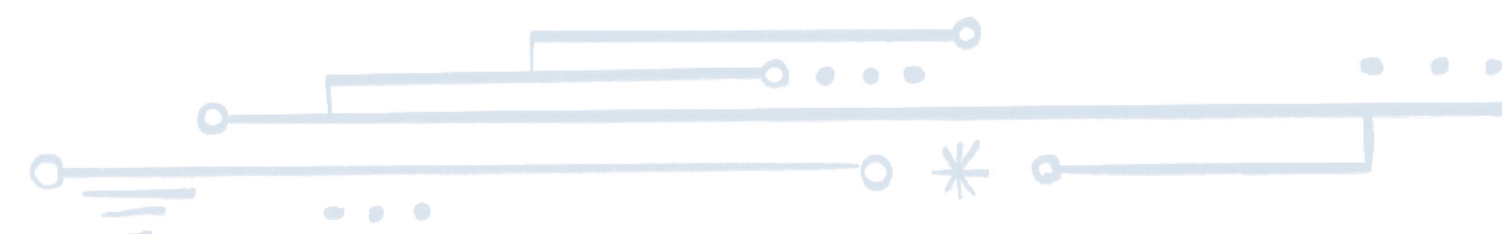
While 53% of respondents reported having heard about assistance programs like Lifeline and the Emergency Broadband Benefit (the successor to the Affordable Connectivity Program), only 65% of those who heard about it successfully signed up for benefits. Many were uncertain about eligibility, did not have the time to find out more about the programs, or needed assistance in completing applications but did not have access to such assistance.

03

Introduction

As COVID-19 forced 42 states and territories² to issue mandatory stay-at-home orders, forcing millions of people to live, work, and learn from home, our need for and reliance on quality broadband service grew substantially.

The pandemic demonstrated how critical internet access is for communities to survive and thrive. But even before the pandemic, high-quality and reliable broadband access were critical for many immigrant families to be able to stay connected with in-language communities both in the U.S and abroad, provide the elderly and other vulnerable populations with more accessible health care, give students access to English as a Second Language homework assistance and other learning programs, and connect refugee populations to job training programs. Beyond the pandemic, many jobs and opportunities will remain remote and only accessible online, health services will be made more affordable and convenient to schedule online, and special programming that has been developed for youth, the elderly, and others will continue to take place online. Broadband access and online services were essential before the pandemic, and communities expect to rely even more heavily on technology and remote solutions after the pandemic subsides.

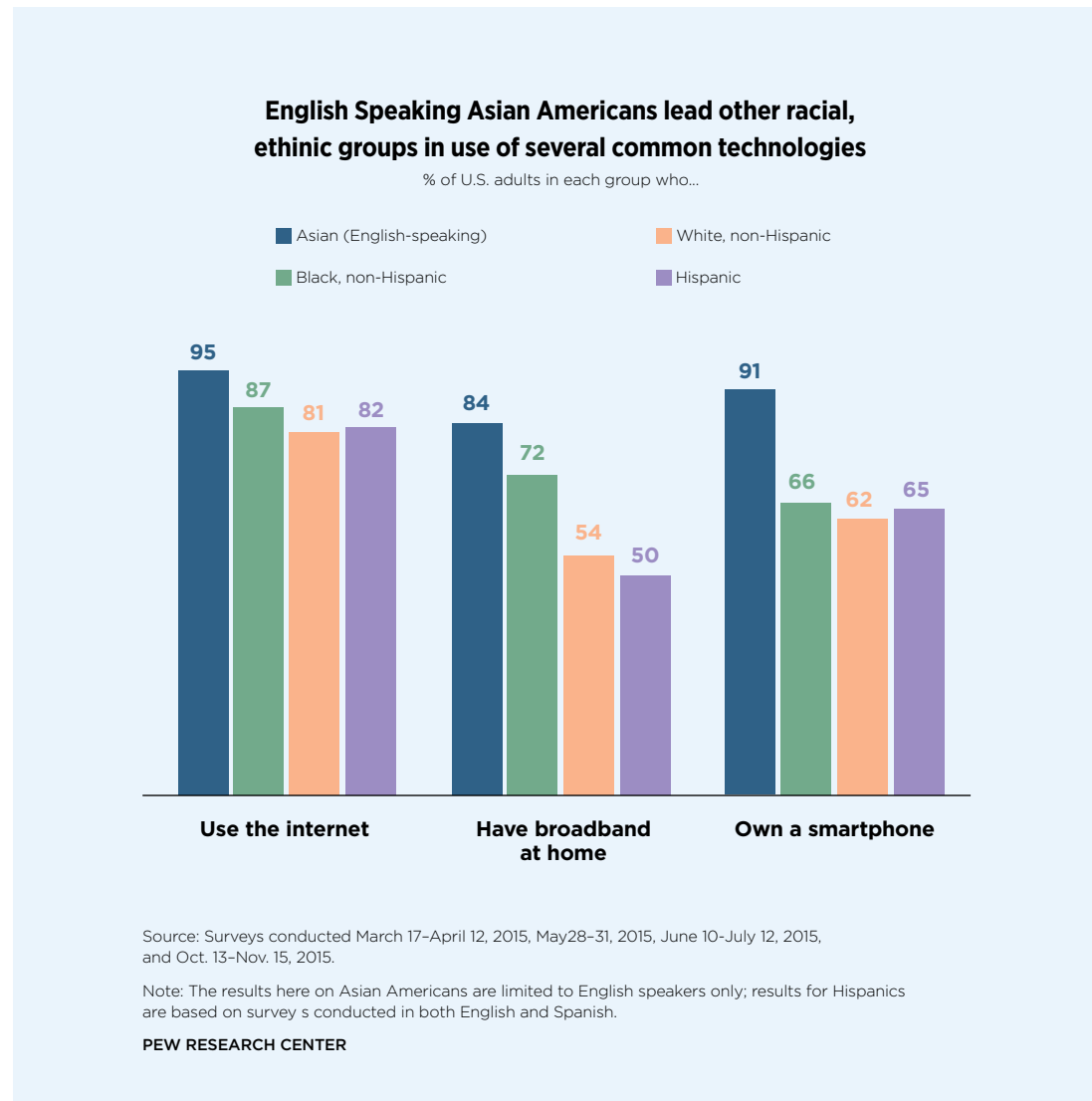


Although a few studies have suggested English-speaking Asian Americans use the Internet proficiently and at high rates, these studies are limited in scope and obscure key inequities within our communities. When it comes to surveying the AANHPI community organizations, surveyors often inaccurately portray Asian Americans as a highly connected group.³ This is because these surveys are often conducted exclusively in English and/or online, which limits the population that can participate in them. This limitation is recognized by researchers like the Pew Research Center, which sometimes excludes Asian Americans as a distinct group in their analysis because the diversity of the Asian American population makes offering in-language interviews necessary but difficult and expensive.⁴

In 2022, the Census Bureau estimated that 69.2 million U.S residents spoke a language other than English at home, with 26.5 million of these residents reporting they spoke English less than very well.⁵ Surveys that are conducted only in English and online and aggregate data across over 20 different ethnicities provide a heavily skewed and misrepresentative perspective on broadband access in our communities. Many Limited English Proficiency (LEP) individuals are some of the most vulnerable in our community, who rely on services like broadband to complete essential tasks. By design, studies and statistics that exclude these communities assume the AANHPI community is monolith, erase the most critical needs, and perpetuate structural inequalities.



In 2018, it was estimated that 67.3 million U.S residents spoke a language other than English at home, with 25.6 million of these residents reporting they spoke English less than very well.⁵



Despite the lack of disaggregated and inclusive data, tangential digital divide indicators such as educational attainment levels, income, and English proficiency suggest that significant disparities between different ethnic groups and that various communities within the AANHPI diaspora continue to fall behind in the digital divide.⁶

- In 2022, 3.3% of Taiwanese Americans had less than a high school diploma, compared with 45.6% of Burmese Americans.⁷
- In 2022, the median household income of Indian Americans was \$147,728, that of Samoan Americans and Burmese Americans was \$67,344 and \$70,830, respectively.⁸
- In 2022, 27.5% of Asian Americans and 35.9% of Pacific Islanders were enrolled in Medicaid or some other public insurance program.⁹

According to the 2023 Handbook for the Effective Administration of State and Local Digital Equity Programs, household income is one of the most significant factors in determining if a household adopts fixed broadband, with “broadband adoption decline[ing] with poverty rates in a linear fashion.”¹⁰ Moreover, AANHPI enrollment in welfare programs that can qualify a household for Lifeline and/or Affordable Connectivity Program (ACP), such as the Supplemental Nutrition Assistance Program (SNAP) and Medicaid, represents another digital divide indicator illustrating the potential gap in broadband adoption rates. In 2021, 9.4% of SNAP recipients were categorized as Asian American.¹¹ However, the divide between certain ethnic groups was stark: 3.4% of Taiwanese Americans were enrolled in the program, compared with 20.5% of Native Hawaiians, and 33.6% of Burmese Americans.

Combining these digital divide indicators with an open-source map of Asian and Asian American religious institutions¹² confirms that there are AANHPIs in rural, urban, and suburban communities across the United States that continue to fall behind in the digital divide. Together these indicators suggest that there are likely millions of Asian Americans and Pacific Islanders who still face barriers to adoption, including the cost, lack of access to devices, lack of digital skills, language barriers, or absence of high-speed internet services. Broadband challenges vary by community but factors like income level, education attainment level, and English-speaking ability can exacerbate these challenges. These communities had difficulty connecting long before the pandemic, and the need for better access to broadband for education, health, and economic opportunities will grow post-pandemic unless efforts to address adoption barriers are made. Studies that portray our communities as already-connected obscure the need for dedicated and targeted outreach to low-income and other underserved AANHPIs. These statistics not only illustrate striking disparities within AANHPI communities, but also allow us to project potential adoption challenges for a substantial proportion of it.

This study aims to document what so many AANHPI individuals, households, and advocates already know and/or have experienced first-hand- the digital divide is prevalent and persistent in our communities. Despite its limitations, this study is the first ever to survey Asian American and Pacific Islanders about the digital divide, broadband availability, adoption challenges, and availability of support services in both English and in Asian languages. It is also the first to go beyond superficial connectivity data indicators to dive deeper into the quality of connections, how effectively communities are able to use the technology, what kind of barriers and challenges households report experiencing in their attempts to get connected, and what kind of interventions they believe could be helpful. With these new metrics, we hope to expand understanding of the unique experiences that AANHPI communities encounter as they navigate the digital divide, pinpoint barriers and challenges, propose more effective public policies and interventions, and inspire further studies to better connect and serve our communities.

04

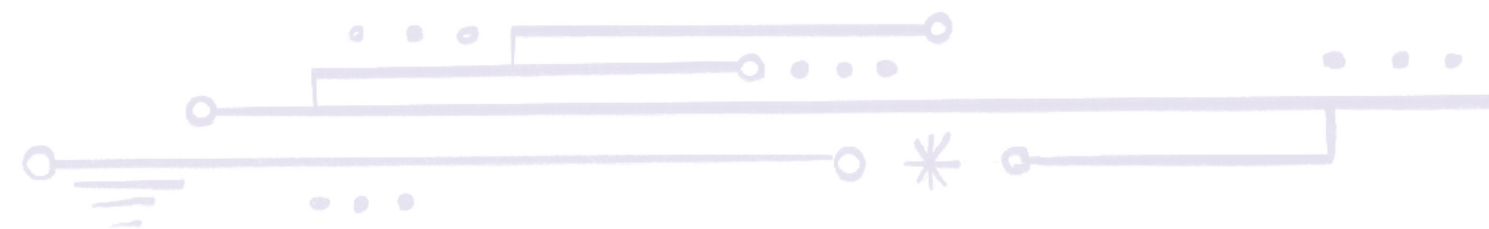
Background

Asian Americans, Native Hawaiians, and Pacific Islanders and the Digital Divide

At the beginning of the COVID-19 pandemic, parts of rural Hawaii that have long experienced a digital divide and a lack of broadband access¹³ saw the direct impact of distance learning on the education of students. With schools closed, administrators needed to act quickly to ensure students could continue to participate in class. As students left their schools and attempted to get online from home, their need for reliable, high-speed, and affordable broadband internet grew exponentially, but due to varying infrastructure and service availability, states and districts across the country experienced different levels of success in keeping students connected.

Even when families have access to devices at home, barriers to broadband infrastructure, such as cost and availability of high-speed connection, can still impact a student's ability to get online. One school administrator in Wailuku, Hawaii reported that while the school distributed Chromebooks to students, only "a handful of the school's 650 students logged into virtual classrooms."¹⁴ Challenges that limited students from joining virtual classrooms included limited broadband bandwidth at home, limited English proficiency (29% of students were English language learners), and limited digital literacy skills (parents of approximately 100 students did not have an email address). A combination of adoption barriers, including lack of digital literacy skills, language barriers, inability to afford high-speed internet services, or unreliable internet connections prevented students from actively participating in class, leading to lower engagement and attendance.¹⁵ In some cases, students were forced to seek digital connectivity outside of their home,¹⁶ further putting their families at risk during a public health crisis.

04 BACKGROUND



In San Jose, California, a city with a population of just over one million people, nearly 36% of whom are Asian American,¹⁷ it's estimated that 100,000 residents¹⁸ are not connected to the internet at home. This means that once the stay-at-home order was implemented and people were no longer permitted to attend school or go to work, people without high-speed broadband home faced increased difficulties accessing work, school, and healthcare services. While conversations around the digital divide are largely centered around rural communities, it is inappropriate to assume that living in an urban environment automatically means that affordable, high-speed internet services are within reach. This broadband adoption gap is prevalent across many urban AANHPI communities for a variety of reasons, including lack of digital literacy training, availability of devices, and language barriers.



While conversations around the digital divide are largely centered around rural communities, it is inappropriate to assume that living in an urban environment automatically means that affordable, high-speed internet services are within reach.

Historical redlining continues to pose a structural barrier for communities that face the digital divide. For example, in San Francisco's Chinatown, racial, economic, and environmental inequalities contribute to digital inequality and redlining for the largely working class and immigrant population. Data from 2015 found that only 56% of San Francisco Chinatown residents had internet access at home, compared to the city-wide average of 88%. Historic Chinatowns and other ethnic enclaves all over the United States were born out of housing and labor discrimination, and displacement made its mark on the very physical landscape and infrastructure of areas like Chinatown, impacting residents to this day.¹⁹ 40% of housing in San Francisco's Chinatown is single-room occupancy, meaning that many only have a general address and not one that points to their specific room, disqualifying residents from getting Wi-Fi access if someone else already has an account using that same general address. The decades-old concrete flooring and walls in many buildings in the area also make the penetration and transmission of Wi-Fi signals through the building almost physically impossible. Moreover, these residents lack the infrastructure to install hard-wired internet or other

connections. Residents' only option is lower quality and speed hotspot devices.²⁰ Community partners working with residents of San Francisco have reiterated that these barriers have persisted and have been exacerbated through the pandemic.

Even in neighborhoods where low-income communities are able to access the internet, the quality and consistency of the connections vary, making them unreliable and disruptive for essential uses like logging in to school, working, or applying for government assistance programs. For example, in Boston's Chinatown, immigrant neighborhoods, and public housing buildings have spotty digital connectivity, and users are kicked off several times a day, making the internet virtually unusable.²¹ Without affordable and reliable high-speed internet, communities are unable to apply for or benefit from important government services and programs. For example, in San Francisco Chinatown, "the pandemic has shown the digital divide in people who have access and have the skill set to apply for PPP [Personal Protection Program] loans, which is not an easy thing to do, and those that maybe got left out."²² Businesses are also repeatedly excluded from programs that are designed to assist them because they are unable to access them online. For example, in San Francisco's Chinatown, some family-owned small businesses looked to install security cameras following the increase in violent attacks targeting the AANHPI community, but were unable to do so because the low-speed internet connections available to them did not support these services.

Even in neighborhoods where low-income communities are able to access the internet, the quality and consistency of the connections vary, making them unreliable and disruptive for essential uses like logging in to school, working, or applying for government assistance programs.

Broadband access and affordability in the Pacific Islands has also long been a challenge. In 2012, American Samoa had the dubious distinction of having America's most expensive internet.²³ Since then, broadband connectivity has improved in the Pacific Islands, but costs remain among the highest in the nation. Thousands of miles away from the continental U.S., internet connections are especially slow and prices are often unaffordable in American Samoa and the Northern Mariana Islands. An undersea cable linking American Samoa to Hawaii was laid in 2009, but the telecommunications company that bore costs along with the American Samoa government, charges \$115 a month for speeds of 383 kilobytes per second.²⁴

Greater infrastructure investment in the Pacific Islands is necessary to ensure that everyone can access the internet and fully participate in an increasingly digital society as more and more of our lives, work, and essential services move online. In 2015, the only undersea fiber-optic cable servicing the Northern Mariana Islands was damaged in a storm, disconnecting nearly 60,000 residents from telephone, internet, banking, and other services for days. This prompted the construction of a second fiber-optic cable, but such vulnerabilities reveal the challenges to getting Pacific Islanders connected to the rest of the world.²⁵



05

Methodology

For this project, BSP Research completed 2,100 interviews between November 23, 2021 and December 7, 2021. 500 of the interviews (24%) were conducted by phone; and 1600 (76%) were conducted online.

