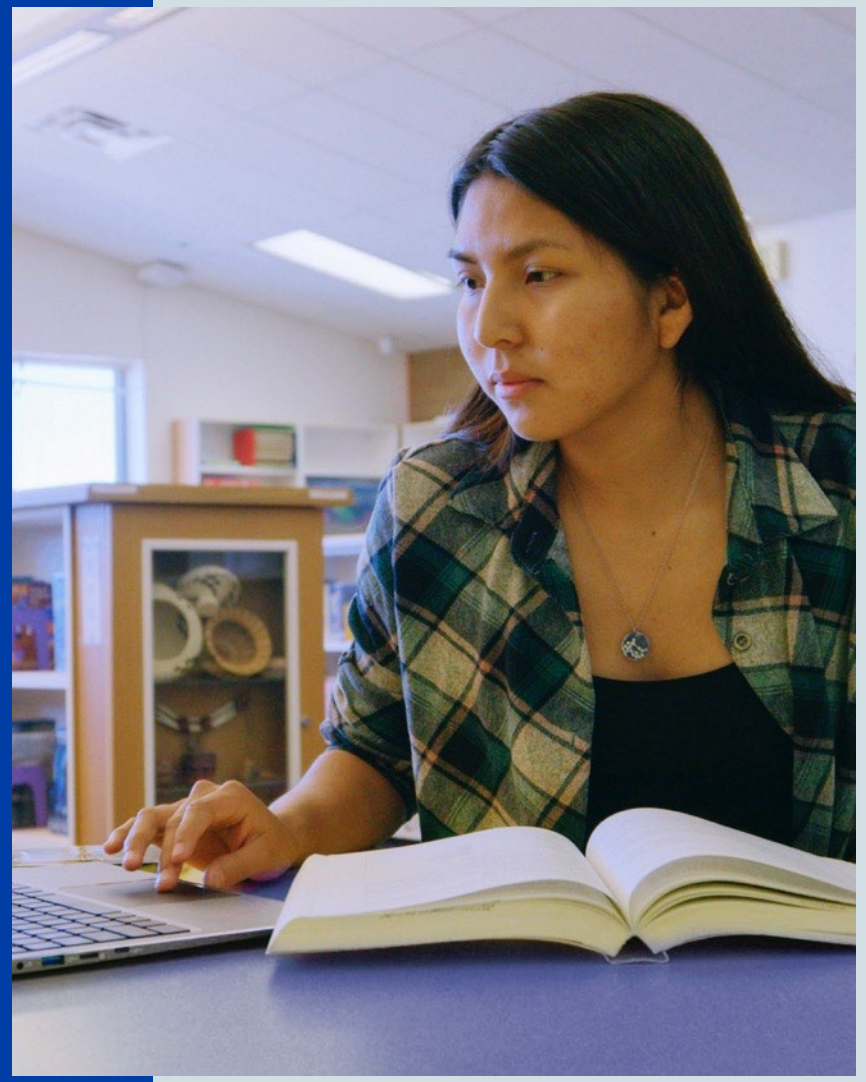
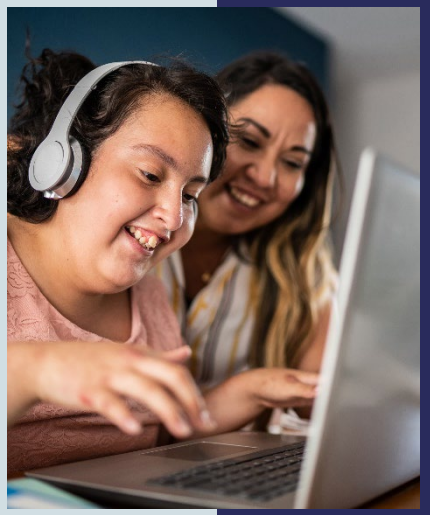
Digital Equity Online Survey Analysis and Needs Assessment





CALIFORNIA ALL

BROADBAND FOR ALL

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1. Overview

Overview

The California Department of Technology (CDT) collaborated with the Broadband Equity Partnership to conduct a needs assessment and asset inventory to analyze the current state of the digital equity ecosystem across California.

The data provided in this report includes a combination of phone, online and paper survey responses from California residents who identified as being 18 years or older, as well as online survey responses via the DEEM tool from organizations, agencies and other entities throughout the state. Variables in the Online Public Survey analysis include the five measurable objectives and eight covered populations as defined by the NTIA, as well as statewide and county-level data.

Digital equity needs assessment by measurable objective and geography	**Statewide analysis**
	Covered population group analysis
	County-level analysis

2.1 Online Survey Analysis

Online Survey Analysis - Overview

The California State Digital Equity Plan Online Public Survey was disseminated to households in all 58 counties across California to assess barriers to broadband access, affordability and adoption. The Public Survey reached **43,660** residents overall, with **43,432** accessing the survey online and **228** completing paper surveys.

The Digital Equity Ecosystem Mapping (DEEM) tool was shared with a variety of entities as a means of conducting an asset inventory of digital equity resources across the state. The DEEM tool reached **466** organizations throughout California.

Findings are organized according to the five (5) **Measurable Objectives**, as defined in the Digital Equity Act (DEA), and are considered both for the State's residents as a whole, and for each of the Covered Populations identified by the DEA.

Pathways to Adoption

(Measurable Objective Categories)

- The **availability** of, and **affordability** of access to, fixed and wireless **broadband** technology
- The **availability** and **affordability** of consumer **devices** and technical support for those devices
- Individual confidence in successfully completing tasks using **digital skills**
- Individual awareness of, and the use of, measures to secure the **online privacy** of, and **internet safety**
- The online accessibility and inclusivity of **public resources** and services

2. Online Public Survey Results

Online Public Survey Responses by Language

The online Public Survey was released in 14 languages and disseminated across the state to encourage widespread participation from all demographic groups, including covered populations. Every single one of the available 14 languages was accessed by the diverse demographic spread of survey respondents.

More than 91% of people took the survey in English, followed by 6% in Spanish and 3% in Chinese.

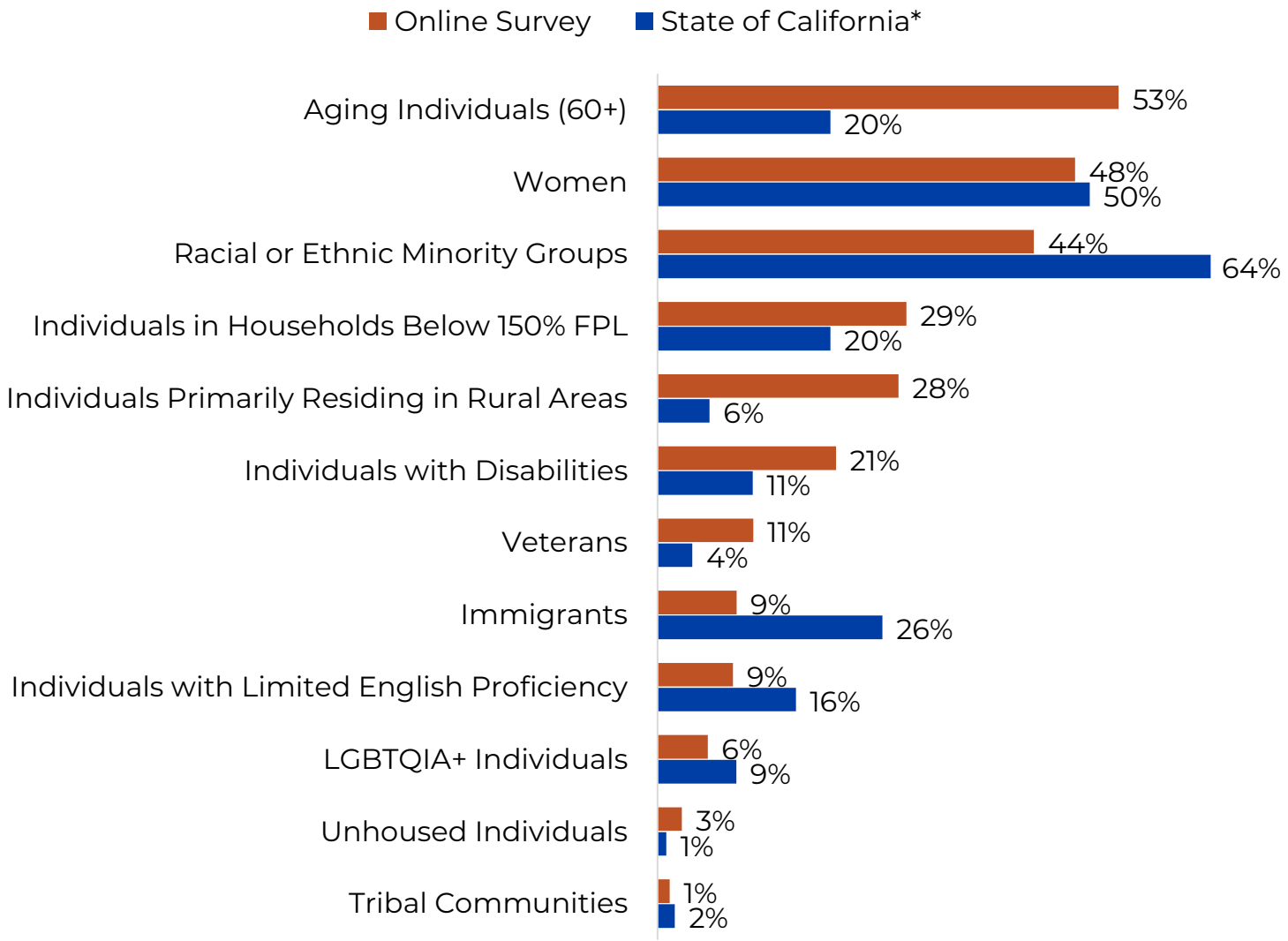
Language of Submission	Number of Responses	Percentage of Responses
English	39,353	91%
Spanish	2,445	6%
Simplified Chinese	736	2%
Traditional Chinese	346	1%
Arabic	137	0.3%
Vietnamese	111	0.3%
Persian	61	0.1%
Korean	59	0.1%
Tagalog	58	0.1%
Russian	58	0.1%
Japanese	40	0.1%
Khmer	14	-
Punjabi	13	-
Armenian	1	-

Online Public Survey Responses by Covered Population

A total of 36,273 valid responses were recorded for the online survey. More than 96% of survey respondents identified as belonging to one or more covered populations.

Aging individuals, women, and racial or ethnic minority groups were the most represented covered populations among all survey respondents.

Covered Populations' Distribution



** From U.S. Census Bureau's ACS 2021 5-year estimates, 2020 Decennial Census (for rural population), Household Pulse Survey 2021 (for LGBTQIA+ individuals), and .California Senate Housing Committee 2020 Fact Sheet.*

Total Number of Respondents by Covered Population

Many respondents self-identified as belonging to more than one covered population. The table below shows the number of respondents for each intersection of two covered population groups.*

Total Number of Respondents by Covered Population

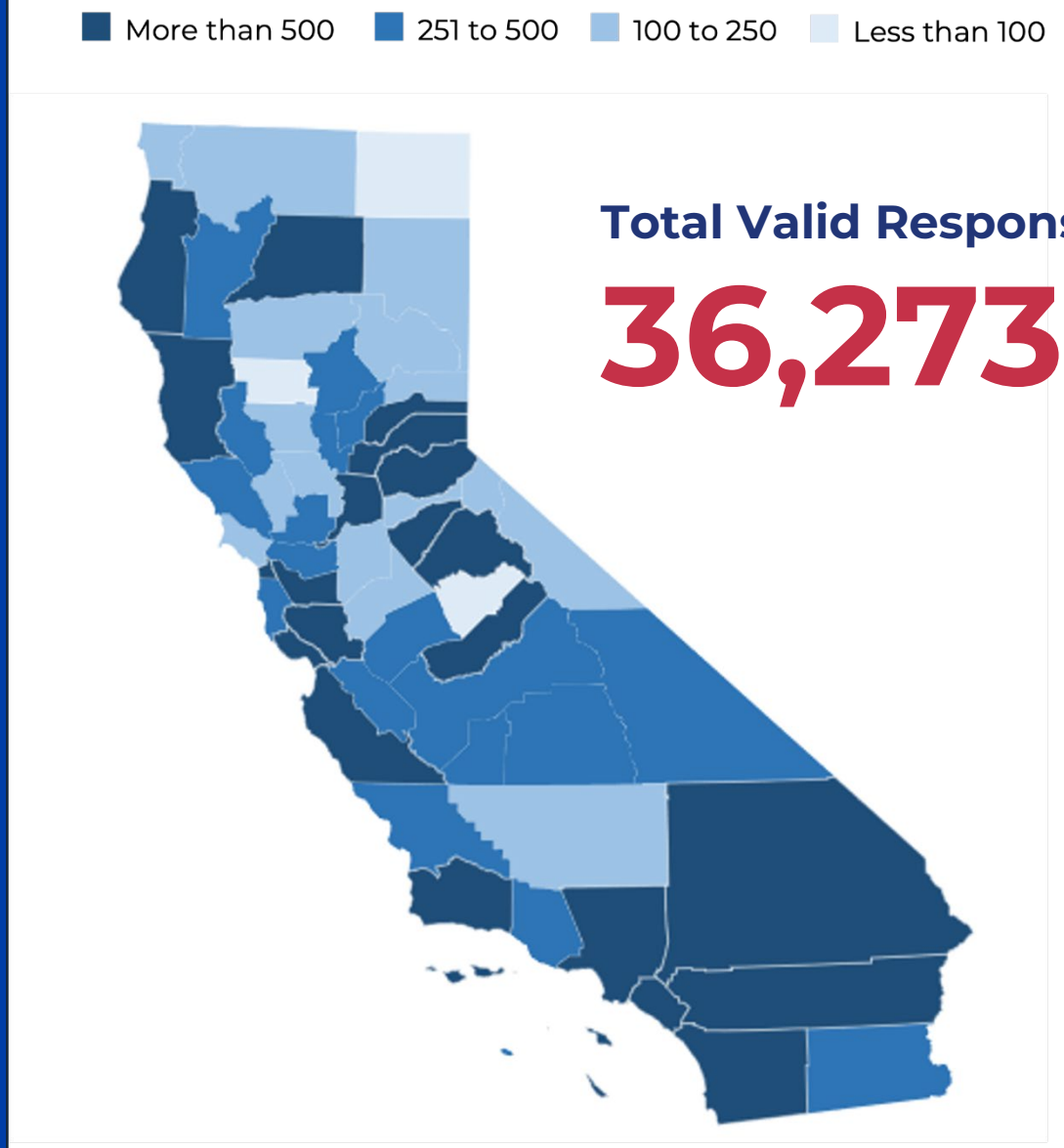
	Aging Individuals (60+)	Veterans	Individuals with Disabilities	Individuals with Limited English Proficiency	Racial or Ethnic Minority Groups	Tribal Communities	Individuals Primarily Residing in Rural Areas	Individuals in Households Below 150% FPL	Immigrants	Unhoused Individuals	Women	LGBTQIA+ Individuals
Aging Individuals (60+)	100%	75%	66%	40%	41%	43%	57%	48%	37%	33%	53%	44%
Veterans	16%	100%	18%	3%	8%	18%	15%	7%	4%	8%	8%	10%
Individuals with Disabilities	26%	34%	100%	16%	20%	31%	20%	30%	13%	37%	21%	32%
Individuals with Limited English Proficiency	6%	3%	7%	100%	18%	4%	3%	15%	41%	11%	9%	6%
Racial or Ethnic Minority Groups	33%	32%	41%	90%	100%	84%	24%	61%	83%	58%	44%	38%
Tribal Communities	1%	2%	2%	1%	3%	100%	3%	1%	1%	2%	2%	2%
Individuals Primarily Residing in Rural Areas	30%	38%	27%	11%	15%	56%	100%	15%	13%	12%	30%	28%
Individuals in Households Below 150% FPL	26%	17%	42%	51%	40%	29%	16%	100%	42%	75%	28%	29%
Immigrants	6%	3%	6%	43%	17%	5%	4%	13%	100%	8%	9%	8%
Unhoused Individuals	2%	2%	5%	4%	4%	4%	1%	7%	3%	100%	2%	5%
Women	48%	34%	48%	51%	49%	55%	52%	48%	47%	43%	100%	51%
LGBTQIA+ Individuals	5%	5%	9%	4%	5%	9%	6%	6%	5%	10%	6%	100%

** The percentages should be compared vertically across rows in a column.*

Online Public Survey Responses

The online Public Survey received responses from all 58 counties in California.

San Diego County, Los Angeles County, Mendocino County, San Francisco County, and El Dorado County were the top five participating counties, each with more than 1,000 survey respondents.



Total Valid Responses:

36,273

ONLINE PUBLIC SURVEY RESPONSES

Survey Results by County

Online Public Survey Responses by California County

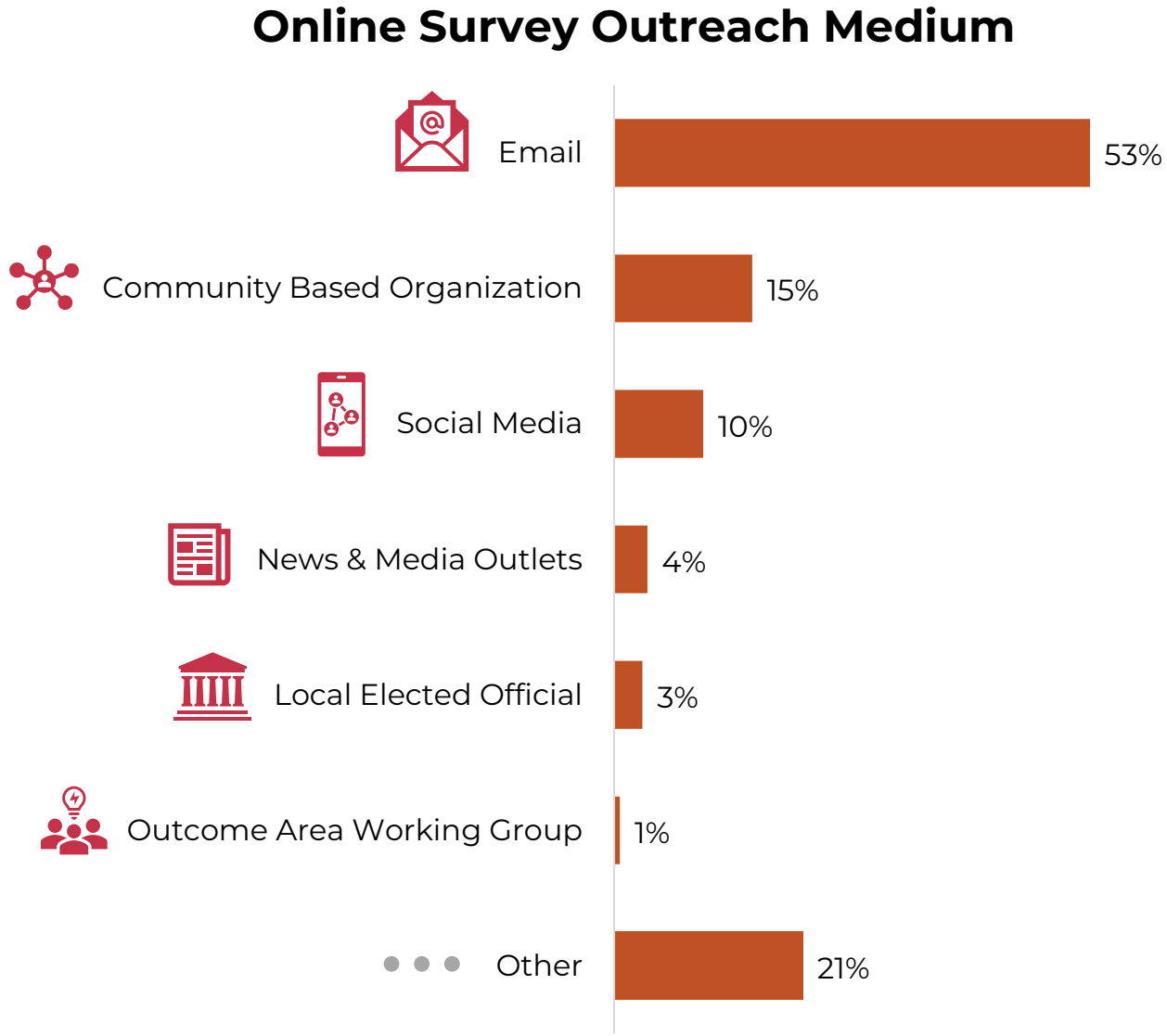
San Diego	10,966	**Santa Cruz**	509	**San Joaquin**	226
Los Angeles	3,023	**Butte**	489	**Yolo**	224
Mendocino	1,132	**Merced**	457	**Del Norte**	210
San Francisco	1,039	**Fresno**	451	**Napa**	205
El Dorado	1,016	**Contra Costa**	447	**Kern**	198
Tuolumne	899	**Inyo**	409	**Plumas**	183
Sacramento	798	**Sonoma**	405	**Stanislaus**	183
Shasta	724	**Yuba**	348	**Sierra**	174
Santa Clara	716	**Sutter**	340	**Mono**	156
Orange	654	**San Benito**	308	**Alpine**	146
Santa Barbara	645	**San Mateo**	300	**Amador**	141
Nevada	615	**Solano**	290	**Lassen**	138
Riverside	599	**Ventura**	279	**Marin**	130
Alameda	583	**Kings**	276	**Colusa**	121
Placer	578	**San Luis Obispo**	273	**Tehama**	109
Monterey	554	**Trinity**	270	**Mariposa**	36
Humboldt	547	**Lake**	267	**Glenn**	33
Madera	530	**Tulare**	267	**Modoc**	10
San Bernardino	527	**Imperial**	263	**Unanswered**	106
Calaveras	514	**Siskiyou**	237	**San Joaquin**	226

Online Public Survey Responses by Outreach Medium

53% of survey respondents received the survey via email, while 15% received it though a community-based organization, and another 10% through social media.

Other outreach sources reported include text messages, school & libraries, government websites, and family/friends/acquaintances.

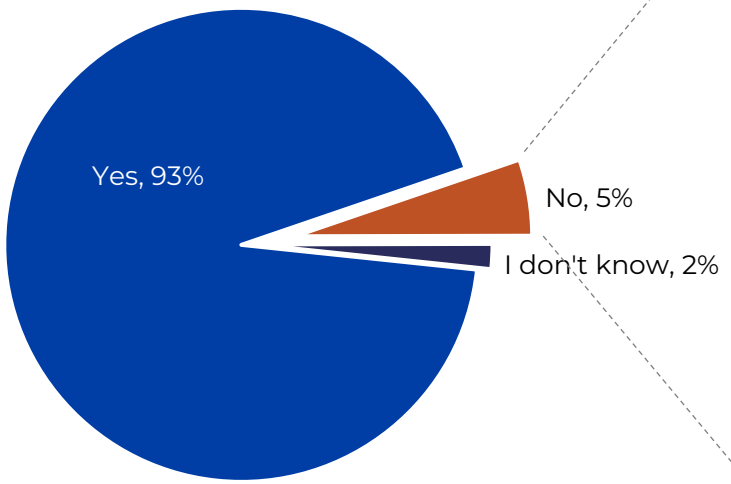
The Online Public Survey's high rate of responses in certain counties and in certain demographic groups was due to successful outreach campaigns conducted by organizations such as AARP, Communications Workers of America (CWA), L.A. ISD, RCRC, and SANDAG.



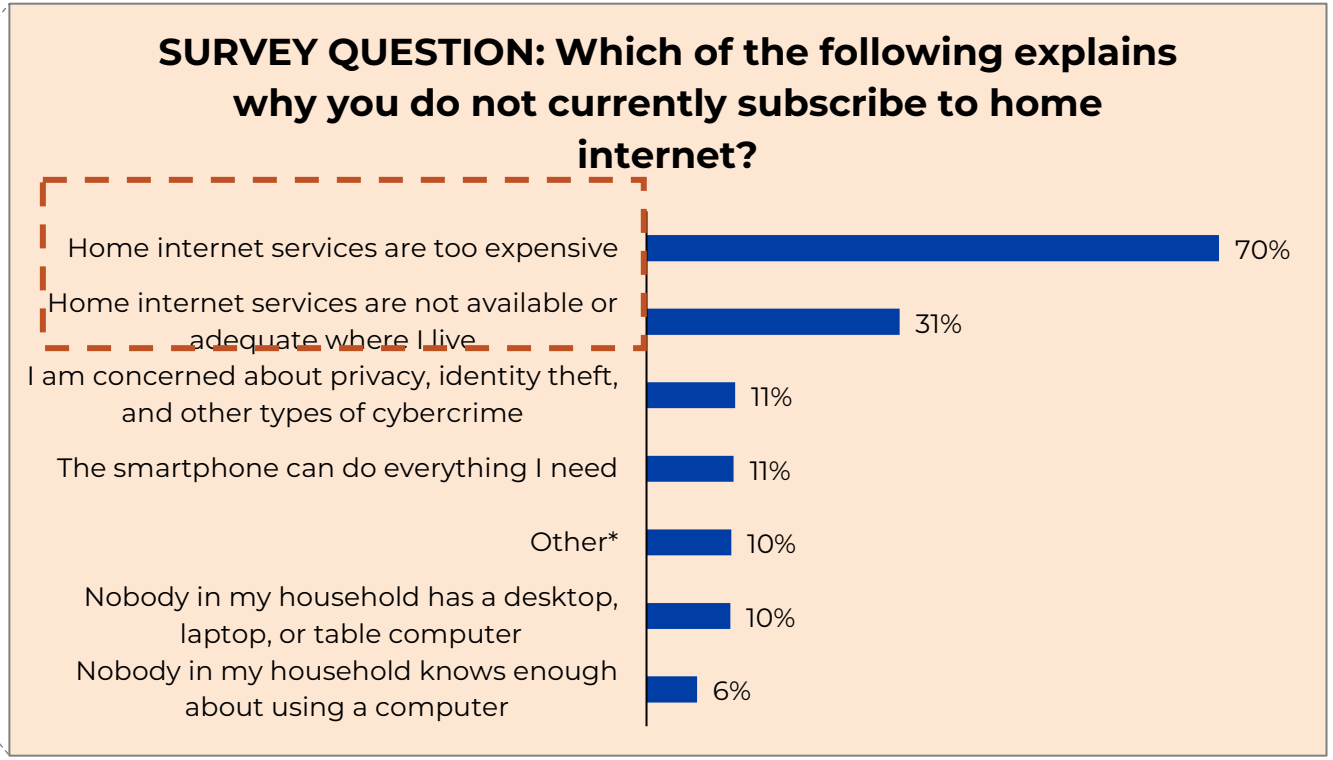
Broadband Availability & Affordability

While a majority of survey respondents can connect to the internet from home, 5% don't have internet service available in their home. The most prominent reason for not having internet service at home is cost (70% respondents) followed by lack of adequate internet services in the area (31% respondents).

SURVEY QUESTION: Can you connect to the internet from home?



SURVEY QUESTION: Which of the following explains why you do not currently subscribe to home internet?

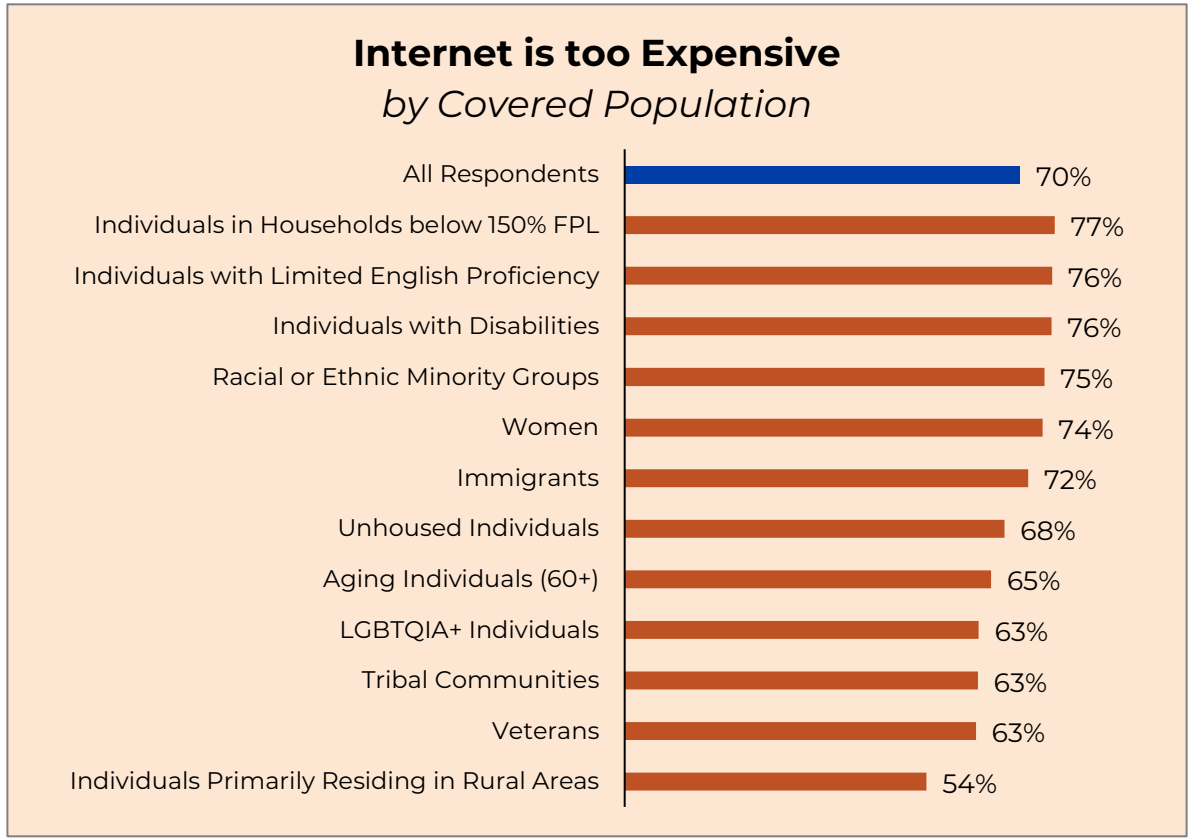


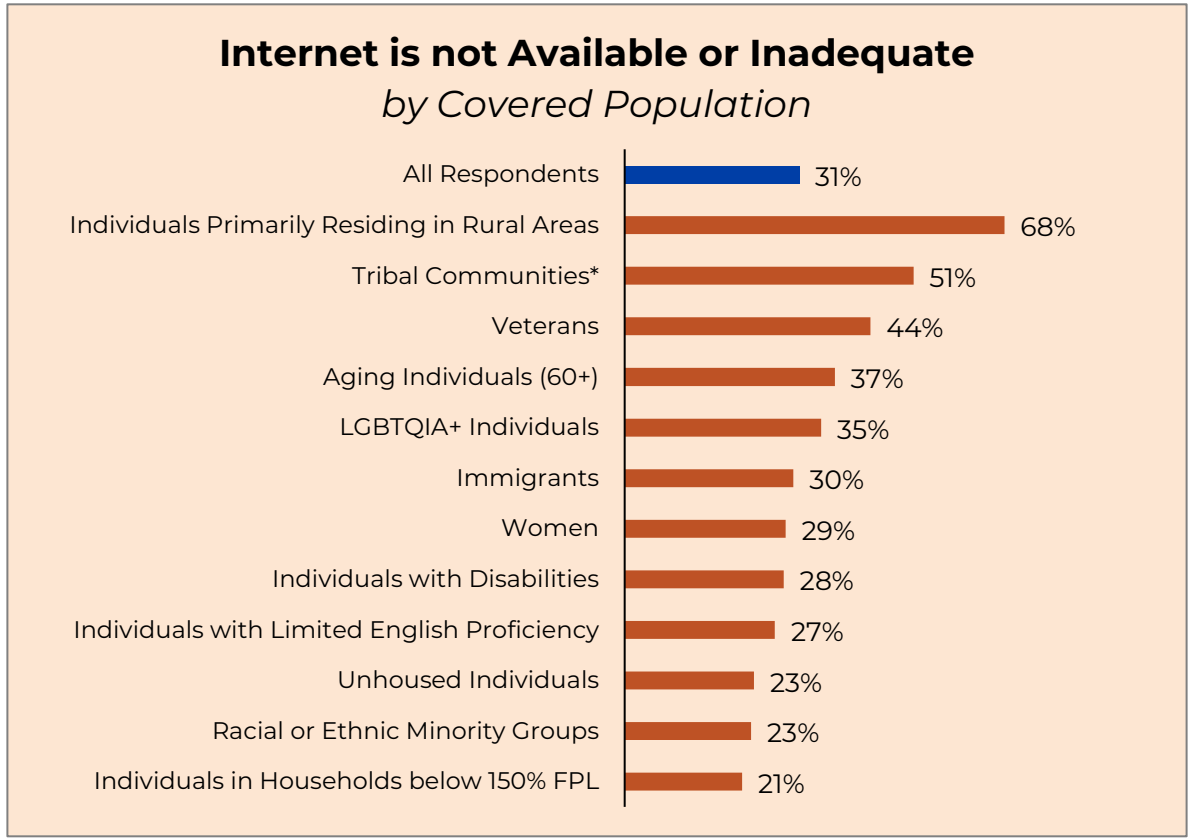
** Includes being unhoused/homeless and lack of digital/tech skills.*

Broadband Access & Affordability

Cost of internet service is a similar concern for almost all covered population respondents who don't have home internet. However, internet availability or adequacy largely affects individuals in rural areas, tribal communities, and veterans.

QUESTION: Which of the following explains why you do not currently subscribe to home internet?



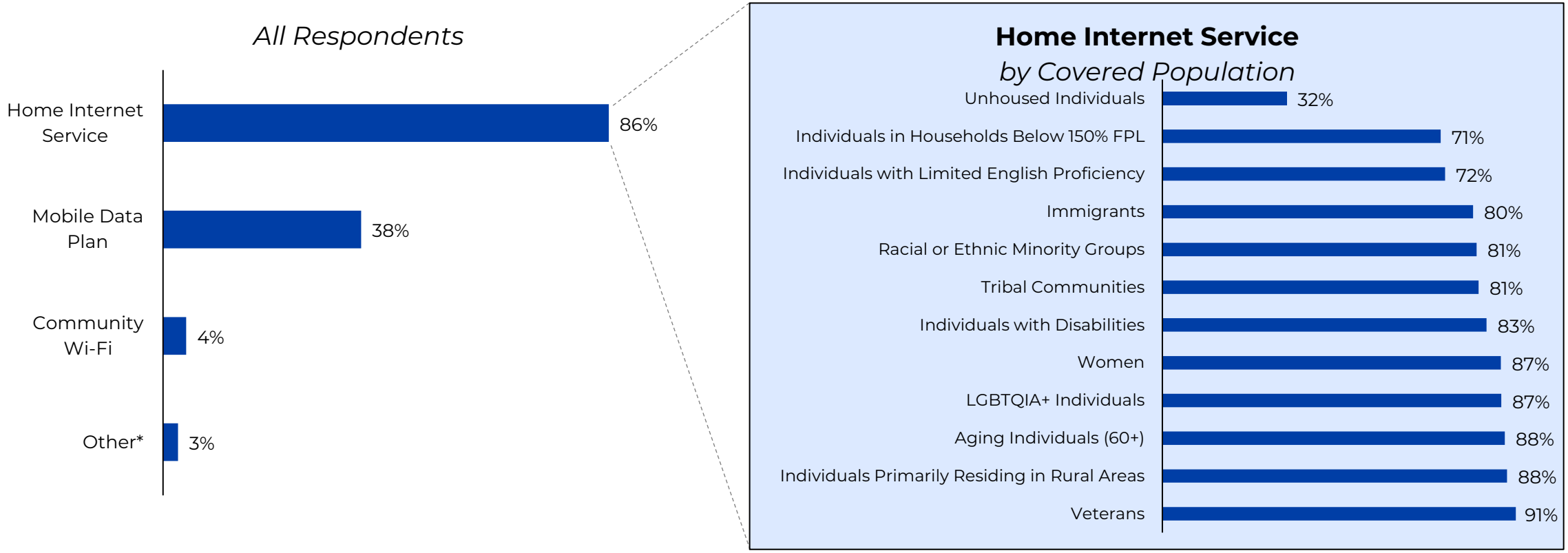


** Result may not be statistically significant due to small sample size*

Broadband Access & Affordability

86% of respondents subscribe to home internet service. However, only 32% of unhoused individuals connect to the internet using home internet access. Individuals below poverty and individuals with limited English proficiency are other groups having a lower respondent share with home internet subscription.

SURVEY QUESTION: How do you connect to the internet at home?

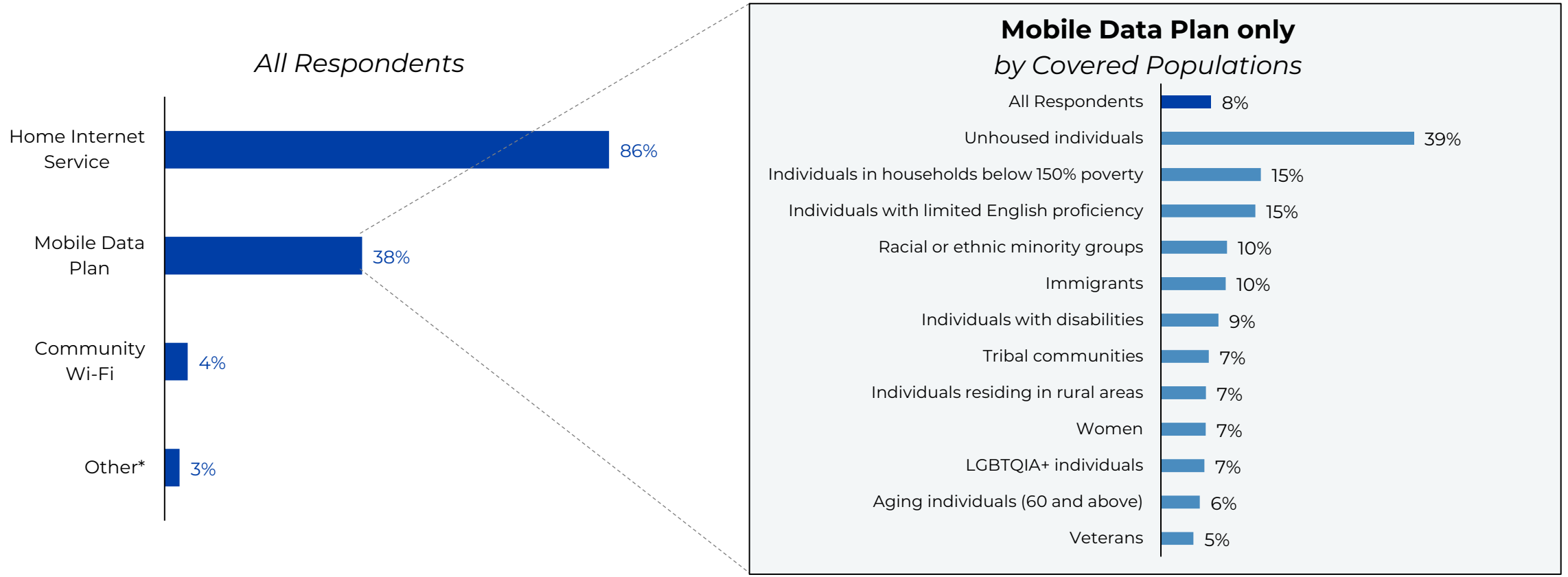


** Includes Satellite, personal hotspots such as MiFi, etc.*

Broadband Availability & Affordability

8% of respondents access internet through mobile data plan only. This share of much higher for unhoused individuals (39% respondents), individuals below poverty (15% respondents), and individuals with limited English proficiency (15% respondents).

SURVEY QUESTION: How do you connect to the internet at home?

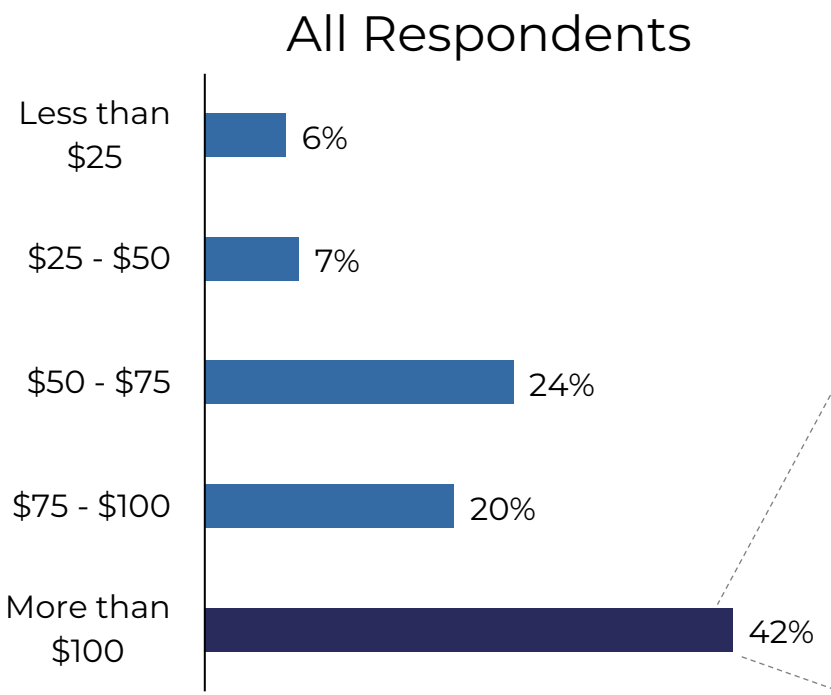


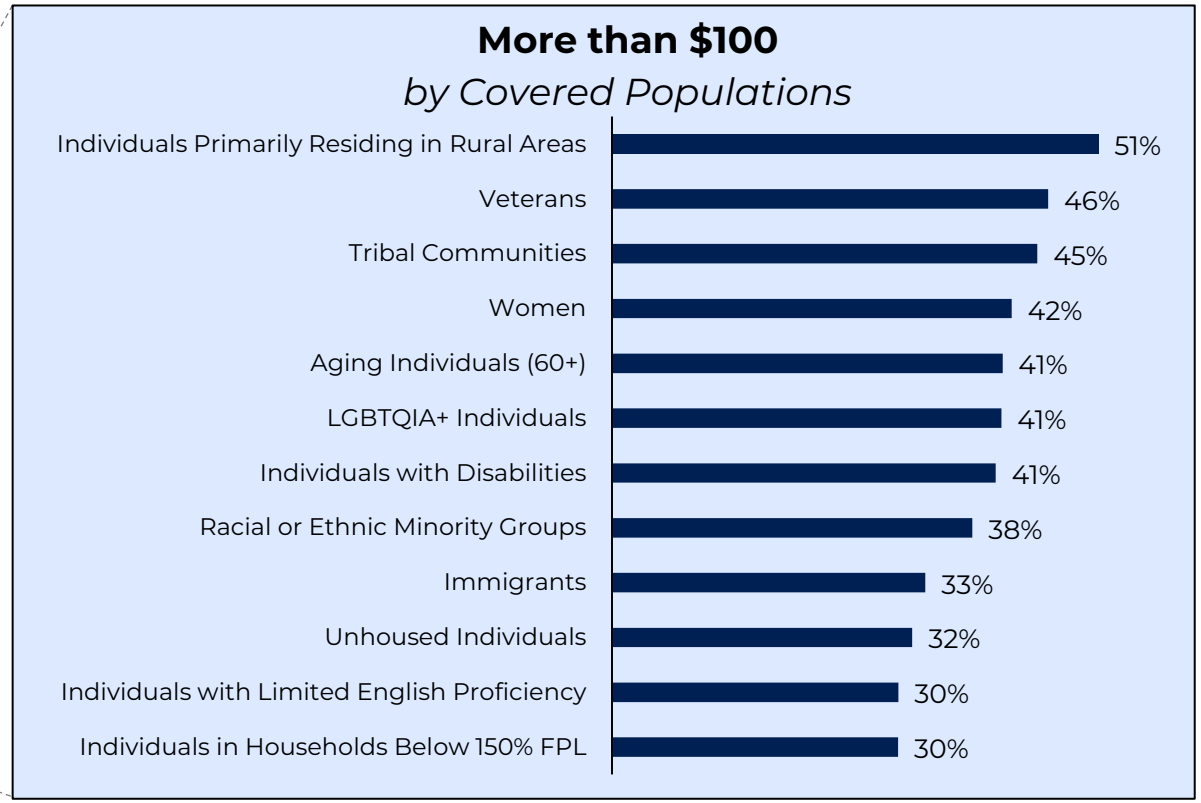
** Includes Satellite, personal hotspots such as MiFi, etc.*

Broadband Access & Affordability

42% of respondents pay more than $100 for their home internet service. This number is even higher for individuals in rural areas (51%), veterans (46%), and tribal communities (46%).

SURVEY QUESTION: Approximately how much is your total monthly bill for home internet?



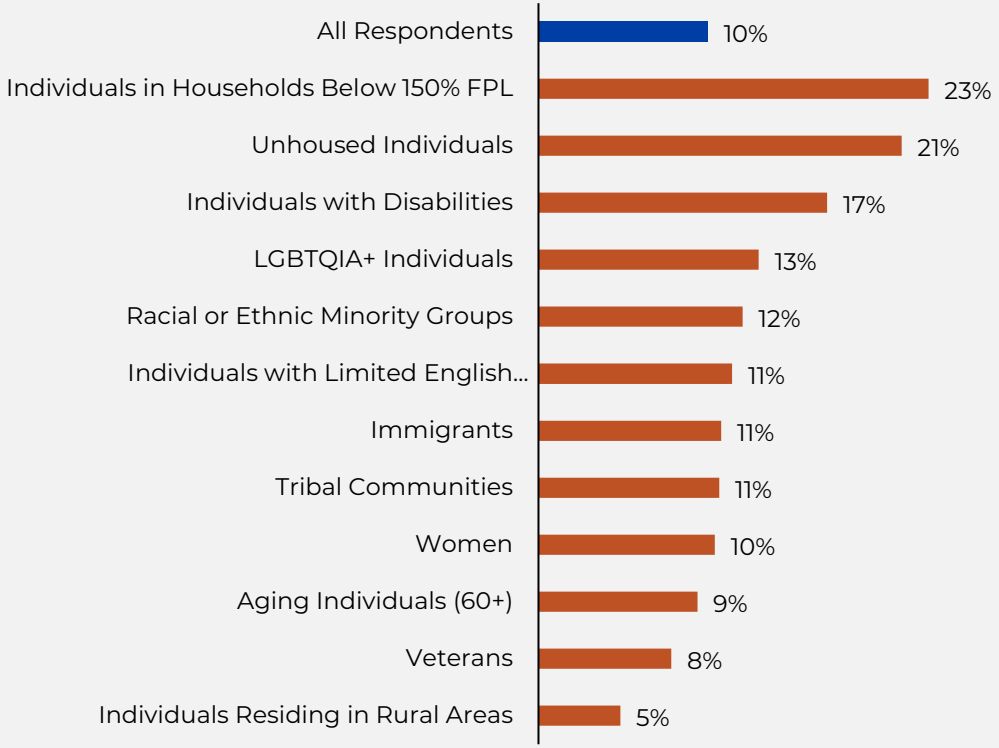


** Monthly bill may include bundled services such as TV, phone service, etc.*

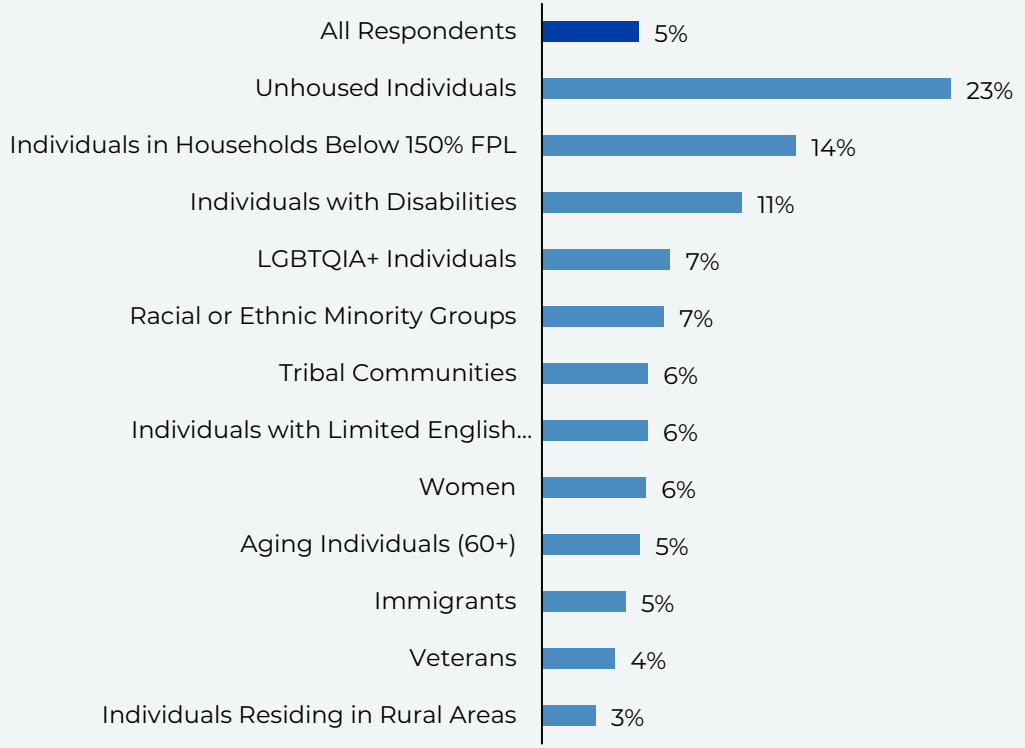
Broadband Access & Affordability

Individuals living at or below the federal poverty level, unhoused individuals, and individuals with disabilities have high enrollment rates in ACP and Lifeline. On the other hand, individuals in rural areas and veterans have the lowest enrollment rates in these programs.

Survey Respondents Enrolled in ACP



Survey Respondents Enrolled in Lifeline

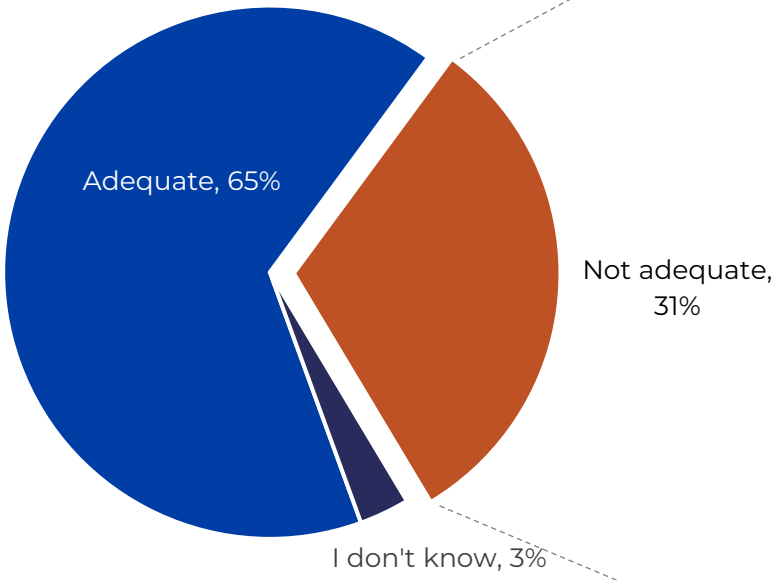


Broadband Access & Affordability

31% of respondents feel that their internet service at home is not adequate or good enough for their needs and/or their family's needs. This number is even higher for covered populations, ranging as high as 44% for unhoused individuals and 42% for tribal communities.

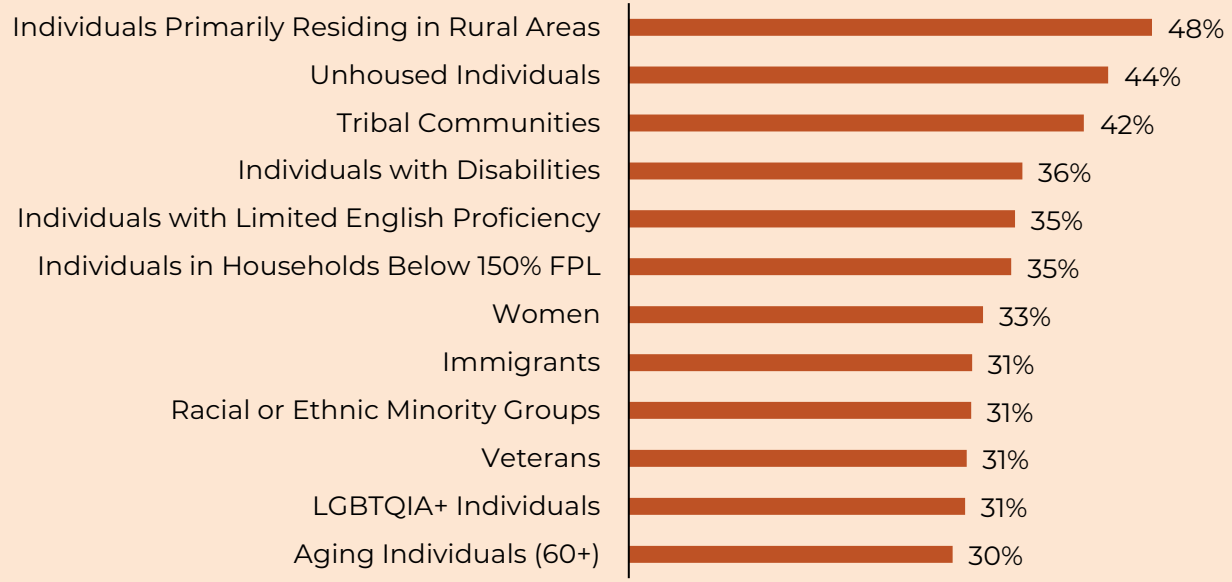
SURVEY QUESTION: Which of these options best describes your internet service at home in terms of speed and reliability?