Survey participants were recruited using sample lists from seven different vendors, some targeting particular sub-groups and others targeted contact via telephone versus online. To obtain sufficient numbers of AANHPIs by geography, the survey collected an oversample of AANHPIs from small towns and rural areas. 24% of the total sample were AANHPIs living in large cities; 30% were AANHPIs living in large suburbs of a large city; 22% were from small suburbs of smaller towns or cities; and 24% were from rural areas or small towns and small cities. The parameters of how urban, suburban, and rural communities were defined was based on the National Center for Health Statistics (NCHS) of the Center for Disease Control and Prevention.²⁶ NCHS uses six different categories—large central metro, large fringe metro, medium metro, small metro, and non-core—which was collapsed into urban/suburban and rural/small towns for the purpose of this survey. Survey participants were asked to self-classify if they resided in one of the six community categories.

05 METHODOLOGY



To obtain sufficient numbers across different sub-groups of interest, the survey completed at least 300 interviews from the following AANHPI groups: Asian Indian, Chinese, Filipino, Korean, Vietnamese, other Southeast Asian (Hmong, Cambodian, Lao, and Thai), and Pacific Islander. The final sample of 2,100 respondents was comprised of 303 Chinese, 303 Filipino, 300 Asian Indian, 302 Korean, 300 Vietnamese, 300 Pacific Islander, and 300 other Southeast Asian individuals. The Pacific Islander sample included 45% Native Hawaiian, 25% Samoan, 11% Tongan, 9% Guamanian, with the remaining 10% from other Pacific Islander groups or unidentified Pacific Islander individuals. The “other Southeast Asian” sample was composed of 36% Cambodian, 28% Hmong, 19% Thai, and 17% Lao respondents.

The interviews were conducted in English, Chinese (both Mandarin and Cantonese), Hmong, Korean, Tagalog, and Vietnamese. Of the 2,100 total interviews, 88% were in English. Of the Chinese sample, 8% of interviews were conducted in Mandarin or Cantonese; of the Filipino sample, 8% of the interviews were conducted in Tagalog; of the Korean sample, 16% of interviews were conducted in Korean and 3% in Mandarin; of the Vietnamese sample, 22% of interviews were conducted in Vietnamese; of the “other Southeast Asian” sample, 14% of interviews were in Mandarin and 11% in Hmong.

The survey included questions about participant’s access to and experience with the internet in their homes as well as a series of demographic questions. In total there were 14 matrices and select all that apply survey questions on internet connection, usage and internet devices.



The survey included questions about participant’s access to and experience with the internet in their homes as well as a series of demographic questions. In total there were 14 matrices and select all that apply survey questions on internet connection, usage and internet devices. The full text of the survey questions is in the below appendix. The analysis for this study was done on STATA SE 17. Where responses were recorded on the likert scale, the categories were in some cases collapsed to better display the overall trend in the graphs. The full data set is available in the appendix. The frequency and percent were used for analysis along with cross tabulations when interested in understanding the relationship between two or more variables (i.e. connection speed and device type). Pearson’s chi square was used to calculate the associations between two categorical variables of interest.

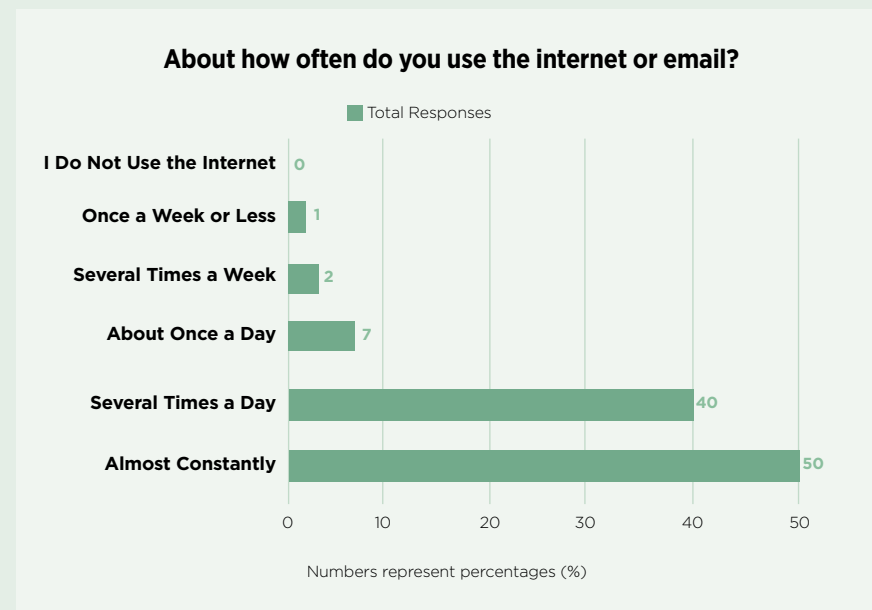
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Findings

State of Connections

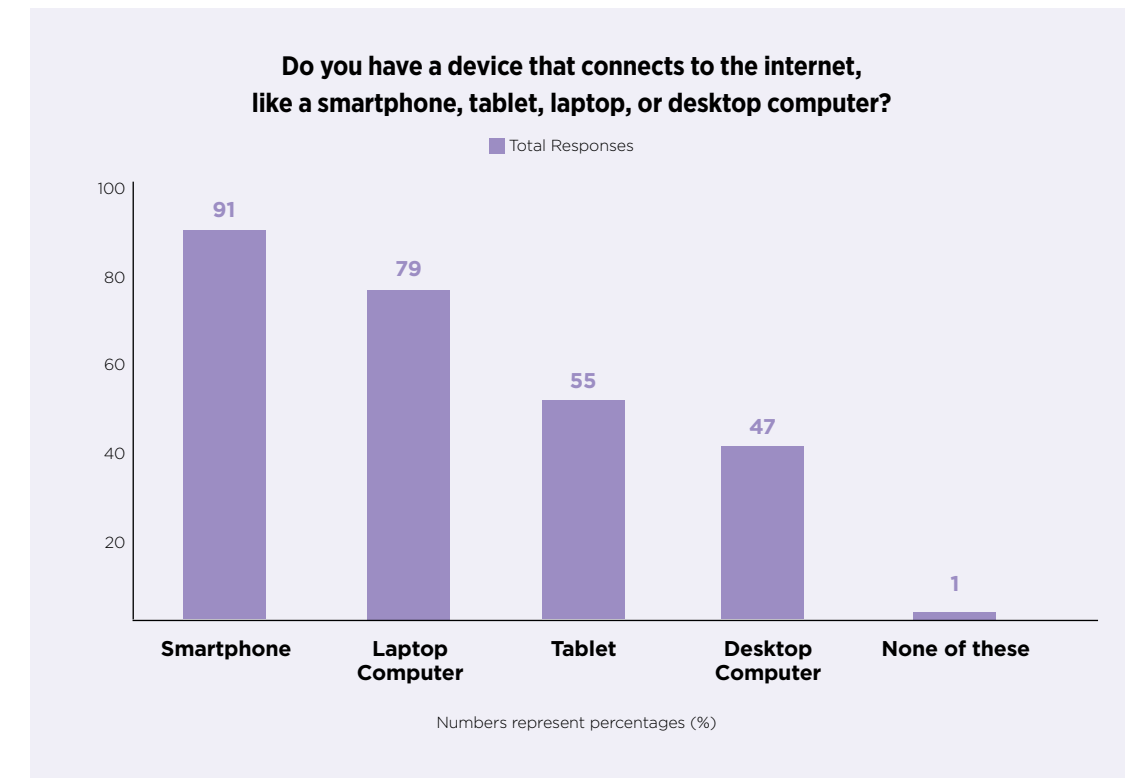
Respondents were asked a series of questions to assess their current connection and use of high-speed internet, devices, and other digital tools.

Frequency of Use



Most respondents (90%) reported that they used the internet or email every day, with 50% reporting they used the internet and email “almost constantly” and 40% answering that they used the internet “several times a day.” These figures remained relatively consistent across all the various ethnic subgroups, suggesting that **most of the overall AANHPI population gets online regularly. However, 10% of the population only used the internet once a day or less, suggesting they may be underutilizing helpful services and other applications.** While this 10% of the population is technically connected online, their infrequent use suggests they are not as well connected as they should be.

Devices



87% of respondents have at least two digital devices that can connect to the internet at home, with an overall average of 2.72 devices per person. Only 1% of all respondents reported that they lacked access to any smartphone, tablet, laptop, or desktop computer.

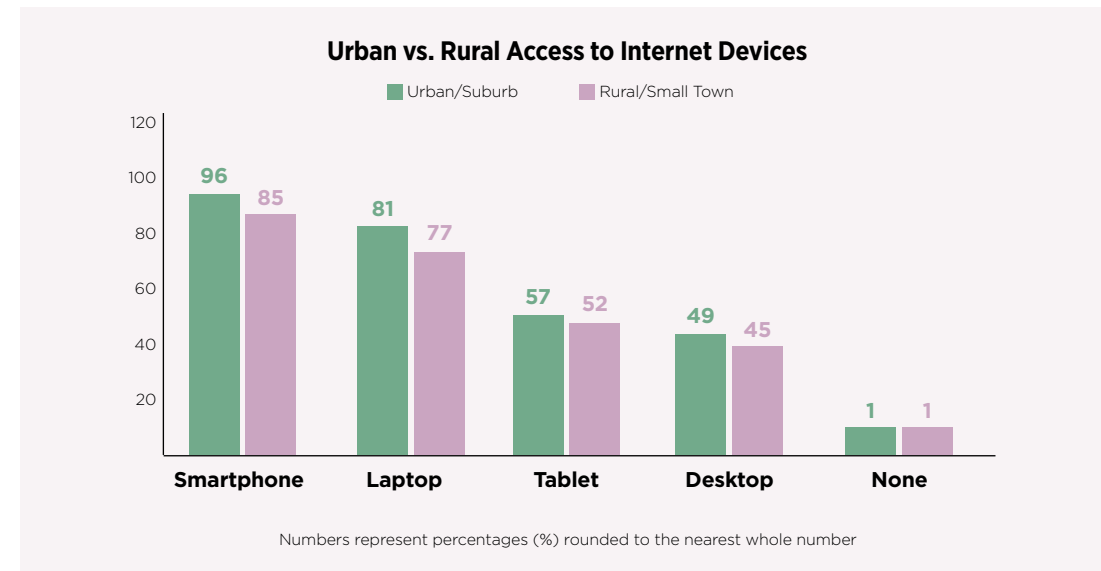
Overall, 26% of respondents reported having access to all the devices in question. 7% participants reported only having access to a smartphone, less than 1% reported only having access to a tablet, 4% participants reported only having access to a laptop, and 1% participants reported only having access to a desktop. **In total, 11.8% of participants had access to only one device.** While one device may provide some access to the internet, not all of these devices may provide access to the programs, services, and resources that individuals need to access. For example, a smartphone may not be able to load certain websites or files, smartphones and tablets may not be appropriate for distance learning²⁷, and working from some devices may be very difficult.²⁸ In this survey, 31% of individuals who reported only having access to the internet through a mobile connection also only had a smartphone device. The type of device that an individual has access to matters, as there is a significant association between the device type and the internet access speed/quality that an individual also has access to.

Device Type	Percent of AANHPI Respondents
Had all devices	27%
Just a smartphone	7%
Just a tablet	Less than 1%
Just a laptop	4%

Device Type	Percent of AANHPI Respondents
Just a desktop	1%
Just a laptop & smartphone	16%
Just mobile devices	11%
Just laptops & desktops	6%

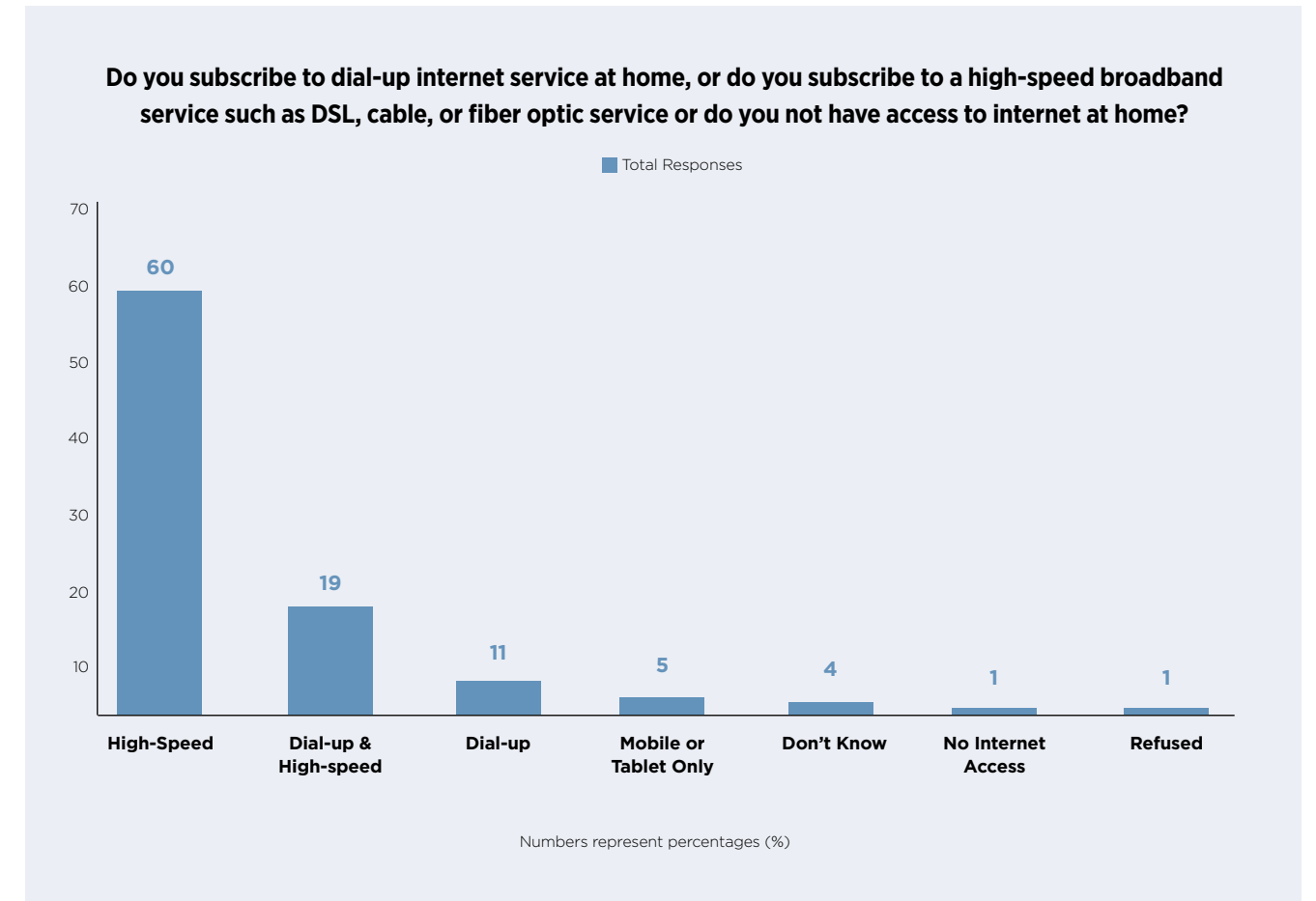
Q2: Do you have a device that connects to the internet, like a smartphone, laptop or desktop computer? [All that apply]

Device Type	Total AANHPI	Women	Men	US Born	Foreign Born	EnglishSvy	NonEngSvy	Urban/Suburb	Rural/Small
Smartphone	91	88	94	92	89	90	96	96	85
Tablet	55	54	57	54	56	54	61	57	52
Laptop Computer	79	78	80	79	79	78	85	81	77
Desktop Computer	47	42	53	47	47	48	40	49	45
None of these	1	1	1	1	1	1	3	1	1



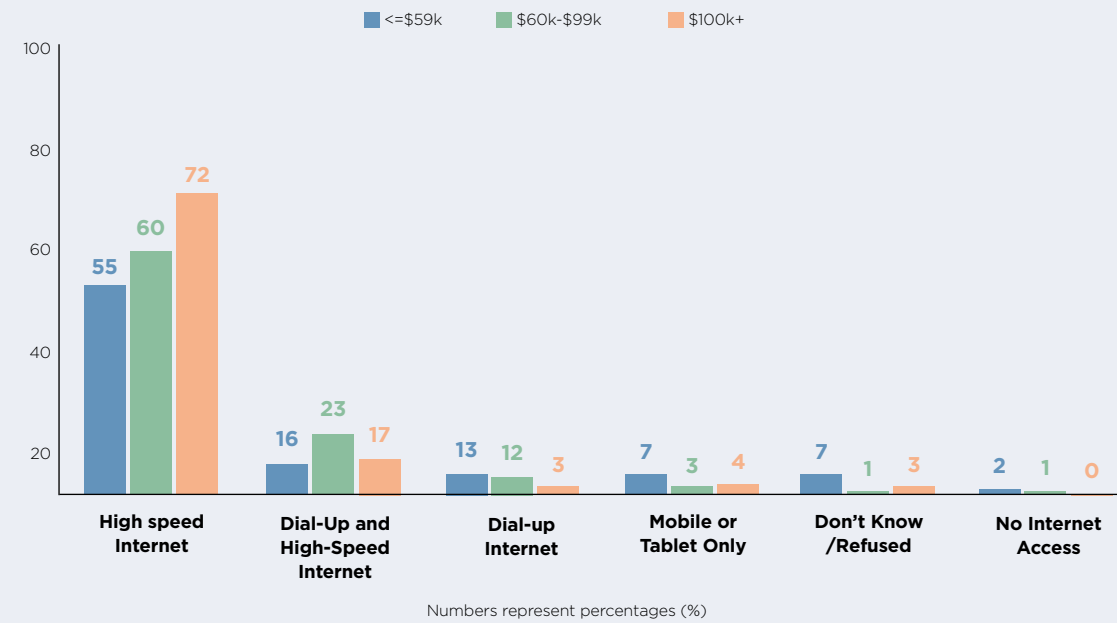
Respondents from rural/small town areas were less likely to report having access to a smartphone, laptop, tablet, or desktop computer, compared to respondents from urban/suburban areas. This suggests that the need for sufficient devices may be greater in rural regions compared to other geographic areas.