All Respondents



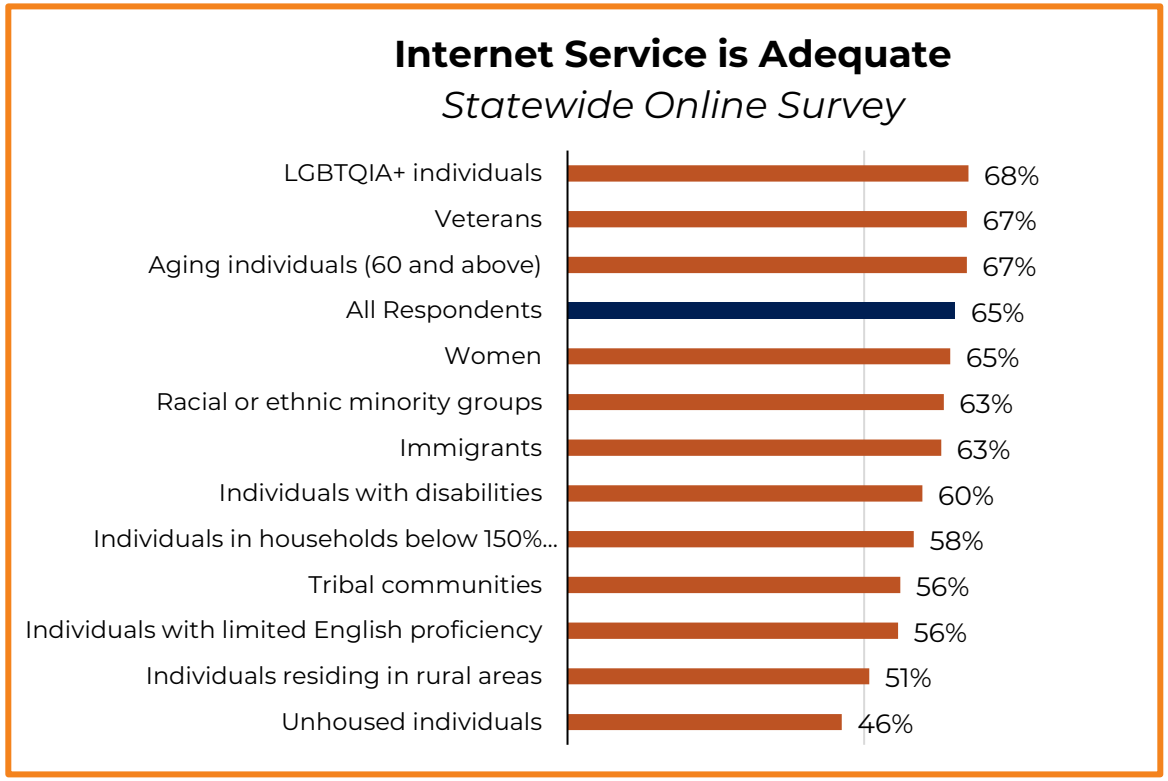
Survey Respondents that Describe their Internet Service as Being Not Adequate

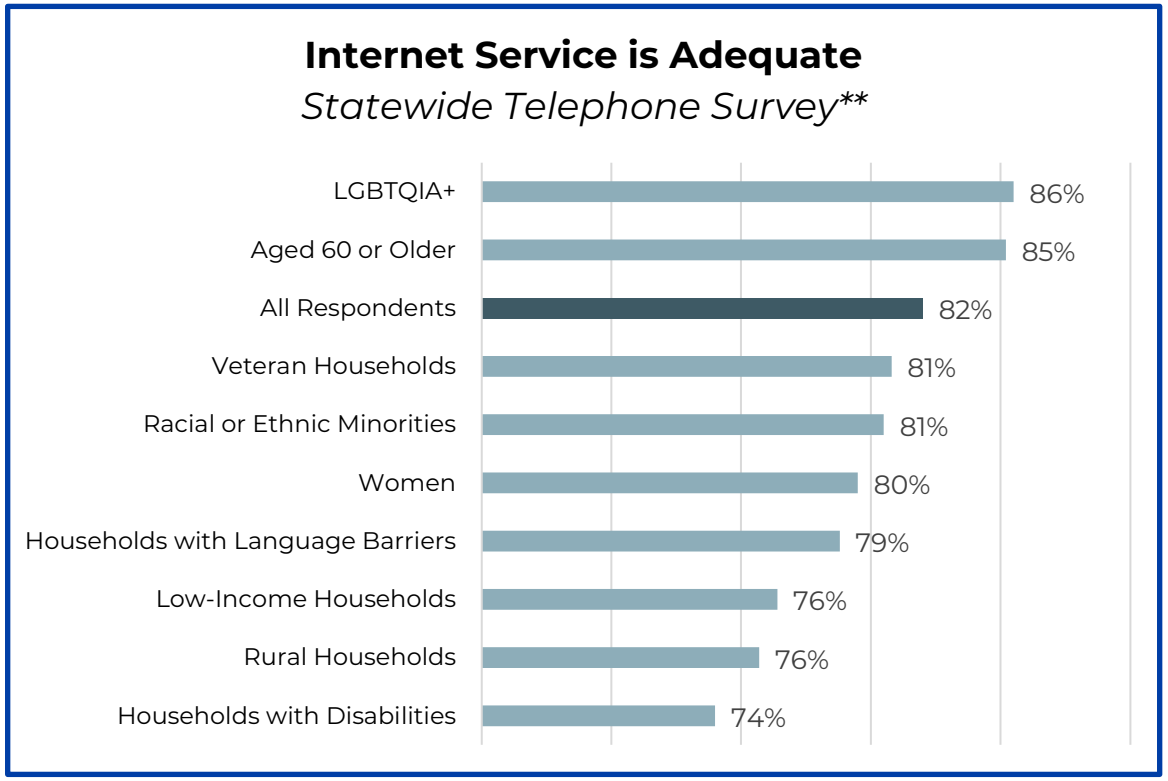
by Covered Population



Broadband Access & Affordability

A higher share of covered populations on the telephone survey report that their internet service is adequate for their needs compared to the online survey.*





** Statewide Telephone Survey collected responses through random digit dialing, while oversampling for rural areas.*

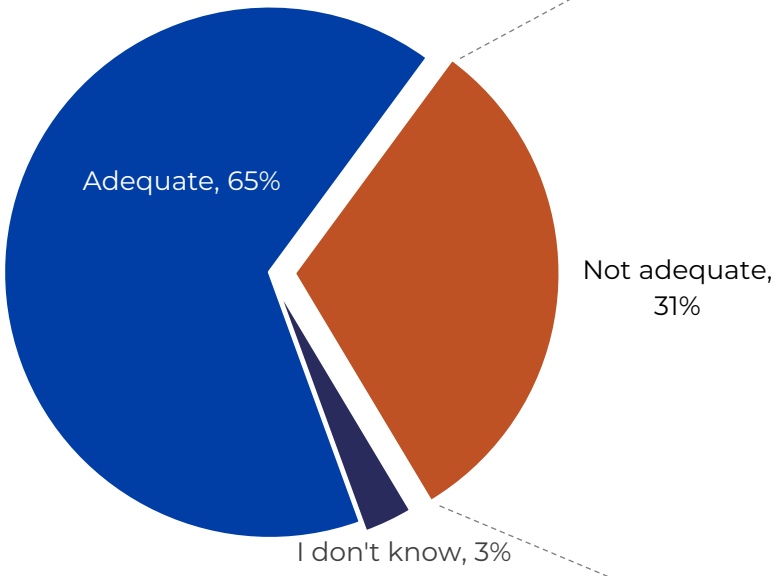
** Statewide Telephone Survey does not ask if respondents identify as immigrants, unhoused individuals, or belonging to tribal communities*

Broadband Access & Affordability

31% of respondents feel that their internet service at home is not adequate or good enough for their needs and/or their family's needs. This number is even higher for covered populations, ranging as high as 44% for unhoused individuals and 42% for tribal communities.

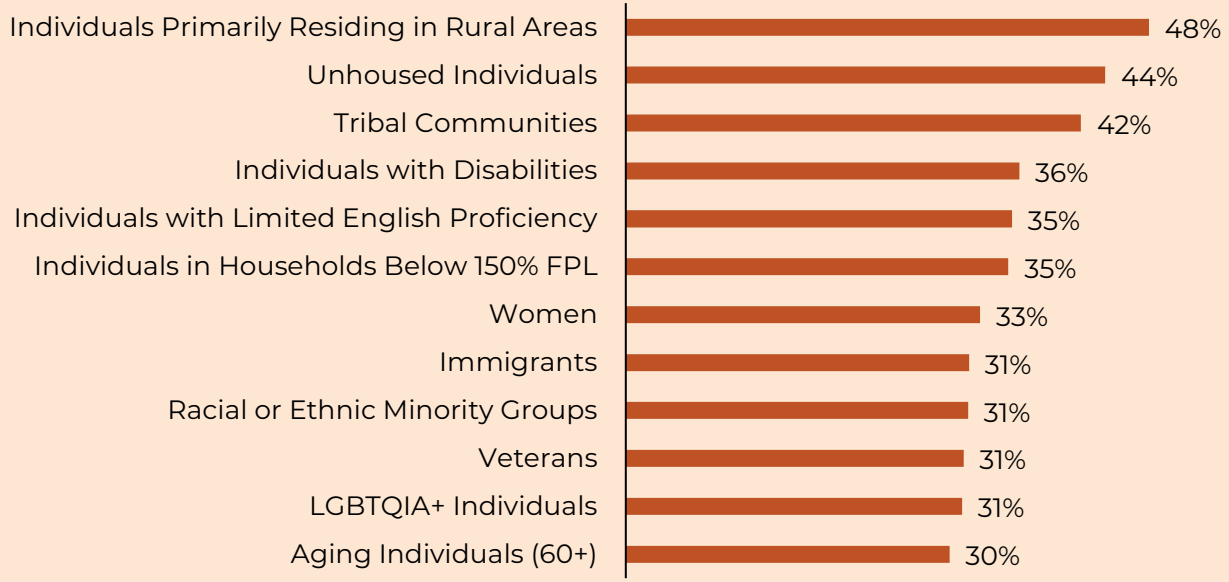
SURVEY QUESTION: Which of these options best describes your internet service at home in terms of speed and reliability?

All Respondents



Survey Respondents that Describe their Internet Service as Being Not Adequate

by Covered Population

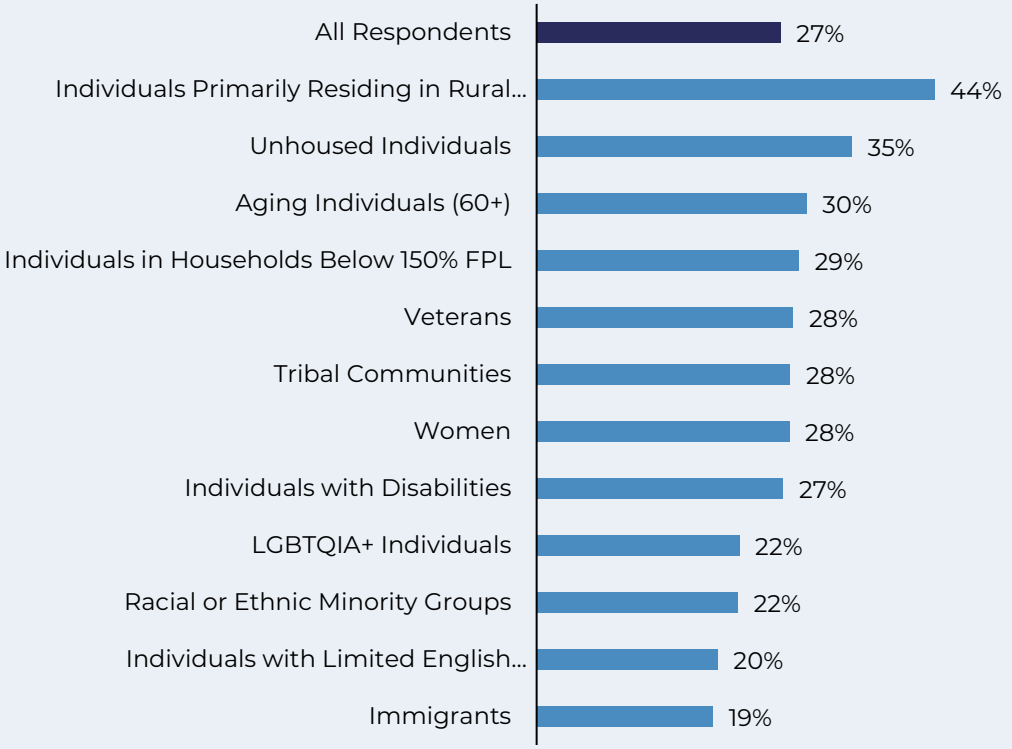


Broadband Access & Affordability

For the speed test respondents, 27% had download speed below 25 Mbps and 20% had upload speeds below 3 Mbps. Individuals in rural areas, unhoused individuals, and aging individuals had the greatest share of respondents with inadequate speeds.

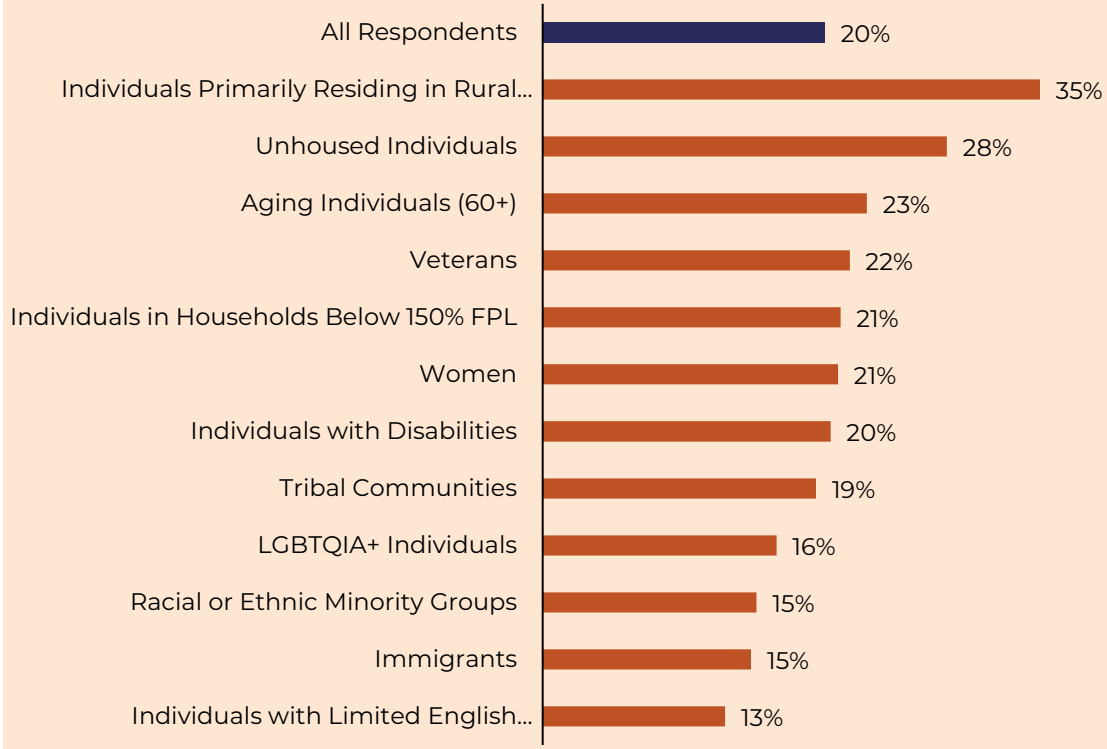
Download Speed

Respondents with download speed below 25 Mbps



Upload Speed

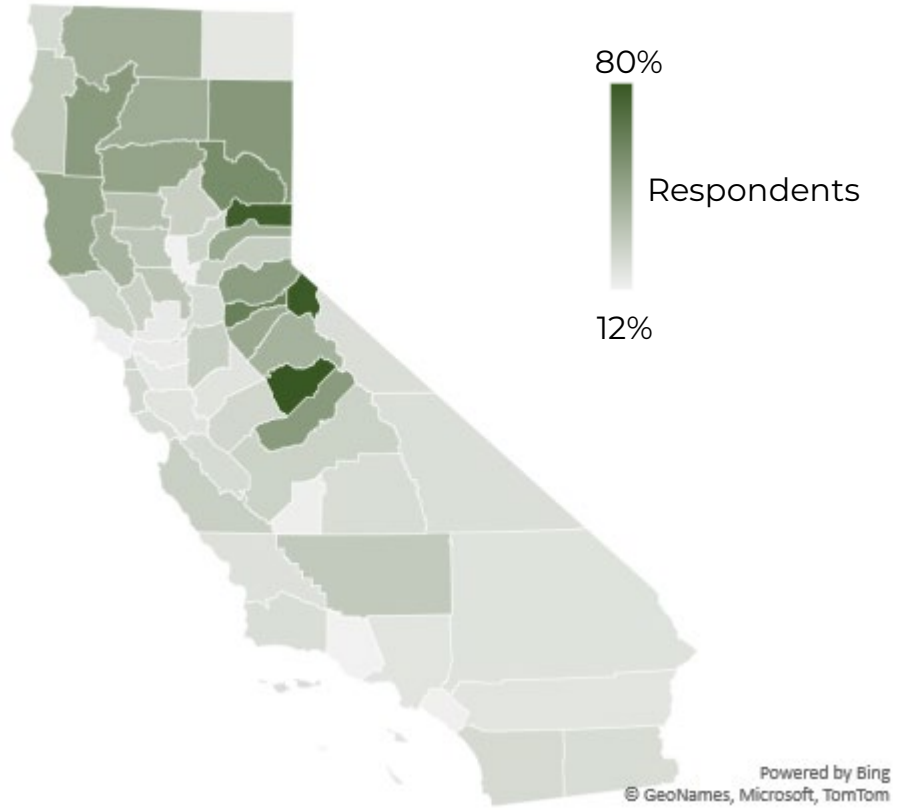
Respondents with upload speed below 3 Mbps



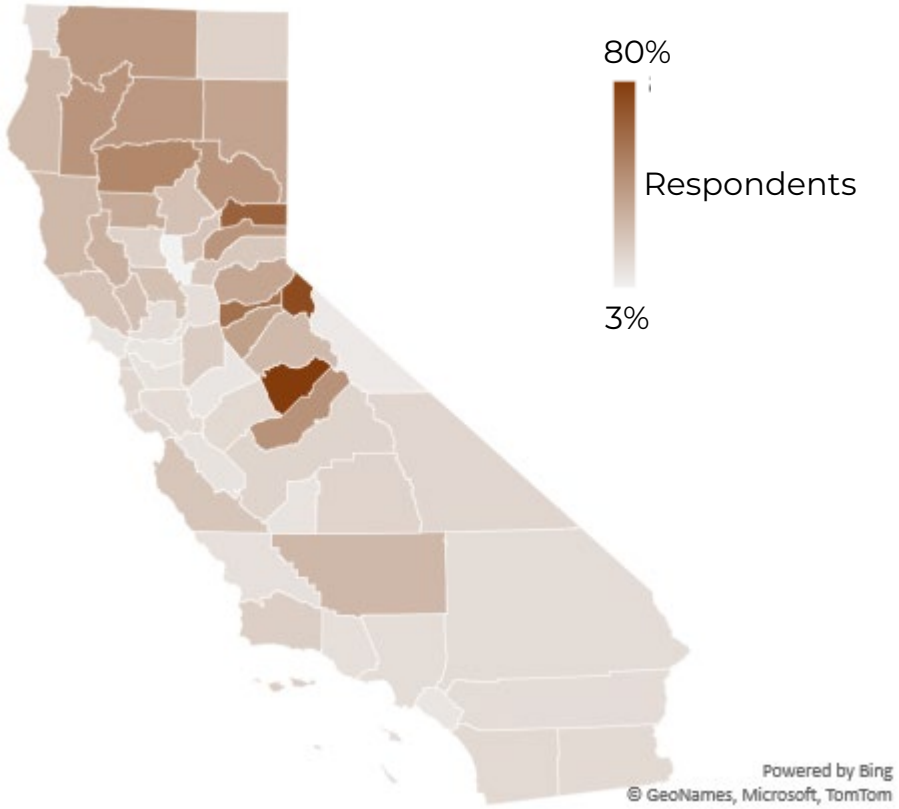
Broadband Access & Affordability

Respondents from the Sierra and Northern Interior were identified as having the greatest share of respondents with download/upload speeds below 25/3 Mbps. For some parts of Sierra, 80% of respondents reported inadequate speeds.

Download Speed below 25 Mbps



Upload Speed below 3 Mbps



Broadband Access & Affordability

Inadequate Download and Upload Speeds By California County (Alameda to Nevada Counties)

	Download Speed (% Below 25 Mbps)	Upload Speed (% Below 3 Mbps)
Alameda County	16%	10%
Alpine County	79%	73%
Amador County	62%	58%
Butte County	27%	24%
Calaveras County	43%	38%
Colusa County	27%	14%
Contra Costa County	15%	9%
Del Norte County	22%	13%
El Dorado County	49%	35%
Fresno County	26%	16%
Glenn County	33%	33%
Humboldt County	30%	27%
Imperial County	21%	14%
Inyo County	20%	15%
Kern County	29%	28%
Kings County	13%	9%
Lake County	38%	30%
Lassen County	51%	36%
Los Angeles County	18%	12%
Madera County	50%	43%
Marin County	13%	9%
Mariposa County	80%	80%
Mendocino County	47%	27%
Merced County	24%	14%
Modoc County	17%	17%
Mono County	20%	7%
Monterey County	27%	22%
Napa County	26%	24%
Nevada County	44%	42%

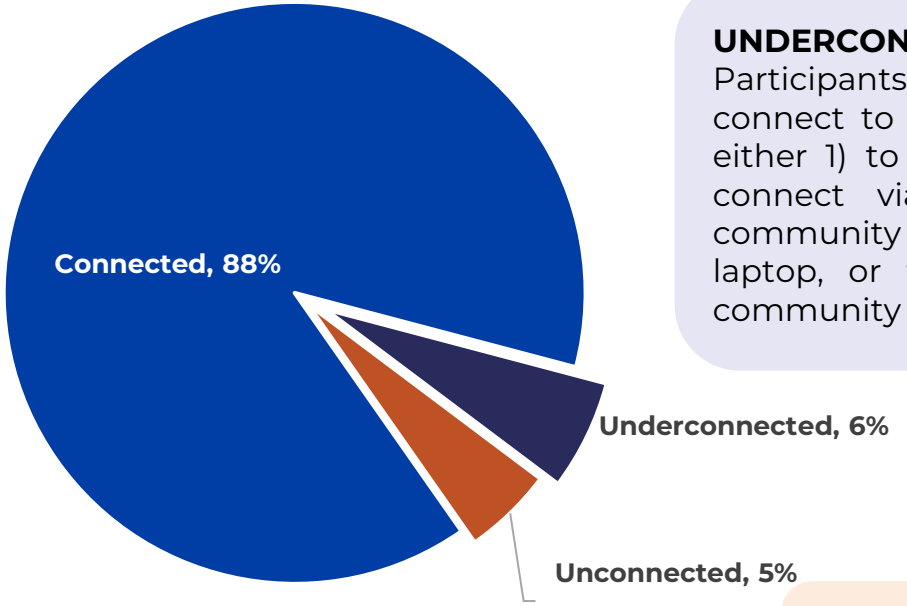
Inadequate Download and Upload Speeds By California County (Orange to Yuba Counties)

	Download Speed (% Below 25 Mbps)	Upload Speed (% Below 3 Mbps)
Orange County	13%	9%
Placer County	27%	21%
Plumas County	56%	42%
Riverside County	18%	13%
Sacramento County	22%	12%
San Benito County	22%	10%
San Bernardino County	19%	13%
San Diego County	22%	14%
San Francisco County	24%	16%
San Joaquin County	27%	19%
San Luis Obispo County	19%	11%
San Mateo County	23%	14%
Santa Barbara County	21%	18%
Santa Clara County	18%	13%
Santa Cruz County	21%	15%
Shasta County	42%	41%
Sierra County	77%	64%
Siskiyou County	42%	41%
Solano County	15%	12%
Sonoma County	26%	23%
Stanislaus County	18%	9%
Sutter County	12%	3%
Tehama County	46%	48%
Trinity County	49%	42%
Tulare County	21%	16%
Tuolumne County	40%	27%
Ventura County	12%	11%
Yolo County	31%	24%
Yuba County	25%	23%

Broadband Access & Affordability

By combining home internet access type and the devices used to connect to the internet, the survey respondents can be categorized as Connected, Underconnected, and Unconnected as explained below. Essentially, Connected individuals can make the most of their internet connection and devices, while Underconnected individuals have limited usability from their internet and device combination. Unconnected individuals cannot connect to the internet from home.

CONNECTED (88%)
Participants who report that they are able to connect to the internet and can be identified to have a desktop, laptop, or tablet, and are able to connect via a subscription to home internet service or mobile data plan. Participants who report only using a smartphone but are able to connect via a subscription to home internet service are also identified as connected.



UNDERCONNECTED (6%)
Participants who report that they are able to connect to the internet and can be identified either 1) to have only a smartphone and can connect via only a mobile data plan or community Wi-Fi, or 2) to have a desktop, laptop, or tablet and can connect via only community Wi-Fi.

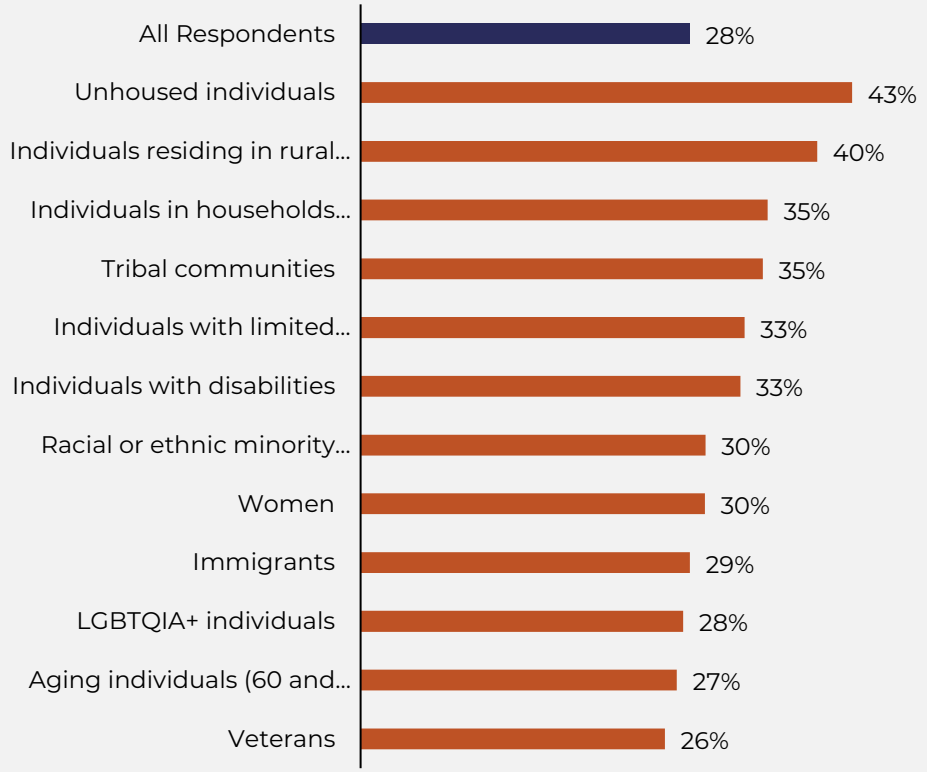
UNCONNECTED (5%)
Participants who report that they are NOT able to connect to the internet

Broadband Access & Affordability

Unhoused individuals, individuals in rural areas, and individuals below poverty experience a greater share of unreliable internet service in terms of service interruptions and speed consistency. Similarly, individuals in rural areas, tribal communities, and unhoused individuals experience unreliable customer service from their internet providers.

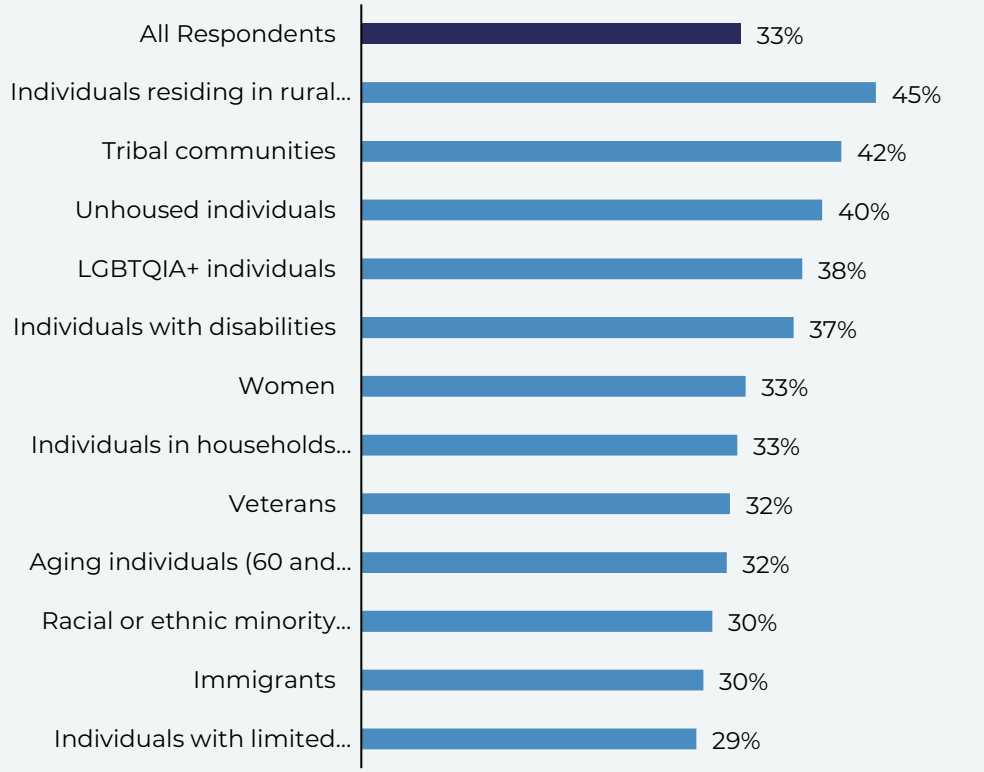
Internet Service Reliability

Respondents with less than reliable internet



Customer Service Reliability

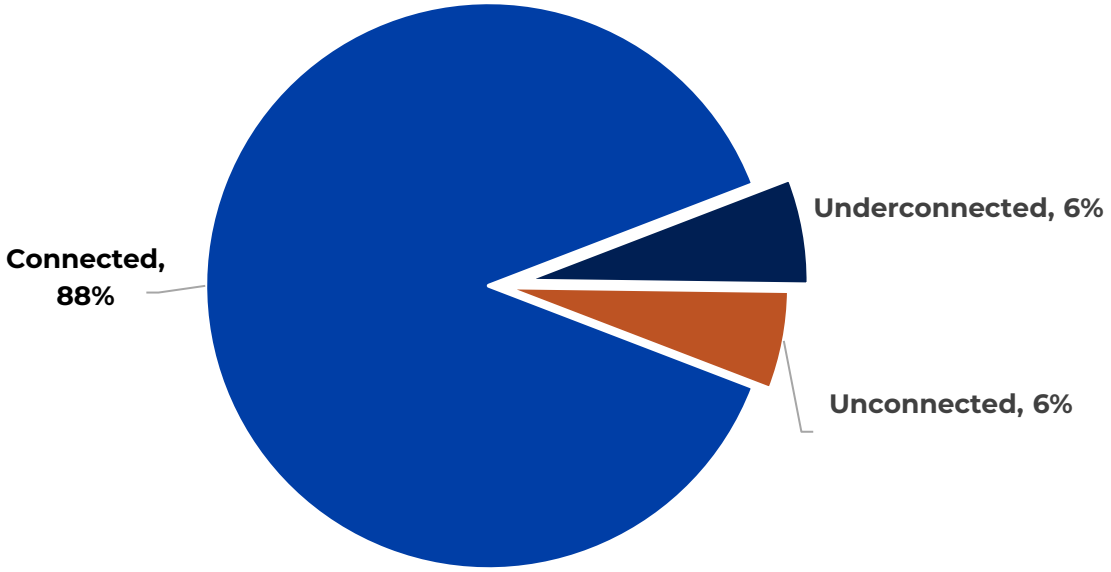
Respondents with less than reliable customer service from ISP



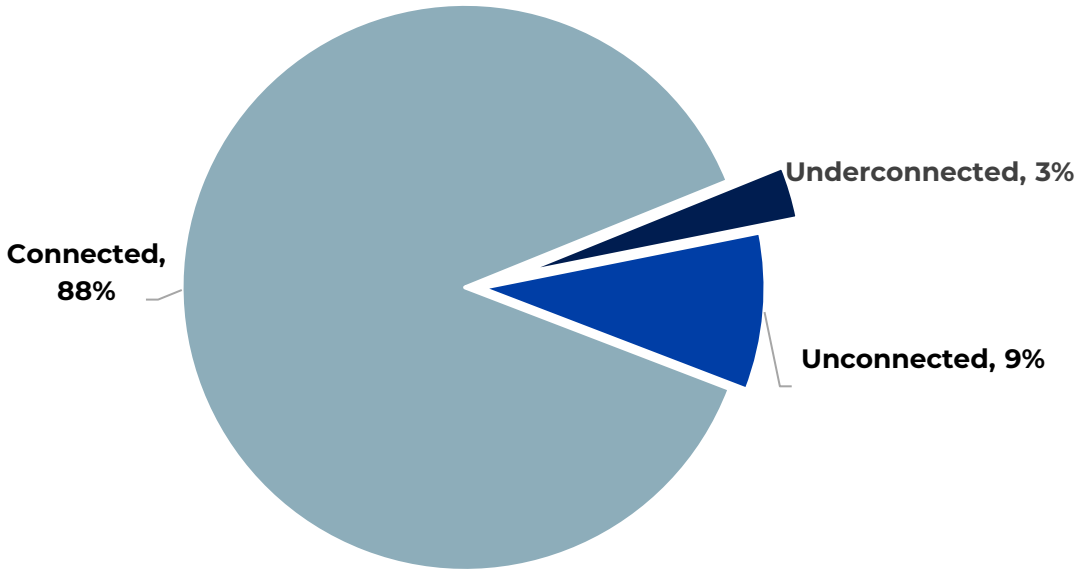
Broadband Access & Affordability

The telephone survey captured responses from a relatively larger share of Unconnected respondents compared to the online survey. On the other hand, the online survey consists of a larger share of Underconnected respondents than the telephone survey. The share of Connected respondents remains the same for both the surveys.