Types of Service/Connection



The type of internet services that AANHPIs have access to in their homes varies across many factors throughout different communities. Respondents were asked about the type of internet service they subscribed to. **90% of overall respondents had access to a home internet plan** (dial-up internet, high-speed internet, or both), but **11% reported that they only have dial-up internet at home**, suggesting their internet speeds are significantly lower than broadband standards. **5% of respondents only had internet through a mobile phone or tablet connection**, meaning their connection is likely limited to Wi-Fi and cellular network data connections and their experience is limited to mobile views. **In total, 17% of the AANHPI population remains disconnected from wired high-speed internet at home.**

Do you subscribe to dial-up internet service at home, or do you subscribe to a high-speed broadband service such as DSL, cable, or fiber optic service or do you not have access to internet at home?



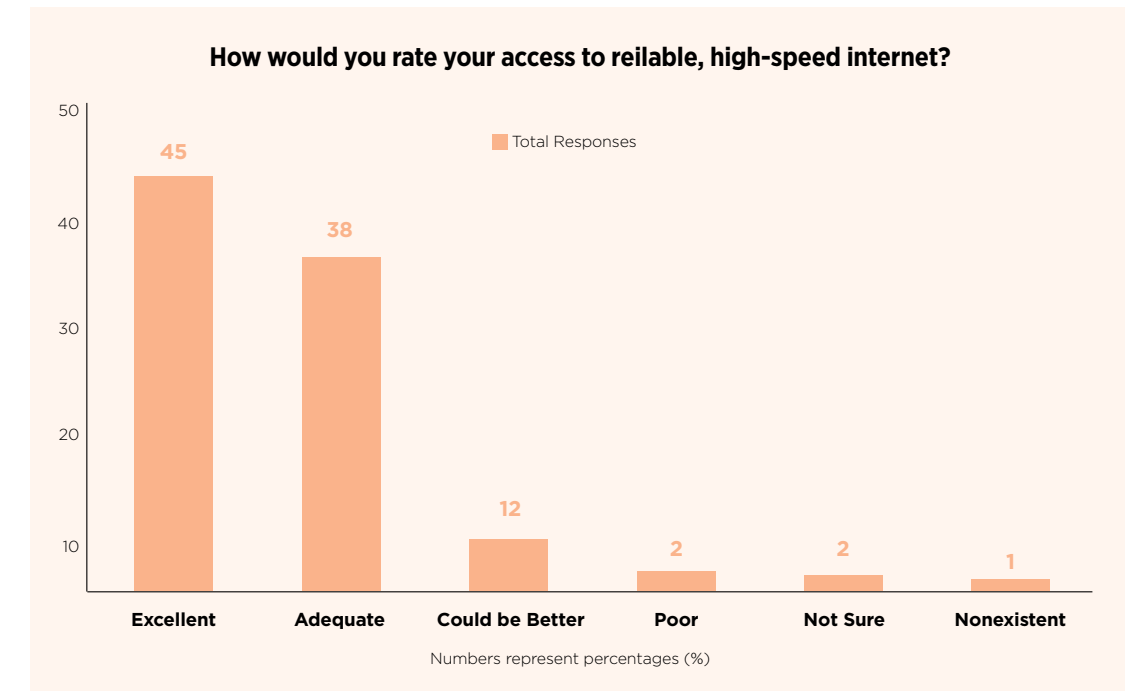
Q3: Do you subscribe to dial-up internet service at home, or do you subscribe to a high-speed broadband service such as DSL, cable, or fiber optic service or do you not have any access to internet at home?

	Total AANHPI	<=\$59k	\$60k-\$99k	\$100k+
Dial-up internet	11	13	12	3
High speed broadband	60	55	60	72
No internet access	1	2	1	0
Both dial-up and high-speed	19	16	23	17
Access internet on mobile phone or tablet only	5	7	3	4
Don't know	4	6	1	3
Refused	1	1	0	0

Income level is associated with different types of connections an individual adopts at home. When accounting for income level, 89% of respondents with the highest annual income had high-speed internet at home, while only 71% of respondents who made less than \$59,000 a year had high-speed internet at home. Respondents who made less than \$59,000 also reported higher rates of relying only on a mobile device or tablet for an internet connection compared to respondents who were at a higher income level. These disparities highlight how one's economic status may be connected to the quality of connection they used.

Quality of Connection

When asked to evaluate their own access to reliable and high-speed internet, 45% said they would rate their access as excellent while 38% described it as adequate. **14% of AANHPIs reported that their connection to reliable and high-speed internet was poor or could be better, and some disclosed that they didn't have any connection at all.**



While 45% percent of all respondents reported having excellent connection to reliable, high-speed internet service, there are discrepancies among respondents when education attainment level and income level are factored in. The most educated were more likely to report excellent high-speed internet service, while those with high school diplomas or lower levels of attainment were more likely to report poor or no access to high-speed internet.

Reliability of high-speed internet and educational attainment

Reliability of high-speed internet	High school graduate or GED, or less than high school	Some college or technical school	Completed associate degree	Completed college	Some graduate or professional school or higher
Excellent	45%	41%	44%	45%	54%
Adequate	31%	41%	40%	41%	33%
Could be better	14%	12%	14%	12%	10%
Poor	3%	2%	2%	1%	1%
No access	2%	2%	0%	0%	1%
Not sure	5%	2%	0%	1%	0%
Sample size	320	416	334	663	367

Those respondents with the lowest level of annual household income were more likely to report poor or no high-speed internet access compared to those with higher incomes. Higher income respondents were more likely to report that the reliability of their high-speed internet services “could be better”, compared to other income categories. The higher income respondents appeared to be more critical of the reliability of their high-speed internet service, but were less likely to have poor or no access.

Reliability of high-speed internet and annual household income

Reliability of high-speed internet service	Less than \$60,000	\$60,000-\$99,999	\$100,000 or greater
Excellent	44%	46%	49%
Adequate	41%	37%	33%
Could be better	9%	14%	15%
Poor	2%	1.5%	1.3%
No access	1.5%	0.4%	0.8%
Not sure	2.6%	1%	0.7%
Sample size	837	895	368

This pattern may suggest that those with lower education and income levels were less connected to high-quality reliable internet service than those with higher income levels.

An area of further research would be to understand why the highest income levels also were more likely to say that their internet service “could be better”. One hypothesis is that respondents with the highest income levels may be more critical of their internet service, perhaps because they may be paying for a higher tier of service, speed, capacity, etc. or maybe because they are connected to a greater number of devices or utilize greater volumes of data, potentially impacting service reliability.

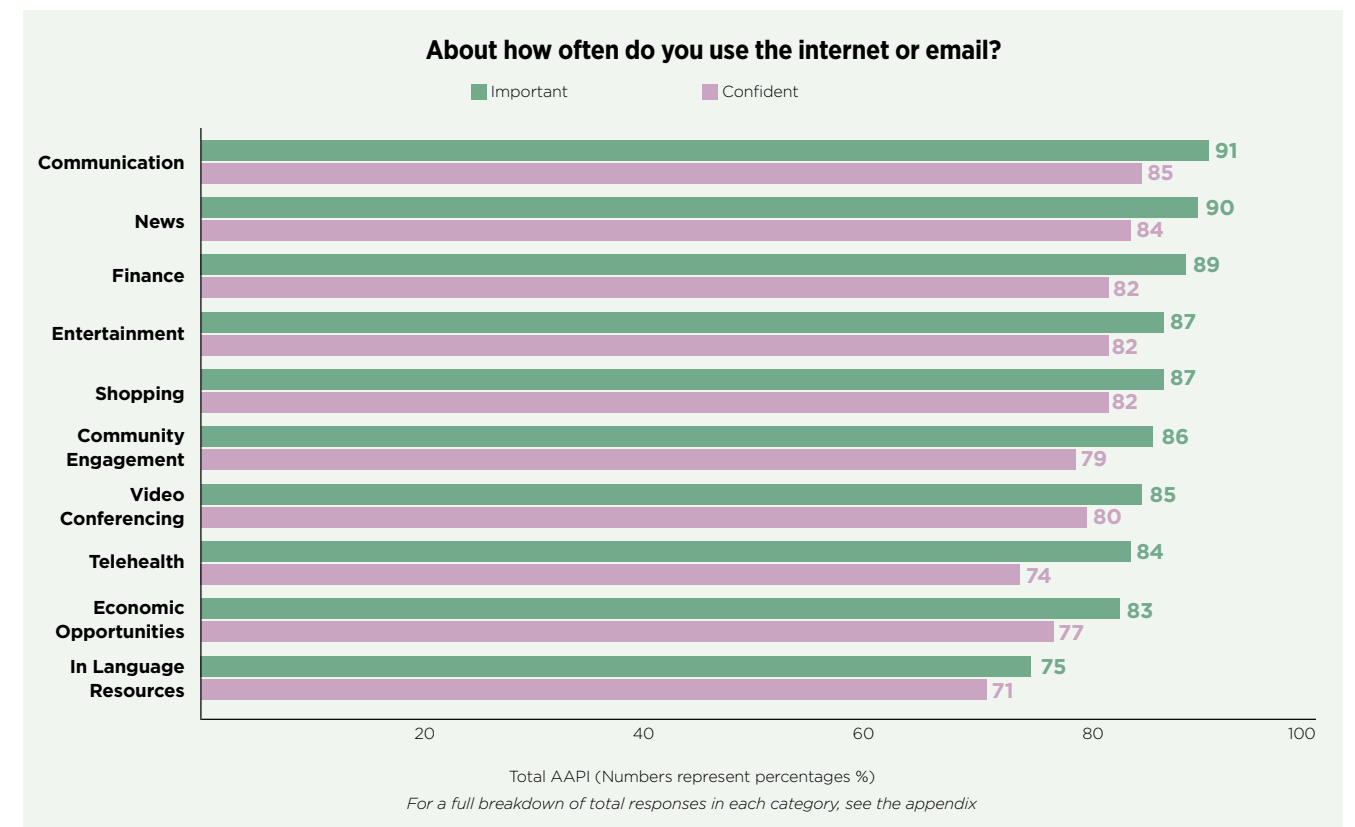


Meaningful Adoption

Value of Broadband Connections

People value internet access for many reasons. Participants were asked how important specific aspects of the internet were to them. Respondents were asked to rate how important internet access was for:

1. Communicating with others;
2. Getting information, news or research about the world;
3. Shopping, selling, or researching products and services;
4. Using video calling or online conferencing services like Zoom or Webex for work or school;
5. Accessing economic opportunities like getting online job training, finding job postings, and applications;
6. Managing finances like banking, paying bills, and making investments; and using online health (telehealth) services;
7. Getting information on issues affecting their community;
8. Finding and accessing information and services in Asian languages; and;
9. Entertainment like online movies, music or other video/audio content.



91% of respondents said that communicating with others via email, text, or other messaging service is important; 90% said that getting news and information about current events is important; 89% said that managing finances online is important; 87% said that accessing online entertainment and online shopping is important; 86% said that getting information about their community is important; 85% said that accessing online conferencing systems is important; 84% said that using telehealth services is important; 83% said that accessing economic opportunities is important; and 75% said that finding in-language resources online is important.

Digital Literacy, Skill Levels, and Confidence

While some members of the community may be very skilled at navigating and accessing information and applications on the internet, others are less confident with the technology. Respondents were asked how confident they felt when using the internet for the above use cases.

85% of respondents said they were confident communicating with others via email, text, or other messaging services online; 84% said they were confident using the internet for news and current events; 82% said they were confident using the internet for managing their finances, entertainment, and online shopping; 80% said they were confident using online conferencing systems; 77% said they were confident finding economic opportunities online; 74% said they were confident using telehealth services; and 29% said they were confident accessing in-language information online. Overall, most respondents recognized the importance for each of these uses but the numbers of those who were confident in the ability to practice that use lagged behind. This suggests that the internet is underutilized in some households and that further digital literacy training is needed to increase the rates of broadband adoption. For a full breakdown of participants' responses, see the appendix.

Comparisons Across Demographic Differences

Participants were asked about their access to high-speed internet based on different demographics including birth country, residential community, income, English-language proficiency, ethnicity, gender, age, and educational attainment level. For a full breakdown of survey respondents please see the appendix.

Q6c. Language Barriers

	Total AANHPI	Women	Men	US Born	Foreign Born	English Svy	NonEng Svy	Urban/Suburb	Rural/Small
Big problem/barrier	17	19	16	11	23	17	24	10	23
Somewhat a problem/barrier	24	20	30	18	30	22	54	18	29
Not really a problem/barrier	23	24	21	29	16	23	17	25	21
Not a problem/barrier	36	37	34	41	30	38	5	47	26

Foreign vs. US born

When disaggregating data across birth countries there was no significant association between participants that were born in the U.S and those who were not. 77% of participants born in the U.S had access to high-speed internet and 81% of participants that were born in another county had access to high-speed internet.

Q2: Do you have a device that connects to the internet, like a smartphone, laptop or desktop computer? [All that apply]

Device Type	Total AANHPI	Women	Men	US Born	Foreign Born
Smartphone	91	88	94	92	89
Tablet	55	54	57	54	56
Laptop Computer	79	78	80	79	79
Desktop Computer	47	42	53	47	47
None of these	1	1	1	1	1

Q3: Do you subscribe to dial-up internet service at home, or do you subscribe to a high-speed broadband service such as DSL, cable, or fiber optic service or do you not have any access to internet at home?

Device Type	Total AANHPI	Women	Men	US Born	Foreign Born
Dial-up internet	11	12	9	12	10
High speed broadband	60	61	59	64	57
No internet access	1	1	1	2	1
Both dial-up and high-speed	19	14	24	13	24
Access internet on mobile phone or tablet only	4	5	5	5	4
Don't know	4	5	2	4	3
Refused	1	1	0	1	1

Urban vs. Rural

Participants were asked about their connection to high-speed internet and how frequently they used the internet based on their residential community. When disaggregating data across residential communities the same size of participants living in a rural community (150) and participants living in a small town (354) were too small to make significant claims. Further research is needed to determine if there is an association between an individual's residential community and their connection to high-speed internet.

Q1: About how often do you use the internet or email?

	Total AANHPI	Rural	Small town or small city	Small suburb of smaller town	Large suburb of large city	Large city or urban area
Almost constantly	50	68	44	45	50	50
Several times a day	40	25	45	38	40	43
About once a day	7	2	8	12	8	4
Several times a week	2	1	3	3	2	2
Once a week or less	1	2	0	1	0	0
I do not use the internet	0	2	0	0	0	1

Q2: Do you have a device that connects to the internet, like a smartphone, tablet, laptop or desktop computer?

	Total AANHPI	Rural	Small town or small city	Small suburb of smaller town	Large suburb of large city	Large city or urban area
Smartphone	91	53	87	96	97	95
Tablet	55	35	54	58	58	57
Laptop computer	79	77	74	80	81	81
Desktop computer	47	24	44	54	51	47
None of these	1	5	0	1	0	2

Q3: Do you subscribe to dial-up internet service at home, or do you subscribe to a high-speed broadband services such as DSL, cable, or fiber optic service or do you not have any access to internet at home?

	Total AANHPI	Rural	Small town or small city	Small suburb of smaller town	Large suburb of large city	Large city or urban area
Dial-up internet	11	11	15	16	10	6
High speed broadband	60	36	58	57	65	66
No internet access	1	1	3	1	0	0
Both dial-up and high-speed	19	28	16	19	19	17
Access internet on mobile phone or tablet only	5	53	5	3	5	7
Don't know	4	14	3	3	2	3
Refused	1	7	0	0	0	0

Q5: How would you rate your access to reliable, high-speed internet?

Access to reliable, high-speed internet	Total AANHPI	Rural	Small town or small city	Small suburb of smaller town	Large suburb of large city	Large city or urban area
Excellent	45	51	43	44	46	45
Adequate	38	33	38	38	38	40
Could be better	12	6	14	13	13	11
Poor	2	3	2	2	1	2
No access	1	0	0	2	1	1
Not sure/don't know	2	7	2	2	1	0

Income

When examining the income levels of respondents, those with lower incomes were less likely to be using the internet constantly, have access to fewer types of devices, and were more likely to use dial-up internet services compared to higher income respondents.

Q1: About how often do you use the internet or email?

	Total AANHPI	Less than \$60k	\$60k-\$99k	\$100k+
Almost constantly	50	48	45	63
Several times every day	40	43	42	30
About once a day	7	5	11	5
Several times a week	2	2	2	2
Once a week or less	1	1	1	0
I do not use the internet	0	1	0	0

Q2: Do you have a device that connects to the internet, like a smartphone, tablet, laptop, or desktop computer?

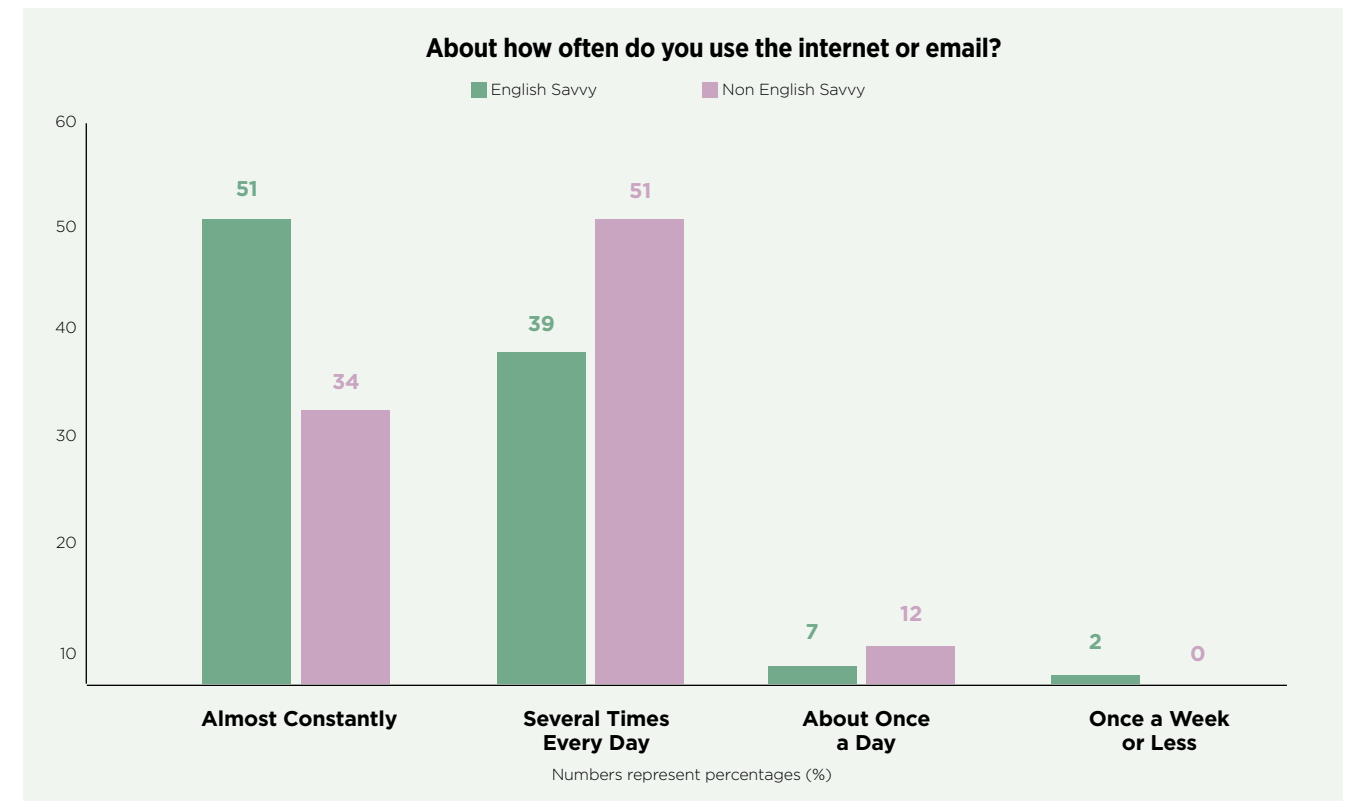
	Total AANHPI	Less than \$60k	\$60k-\$99k	\$100k+
Smartphone	91	84	96	97
Tablet	55	46	61	66
Laptop Computer	79	74	84	82
Desktop Computer	47	32	60	60
None of these	1	3	0	0

Q3: Do you subscribe to dial-up internet service at home, or do you subscribe to a high-speed broadband services such as DSL, cable, or fiber optic service or do you not have any access to internet at home?

	Total AANHPI	Less than \$60k	\$60k-\$99k	\$100k+
Dial-up internet	11	13	12	3
High speed broadband	60	55	60	72
No internet access	1	2	1	0
Both dial-up and high-speed	19	16	23	17
Access internet on mobile phone or tablet only	4	7	3	4
Don't know	4	6	1	3
Refused	1	1	0	0

English vs. Non-English Surveys

When disaggregating data across English-language fluency, the sample size for the self-reported Non-English Savvy (65) compared to English Savvy (2,031) respondents was too small to make significant claims. Further research is needed to determine if there is an association between English proficiency and an individual's ability to connect to high-speed internet.



Ethnicity

When disaggregating data across ethnicity, there were some slight differences among the ethnic groups. For example, Korean respondents reported being least likely to be on the internet almost constantly, Chinese and Pacific Islanders were most likely to report not having a device, and more than 17% of Filipino, Southeast Asian, Vietnamese, and Pacific Islander respondents reported using dial-up internet only or having no internet access.

Q1: About how often do you use the internet or email?

	Total AANHPI	Chinese	Filipino	Indian	Korean	SE Asian	Vietnamese	Pacific Islander
Almost constantly	50	56	52	53	35	45	40	40
Several times every day	40	36	38	40	50	38	45	40
About once a day	7	4	7	4	13	13	12	16
Several times a week	2	2	2	2	1	3	2	2
Once a week or less	1	2	0	0	0	0	0	0
I do not use the internet	0	1	1	0	0	0	0	1

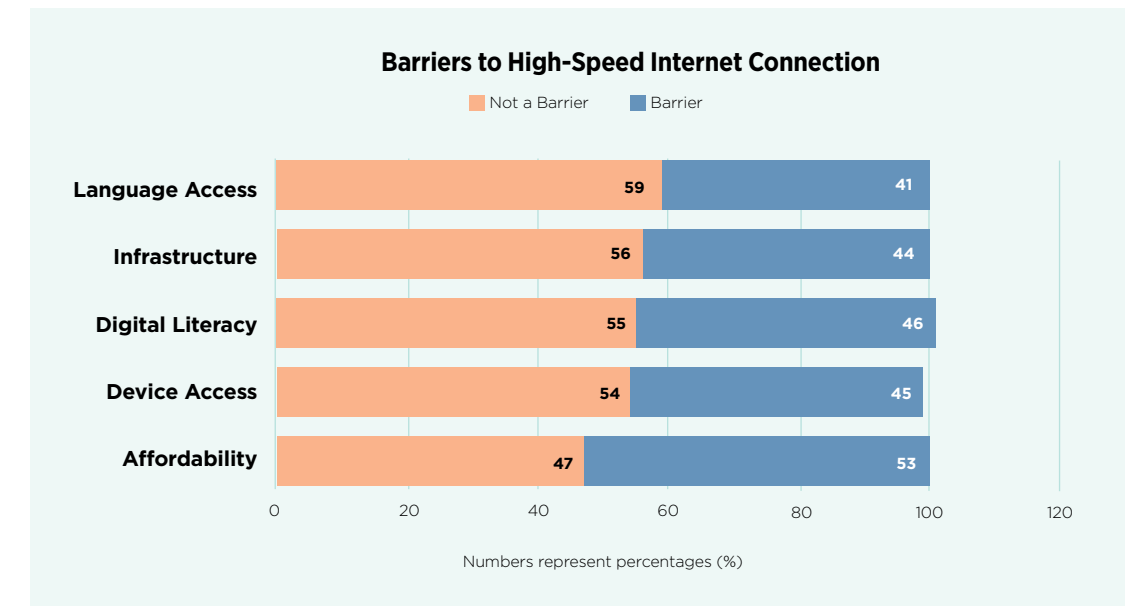
Q2: Do you have a device that connects to the internet, like a smartphone, tablet, laptop, or desktop computer?

	Total AANHPI	Chinese	Filipino	Indian	Korean	SE Asian	Vietnamese	Pacific Islander
Smartphone	91	84	89	97	97	95	91	86
Tablet	55	54	55	52	67	62	53	37
Laptop computer	79	82	76	81	79	77	78	71
Desktop computer	47	51	41	42	62	51	47	43
None of these	1	2	1	0	0	0	1	2

Q3: Do you subscribe to dial-up internet service at home, or do you subscribe to a high-speed broadband services such as DSL, cable, or fiber optic service or do you not have any access to internet at home?

	Total AANHPI	Chinese	Filipino	Indian	Korean	SE Asian	Vietnamese	Pacific Islander
Dial-up internet	11	5	15	9	9	16	18	19
High speed broadband	60	57	57	78	47	55	54	56
No internet access	1	0	2	0	1	3	1	1
Both dial-up and high-speed	19	24	17	9	34	21	17	15
Access internet on mobile phone or tablet only	5	5	5	3	8	4	6	4
Don't know	4	7	3	1	1	2	3	5
Refused	1	2	1	0	0	0	0	0

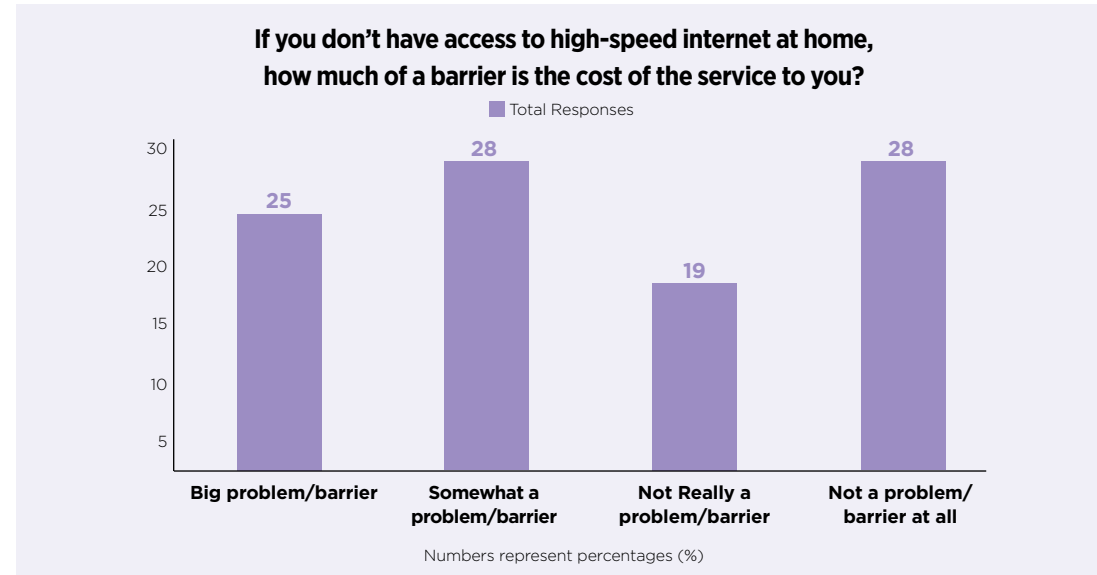
Challenges and Barriers



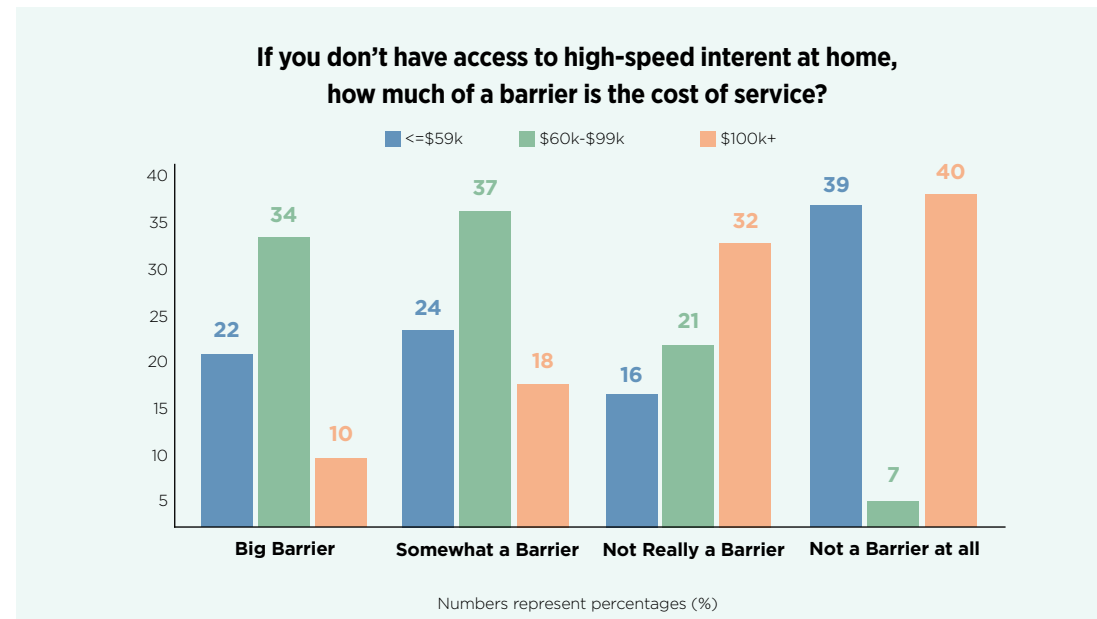
Survey participants who reported they lacked high-speed internet connections in their household were then asked an additional series of follow-up questions about the types of barriers they faced in attempting to obtain access to high-speed internet. Each respondent evaluated how relevant or irrelevant each barrier was. *These questions were limited to the participants that responded that they either had only dial-up, a mobile phone and/or tablet connection, or no internet connection at all at home (participants without high-speed internet).*

- 41% reported that language barriers presented a “big problem and barrier” or “somewhat a problem and barrier.”
- 44% reported that they lived in areas where high-speed internet was not available due to lack of infrastructure, which presented a “big problem and barrier” or “somewhat a problem and barrier.”
- 46% of respondents reported that lack of computer/technical skills and digital literacy presented a “big problem and barrier” or “somewhat of a problem and barrier.”
- 45% reported that they did not have access to a device or enough devices in their household, which presented a “big problem and barrier” or “somewhat a problem and barrier.”
- 53% reported that affordability and/or cost of service presented a “big problem and barrier” or “somewhat a problem and barrier.”
- 56% reported that access and affordability to high(er)-speed internet is their highest internet connection priority.

Cost



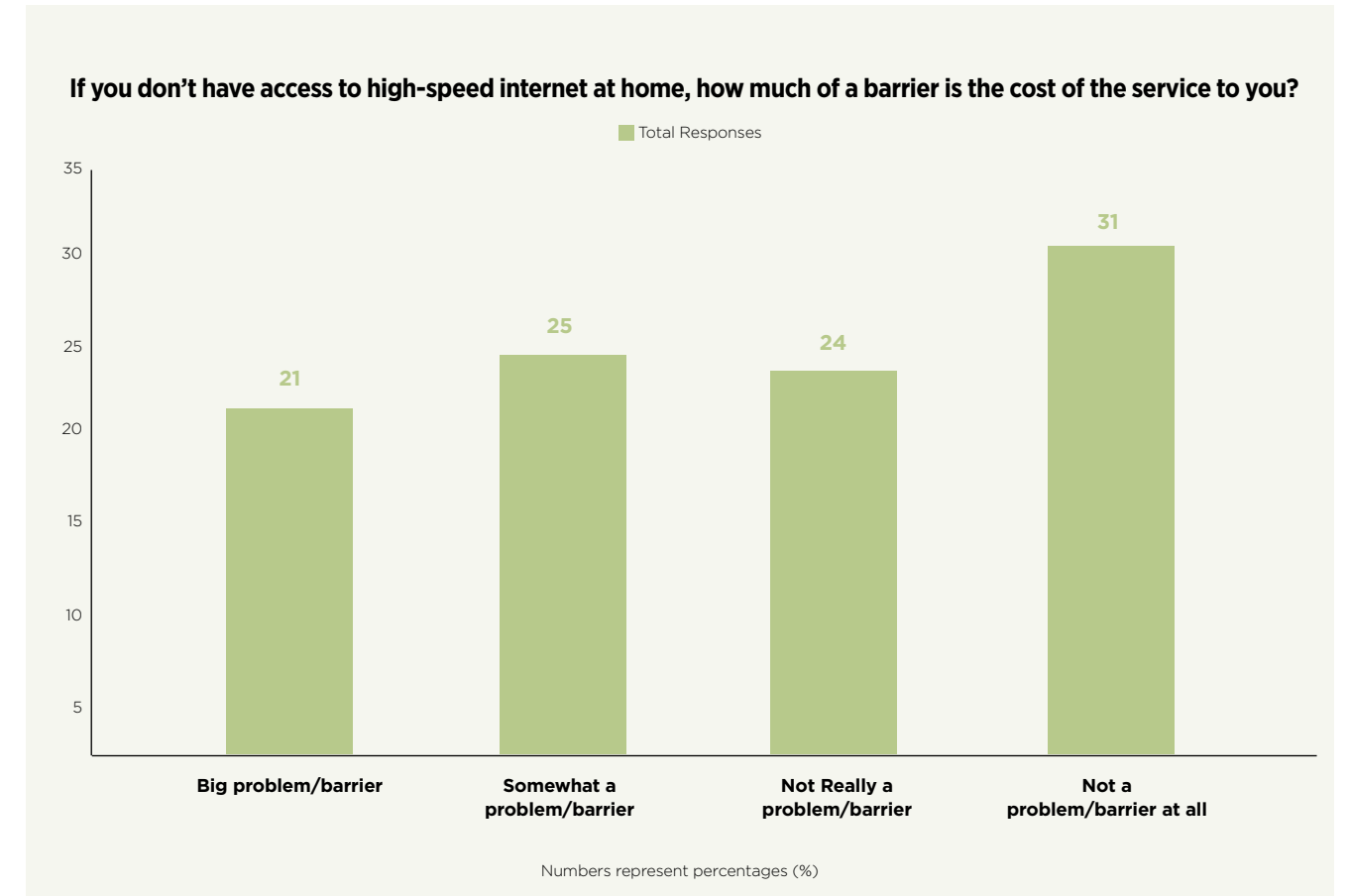
A majority of respondents without high-speed internet said that cost was a barrier. 25% of respondents said that cost of service was a big barrier to accessing high-speed internet, while 28% said it was somewhat of a barrier, 19% said it wasn't really a barrier, and 28% said it wasn't a barrier at all.