Connected Type – Statewide Online Survey



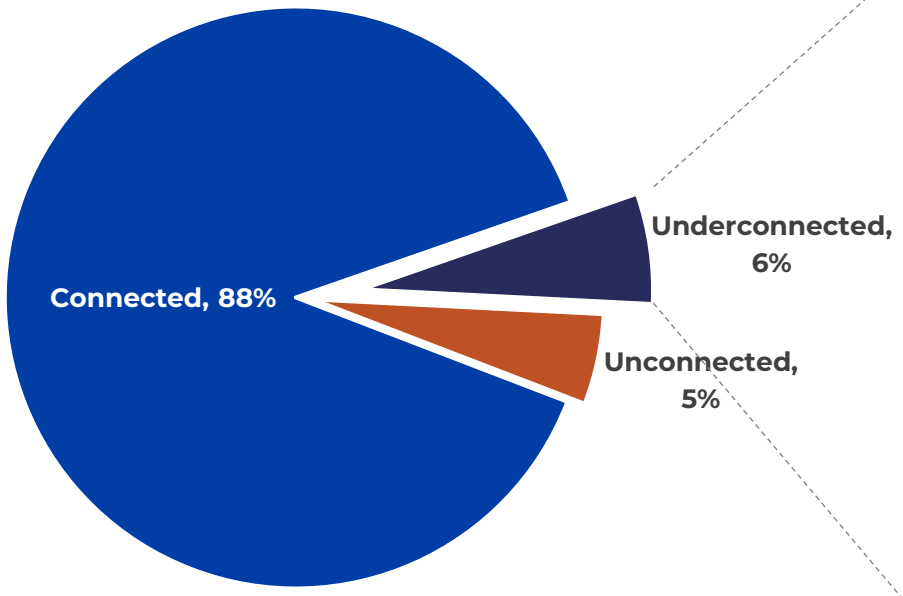
Connected Type – Statewide Telephone Survey

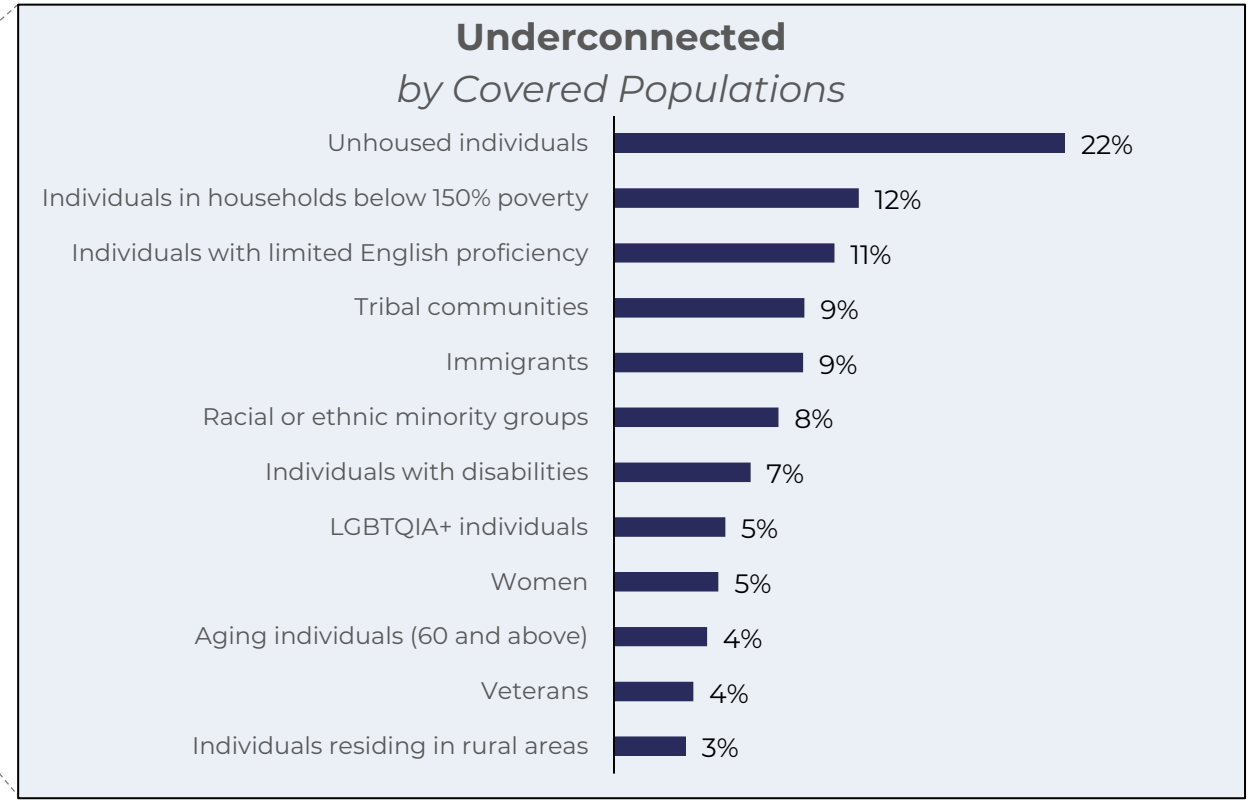


Note: The same share of Connected respondents for both the online and the telephone surveys implies that some results from both the surveys can be comparable. In such cases, the telephone survey responses can provide insights on whether the ground reality is over or underrepresented by the online survey.

Broadband Access & Affordability

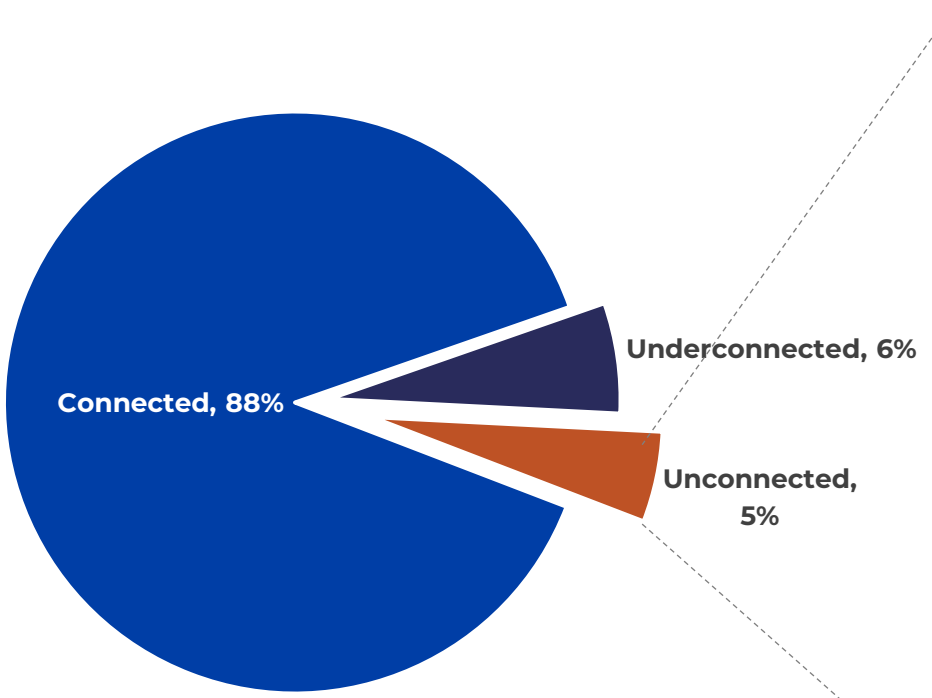
Underconnected individuals are mainly comprised of unhoused individuals (22% respondents), individuals below poverty (12% respondents), and individuals with limited English proficiency (11% respondents)

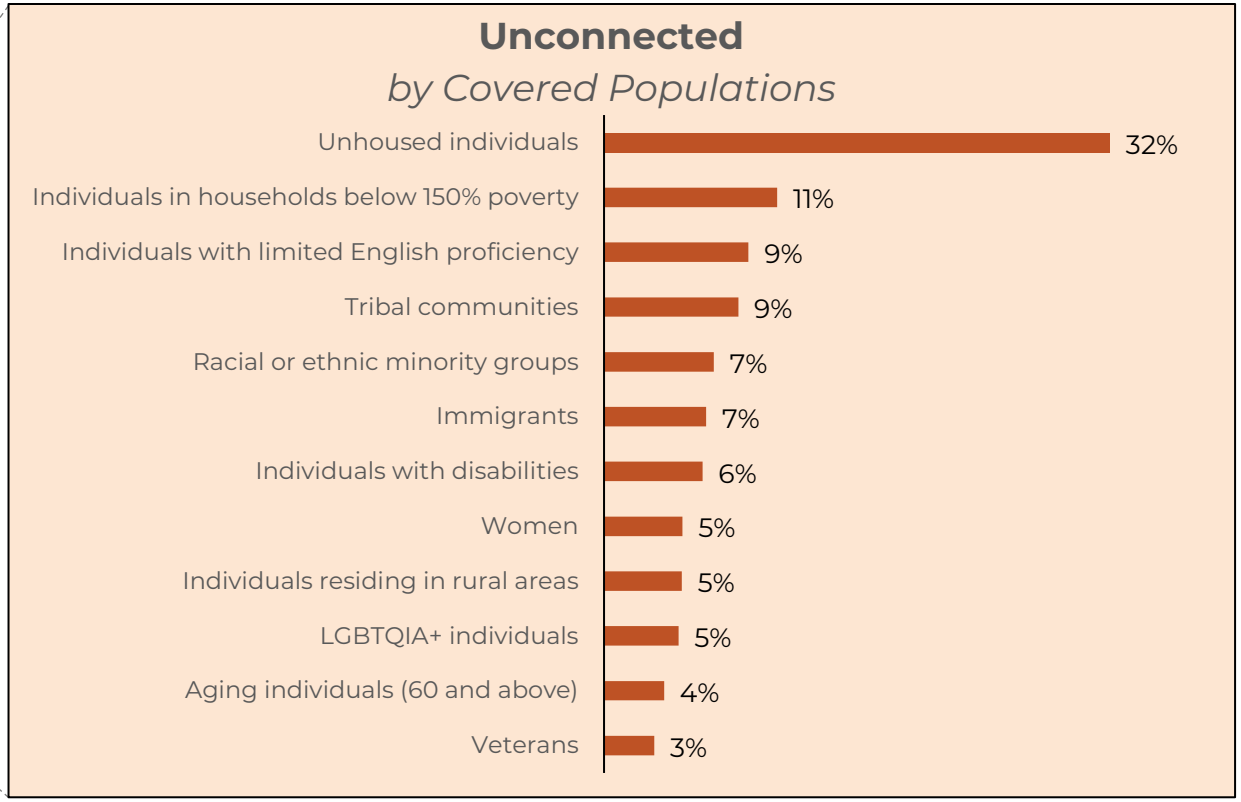




Broadband Access & Affordability

Similar to Underconnected individuals, Unconnected individuals consist mainly of unhoused individuals (32% respondents), followed by individuals below poverty (11% respondents), and individuals with limited English proficiency (9% respondents)

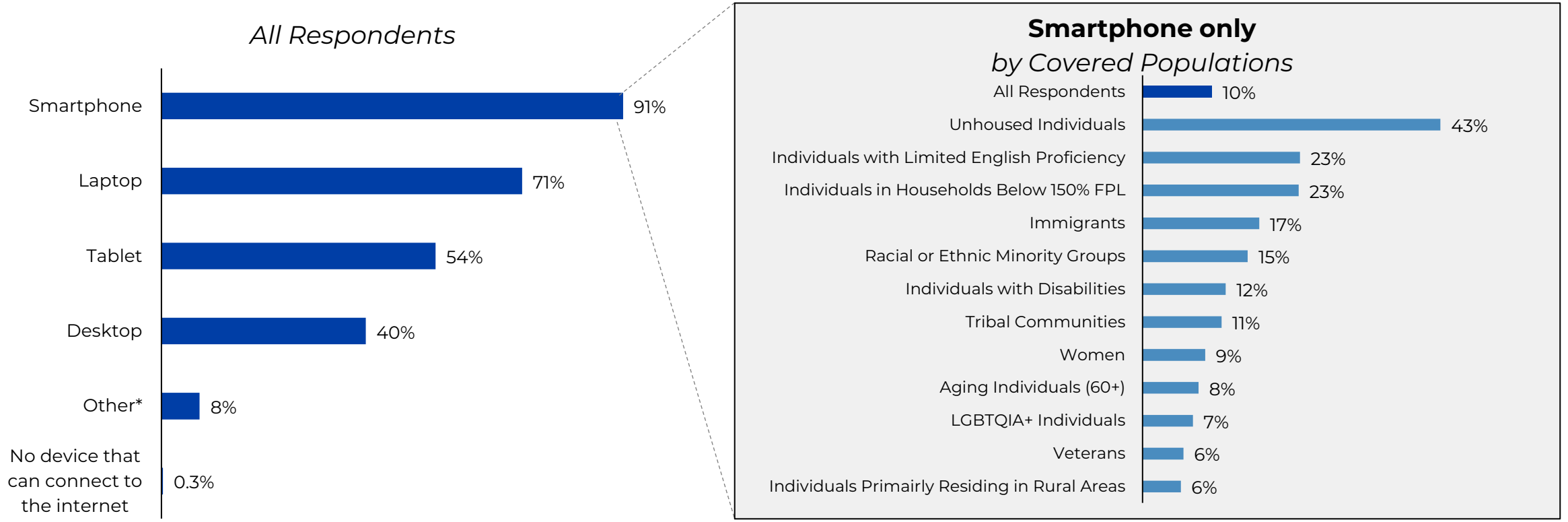




Device Access & Affordability

A smartphone is the most abundantly available device to survey respondents. However, 43% of unhoused individuals rely on smartphones only to access the internet. This is followed by individuals with limited English proficiency and individuals in households below 150% of FPL, where 23% of respondents use smartphones only.

SURVEY QUESTION: Which of the following devices do you use to connect to the internet at home?

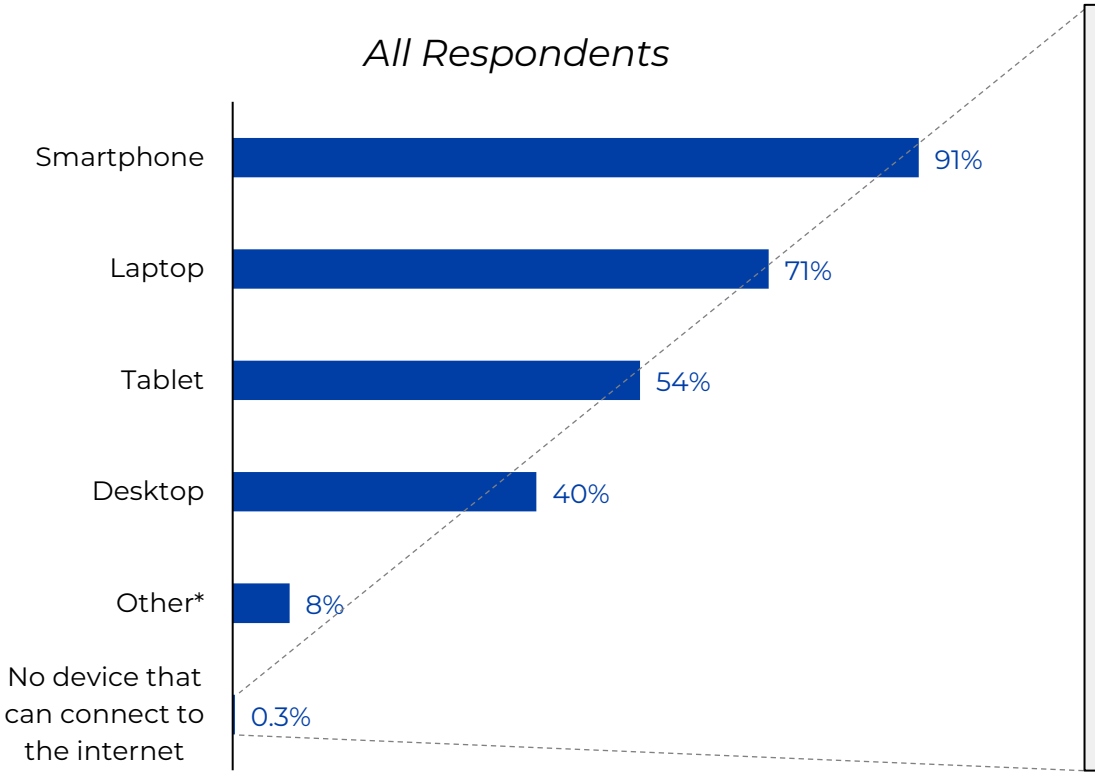


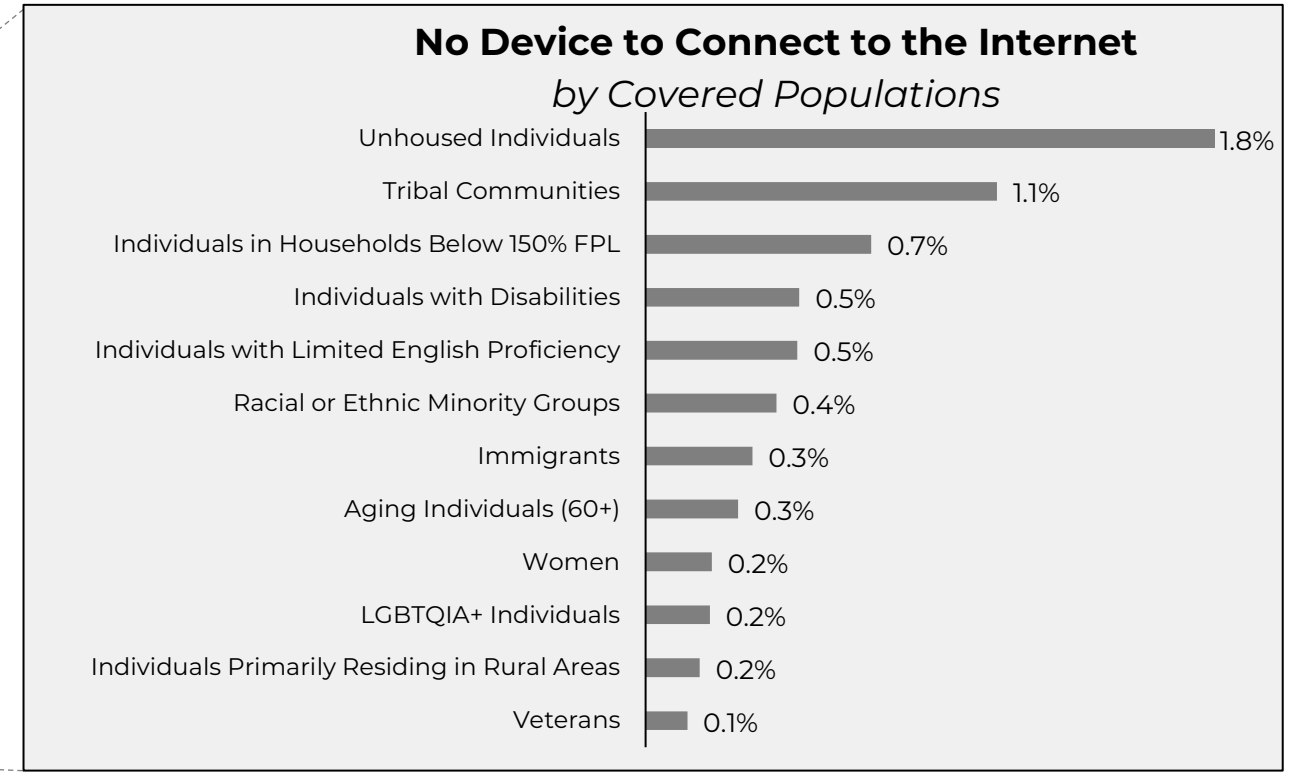
** Includes TV, gaming consoles, IOT devices, other smart devices, etc.*

Device Access & Affordability

Only 0.3% of survey respondents don't have access to a device that can connect to the internet. However, a relatively larger share of unhoused individuals, tribal communities, and individuals in households below 150% of FPL don't have a device that can connect to the internet.

SURVEY QUESTION: Which of the following devices do you use to connect to the internet at home?



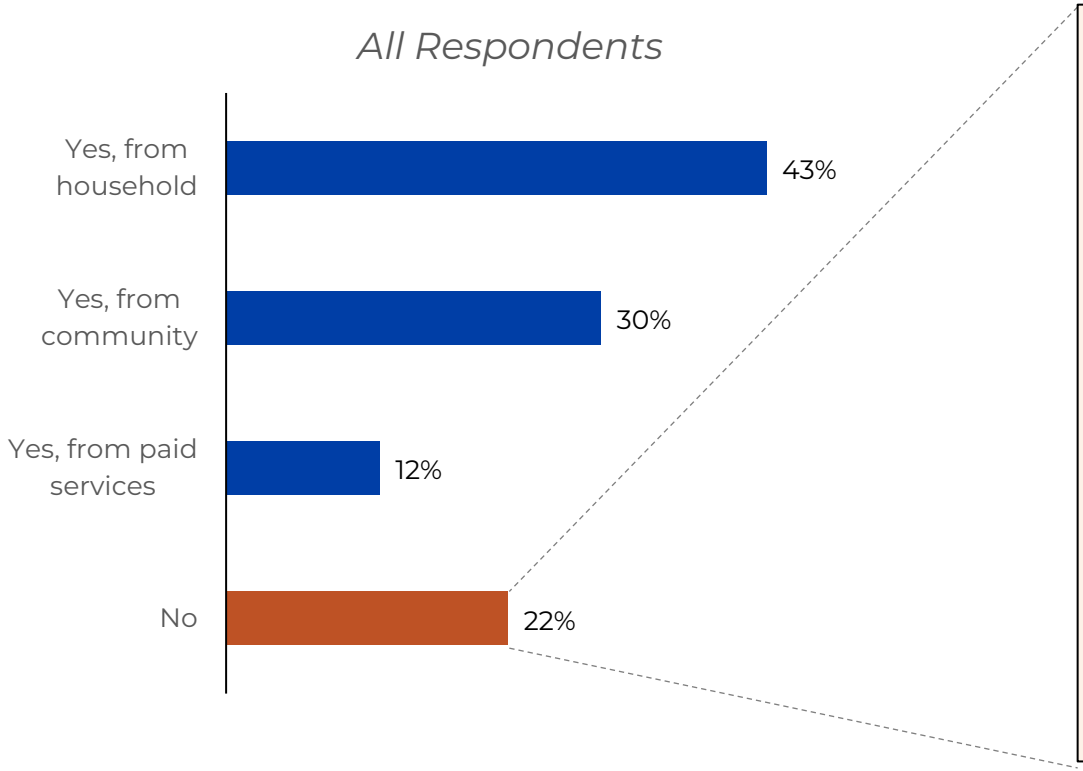


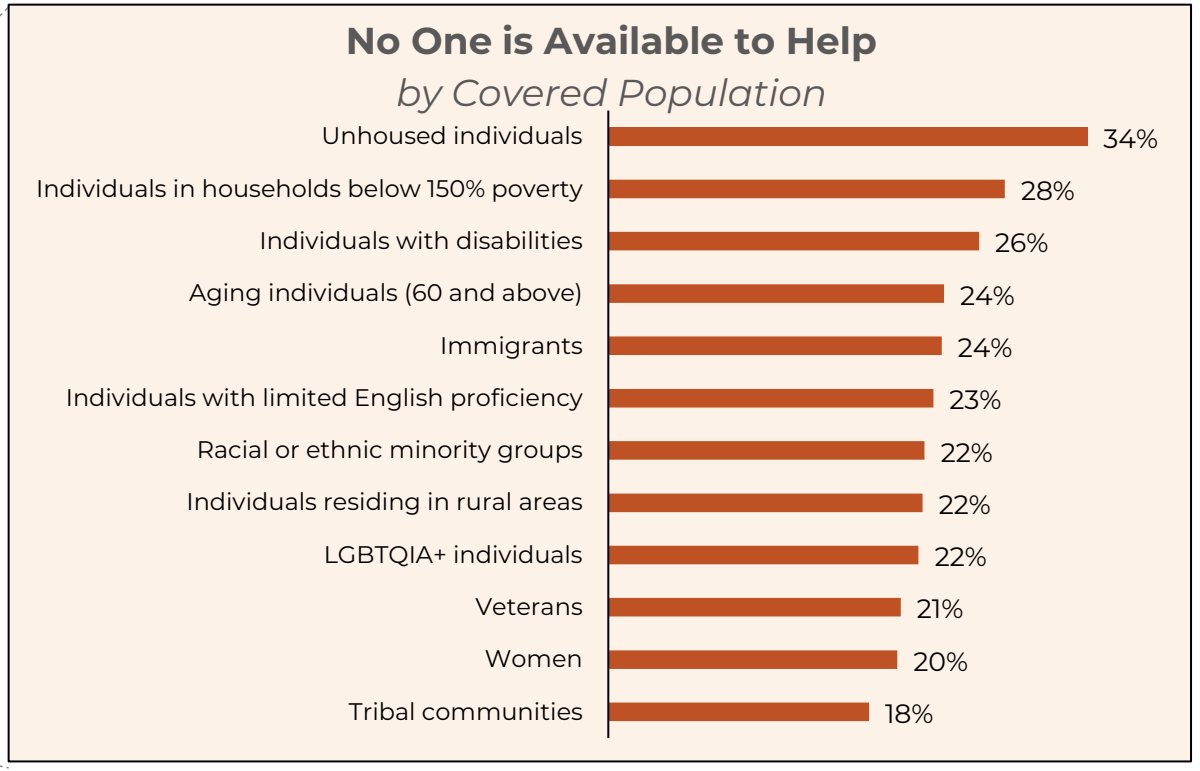
** Includes TV, gaming consoles, IOT devices, other smart devices, etc.*

Device Access & Technical Support

22% of respondents cannot access device or internet support nearby. Among covered populations, a greater share of unhoused individuals, individuals below poverty, and individuals with disabilities lack access to nearby support.

SURVEY QUESTION: If you have trouble with computers or the internet, is there someone in your household or community who can help you?



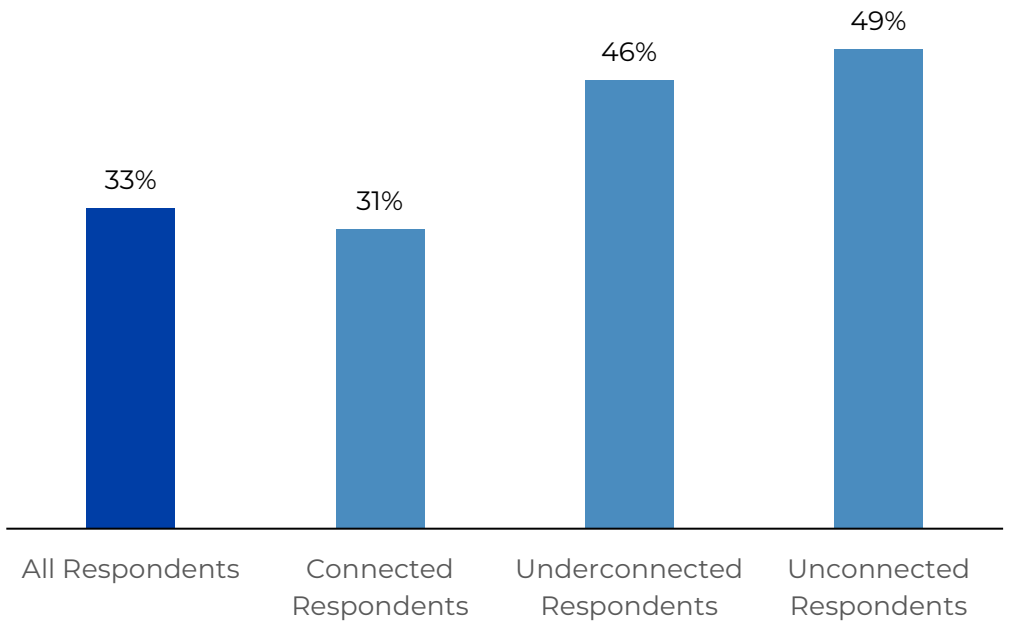


Digital Literacy & Skills

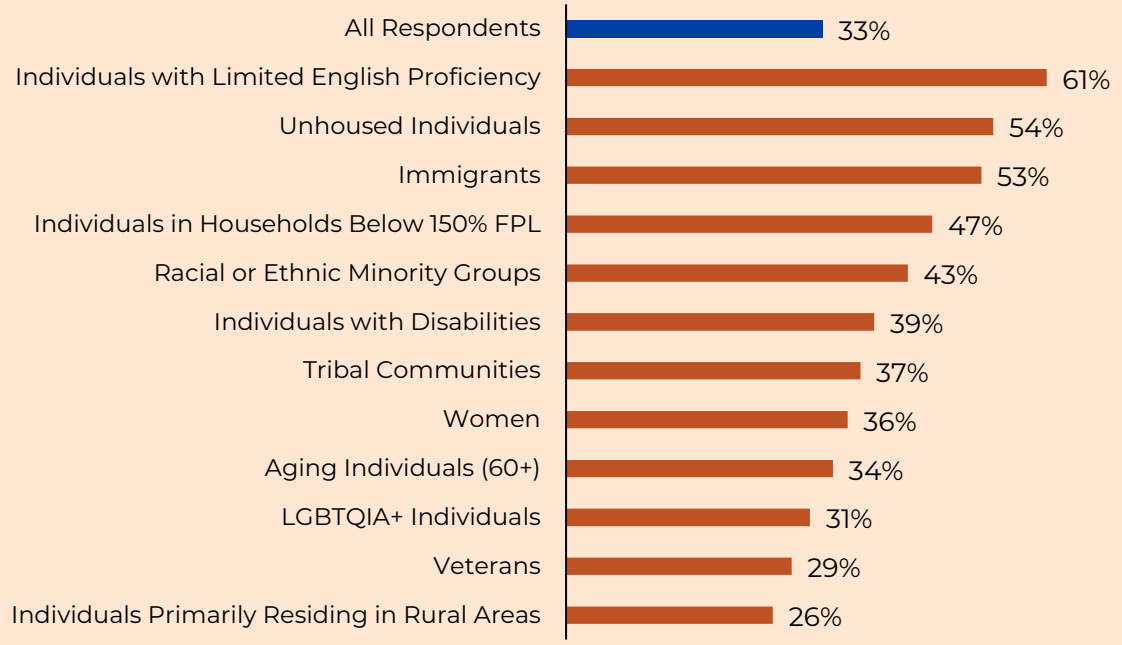
33% of all respondents are interested in internet or computer training classes. This number is even higher for Underconnected (46%) and Unconnected (49%) respondents. More than half of individuals with limited English proficiency, unhoused individuals, and immigrants showed interest in training.

SURVEY QUESTION: Would you be interested in internet or computer training classes for you or your family?

Responses By Connectivity

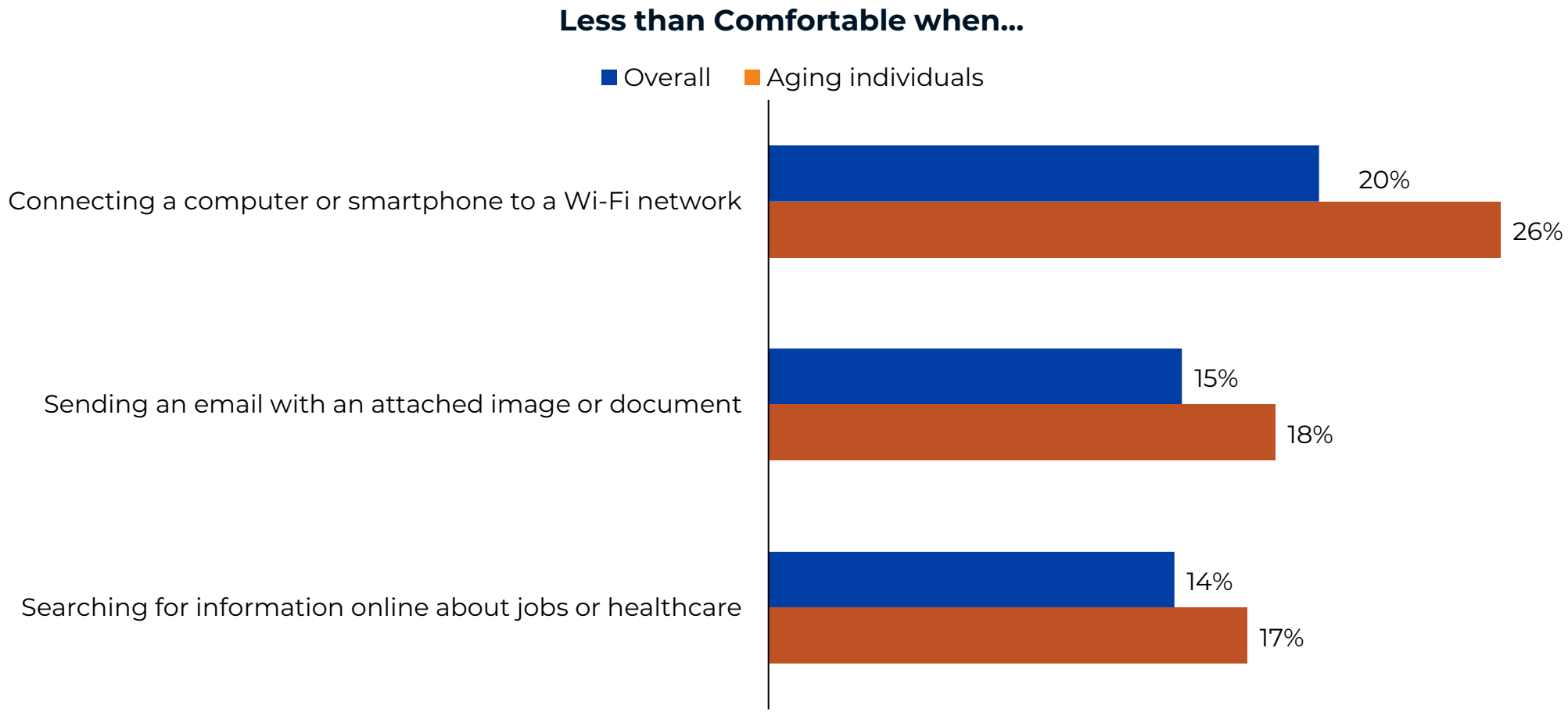


by Covered Population



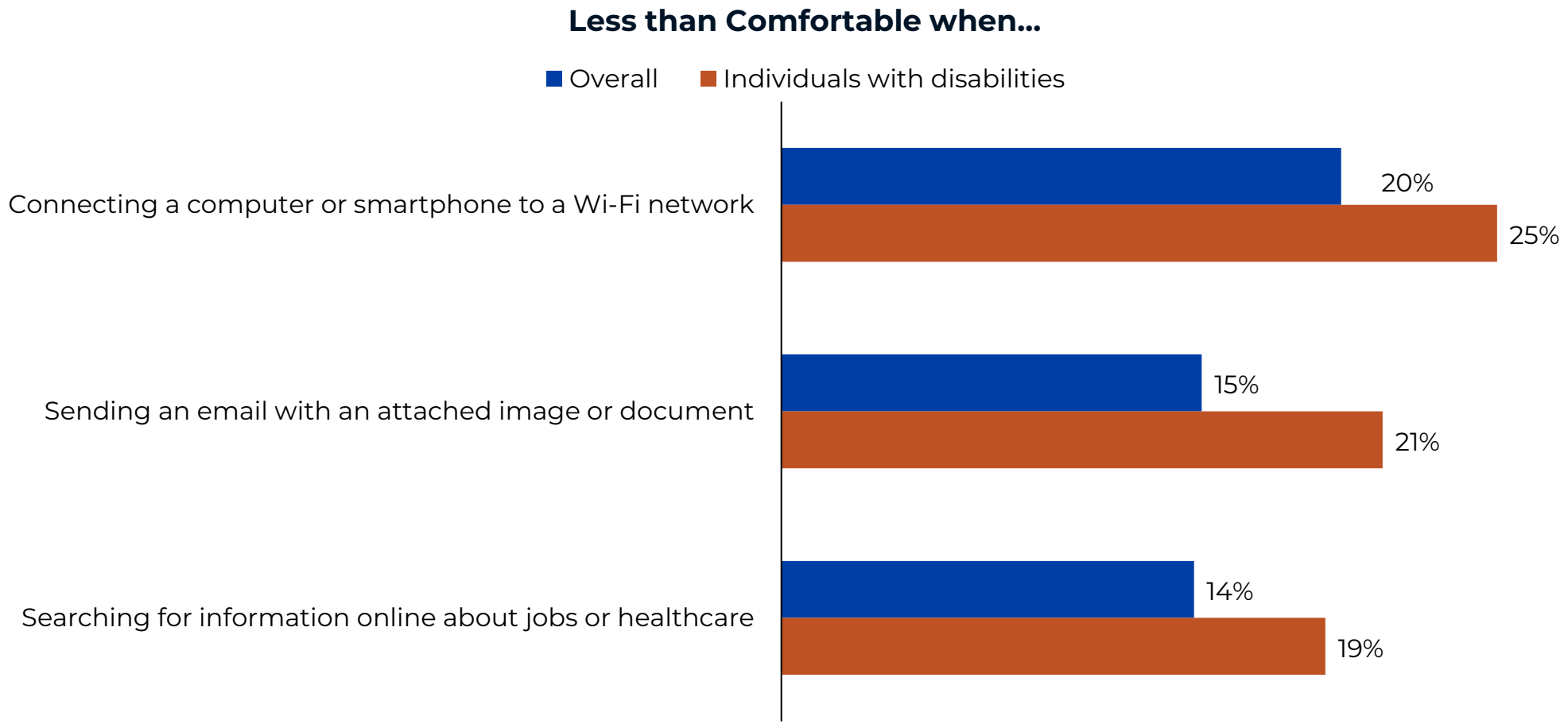
Digital Literacy & Skills – Basic Skills

A greater share of aging individuals feel less than comfortable when performing basic digital skills, especially connecting a computer or a smartphone to a Wi-Fi network.



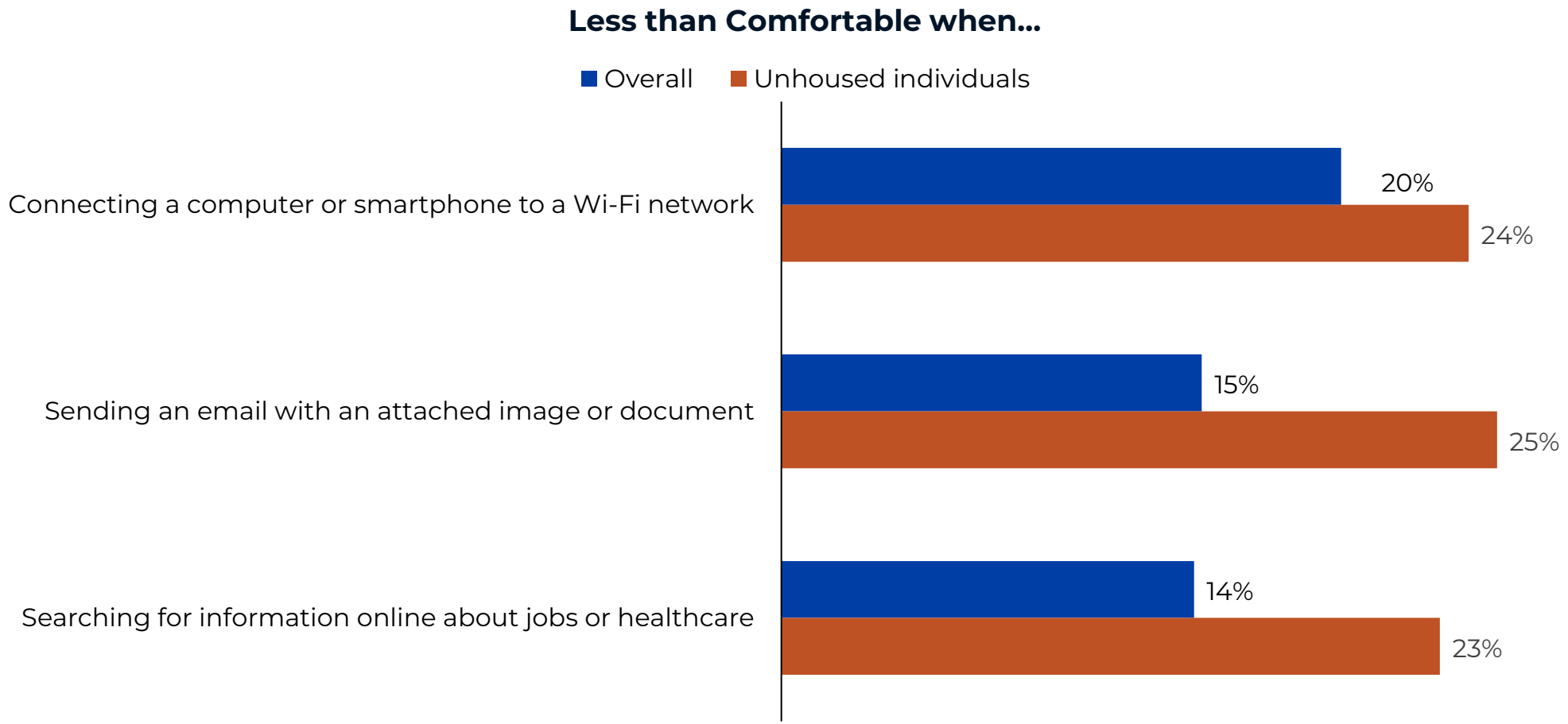
Digital Literacy & Skills – Basic Skills

A greater share of individuals with disabilities feel less than comfortable when performing basic digital skills.



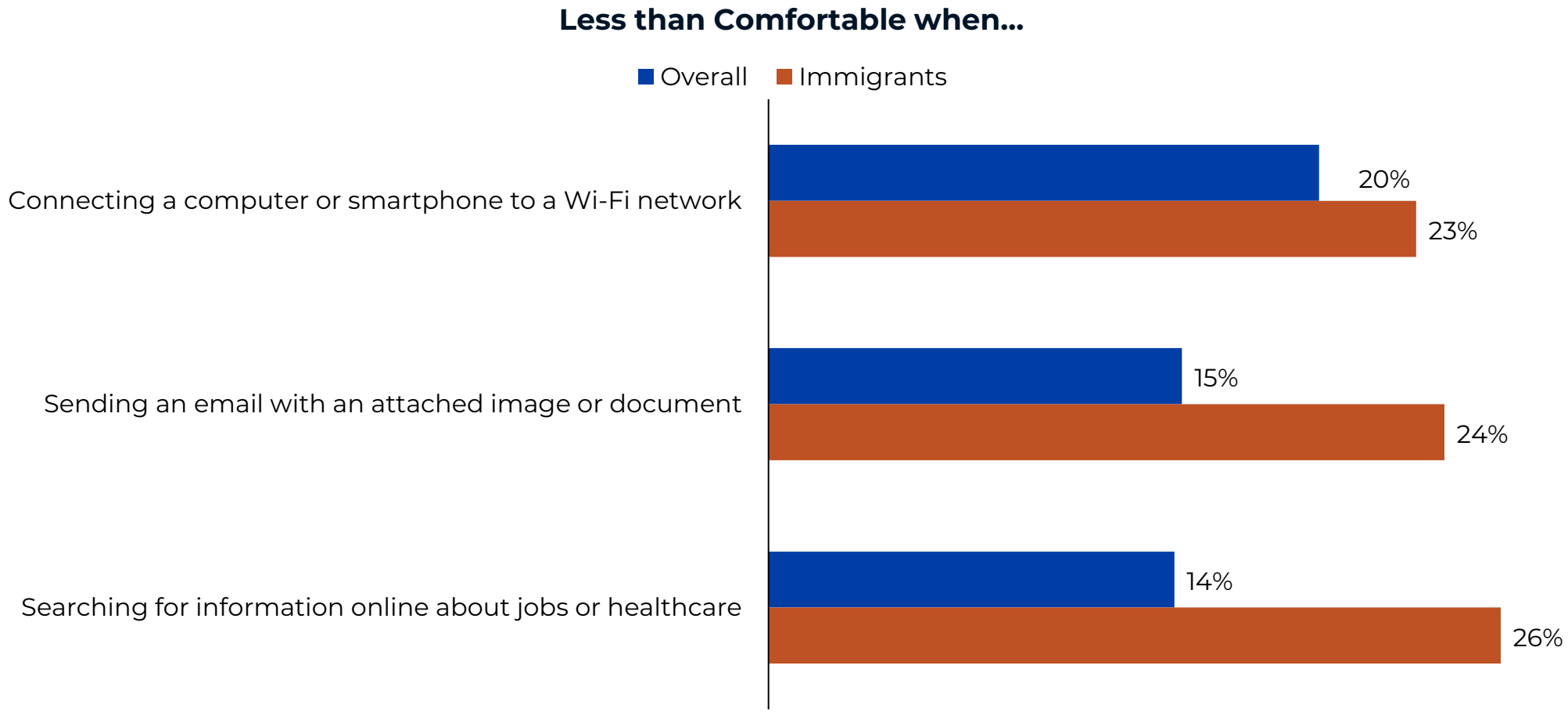
Digital Literacy & Skills: Basic Skills

A greater share of unhoused individuals feel less than comfortable when performing basic digital skills, especially when sending an email with an attachment.



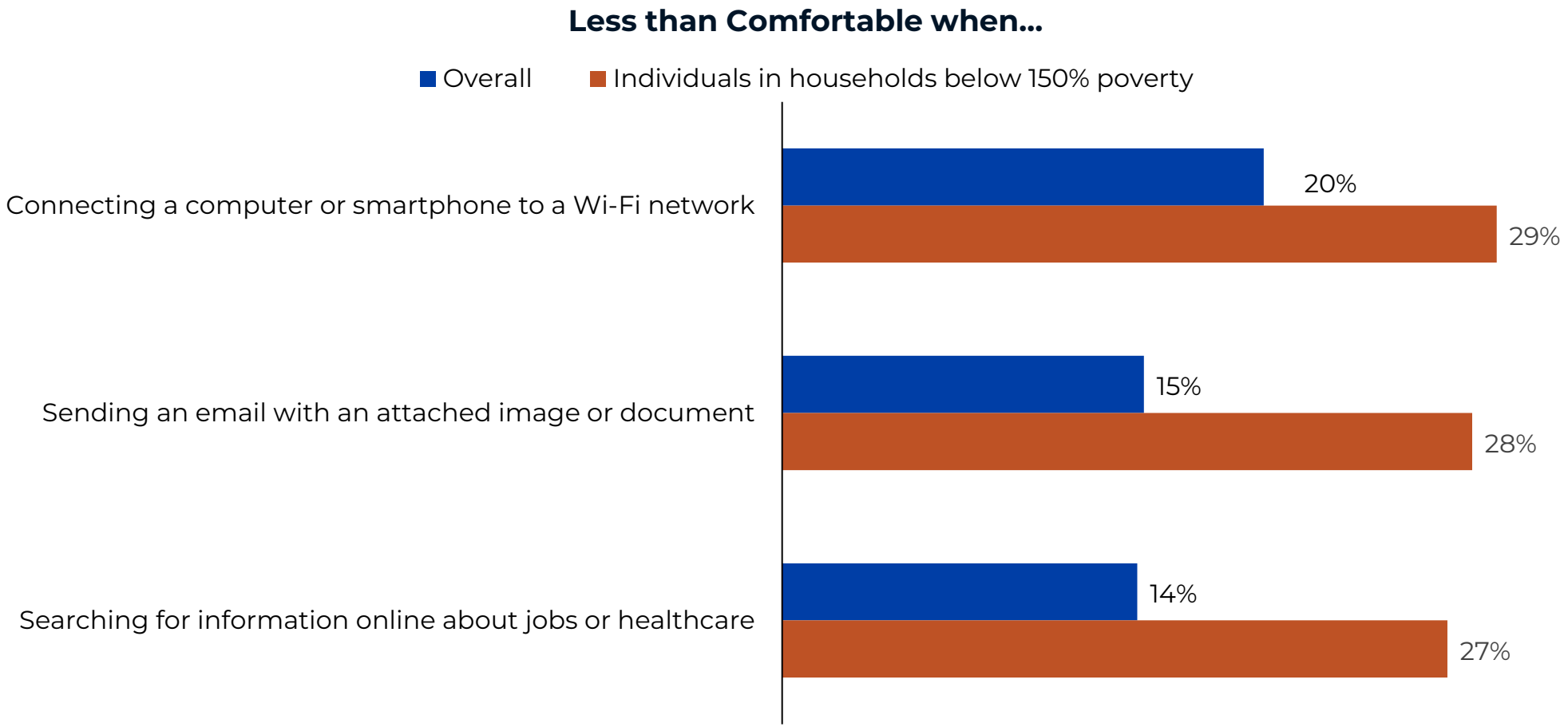
Digital Literacy & Skills – Basic Skills

A greater share of immigrants feel less than comfortable with basic digital skills, especially when searching for information online about jobs or healthcare.



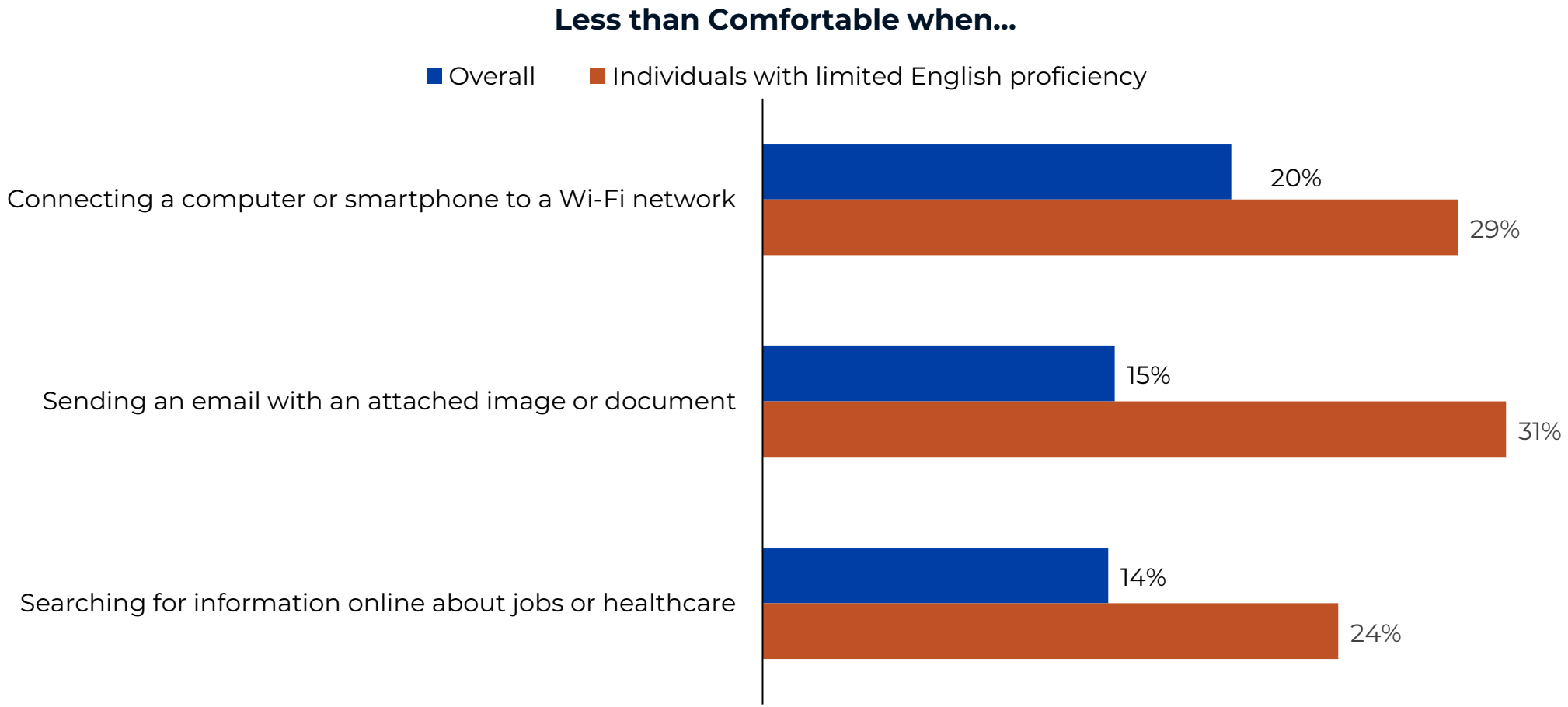
Digital Literacy & Skills – Basic Skills

A greater share of individuals below poverty feel less than comfortable when performing basic digital skills.