Cost becomes an even more significant barrier when accounting for a respondent's income level. **Those with the highest incomes were unlikely to respond that affordability was an issue, while 71% of respondents in the middle income group responded that it was a big or somewhat of a barrier, and 46% of those in the lowest income group also said it was a big or somewhat of a barrier.**

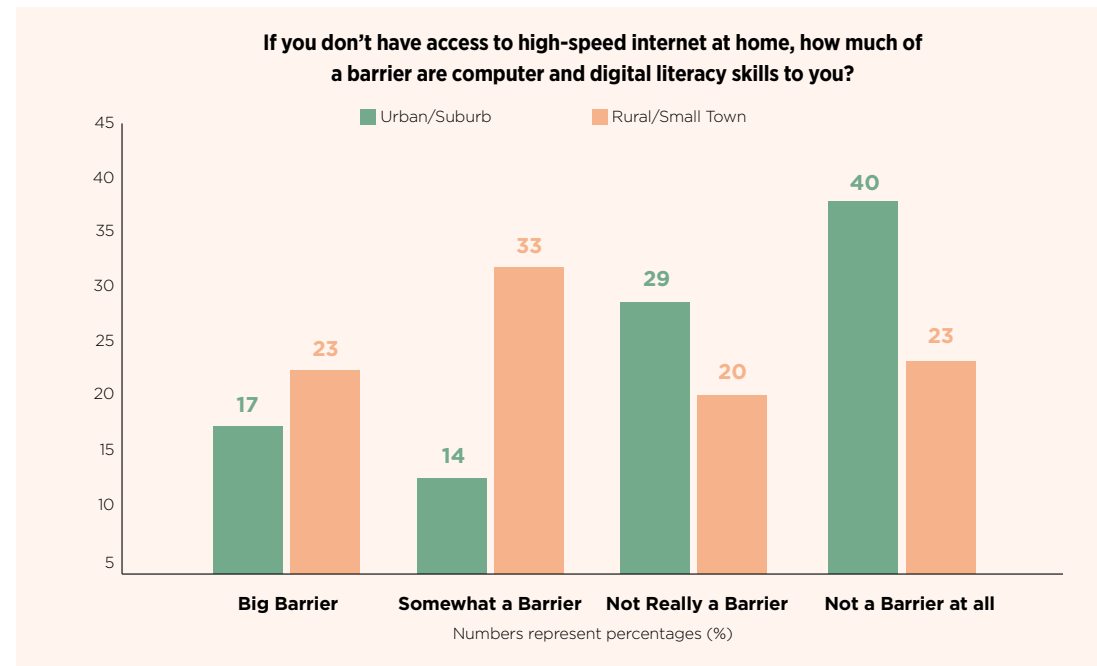
Digital Skills and Literacy

Respondents without high-speed internet at home were asked what role digital literacy and tech skill level played (if any) in preventing them from obtaining high-speed internet at home.



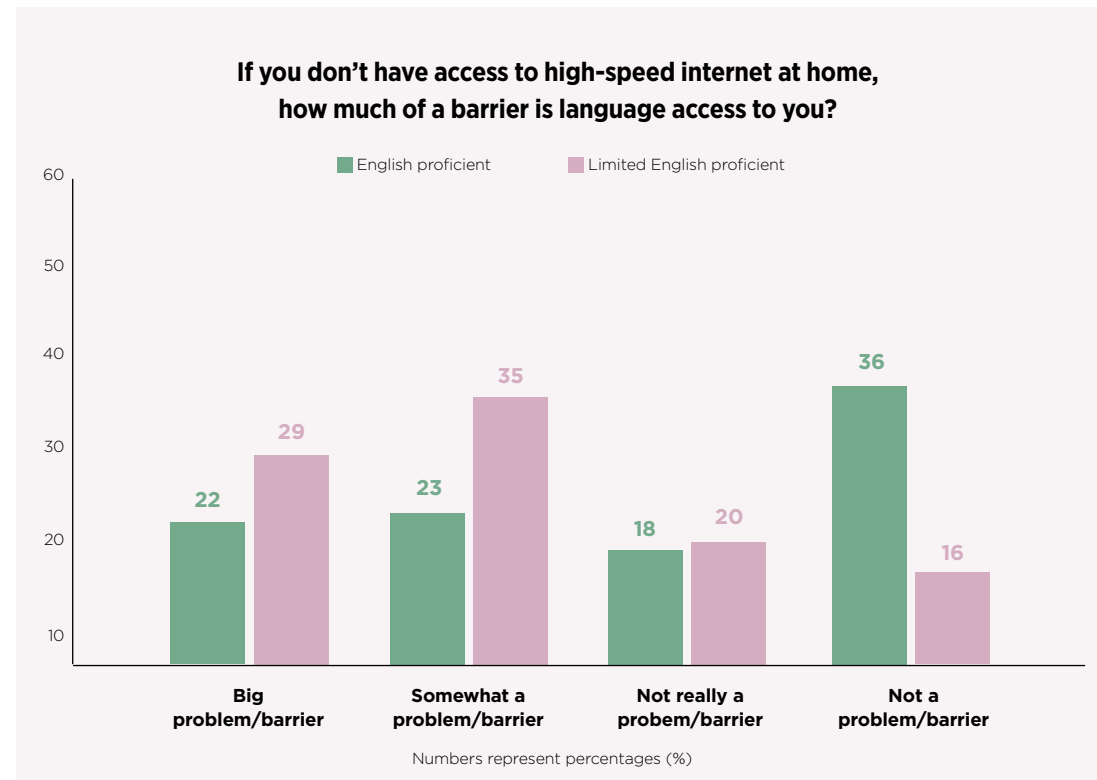
Overall, 21% of respondents answered that their level of digital literacy and tech skills were a big barrier, 25% said it was somewhat a barrier, 24% said it wasn't really a barrier, and 31% it wasn't a barrier at all.

When accounting for a participant's location, the disparity was amplified: 56% of respondents living in a small town or rural community answered that their skill and literacy level presented a significant or somewhat of a barrier, compared to only 31% of those in urban and suburban areas reported the same. This suggests a greater need for better information, training, and education in these areas.



Language Proficiency

Participants without high-speed internet were asked to evaluate how much of a barrier language access played, if any, in their ability to obtain high-speed internet at home.

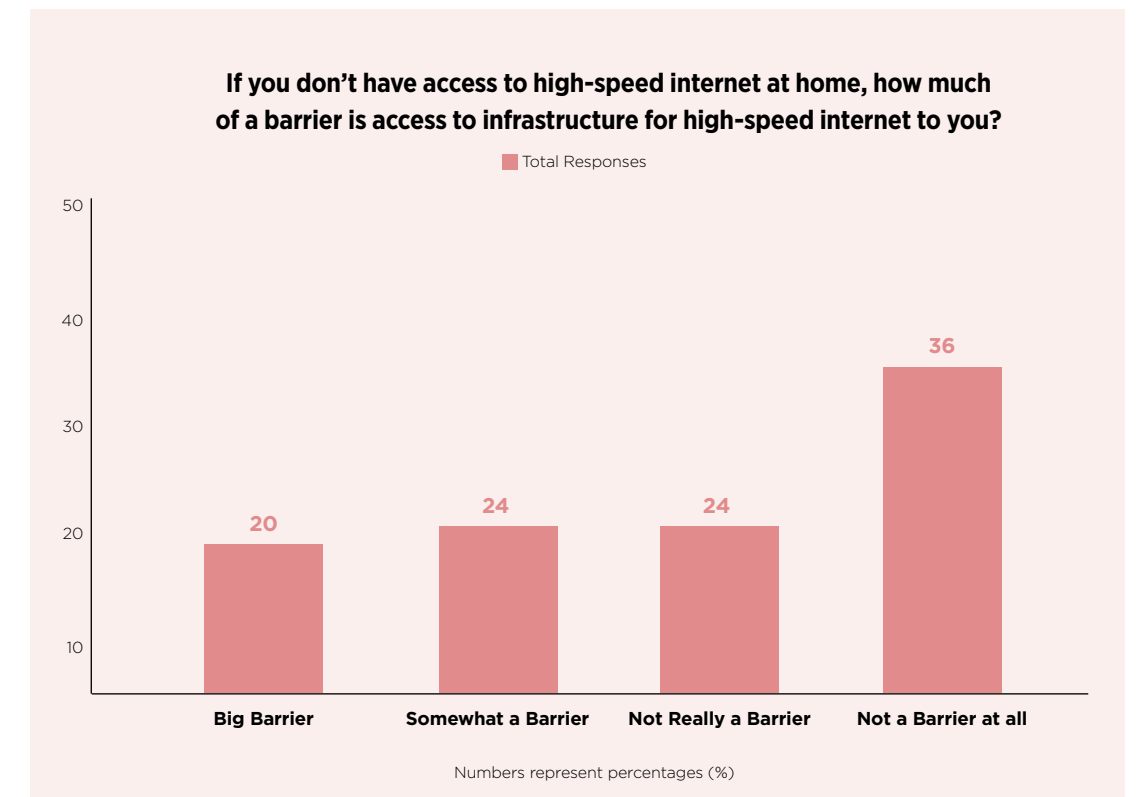


Overall, 41% of participants responded that language access was a big or somewhat of a big problem, whereas 61% said that it was not a significant problem.

Those with lower English proficiency are even more likely to report that language access presents a barrier. **64% of Limited English Proficiency (LEP) respondents said that language access was a barrier.**

Infrastructure

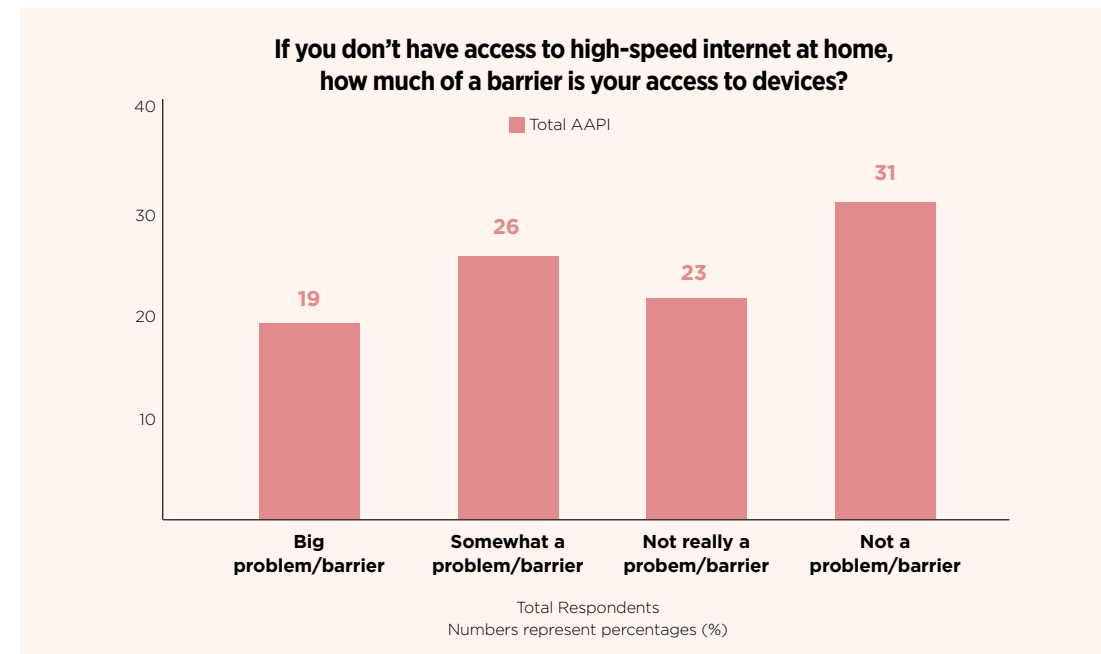
Respondents without high-speed internet were asked to assess whether the availability (or lack of) broadband infrastructure was an important barrier in preventing home connections.



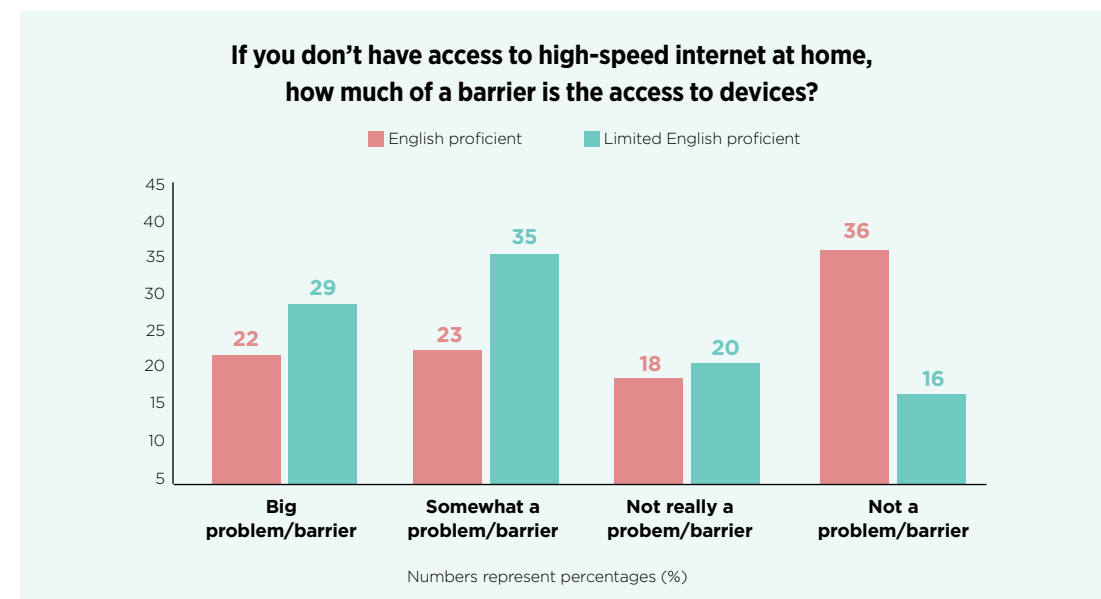
44% of participants said that lack of infrastructure or unavailability of services in some regions was a big or somewhat of a significant problem.

Availability of Devices

Participants without high-speed internet were asked if the types of devices that they have at home or lack of devices was a reason they did not have access at home.



45% of respondents said that access to devices at home was a big or somewhat of a big problem, whereas 54% said it was not.



One noticeable disparity is that those with limited English proficiency were more likely to say that their lack of access to the right devices was a significant reason they did not have high-speed access at home than those with high English-proficiency.