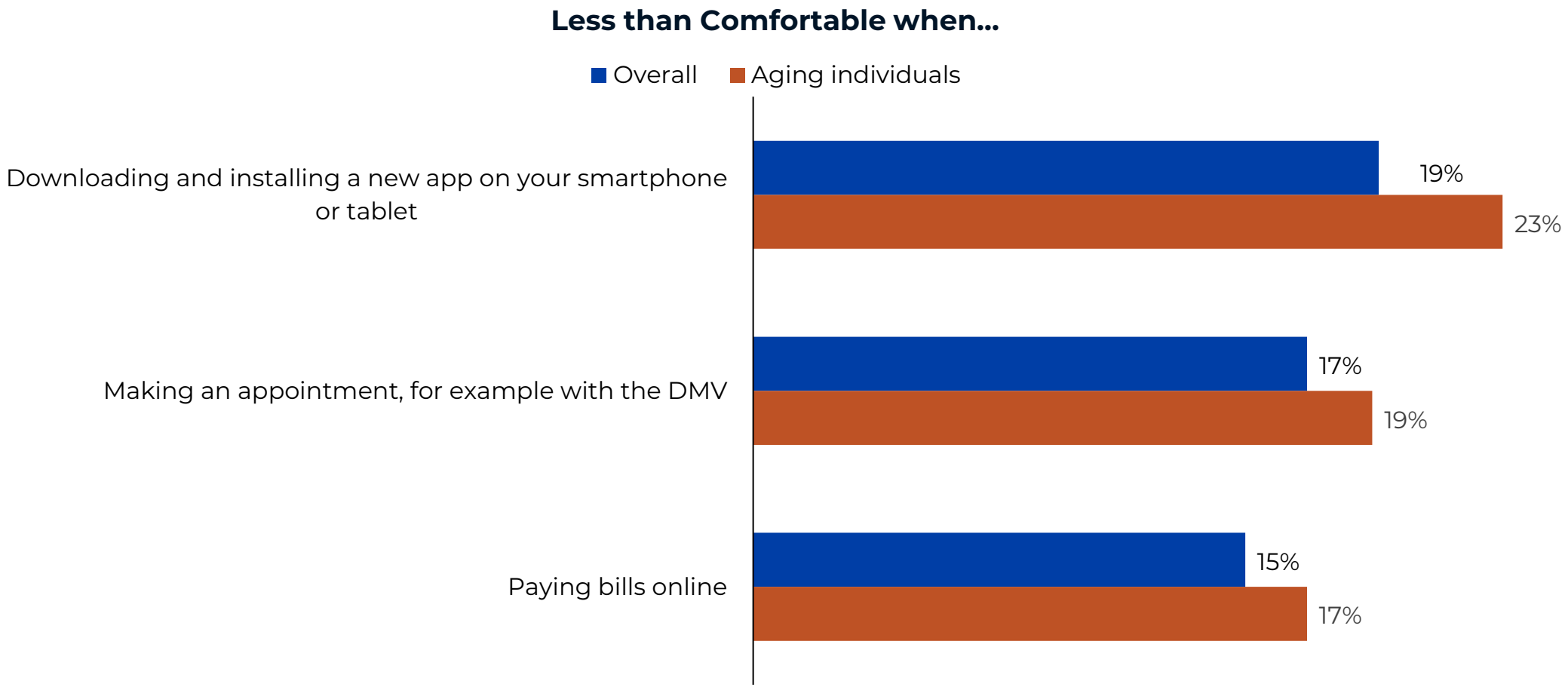
Digital Literacy Skills - Basic Skills

A greater share of individuals with limited English proficiency feel less than comfortable when performing basic digital skills, highest among all covered populations.



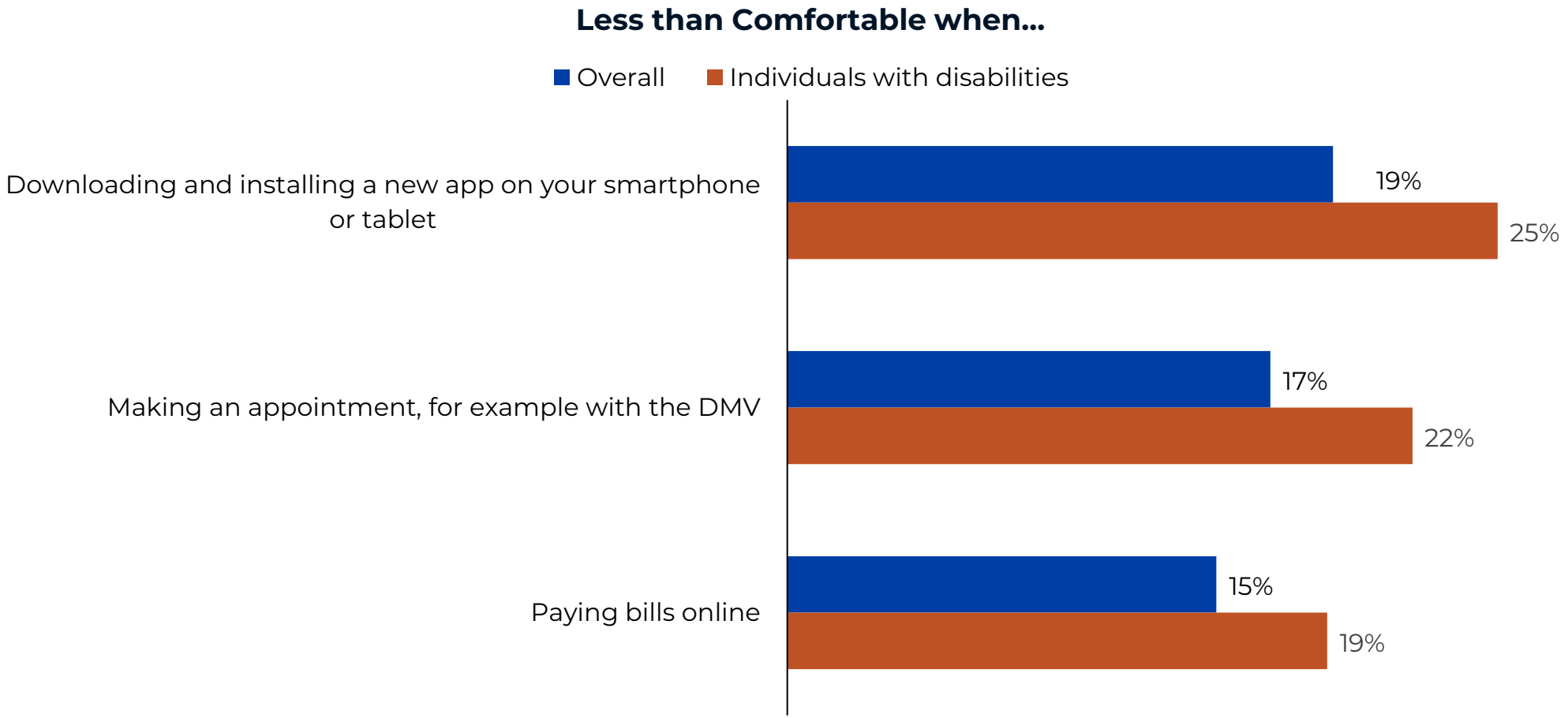
Digital Literacy Skills - Intermediate Skills

A greater share of aging individuals feel less than comfortable with intermediate skills, especially when downloading and installing a new app on their smartphone or tablet.



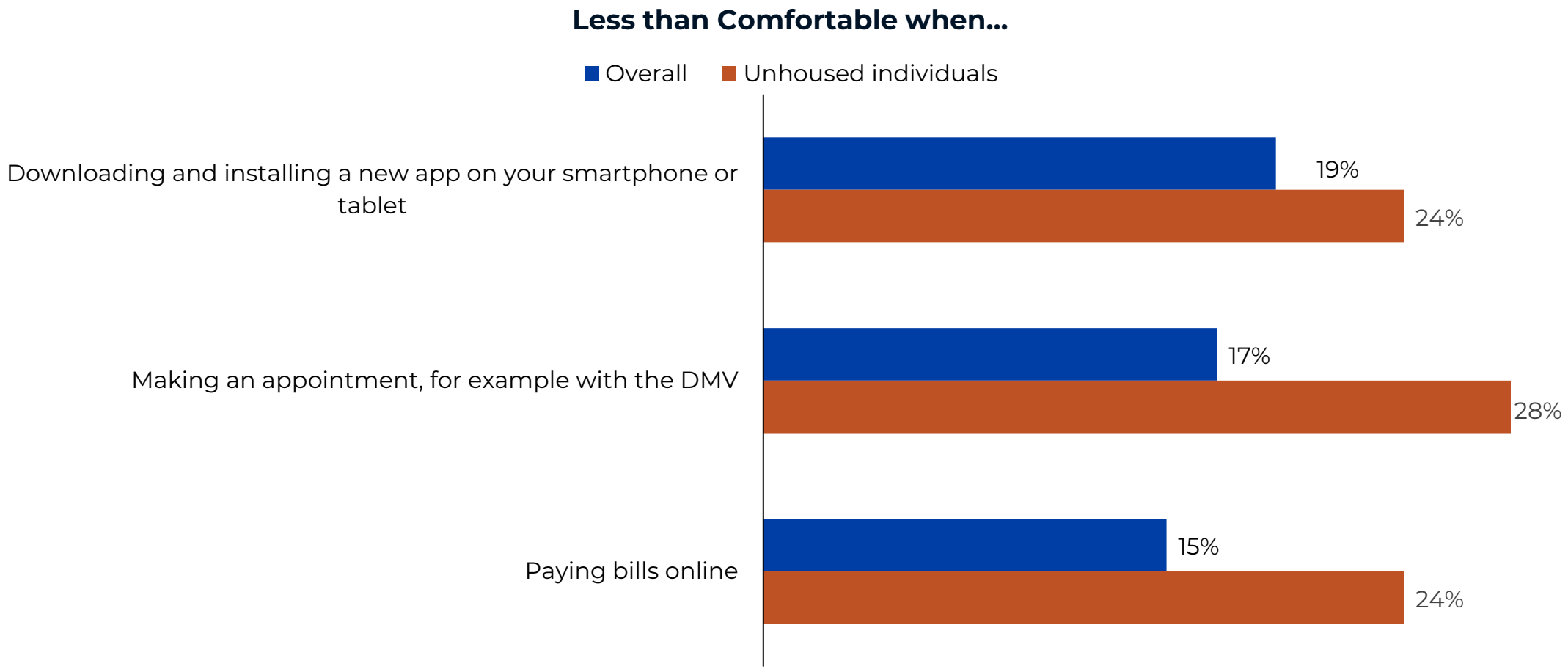
Digital Literacy Skills - Intermediate Skills

A greater share of individuals with disabilities feel less than comfortable when performing intermediate digital skills.



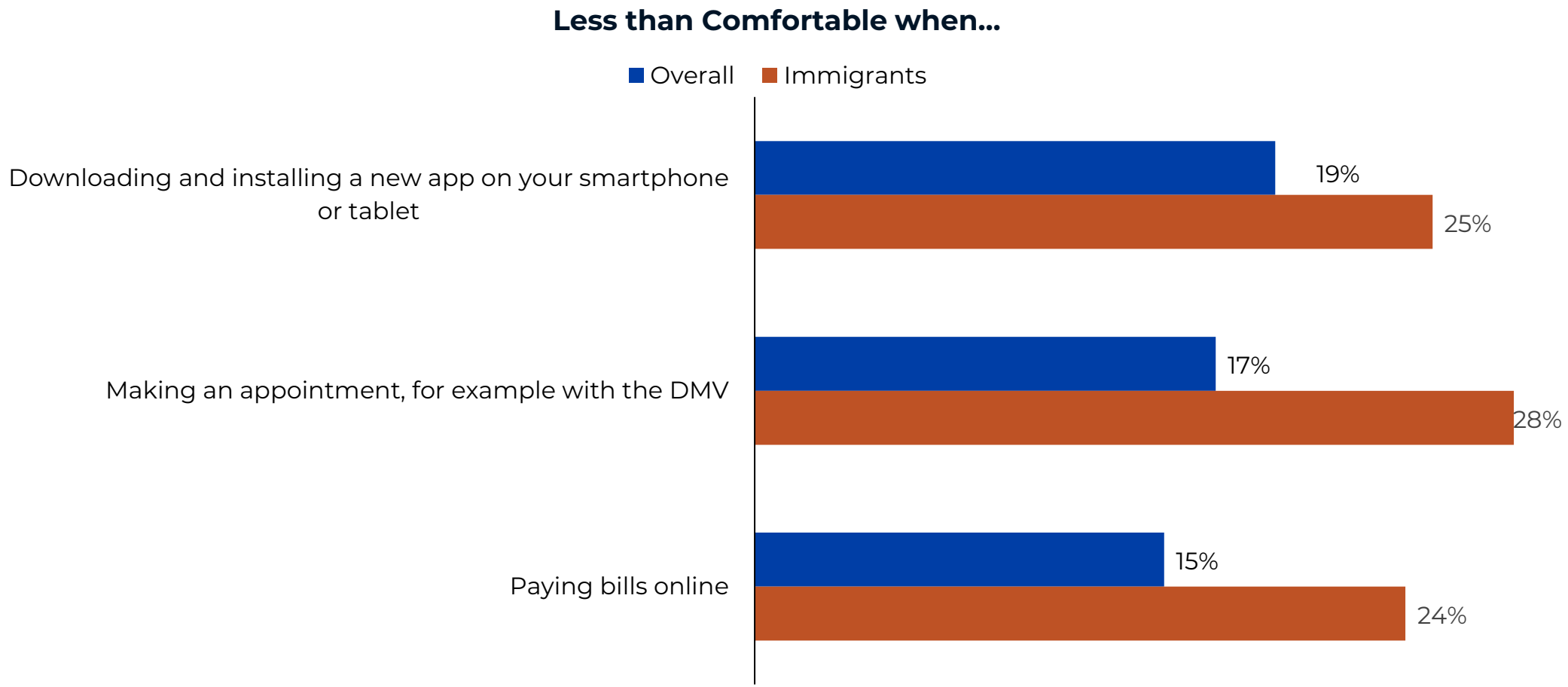
Digital Literacy Skills - Intermediate Skills

A greater share of unhoused individuals feel less than comfortable when performing intermediate digital skills, especially when making appointments online.



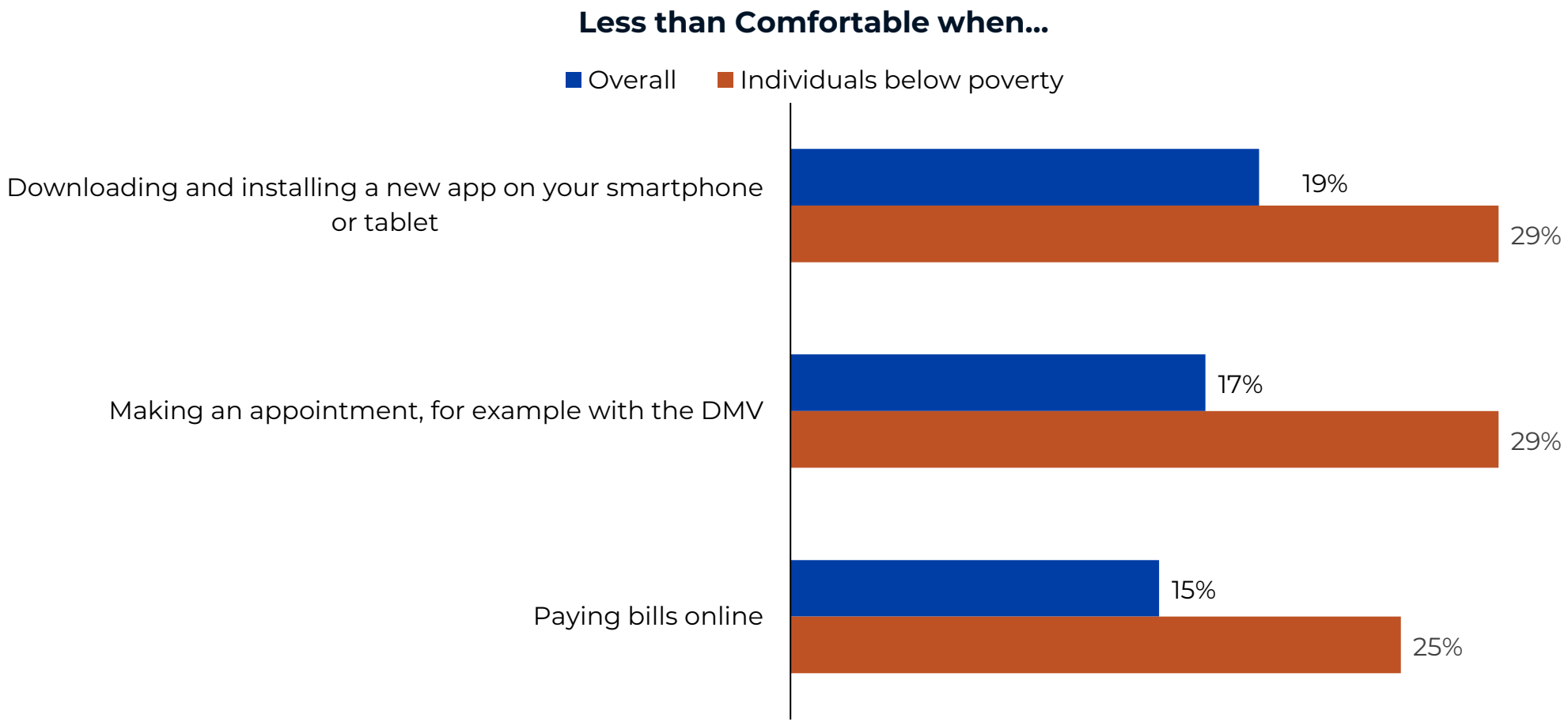
Digital Literacy Skills - Intermediate Skills

A greater share of immigrants feel less than comfortable when performing intermediate digital skills, especially when making appointments online.



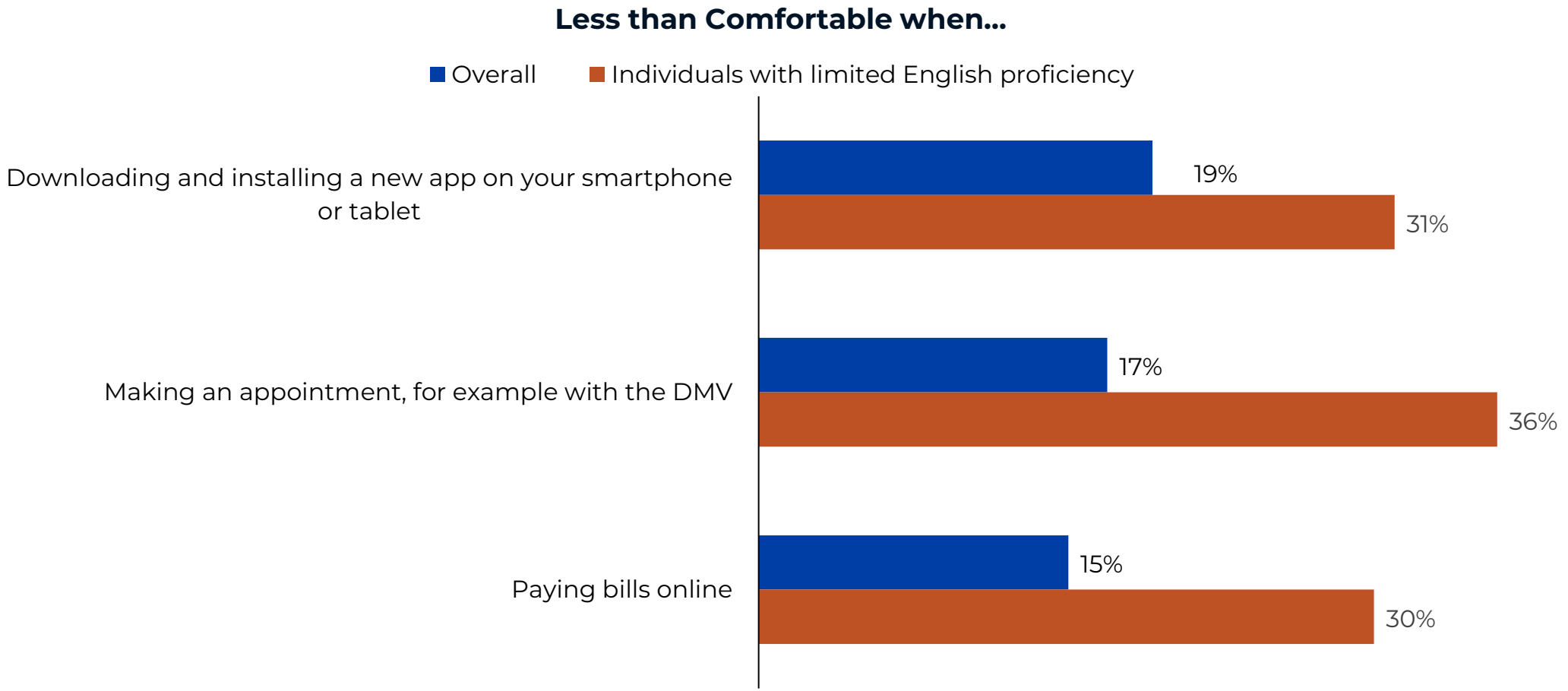
Digital Literacy Skills - Intermediate Skills

A greater share of individuals below poverty feel less than comfortable when performing intermediate digital skills.



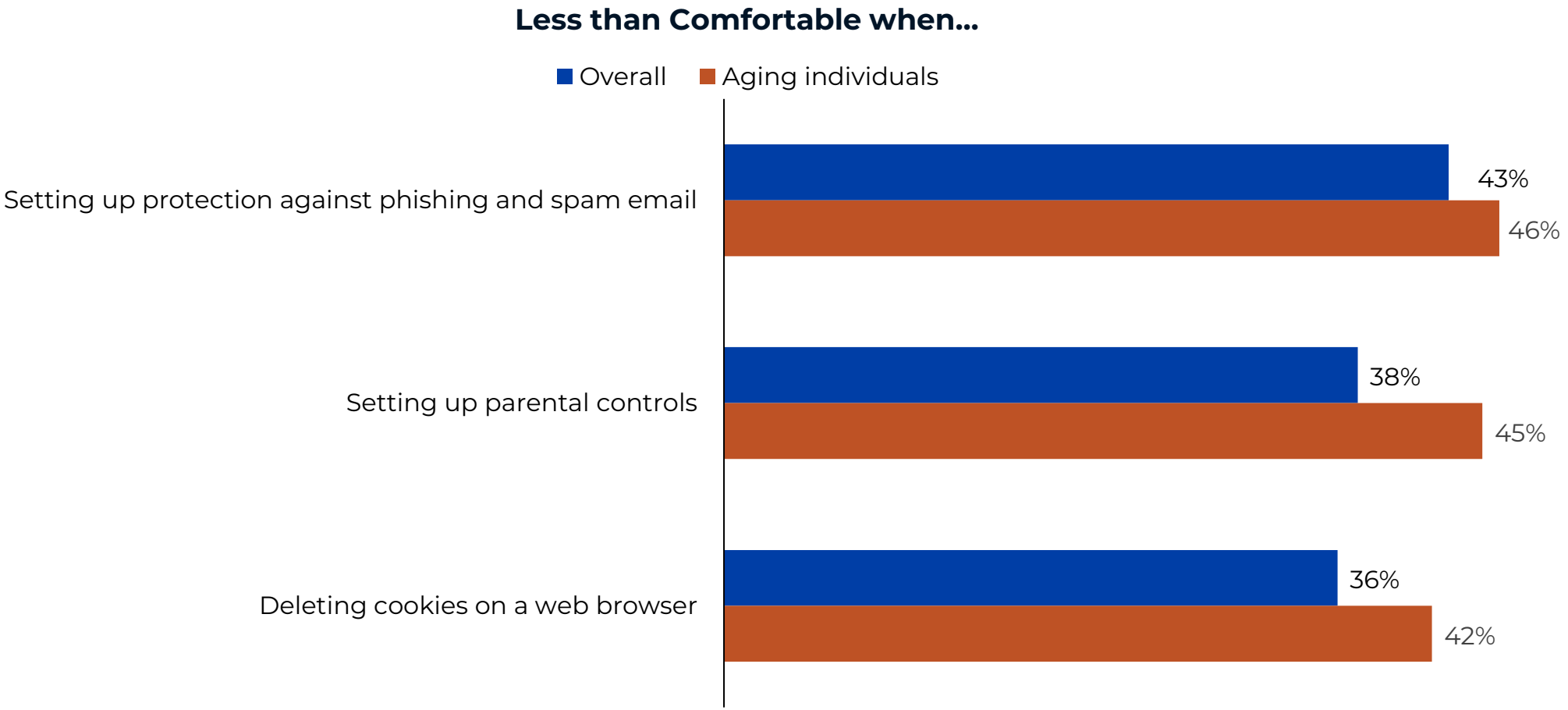
Digital Literacy Skills - Intermediate Skills

A greater share of individuals with limited English proficiency feel less than comfortable when performing intermediate digital skills, highest among all covered populations.



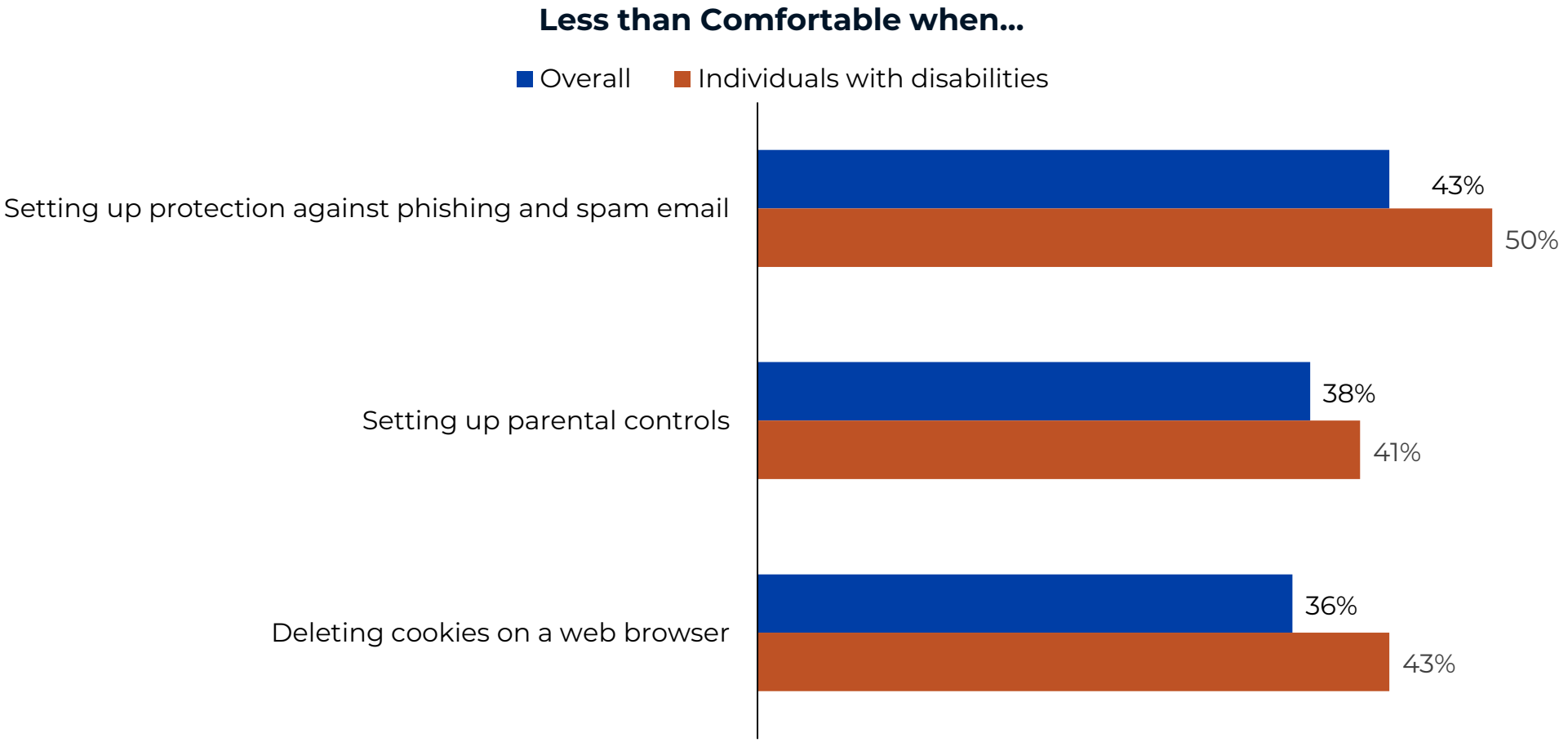
Digital Literacy Skills - Advanced Skills

A greater share of aging individuals feel less than comfortable when performing advanced digital skills.



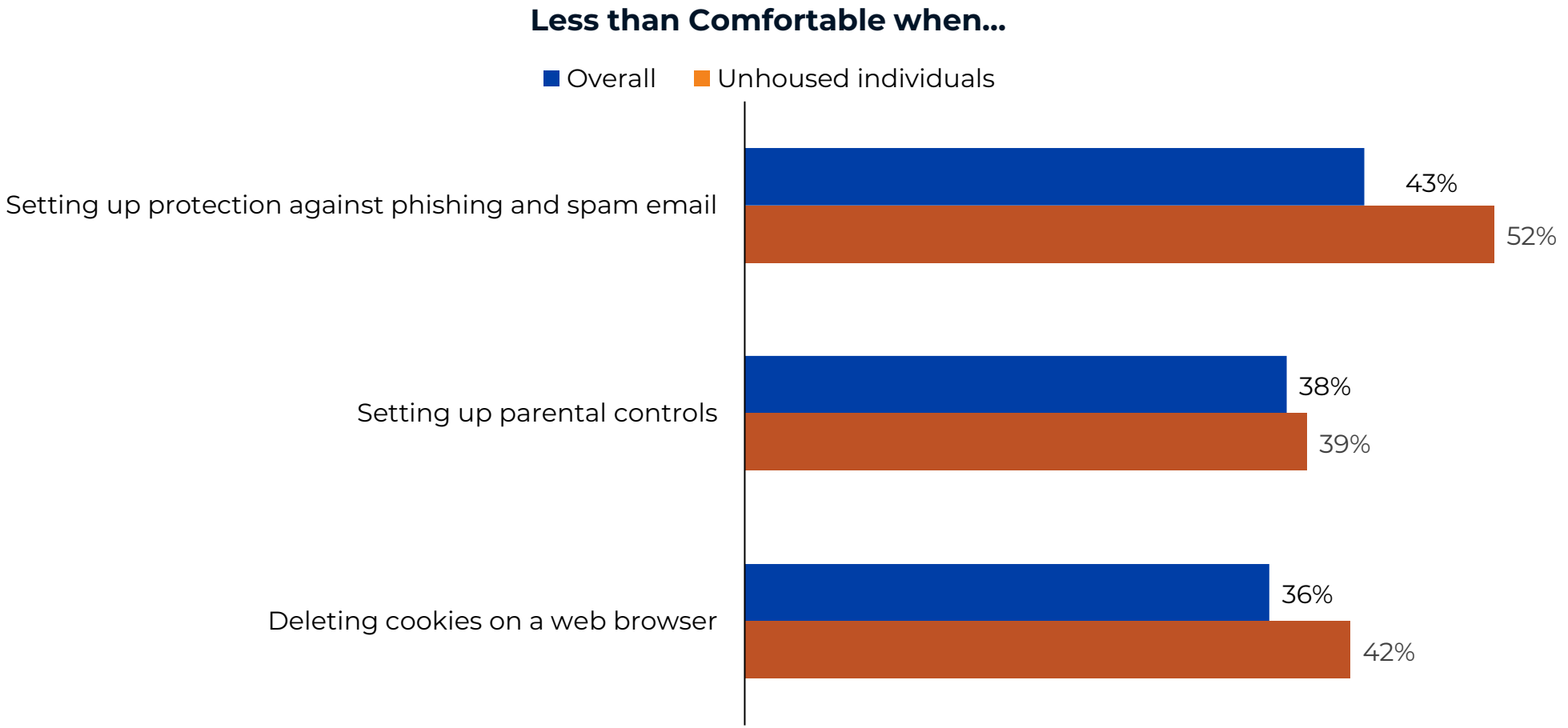
Digital Literacy Skills - Advanced Skills

A greater share of individuals with disabilities feel less than comfortable when setting up protection against phishing and spam email or when deleting cookies on web browser.



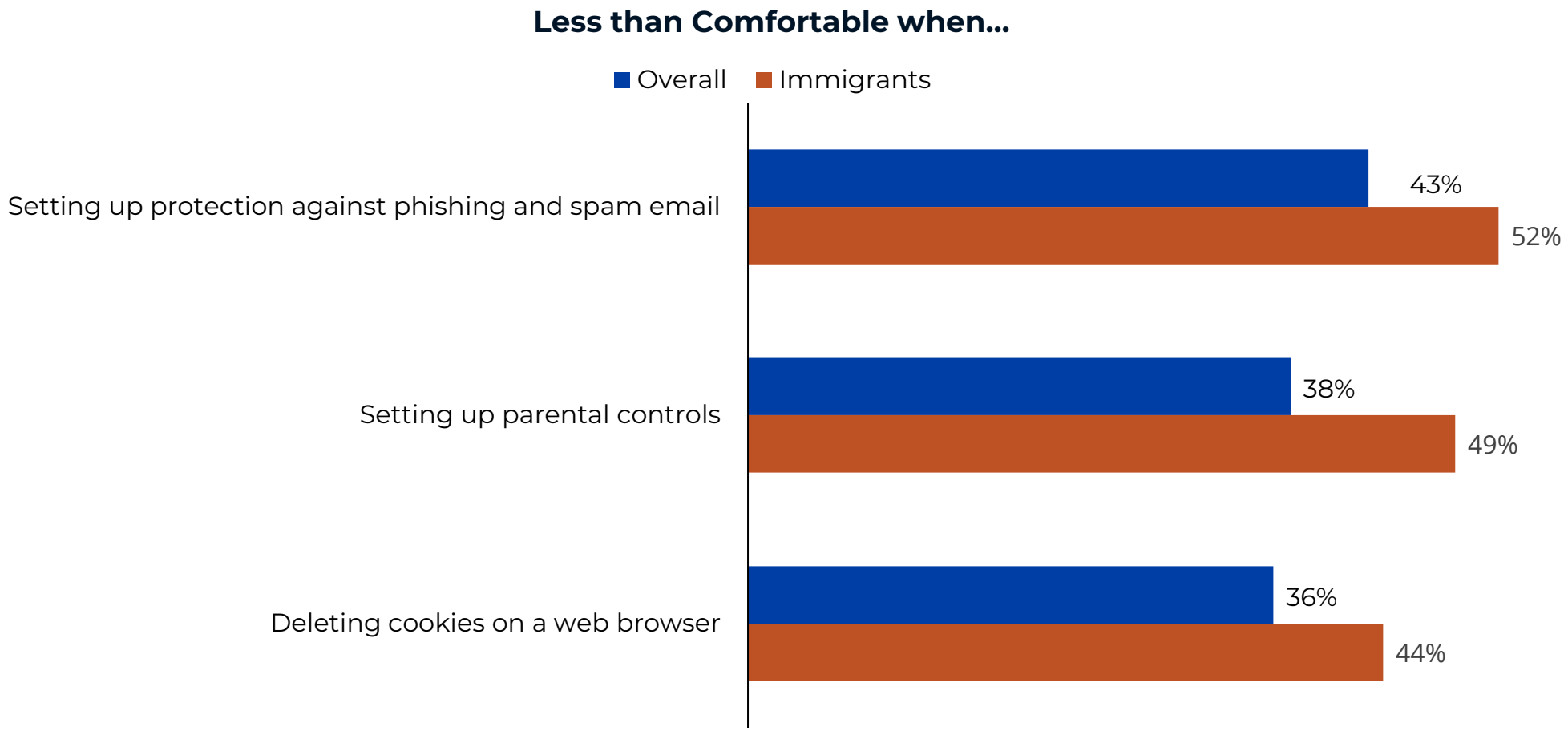
Digital Literacy Skills - Advanced Skills

A greater share of unhoused individuals feel less than comfortable when setting up protection against phishing and spam email or when deleting cookies on web browser.



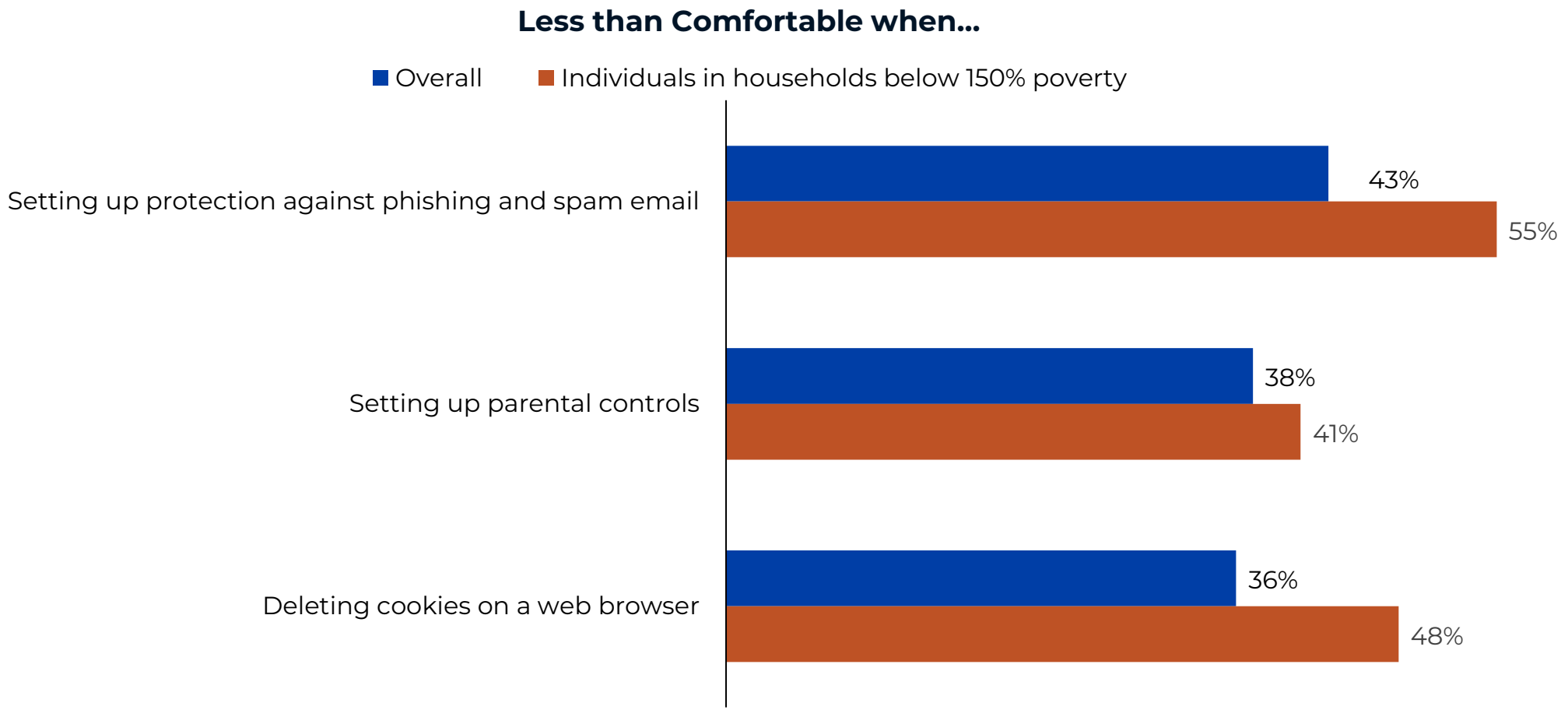
Digital Literacy Skills - Advanced Skills

A greater share of immigrants feel less than comfortable when performing advanced digital skills.



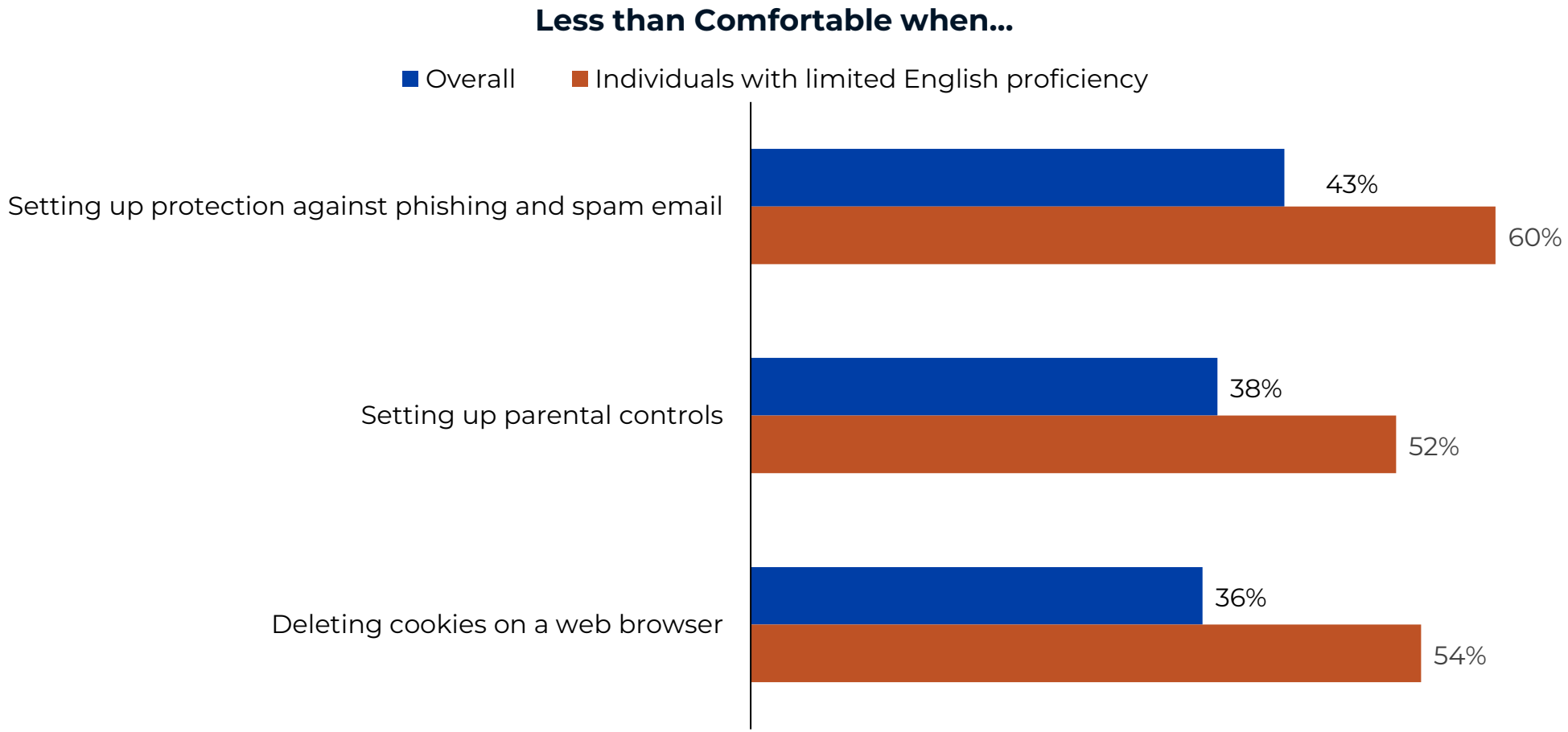
Digital Literacy Skills - Advanced Skills

A greater share of individuals below poverty feel less than comfortable when setting up protection against phishing and spam email or when deleting cookies on web browser.



Digital Literacy Skills - Advanced Skills

A greater share of individuals with limited English proficiency feel less than comfortable when performing advanced skills, highest among all covered populations.

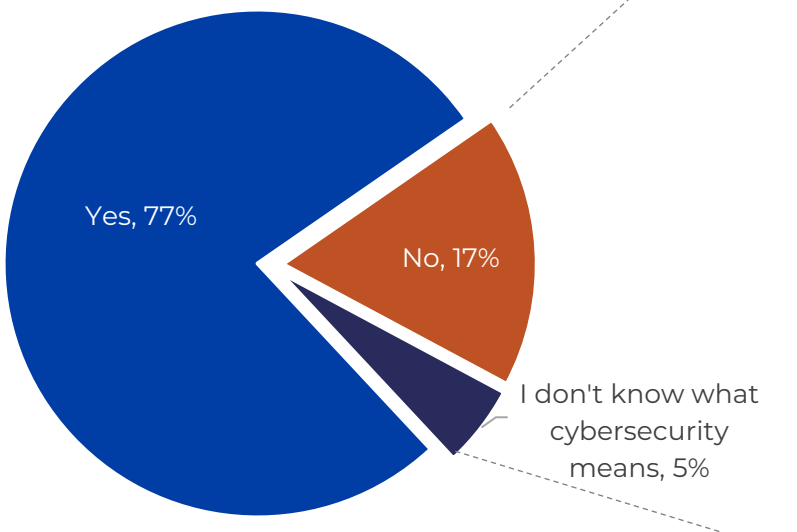


Online Privacy & Internet Safety

22% of survey respondents who use a desktop, laptop, or tablet are not familiar with cybersecurity measures. Individuals with limited English proficiency have the highest share of respondents who are unfamiliar with cybersecurity, followed by immigrants and individuals below poverty.

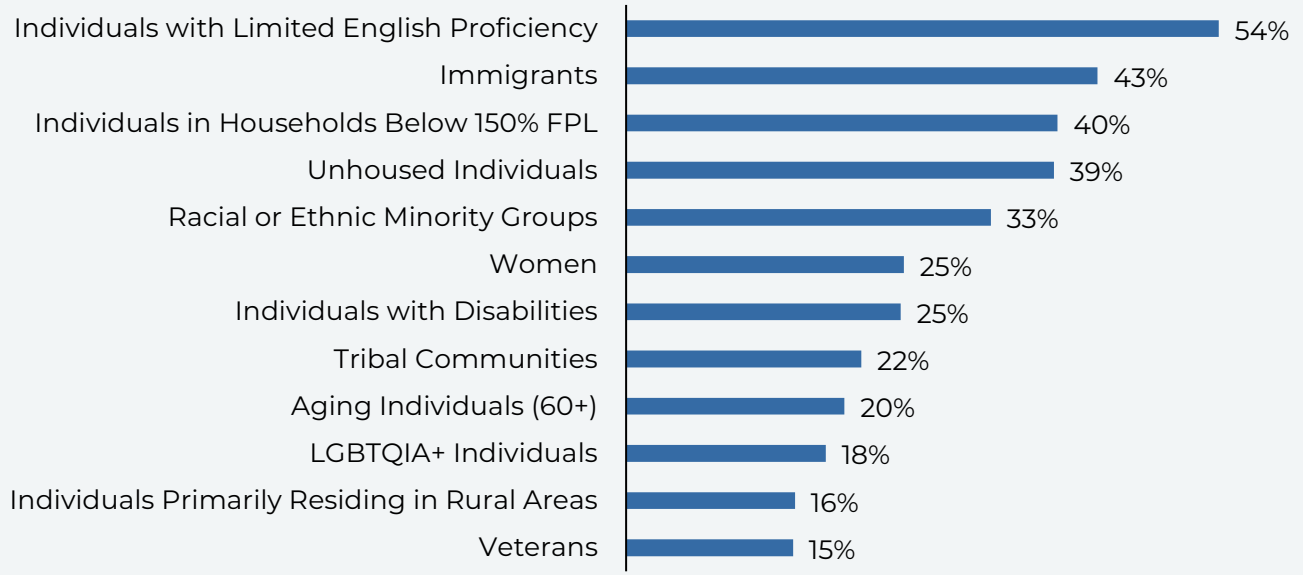
SURVEY QUESTION: Are you familiar with cybersecurity measures to prevent unauthorized access and damage to your devices?

All Respondents



Not familiar

by Covered Population

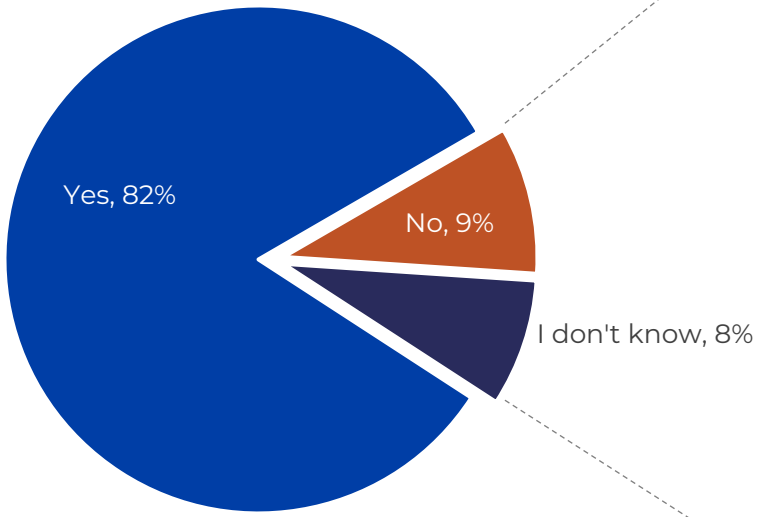


Online Privacy & Internet Safety

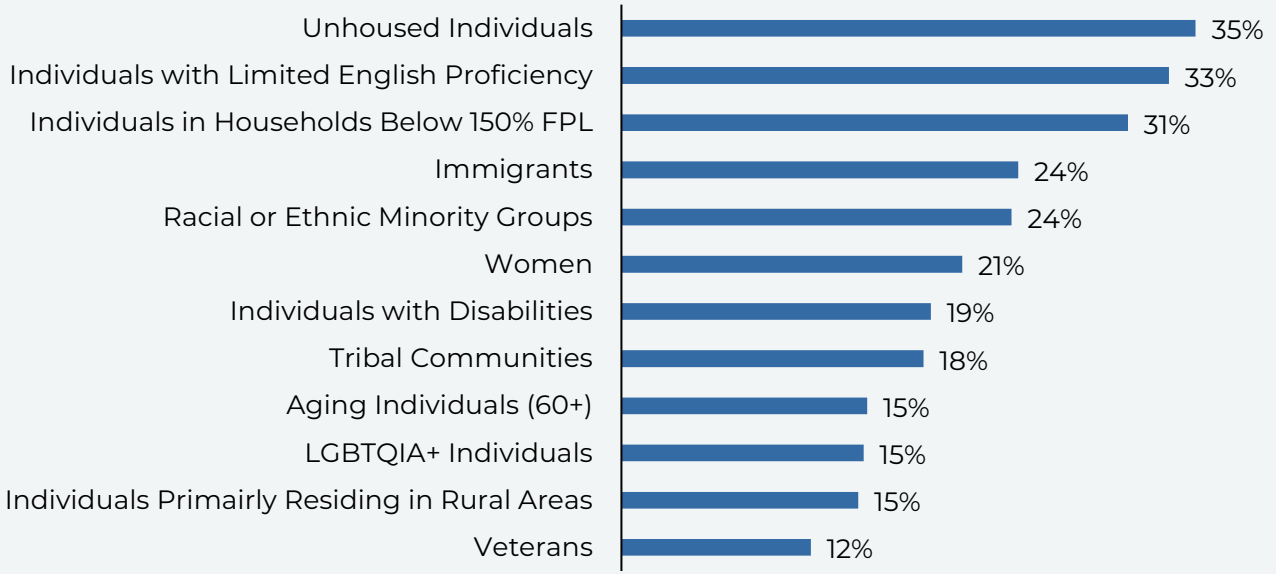
17% of survey respondents who are familiar with cybersecurity measures either don't have cybersecurity measures installed on their devices or are not sure about it. Unhoused individuals, individuals with limited English proficiency, and individuals below poverty have a greater share of respondents in this category.

SURVEY QUESTION: Do you have any cybersecurity measures set up on the desktop, laptop, or tablet computer you use?

All Respondents



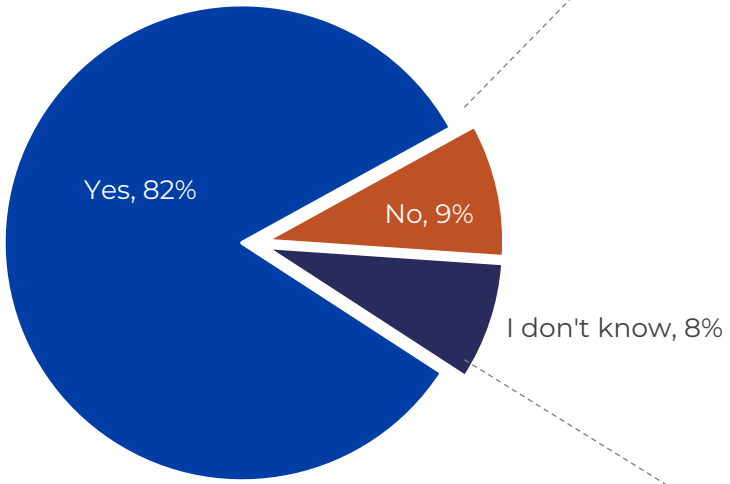
No or Don't Know
by Covered Population



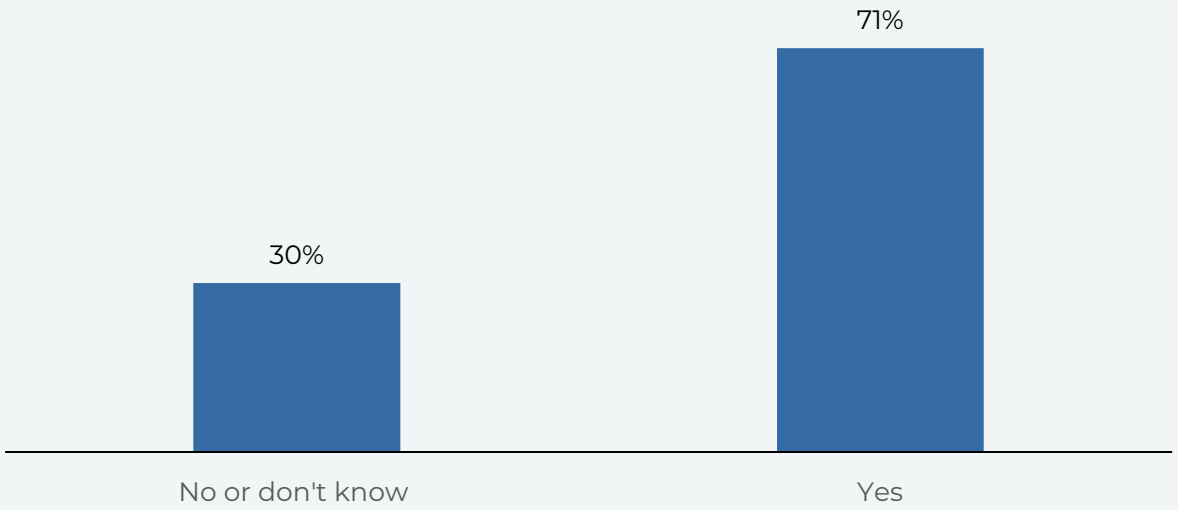
Online Privacy & Internet Safety

30% of survey respondents who don't have cybersecurity measures installed on their devices or are not sure about it also cannot access device or internet-related support easily from nearby sources.

SURVEY QUESTION: Do you have any cybersecurity measures set up on the desktop, laptop, or tablet computer you use?

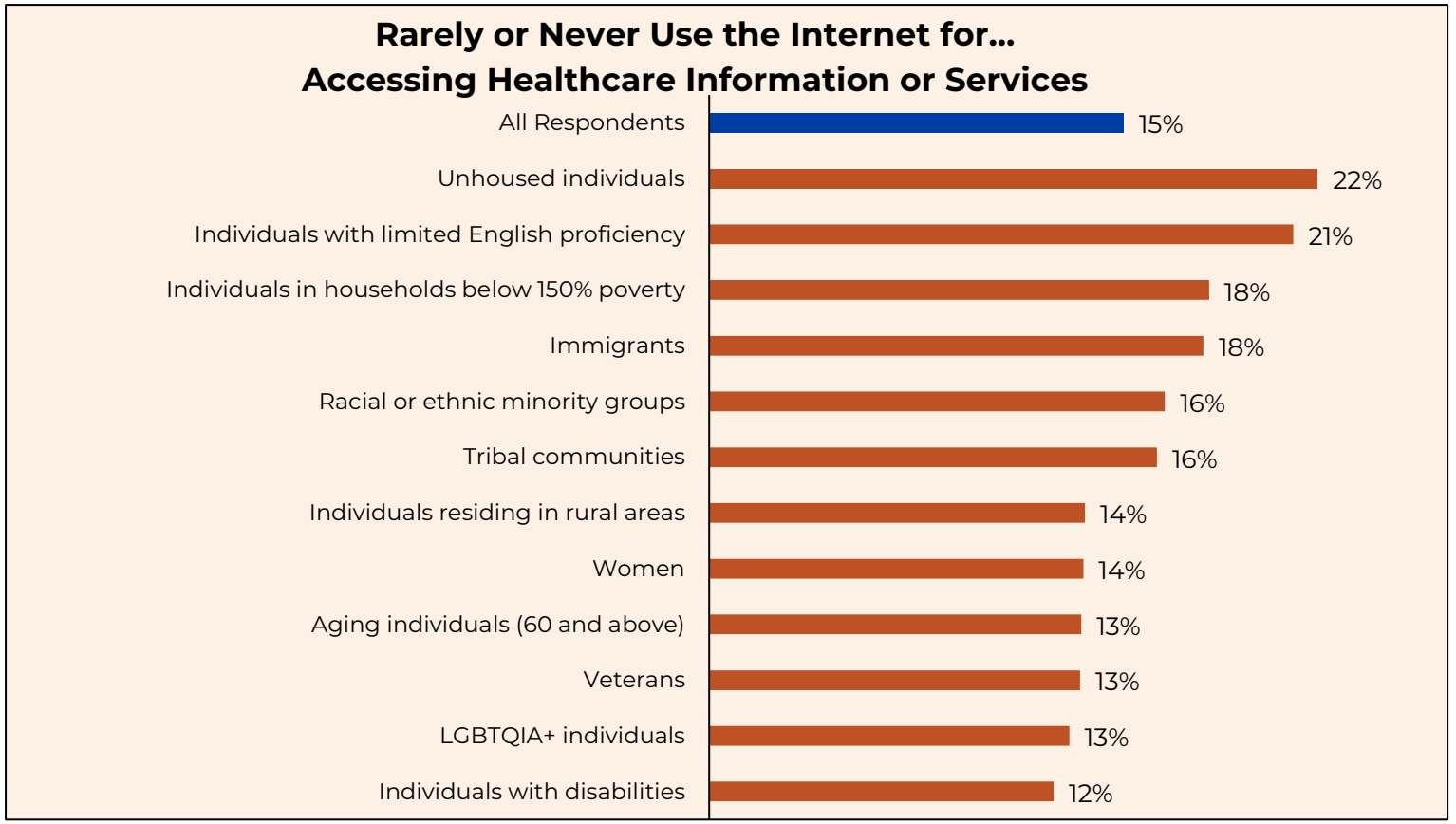


SURVEY QUESTION: If you have trouble with computers or the internet, is there someone in your household or community who can help you?