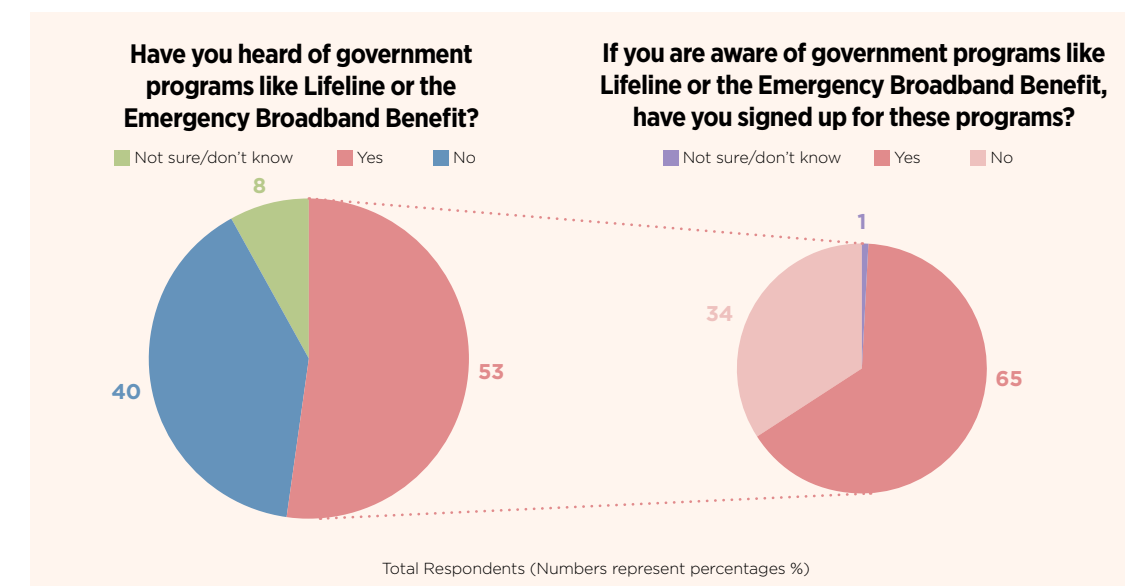
Potential Solutions and Interventions

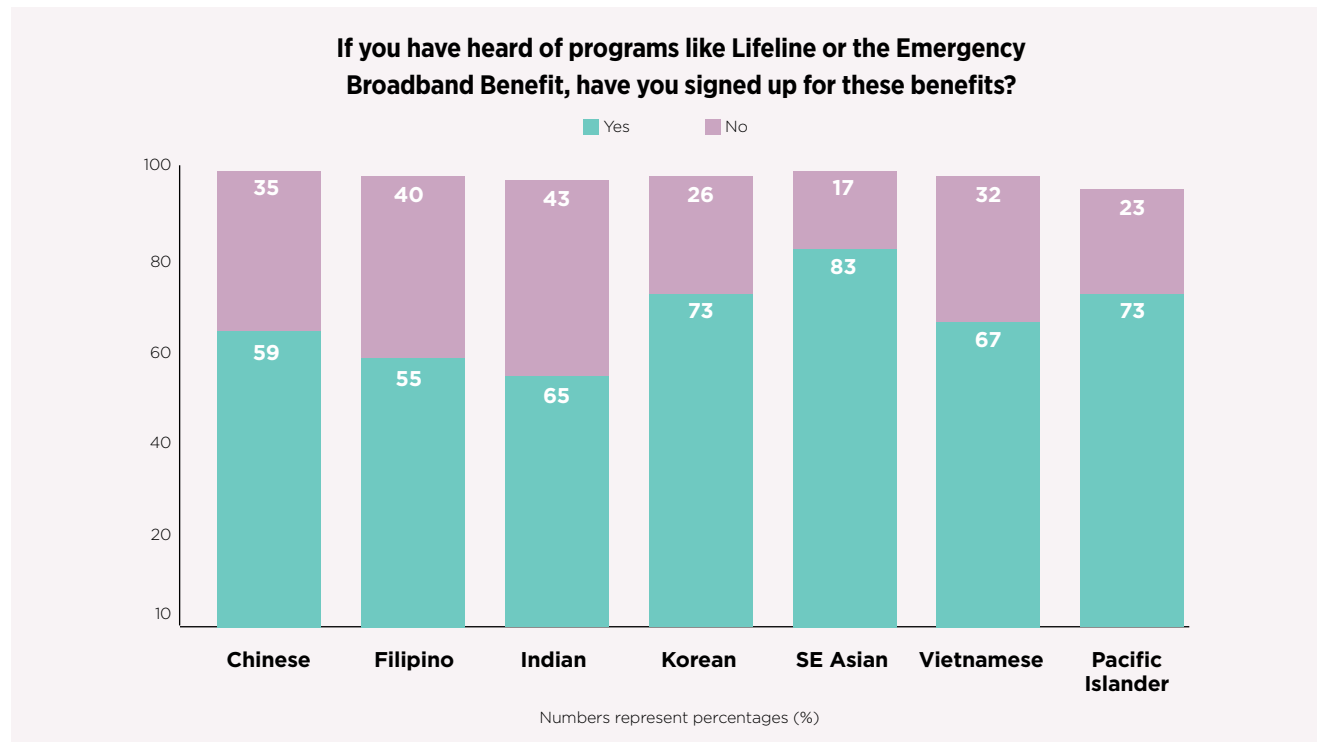
Survey respondents who reported that one or more of the challenges and barriers presented a “big problem and barrier” or “somewhat of a problem and barrier” were then asked a series of questions about different assistance programs, infrastructure changes, and other potential solutions and interventions. An overwhelming percentage of respondents believed that these interventions could help a great deal or somewhat in gaining access to high-speed internet.

Program/Benefit	Would help a great deal/somewhat
Subsidized and/or discounted services	95%
Technical assistance in setting up and fixing devices	92%
Subsidized and/or discounted devices to use to connect to internet	92%
Infrastructure to make high-speed internet service available	91%
Asian language translations for websites	89%
Classes to gain computer literacy	87%

All respondents were then asked whether they had heard of federal government programs such as Lifeline and the Emergency Broadband Program.

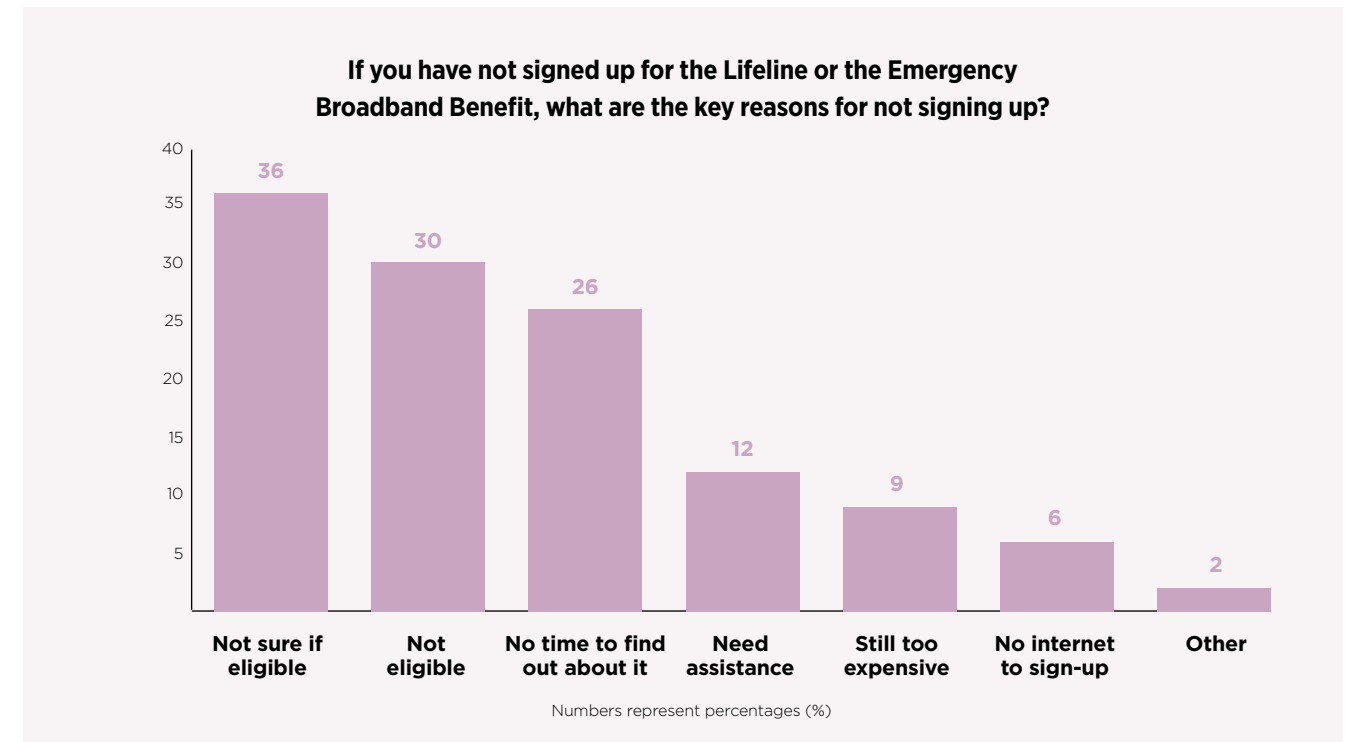
- 40% reported they have never heard of these or similar programs.
- 53% reported they have heard of these or other similar programs.
- Of these 53%, 65% reported that they had signed up for such benefits while 34% reported that they had not signed up for such benefits even though they knew a program existed.





40% of respondents who said that they faced one or more big problems and barriers to accessing high speed internet also said they had never heard of federal assistance programs such as the Lifeline or the Emergency Broadband Program, suggesting that outreach campaigns to promote awareness of these programs currently fail to reach a significant portion of the AANHPI population that may qualify and benefit tremendously from such programs. This figure reflects what many advocates already know. Many of these programs are underutilized because there is not enough public knowledge about them. Public awareness campaigns and other outreach do not always prioritize or even include AANHPIs as targeted audiences. In instances where targeted outreach is attempted, lack of English proficiency may continue to pose a challenge, especially if outreach is not conducted in communities' preferred languages or if translations may be indecipherable to audiences because they are of poor quality or include technical and administrative terms that are unfamiliar to targeted audiences.

35% of respondents who have heard of federal connectivity assistance programs said that even though they were aware of the existence of such programs, they still did not sign up for them. Of those who have not signed up for the federal connectivity assistance programs, several barriers were named as key reasons for not signing up.



36% of respondents said the reason they did not sign up for benefits was because they did not know whether or not they were eligible, while 26% reported that they did not because they did not have the time to learn more about the benefit. Both metrics suggest that obtaining reliable information about programs may currently be inaccessible or too cumbersome for intended beneficiaries. Even when outreach efforts do successfully penetrate to the community level and individuals are made aware of various assistance programs, the information being presented may not resonate with or make sense to the intended audience.

Both metrics suggest that obtaining reliable information about programs may currently be inaccessible or too cumbersome for intended beneficiaries.



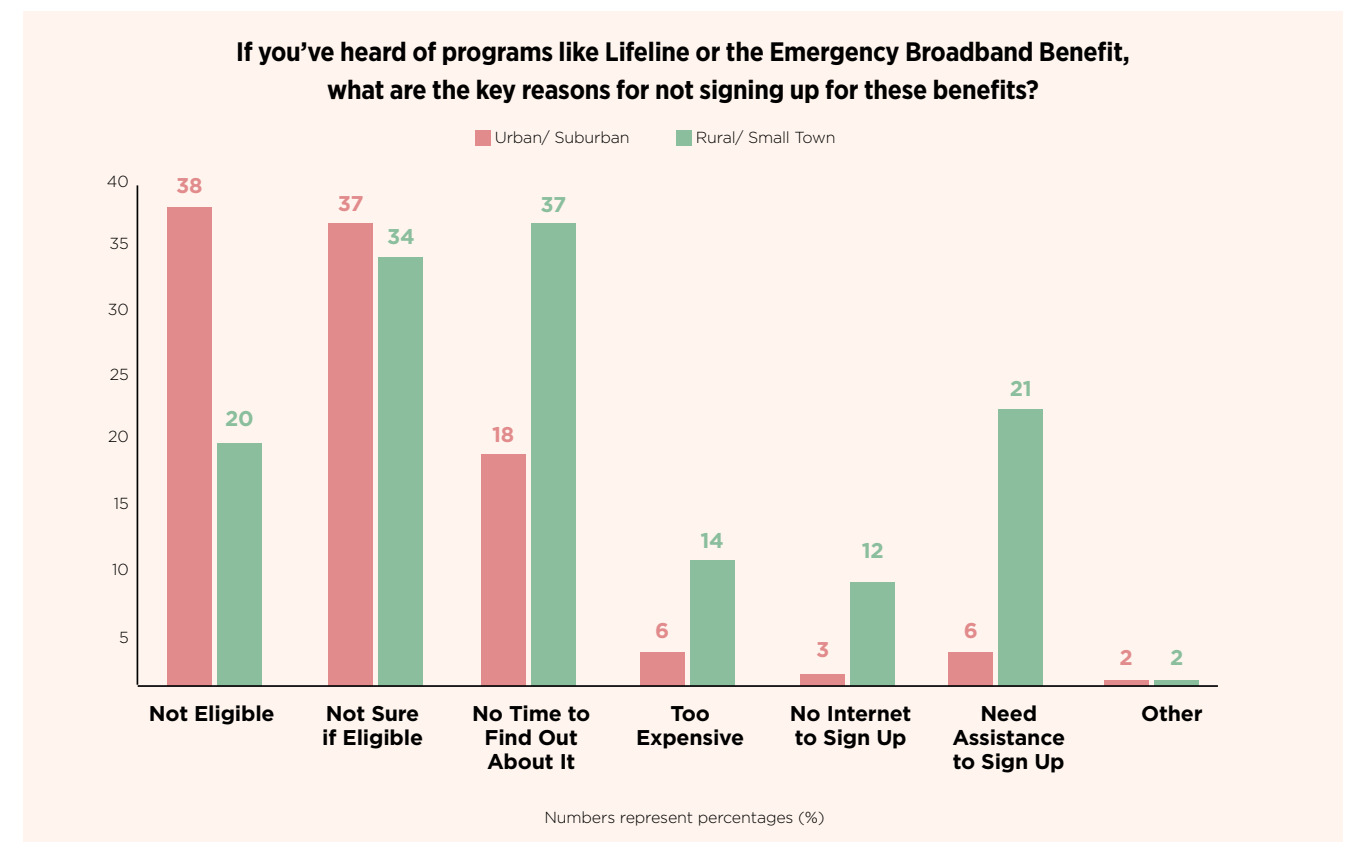
9% responded that they did not sign up for programs because even with the subsidies, the cost of high-speed internet was too expensive and prohibitive. This could further suggest that educational and promotional materials have been ineffective in informing communities about these programs and communities remain unaware about what options are actually available to them (since many of these programs work in partnership with internet service providers to offer high-speed plans at no additional cost to subsidy recipients). However, it could also suggest that more research is needed to accurately understand the costs that individuals and households encounter when they attempt to get connected. It is important to consider additional costs such as late fees, changes in plan rates or family needs, the cost of devices as well as modems and other equipment, expensive repairs, and the availability of affordable high-speed plans in all regions and communities.



9% responded that they did not sign up for programs because even with the subsidies, the cost of high-speed internet was too expensive and prohibitive. This could further suggest that educational and promotional materials have been ineffective in informing communities about these programs and communities remain unaware about what options are actually available to them (since many of these programs work in partnership with internet service providers to offer high-speed plans at no additional cost to subsidy recipients).

Survey responses also indicate that the application process itself may be difficult, onerous, and inaccessible to some potentially eligible individuals. 12% reported that they were unable to complete the application without assistance, which they were unable to obtain. 6% said that they were not able to submit applications because they did not have adequate access to an internet connection to fill out an online form. While forms for these programs can be printed, completed by hand, and mailed, even obtaining the form, or learning how to fill it out requires an internet connection. These are inherent design flaws that make it more difficult for intended beneficiaries to sign up for and take advantage of programs that were designed to assist them.

The survey responses also show some differences between urban and rural/small town residence in terms of key reasons for not signing up for federal connectivity assistance programs. Rural and small town residents were much more likely than urban and urban-adjacent suburban residents to have issues with having enough time to learn more about the program, needed assistance to sign up for the program, having access to any internet to sign up for the program, and finding that the internet service remains too expensive even with the benefits.



07

Policy Recommendations

- 1. Government assistance and intervention programs must prioritize accessible translations for application instructions and forms, live interpreters who can assist in real time, and in-language outreach to ensure AANHPIs who qualify for programs can actually sign up and benefit from them. Almost two in three Limited English Proficient respondents to the survey expressed that language access was a barrier to high-speed internet access. Survey respondents also expressed the need for assistance in signing up for services and the need for in-language materials.**

Language access and accessibility is critical to ensuring that Asian Americans, Native Hawaiians, and Pacific Islanders, once connected to broadband, can get the most out of their experiences online. Government services, grants, and programs must prioritize funding for outreach, education, engagement, marketing, testing, and feedback in non-English languages. English materials must be written in simple English that can be easily translatable. Only native-level speakers with deep knowledge of the community, cultural context, and familiarity with the vernacular should be utilized for translations. Community groups and leaders should be consulted before translations are published to ensure they are actually accessible

07 POLICY RECOMMENDATIONS

and understandable to the target audience. Furthermore, some languages do not have written alphabets, posing unique challenges for groups like Rohingya refugees who do not have a universally accepted written script and require additional in-language audiovisual support. These actions are supported by a January 2023 Government Accountability Office report on Affordable Broadband which found that translated materials for the Affordable Connectivity Program were not always clear, accurate, or complete.²⁹

For AANHPI communities, where approximately 34% of individuals are limited English proficient (LEP), language access and accessibility is critical in ensuring that community members are able to get the most out of their experience online. This is especially important when it comes to accessing government services and relief programs, yet many existing programs such as ACP and Lifeline only have applications available in English and Spanish. Furthermore, some AANHPI languages do not have written alphabets, posing unique challenges for groups like Rohingya refugees who do not have a universally accepted script and who require additional in-language audiovisual support. Without in-language applications and outreach materials, community members with LEP have a harder time accessing government services and without additional support may be prohibited from enrolling in programs they are eligible for.

- 2. Outreach about assistance programs alone isn't enough; additional interventions and touch points with underserved communities is crucial.**

User research and testing, partnerships with community leaders and trusted messengers, real-time interpretation and assistance with completing applications, and thorough troubleshooting resources throughout the entire process (from initial outreach to purchasing a high-speed internet plan from a provider, to help with technical issues such as unstable connections or outages, to even ending a service) are necessary. Our survey found that many of those who did hear about these programs faced additional barriers to accessing and understanding these services. Trusted community partners can provide services to specifically overcome these barriers.

- 3. Disaggregated data doesn't tell the full story, improved research and data regarding AANHPI's broadband access and adoption is critical.**

Survey respondents expressed gaps between what they felt were important internet skills to have and their own level of confidence in using those skills. Also, when directly asked, nearly half of those without high-speed internet access said that a lack of digital literacy skills was a barrier to access. Digital literacy and empowerment is relatively new in AANHPI communities and while there are organizations working to bridge the digital divide, there are still many unknowns that deter efforts. Few digital divide studies include AANHPIs in their analysis and the few that do often fail to address the needs and challenges that lower income and non-English speaking groups face. In addition to collecting anecdotal evidence and lived experiences at the community level, more research is needed to understand the needs and challenges that AANHPI communities face in achieving full digital inclusion, including digital literacy and empowerment.

4. Fund digital literacy training, help resources, equipment, and devices in addition to making broadband more affordable.

Access to sufficient devices and to digital literacy training is a critical step to ensure AANHPIs can bridge the adoption gap. Several AANHPI organizations have launched digital skills training to bridge this gap, but a lack of adequate resources, including funding, proper software/hardware, and limited staff time can hinder the growth of these programs. Funding should be allocated to trusted community groups to alleviate the lack of resources, and enable organizations on the ground to meet the demands for digital literacy classes and devices that their communities need.

5. Solutions must be localized and tailored to the precise populations they seek to target.

Even amongst AANHPI and immigrant populations, cultures and lifestyles vary significantly. Funding should be directed to conducting community-based research to better understand the needs of real people and update the needs assessments regularly as populations and situations change. Online training and digital literacy programs need to be facilitated with community groups to make sure they are customized to be most useful for communities. Local organizations are already trusted by communities, have the necessary language skills, and can more effectively promote messages and important information. At every step, policymakers and implementers should convene stakeholders, set guidelines for state and other entities to conduct outreach and research with community leaders, require projects to document engagement with community groups, and directly fund community projects and anchor institutions like schools and libraries. Projects should not be approved without applicants thoroughly demonstrating that they have consulted and incorporated the input and expertise of local leaders and communities.

6. Community organizations need technical skills and training assistance.

For organizations to assist community members through digital programming, they must become experienced and well-versed in different programs, platforms, and benefit systems. Currently, organizations that offer digital services and courses can become overwhelmed answering technical questions and problems that their clients reach out with because they lack the technical expertise to correctly diagnose and address the issue. Companies that provide

broadband services or produce equipment, devices, and software can take a more active role by providing instructions, training, and curriculum directly to staff and instructors. While many companies offer help desks online and on the phone for their customers, these services are not always available in non-English languages. Without call center agents with the language and cultural competency needed to effectively communicate with non-English speakers on complex and technical issues that are foreign to users, any small issue can render broadband connections, devices, and programs useless. For individuals to be able to use technology in ways that will improve their opportunities and livelihoods, they need access to in-language technical support.

7. Additional research, focus groups, and community-centered engagement is necessary to learn more about the needs, challenges, and nuances AANHPI communities face.

In an area like the digital divide, community-centered engagement is crucial to create spaces for community groups to share best practices and learn from one another. In addition to meeting with other trusted community leaders, organizations need to speak more regularly with corporations and national advocacy groups about the needs and gaps at the grassroots level. Trusted community leaders additionally need to be invited to non-AANHPI spaces so they can better advocate for the digital divide needs of their communities and create solutions for AANHPI communities.

8. Research is needed to measure and assess the effectiveness of programming spearheaded by AANHPI leaders.

To create successful digital literacy programs, we need to understand what factors led to their success and identify areas for improvement. Comprehensive information on how broadband access, devices, and educational programs change individual and community outcomes could provide other organizations looking to pilot or expand existing programs with valuable information. Ultimately leading to better understanding the problem, developing potential solutions, and replicating successful programs and the funds to conduct this work.

9. Access to sufficient devices is needed to bridge the adoption gap, many communities have yet to implement digital literacy programming because they are focused on ensuring their communities have access to digital tools.

Almost half of survey respondent without high-speed internet access said that the lack of devices was a barrier to access. Many community organizations serve low-income, refugee, or new immigrant communities who do not have the resources or tools they necessary to participate in digital literacy programming. Providing community organizations with the devices and equipment they need can alleviate the collection process, allowing them to focus on empowering communities to do more online and build digital skills.

08

Limitations, Remaining Unknowns, and Areas for Future Study

While survey respondents for this study provided valuable insight and a starting baseline, there are still various topics and additional questions that must be studied to adequately understand and address the Digital Divide as it affects the Asian American, Native Hawaiian, and Pacific Islander communities. This study was a pilot and therefore had its limitations but Advancing Justice | AAJC hopes others will join our efforts to continue community-centered research endeavors to better understand and empower our communities.

Better Representative Sample

In total, 2100 respondents were surveyed for this study. While this group was able to provide meaningful data and insight into the overall community, a larger, more thorough, and diverse sample would be needed to understand more specific trends within the community. Additional efforts to include historically marginalized and hard to reach populations would make sample pools more representative of the actual population and their lived experiences.

For example, in this sample only 3% of respondents answered that they “speak just a little English” while an overwhelming 97% answered that they “speak English very well” or “pretty well,” suggesting that this sample group may not adequately represent LEP or other underrepresented communities that maybe most heavily affected by the Digital Divide.

Furthermore, a more robust sampling across various types of geographic areas is needed. In this respondent group, only 150 respondents belonged to rural communities, making the sample too small to draw significant claims. Further studies are needed to better understand the extent of the challenges certain demographic subgroups face getting connected to high-speed internet, especially those that may be difficult to reach because they are the most negatively affected by the problem.

In total, 2100 respondents were surveyed for this study. While this group was able to provide meaningful data and insight into the overall community, a larger, more thorough, and diverse sample would be needed to understand more specific trends within the community.





Specifically, further studies could be conducted to better understand specific communities that are disproportionately negatively impacted. For example, Pacific Islander communities continue to face unique connection challenges and some of the highest internet costs in the country. While 14% of respondents in this survey identified as Pacific Islanders (a category that included Native Hawaiians, Samoans, Tongans, Guamanians, and other Pacific Islanders), a more targeted sampling of this community is needed to diagnose and prioritize the needs of these communities.

More representative sample pools would also be useful to further disaggregate the data to better understand how specific demographic characteristics and communities may be differently affected by the Digital Divide.

Standard Definitions and Baseline

One of the limitations of this study is that the survey process did not include a detailed introduction of the subject matter or set a baseline of definitions for respondents. While this led to a shorter survey script, which may have lowered the time needed for each survey and thus increased the number of completed surveys or even retained the quality of answers through the end of the survey. However, a negative externality is that respondents may have interpreted the questions very differently from each other or misunderstood the question. Surveys and translations were tested for comprehension but did not test for consistent interpretation of technical aspects across respondents. Therefore, respondents' personal interpretations were likely to have skewed the data.

For example, one interesting finding of the study was that those belonging to the highest income and education attainment levels categories were more likely to give their high-speed internet a low rating, even though they were likely to have the best connections amongst respondents. One possible explanation is that respondents with the highest income and education levels may be more critical of their internet service, perhaps because they are paying for a higher tier of service, speed, capacity, etc. and have a higher expectation of service. Alternatively, perhaps their speed and quality seem slower because they are connected to a greater number of devices or are utilizing greater volumes of data. This variance may have been avoided if definitions had been provided instead of allowing respondents to interpret relative and indefinite measurements (eg: define what is considered "high-speed internet" and specify enumerated speeds).

Better Understanding Correlations and Causations

This study was able to collect information about the status quo of the Digital Divide that affects the AANHPI community. However, it is not able to assess or predict causations. Additional studies that could track outcomes over time, the effect of interventions and new policies, and other connections could help policymakers to better diagnose barriers and pinpoint instrumental levers to bridge the divide. For example, a potential area of further study would be to track and assess the effect (if any) the Affordable Connectivity Program (ACP) subsidy has played in helping Asian Americans, Native Hawaiians and Pacific Islanders get connected to broadband.



09

Appendix

Survey Script

INTRO

[PHONE SURVEY]

Hello, may I please speak with Mr./ Ms. [NAME]? Do you prefer that we speak in English or [ASIAN language]?

Thank you. My name is _____. This is not a marketing or sales call. I am calling on behalf of BSP Research, a nonpartisan survey research firm. We are conducting a very short survey about issues important to your community and we'd like to include your opinions in our research. We appreciate your help with our research. All of your answers are completely confidential and anonymous. Please answer every question as truthfully as possible.

[ONLINE SURVEY]

Do you prefer taking this online survey in English or [ASIAN language]?

Thank you for participating in this survey on behalf of BSP Research, a nonpartisan survey research firm. This is not a marketing or sales survey. We are conducting a very short survey about issues important to your community and we'd like to include your opinions in our research. We appreciate your help with our research. All of your answers are completely confidential and anonymous. Please answer every question as truthfully as possible.

This is not a race! Please take your time to read each question and provide your honest opinion. Thank you very much.

SCREEN

1. Record language of survey

English.....	1
Chinese (Mandarin).....	2
Chinese (Cantonese).....	3
Korean.....	4
Tagalog.....	5
Vietnamese.....	6
Hmong.....	7

2. Before we get started, to make sure we have a representative sample of people of all backgrounds, let's start with a few basic demographic questions. What racial or ethnic group best describes you?

Hispanic or Latino.....	1
African-American or Black.....	2
Asian American.....	3
Pacific Islander.....	4
Native American / American Indian.....	5

White, not-Hispanic6
 Something else/Other [TERM] 88
 Refused [TERM] 99

3. [IF 1, 2, 4, 5, 6, or 88] Do you consider any part of your racial or ethnic background to be Asian American?

Yes [CONTINUE]1
 No [TERMINATE]2
 Don't know/Refused [TERMINATE]9

4. [IF 1, 2, 3, 5, 6, or 88] Do you consider any part of your racial or ethnic background to be Pacific Islander?

Yes [CONTINUE]1
 No [TERMINATE]2
 Don't know/Refused [TERMINATE]9

5. [IF S2=3 OR S3=1] Asian Americans have their roots in many different countries and ethnicities in Asia. What do you consider your country of origin or Asian ethnic group?

Chinese, except Taiwanese [CHINESE QUOTA]1
 Taiwanese [OTHER ASIAN QUOTA]2
 Asian Indian [ASIAN INDIAN QUOTA]3
 Filipino [FILIPINO QUOTA]4
 Vietnamese [VIETNAMESE QUOTA]5
 Korean [KOREAN QUOTA]6
 Hmong [SE ASIAN QUOTA]7
 Cambodian [SE ASIAN QUOTA]8
 Lao [SE ASIAN QUOTA]9
 Thai [SE ASIAN QUOTA]10
 Japanese [OTHER ASIAN QUOTA]11
 Other [SPECIFY] [OTHER ASIAN QUOTA] 12
 Don't know [OTHER ASIAN QUOTA] 88
 Refused [OTHER ASIAN QUOTA] 99

6. [IF S2=4 or S4=1] Pacific Islanders have their roots in many different territories and places. What do you consider your Pacific Islander origin?

Native Hawaiian [PI QUOTA]1
 Guamanian / Chamorro [PI QUOTA]2
 Samoan [PI QUOTA]3
 Tongan [PI QUOTA]4
 Other Pacific Islander [SPECIFY] [PI QUOTA]5
 Don't know [PI QUOTA] 88
 Refused [PI QUOTA] 99

7. When you think about the community that you live in, which comes closest to how you would describe it?

Large urban area1
 Large suburb near large city2
 Small suburb near small town or city3
 Small town or small city4
 Rural area [RURAL QUOTA]5



1. About how often do you use the internet or email?

Almost constantly1
 Several times every day2
 About once a day3
 Several times a week4
 About once a week or less5
 Do not use the internet6

2. Do you have a device that connects to the internet, like a smartphone, tablet, or a laptop or desktop computer? [CHECK ALL THAT APPLY]

Yes, a smartphone1
 Yes, a tablet2
 Yes, a laptop computer3
 Yes, a desktop computer4
 No, none of these devices5

3. Do you subscribe to dial-up internet service at home, or do you subscribe to a high-speed broadband service such as DSL, cable, or fiber optic service, or do you not have any access to internet at home?

Dial-up1
 Broadband2
 No access3
 Both [VOL]4
 Access via mobile phone or tablet only [VOL]5
 Don't know8
 Refused9

4. [IF Q2=2] Do you know if your broadband service is DSL (digital subscriber line), cable, fiber optic, or something else?

DSL1
 cable2
 fiber optic3
 something else [SPECIFY]4
 Don't know8
 Refused9

5. How would you rate your access reliable, high-speed internet?

- Excellent1
- Adequate2
- Could be better.....3
- Poor4
- I have no access to reliable, high-speed internet5
- Not sure / don't know [VOL].....8

6. [IF Q3=1, 3, 5] Here are some barriers to access to high-speed internet at home. How much of a barrier or problem are each of the following to you personally?

- A.....Affordability / cost of the service
 - B..... Digital literacy / tech skills
 - C..... Language barriers
 - D.....Infrastructure / high-speed is not available where I live
 - E.No access to device or not enough devices in my household
- Big problem/barrier.....1
 - Somewhat a problem/barrier2
 - Not really a problem/barrier3
 - Not a problem/barrier at all4

7. [IF Q6a-Q6e = somewhat or a big problem] How much would the following programs and benefits help you to gain access to high-speed internet?

- A.....Classes to gain computer literacy
 - B..... Asian language translations for websites
 - C..... Technical assistance in setting up devices
 - D..... Subsidized and/or discounted internet services
 - E.Subsidized and/or discounted devices to use to connect to internet
 - F.....Infrastructure to make high-speed internet service available
- Would help a great deal1
 - Would help somewhat2
 - Would not help3

8. Have you heard of government programs like Lifeline and the Emergency Broadband Benefit that offer discounts for cellphone and broadband internet services for eligible households?

- Yes.....1
- No.....2
- Not sure / don't know8

9. [IF Q8=1] Have you signed up for these benefits?

- Yes.....1
- No.....2
- Not sure / don't know8

10. [IF Q9=2] Which of these are key reasons why you have not signed up for these benefits?

- I am not eligible1
- I don't know if I am eligible2
- I have not had time to find out about it3
- Broadband internet is still too expensive, even with the discount.....4
- I do not have access to the internet to sign up5
- I am unable to complete the application without assistance6
- Something else [SPECIFY]7

11. [IF Q8=2] Would you be interested in such benefits if your household were eligible?

- Yes.....1
- No.....2
- Not sure / don't know8

12. What is the highest priority for you in terms of your internet access?

- Affordability of devices like smart phones, tablets, computers.....1
- Access and affordability to reliable, high-speed broadband internet2
- Access and affordability to even higher speeds for internet connectivity.....3
- Learning how to use new technologies, including apps and programs4
- Don't know.....8
- Refused.....9

13. People value internet access for many different reasons. How important are each of the following uses of the internet to you personally?

- A.....Communicating with others via email, text, or other messaging services
- B.....Getting information, news, research about the world and current events
- C.....Shopping, selling, or researching products and services
- D.....Using video calling or online conferencing services like Zoom or Webex for work or school (and other work/school related uses)
- E.Accessing economic opportunities like getting online job training, finding job postings and applications
- F.....Managing finances like banking, paying bills, making investments
- G.....Using online health (telehealth services)
- H.....Getting information and involved on issues affecting my community
- I.....Finding and accessing information and services in Asian languages
- J..... Entertainment like online movies, music, and other video/audio content

14. Some people are very skilled at navigating and accessing things on the internet while others are less confident with technology and terms involved. How about you? For each of the following, please tell us if you are very comfortable, pretty comfortable, not too confident, or not at all confident when using the internet.

- A.....Communicating with others via email, text, or other messaging services
- B.....Getting information, news, research about the world and current events
- C.....Shopping, selling, or researching products and services
- D.....Using video calling or online conferencing services like Zoom or Webex for work or school (and other work/school related uses)
- E..... Accessing economic opportunities like getting online job training, finding job postings and applications
- F.....Managing finances like banking, paying bills, making investments
- G..... Using online health (telehealth services)
- H.....Getting information and involved on issues affecting my community
- I.....Finding and accessing information and services in Asian languages
- J..... Entertainment like online movies, music, and other video/audio content



1. That concludes the main questions in this survey. For statistical purposes only, we need a bit of additional information about your demographic background, which is completely anonymous but used to make sure this survey is representative.

First, in what year were you born? Year of birth _____

2. And were you born in the United States or another country?

- United States.....1
- Other country2

3. What about your parents? Were they born in the United States or another country?

- Both were born in the United States.....1
- Both were born outside the United States2
- One was born in the United States and one in another country.....3
- Don't know.....8
- Refused.....9

4. [IF D1=2] In what year did you first come to live in the United States? [IF TAKING TOO LONG] If you don't recall the exact year, a rough estimate of the year is fine.

Year immigrated to the US _____

5. What is the highest level of education you completed?

- Some school, no high school degree1
- High school graduate or GED degree2
- Some college / technical school3
- Completed Associates' degree4
- Completed college5

- Some graduate or professional school6
- Graduate or professional degree7

6. How well would you say you speak English? Very well, pretty well, just a little, or not at all?

- Very well.....1
- Pretty well.....2
- Just a little.....3
- Not at all.....4
- Refused.....9

7. Next, what is your current employment status? Please tell me which of the following best describes your status in the past month. [ACCEPT MULTIPLE ANSWERS]

- Working full-time1
- Working part-time.....2
- Self-employed3
- Unemployed4
- Student5
- Homemaker6
- Retired.....7
- Permanently disabled.....8
- Other [SPECIFY].....9

8. Do you live alone, or do you live with a spouse, partner, friends, or family?

- Live alone.....1
- Live with others2

9. [IF D8=2] How many people do you live with?

[ENTER NUMBER]

10. How do you identify by sex?

- Male1
- Female.....2
- Non-binary3
- None of these4

11. [IF NEEDED] What state do you currently live in?

[DROP DOWN WITH ALL STATES + DC]

12. And finally, what was your total household income last year, before taxes? This question is completely confidential and used only to help classify the responses.

- Less than \$20,0001
- \$20,000 to \$39,9992
- \$40,000 to \$59,9993
- \$60,000 to \$79,9994
- \$80,000 to \$99,9995
- \$100,000 to \$150,000.....6
- More than \$150,0007

NATIONAL AAPI DIGITAL DIVIDE SURVEY

November 23 - December 7, 2021 N=2,100 (+/-2.1%)

Q1: About how often do you use the internet or email?

- Almost constantly50%
- Several times every day 40%
- About once a day7%
- Several times a week.....2%
- Once a week or less.....1%
- I do not use the internet 0%

Q2: Do you have a device that connects to the internet, like a smartphone, tablet, laptop or desktop computer? [All that apply]

- Smartphone91%
- Tablet55%
- Laptop computer79%
- Desktop computer47%
- None of these1%

Q3: Do you subscribe to dial-up internet service at home, or do you subscribe to a high-speed broadband service such as DSL, cable, or fiber optic service or do you not have access to internet at home?

- Dialup internet 11%
- High speed broadband 60%
- No internet access1%
- Both dialup and highspeed19%
- Access internet on mobile phone or tablet only5%
- Don't know 4%
- Refused1%

Q4: Do you know if your broadband service is DSL, cable, fiber optic, or something else?

- DSL21%
- Cable35%
- Fiber Optic39%
- Something Else1%
- Don't know5%
- Refused0%

Q5: How would you rate your access to reliable, high-speed internet?

- My access to reliable, highspeed internet is excellent45%
- My access is adequate38%
- My access could be better12%
- My access is poor2%
- I have no access to reliable, high-speed internet1%
- Not sure / don't know2%

Q6: [If Q3=dial up, none, or phone/tablet only] Here are some barriers to access to high-speed internet at home. How much of a barrier or problem are each of the following to you personally?

Q6a. Affordability/ cost of the service

- Big problem/barrier25%
- Somewhat a problem/barrier28%
- Not really a problem/barrier19%
- Not a problem/barrier at all28%

Q6b. Computer and digital literacy/ tech skills

- Big problem/barrier21%
- Somewhat a problem/barrier5%
- Not really a problem/barrier24%
- Not a problem/barrier at all31%

Q6c. Language barriers

- Big problem/barrier17%
- Somewhat a problem/barrier24%
- Not really a problem/barrier23%
- Not a problem/barrier at all36%

Q6d. High-speed is not available (no infrastructure for high-speed internet where I live)

- Big problem/barrier20%
- Somewhat a problem/barrier24%
- Not really a problem/barrier24%
- Not a problem/barrier at all32%

Q6e. No access to device or not enough devices in my household

- Big problem/barrier19%
- Somewhat a problem/barrier26%
- Not really a problem/barrier23%
- Not a problem/barrier at all31%

Q7: [If any Q6a-Q6e = somewhat or big problem] How much would the following programs and benefits help you to gain access to high-speed internet?

Q7a. Classes to gain computer literacy

- Would help a great deal36%
- Would help somewhat53%
- Would not help11%

Q7b. Asian language translations for websites

- Would help a great deal43%
- Would help somewhat44%
- Would not help14%

Q7c. Technical assistance in setting up and fixing devices

- Would help a great deal45%
- Would help somewhat47%
- Would not help8%

Q7d. Subsidized and/or discounted internet services

- Would help a great deal52%
- Would help somewhat43%
- Would not help5%

Q7e. Subsidized and/or discounted devices to use to connect to internet

- Would help a great deal53%
- Would help somewhat39%
- Would not help8%

Q7f. Infrastructure to make high speed internet service available

- Would help a great deal49%
- Would help somewhat42%
- Would not help9%

Q8: Have you heard of government programs like Lifeline and the Emergency Broadband benefit that offer discounts for cellphone and broadband internet services for eligible households?

- Yes53%
- No40%
- Not sure / don't know8%

Q9: [If Q8 = yes] Have you signed up for these benefits?

- Yes65%
- No34%
- Not sure / don't know1%

Q10: [If Q9 = no] Which of these are key reasons why you have not signed up for these benefits? [All that apply]

- I am not eligible30%
- I don't know if I am eligible36%
- I have not had time to find out about it26%
- Broadband internet is still too expensive, even with9%
- I do not have access to the internet to sign up6%
- I am unable to complete the application without assistance12%
- Something else2%

Q11: [If Q8 = no] Would you be interested in these benefits if your household were eligible?

- Yes61%
- No25%
- Not sure / don't know14%

Q12: What is the highest priority for you in terms of your internet access?

- Affordability of devices like smart phones, tablets, computers19%
- Access and affordability to reliable, highspeed broadband internet37%
- Access and affordability to even higher internet speeds24%
- Learning how to use new technologies, including apps and programs15%
- Don't know4%
- Refused2%

Q13: People value internet access for many different reasons. How important are each of the following uses of the internet to you personally?

Q13a. Communicating with others via email, text, or other messaging services

- Absolutely critical36%
- Very important40%
- Somewhat important15%
- Not that important3%
- Not important at all2%
- Not sure / don't know4%

Q13b. Getting information news, research about the world and current events

- Absolutely critical26%
- Very important44%
- Somewhat important20%
- Not that important4%

- Not important at all3%
- Not sure / don't know 4%

Q13c. Shopping, selling, or researching products and services

- Absolutely critical 22%
- Very important..... 43%
- Somewhat important 22%
- Not that important 6%
- Not important at all3%
- Not sure / don't know 4%

13d. Using video calling or online conferencing services like Zoom or Webex for work or school (and other work/school related uses)

- Absolutely critical28%
- Very important38%
- Somewhat important20%
- Not that important7%
- Not important at all 4%
- Not sure / don't know 4%

Q13e. Accessing economic opportunities like getting online job training, finding job postings and applications

- Absolutely critical23%
- Very important39%
- Somewhat important21%
- Not that important7%
- Not important at all 6%
- Not sure / don't know 4%

Q13f. Managing finances like banking, paying bills, making investments

- Absolutely critical38%
- Very important36%
- Somewhat important15%
- Not that important3%
- Not important at all3%
- Not sure / don't know 4%

Q13g. Using online health (telehealth services)

- Absolutely critical 23%
- Very important 37%
- Somewhat important24%
- Not that important8%

- Not important at all3%
- Not sure / don't know 4%

Q13h. Getting information and involved on issues affecting my community

- Absolutely critical 19%
- Very important..... 40%
- Somewhat important 27%
- Not that important7%
- Not important at all3%
- Not sure / don't know 4%

Q13i. Finding and accessing information and services in Asian languages

- Absolutely critical 18%
- Very important 33%
- Somewhat important 24%
- Not that important 12%
- Not important at all10%
- Not sure / don't know 4%

Q13j. Entertainment like online movies, music, other video/audio content

- Absolutely critical 23%
- Very important 41%
- Somewhat important 23%
- Not that important 6%
- Not important at all3%
- Not sure / don't know 4%

Q14: Some people are very skilled at navigating and accessing things on the internet while others are less confident with technology and terms involved. How about you? For each of the following, please tell us if you are very comfortable, pretty comfortable, not too confident, or not at all confident when using the internet.

Q14a. Communicating with others via email, text, or other messaging services

- Very confident48%
- Pretty confident 37%
- Not too confident8%
- Not confident at all at all2%
- Not sure / don't know 4%

Q14b. Getting information news, research about the world and current events

- Very confident 40%
- Pretty confident 44%
- Not too confident 9%
- Not confident at all at all 3%
- Not sure / don't know 4%

Q14c. Shopping, selling, or researching products and services

- Very confident 40%
- Pretty confident 42%
- Not too confident 11%
- Not confident at all at all 3%
- Not sure / don't know 5%

Q14d. Using video calling or online conferencing services like Zoom or Webex for work or school (and other work/school related uses)

- Very confident 37%
- Pretty confident 43%
- Not too confident 12%
- Not confident at all at all 3%
- Not sure / don't know 5%

Q14e. Accessing economic opportunities like getting online job training, finding job postings and applications

- Very confident 36%
- Pretty confident 41%
- Not too confident 14%
- Not confident at all at all 4%
- Not sure / don't know 6%

Q14f. Managing finances like banking, paying bills, making investments

- Very confident 42%
- Pretty confident 40%
- Not too confident 9%
- Not confident at all at all 3%
- Not sure / don't know 5%

Q14g. Using online health (telehealth services)

- Very confident 34%
- Pretty confident 40%
- Not too confident 16%
- Not confident at all at all 4%
- Not sure / don't know 6%

Q14h. Getting information and involved on issues affecting my community

- Very confident 34%
- Pretty confident 45%
- Not too confident 12%
- Not confident at all at all 3%
- Not sure / don't know 6%

Q14i. Finding and accessing information and services in Asian languages

- Very confident 29%
- Pretty confident 42%
- Not too confident 17%
- Not confident at all at all 6%
- Not sure / don't know 7%

Q14j. Entertainment like online movies, music, other video/audio content

- Very confident 41%
- Pretty confident 41%
- Not too confident 11%
- Not confident at all at all 3%
- Not sure / don't know 5%



Participant Demographics

Age

18-34	30%
35-49	27%
50-59	18%
60 years or above	26%

Gender

Male	49%
Female	51%
Non-binary	0%
None of these	0%

Nativity

United States	45%
Other country	55%

Asian Origin

Chinese, except Taiwanese	14%
Asian Indian	14%
Filipino	14%
Vietnamese	14%
Korean	14%
Southeast Asian (Hmong, Lao, Thai)	14%
Pacific Islander	14%

Community Type

Rural	9%
Small town or small city	16%
Small suburb of smaller town or city	20%
Large suburb of a large city	29%
Large city or urban area	26%

[If U.S born] Parents Nativity

Both born in the United States	28%
Both born outside the United States	52%
One born in the U.S, one born in another country	18%
Don't know	1%
Prefer not to say	1%

[If foreign born] Years in the United States

Less than 5 years	8%
5-10 years	20%
11-15 years	16%
16-20 years	13%
More than 20 years	41%

Educational Attainment

Some school, no high school degree	2%
High school graduate or GED degree	12%
Some college/ technical school	18%
Completed Associates' degree	13%
Completed college	39%
Some graduate or professional school	6%
Graduate or professional degree	10%

English-Speaking Ability

Speak English very well	64%
Speak English pretty well	33%
Speak just a little English	3%
Do not speak English at all	0%

Current Employment Status [all that apply]

Working full-time	51%
Working part-time	14%
Self-employed	5%
Unemployed	3%
Student	4%
Homemaker	6%
Retired	18%
Permanently disabled	1%
Other	0%

Do you live alone, or do you live with a spouse, partner, friends, or family?

Live alone	22%
Live with others	78%

Household Income

Less than \$20,000	7%
\$20,000 - \$39,999	17%
\$40,000 - \$59,999	21%
\$60,000 - \$79,999	22%
\$80,000 - \$99,999	16%
\$100,000 - \$150,000	12%
More than \$150,000	6%

Crosstabs and Toplines






Disaggregated Data

The importance of Accessing the Internet for....		
	Frequency	Percent
Managing Finances	757	14.0
Communications	722	13.3
Video calling	596	11.0
Current Events	533	9.8
Economic Opportunity	503	9.3
Telehealth	506	9.3
Entertainment	496	9.2
Shopping and Selling	485	9.0
Getting Informed/ Involved	435	8.0
Accessing in-language info	385	7.1
Total:	5418	100.0

Confidence Accessing the Internet for....		
	Frequency	Percent
Communications	976	12.3
Managing Finances	859	10.9
Entertainment	860	10.9
Telehealth	859	10.9
Current Events	826	10.4
Shopping and Selling	813	10.3
Video calling	777	9.8
Economic Opportunity	744	9.4
Getting Informed/ Involved	713	9.0
Accessing in-language info	625	7.9
Total:		100.0

AAPI Religious Institutions Map



 Hindu Temples	 Japanese American Churches
 Buddhist Temples	 Korean American Churches
 Chinese American Churches	

Endnotes

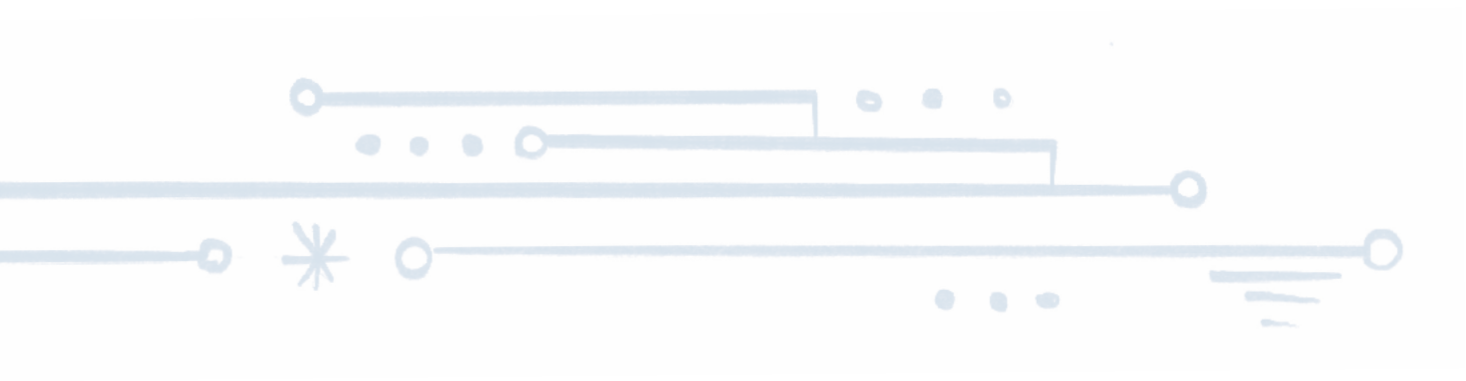
- 1 <https://www.ntia.gov/blog/2020/ntia-data-reveal-shifts-technology-use-persistent-digital-divide>
- 2 <https://www.cdc.gov/mmwr/volumes/69/wr/mm6935a2.htm>
- 3 <https://www.pewresearch.org/fact-tank/2016/02/18/english-speaking-asian-americans-stand-out-for-their-technology-use/>
- 4 <https://www.pewresearch.org/internet/2013/03/29/why-pew-internet-does-not-regularly-report-statistics-for-asian-americans-and-their-technology-use/>
- 5 U.S. Census Bureau. "Language Spoken at Home." American Community Survey, ACS 1-Year Estimates Subject Tables, Table S1601, 2022, [https://data.census.gov/table/ACSST1Y2022.S1601?t=Language Spoken at Home&y=2022](https://data.census.gov/table/ACSST1Y2022.S1601?t=Language%20Spoken%20at%20Home&y=2022). Accessed on February 2, 2024
- 6 <https://www.advancingjustice-ajc.org/sites/default/files/2020-02/Lifeline%20Background.pdf>
- 7 U.S. Census Bureau. "Selected Population Profile in the United States." American Community Survey, ACS 1-Year Estimates Selected Population Profiles, Table S0201, 2022, <https://data.census.gov/table/ACSSPP1Y2022.S0201?t=-04:-05:012:031>. Accessed on February 2, 2024.
- 8 Ibid.
- 9 U.S. Census Bureau. "Selected Population Profile in the United States." American Community Survey, ACS 1-Year Estimates Selected Population Profiles, Table S0201, 2022, <https://data.census.gov/table/ACSSPP1Y2022.S0201?t=031:060>. Accessed on February 2, 2024.
- 10 https://static1.squarespace.com/static/5f5282b71117310d16e654d3/t/63e1677d-4d040c31928b2120/1675716479447/DigEquityHandbook_HighRes_SinglePg_2-5-23.pdf
- 11 <https://data.census.gov/table?t=-04:-05:012:031>
- 12 Map of Asian American Religious Institutions is available in the appendix; <https://earth.google.com/web/@35.56400929,-90.29597583,-427.80811719a,8108012.73452282d,30.00021954y,0h,0t,0r/data=MikKJwolCiExaU100Ed4MUlobVg3YnhXT25QV2Jwb0hMVz-J1bFRUNXcgAjoDCgEw?authuser=0>
- 13 https://www.salon.com/2019/11/15/how-native-hawaiians-are-taking-internet-access-into-their-own-hands_partner/
- 14 <https://www.civilbeat.org/2020/08/doe-struggles-to-get-students-the-technology-they-need-for-online-learning/>

- ¹⁵ <https://www.hawaiitribune-herald.com/2020/06/28/hawaii-news/survey-many-e-hawaii-students-were-mia-during-distance-learning/>
- ¹⁶ <https://www.hawaiibusiness.com/todays-lesson-no-wi-fi-no-learning/>
- ¹⁷ <https://datausa.io/profile/geo/san-jose-ca/>
- ¹⁸ [1] <https://www.sanjoseca.gov/your-government/departments-offices/information-technology/digital-inclusion-and-broadband-strategy>
- ¹⁹ <https://journals.uic.edu/ojs/index.php/fm/article/view/6196/5187>
- ²⁰ <https://firstmonday.org/ojs/index.php/fm/article/view/6196/5187>. Further analyses show that occurrences such as the San Francisco Chinatown use case are rarer today due to infrastructure advancements (i.e., advanced building and construction codes and standards). In addition, many providers today offer community solutions for multi-dwelling units that can meet a variety of internet service needs. For an example of what one provider is doing to address these needs, see Charter's community solutions—<https://www.spectrum.com/community-solutions>.
- ²¹ <https://www.bostonglobe.com/2021/01/24/metro/digital-divide-remains-wide-some/>
- ²² <https://www.cnbc.com/2021/03/03/asian-owned-small-businesses-saw-an-outsized-pandemic-impact-last-year-.html>
- ²³ <https://slate.com/technology/2012/05/internet-access-and-cost-in-american-samoa-northern-marianas-islands-guam.html>
- ²⁴ <https://pacificbasindevelopment.org/wp-content/uploads/2020/02/2019-U.S.-Pacific-Islands-CEDS.pdf>
- ²⁵ <https://www.guampdn.com/story/news/2015/07/07/thousands-ite-telecommunications-cnmi-guam-customers-lose-service/29844973/>
- ²⁶ https://www.cdc.gov/nchs/data_access/urban_rural.htm
- ²⁷ <https://www.nytimes.com/2020/10/12/technology/laptops-schools-digital-divide.html>
- ²⁸ <https://www.edsurge.com/news/2021-07-23-millions-of-students-with-home-internet-access-still-can-t-get-online>
- ²⁹ <https://www.gao.gov/assets/gao-23-105399.pdf>

Notes



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