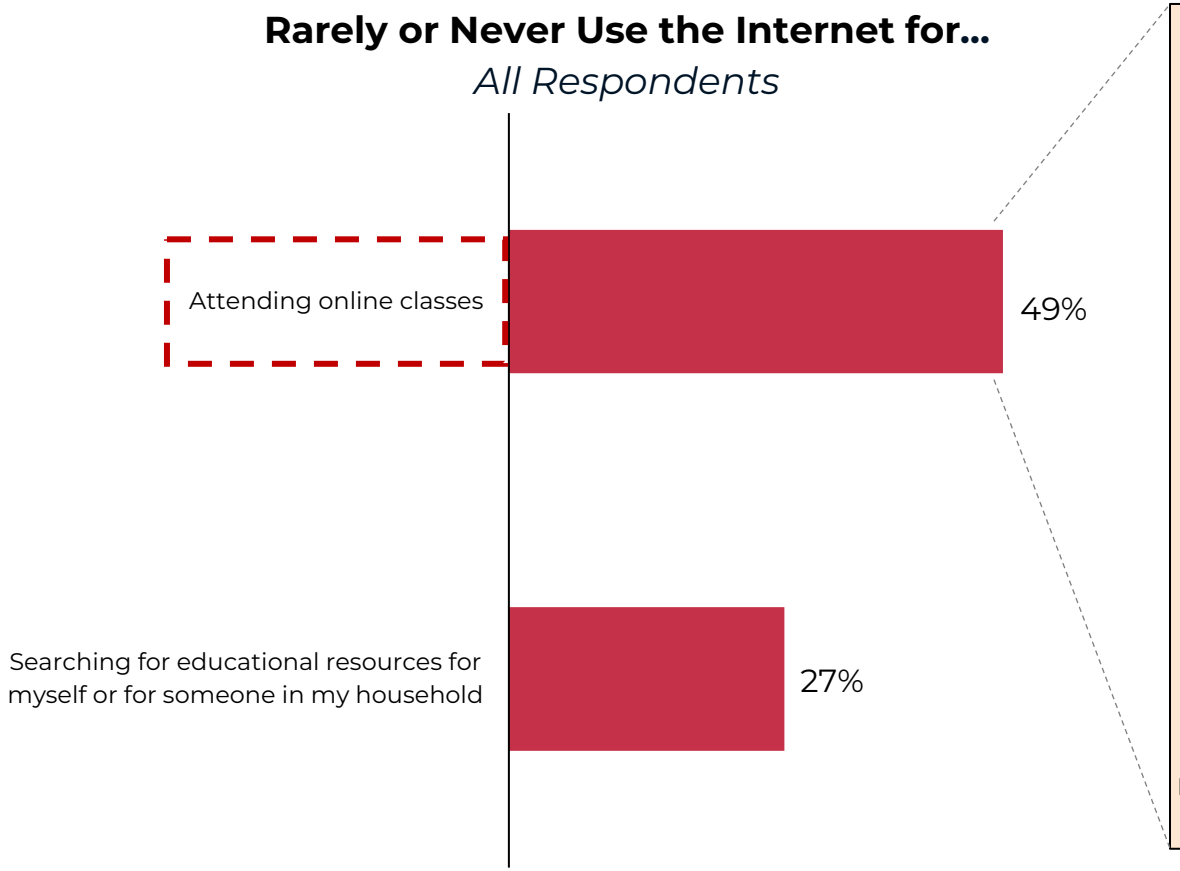
Access & Inclusivity - Healthcare

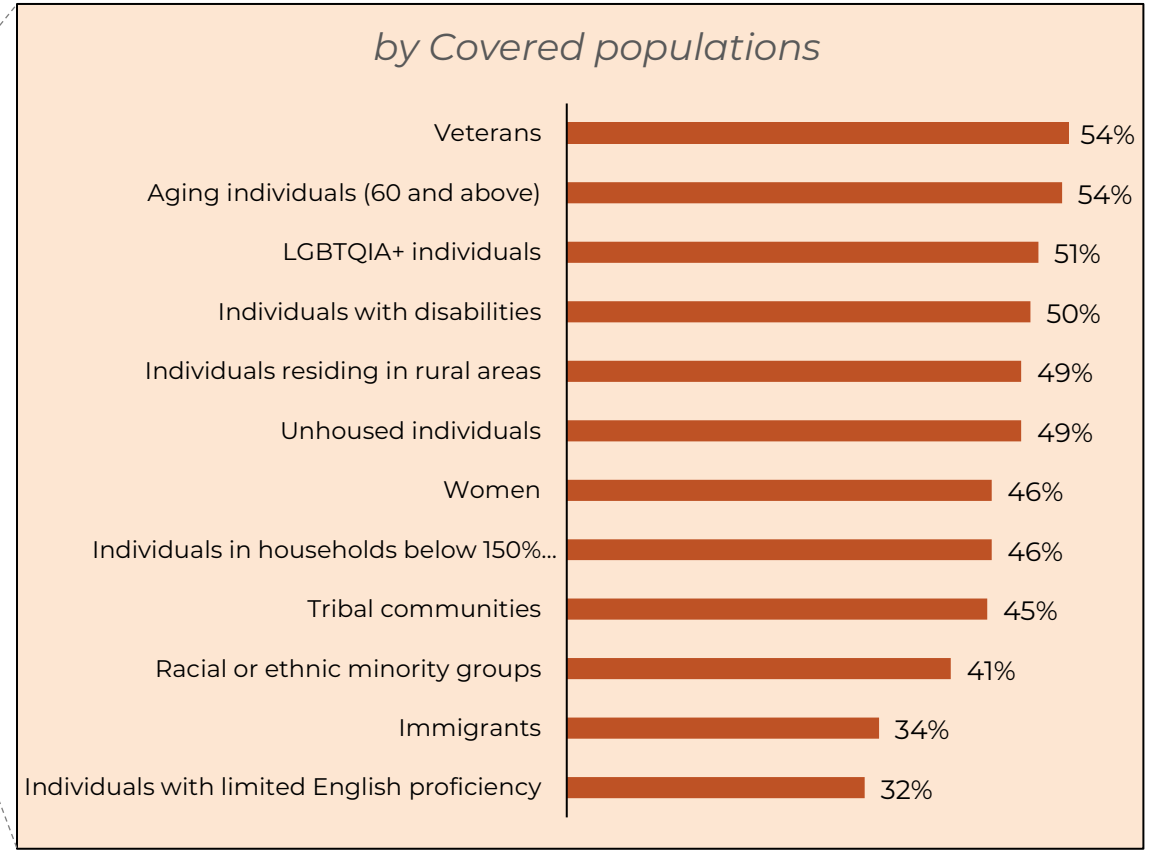
15% of respondents rarely or never access healthcare online. Unhoused individuals and individuals with limited English proficiency have a higher respondent share who rarely or never use the internet for accessing healthcare. Individuals with disabilities, LGBTQIA+ individuals, veterans, and aging individuals are more reliant on the internet for healthcare.



Access & Inclusivity - Education

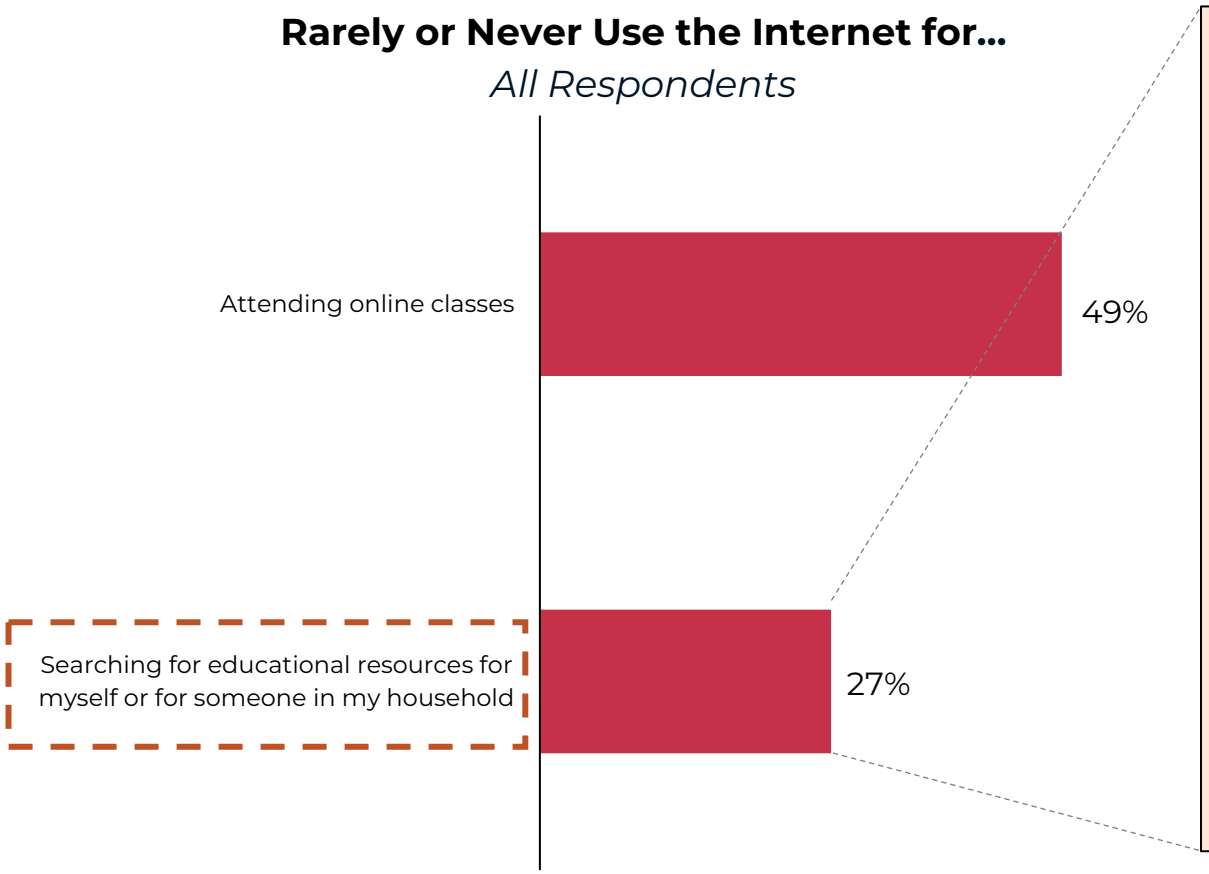
49% of respondents rarely or never use the internet for accessing online classes. Veterans and aging individuals have a higher respondent share who rarely or never use the internet for online classes. Individuals with limited English proficiency, immigrants, and racial or ethnic minority groups are more reliant on the internet for online classes.

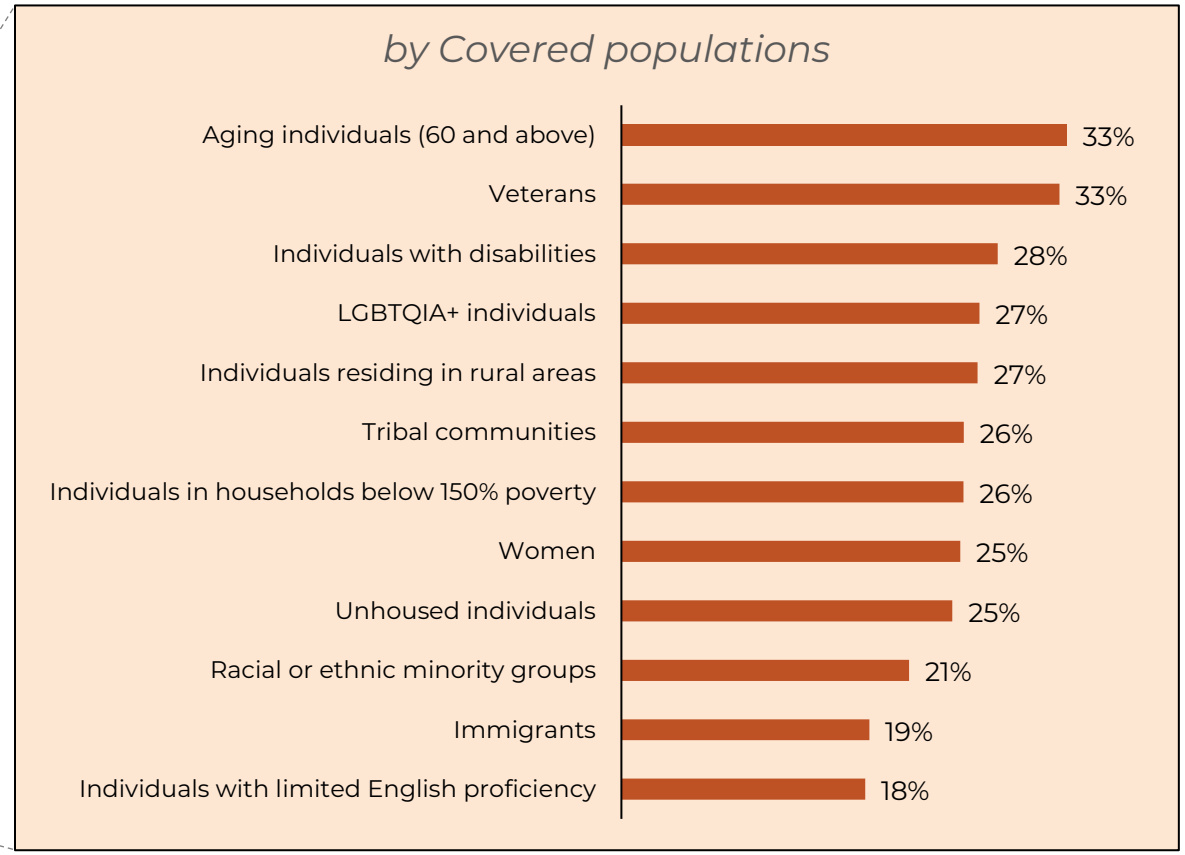




Access & Inclusivity - Education

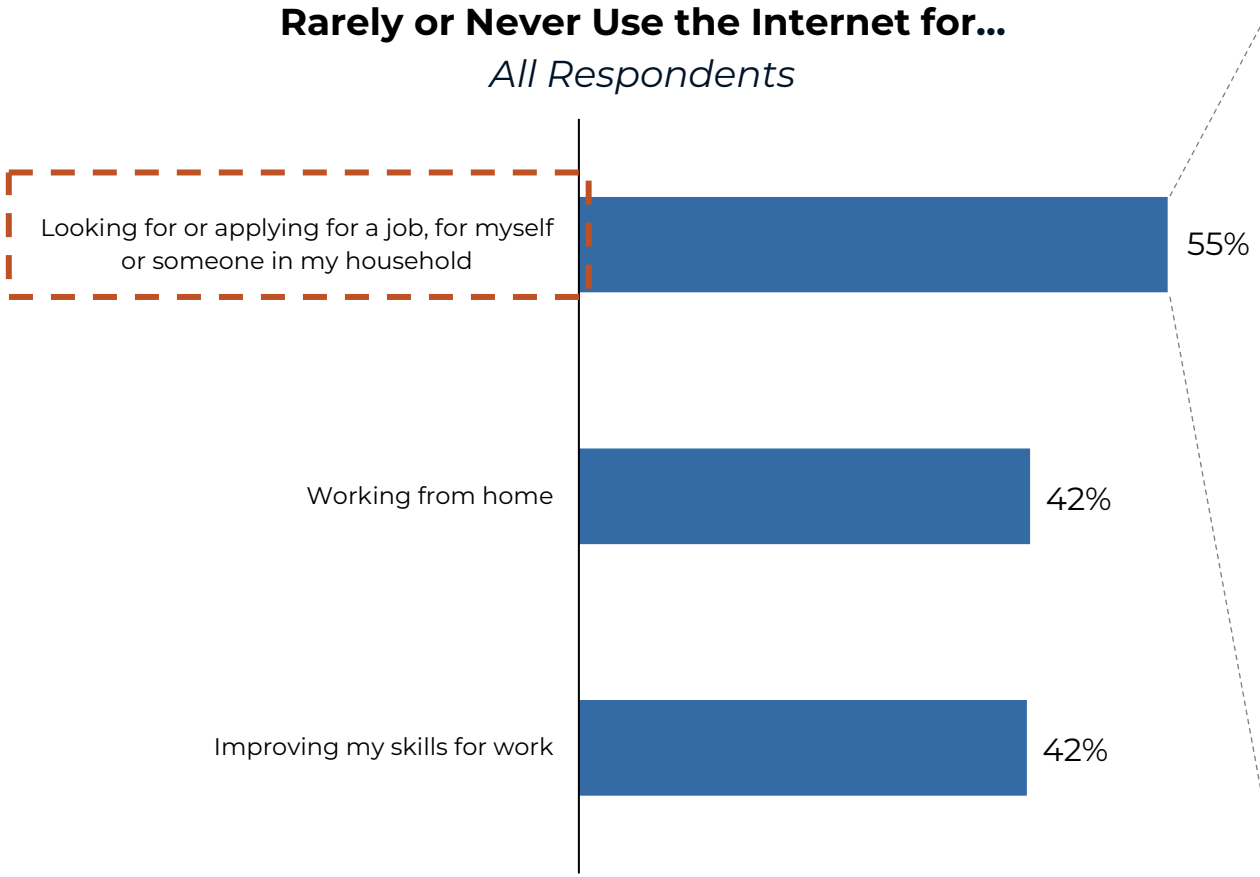
27% of respondents rarely or never use the internet for educational resources. Aging individuals and veterans have a higher respondent share who rarely or never use internet for educational resources. Individuals with limited English proficiency, immigrants, and racial or ethnic minority groups are more reliant on the internet for educational resources.

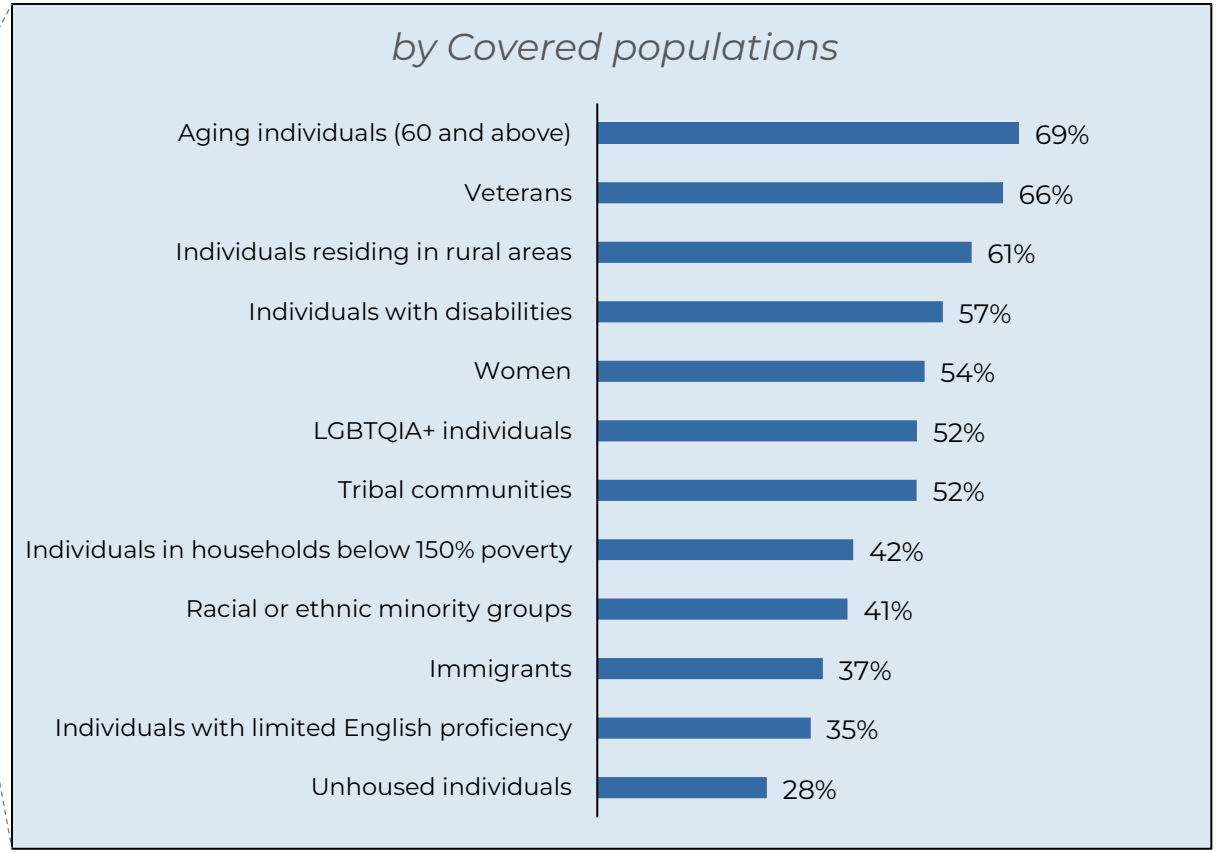




Access & Inclusivity - Workforce Development

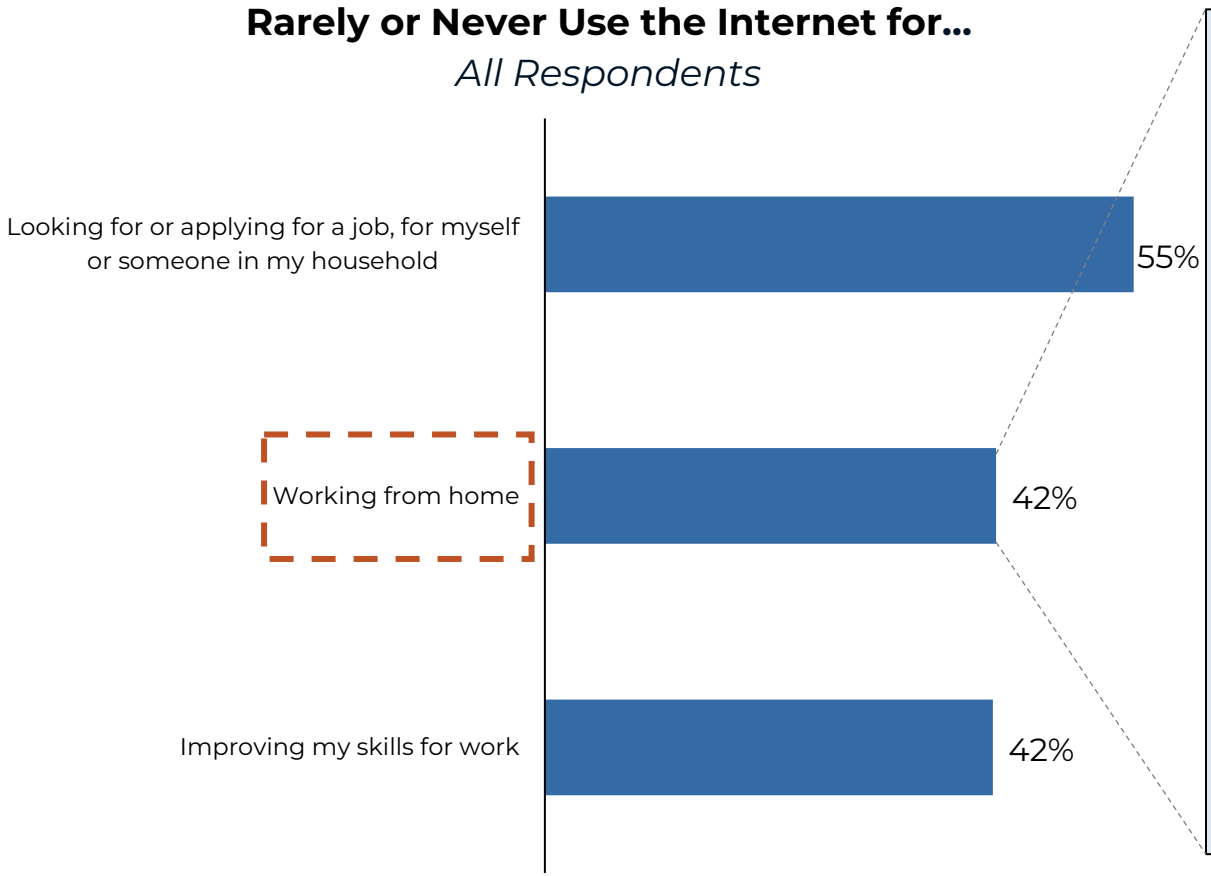
55% of respondents rarely or never use the internet to search for or apply for a job. Among covered populations, aging individuals, veterans, and individuals in rural areas rarely or never do job searches via the internet. However, unhoused individuals, individuals with limited English proficiency, and immigrants more commonly use the internet to look for or apply for a job.

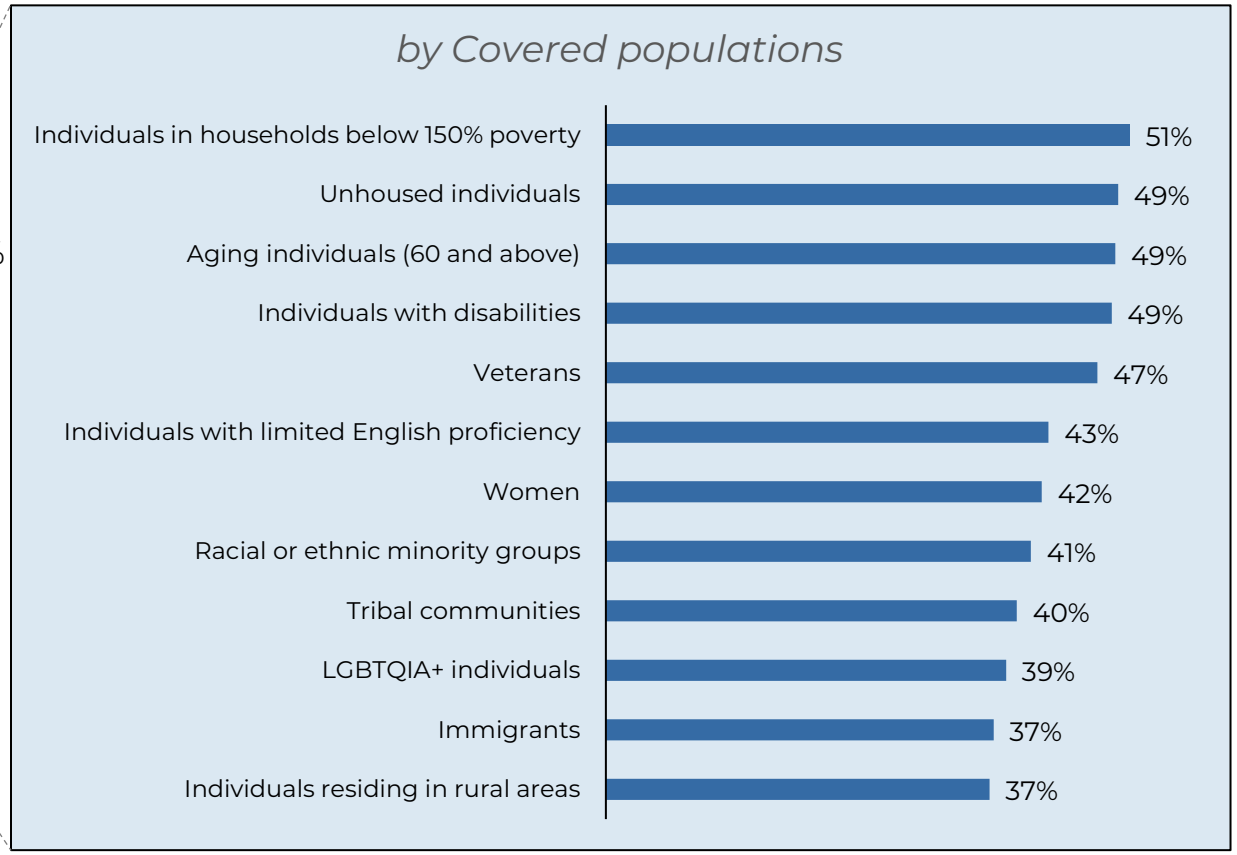




Access & Inclusivity - Workforce Development

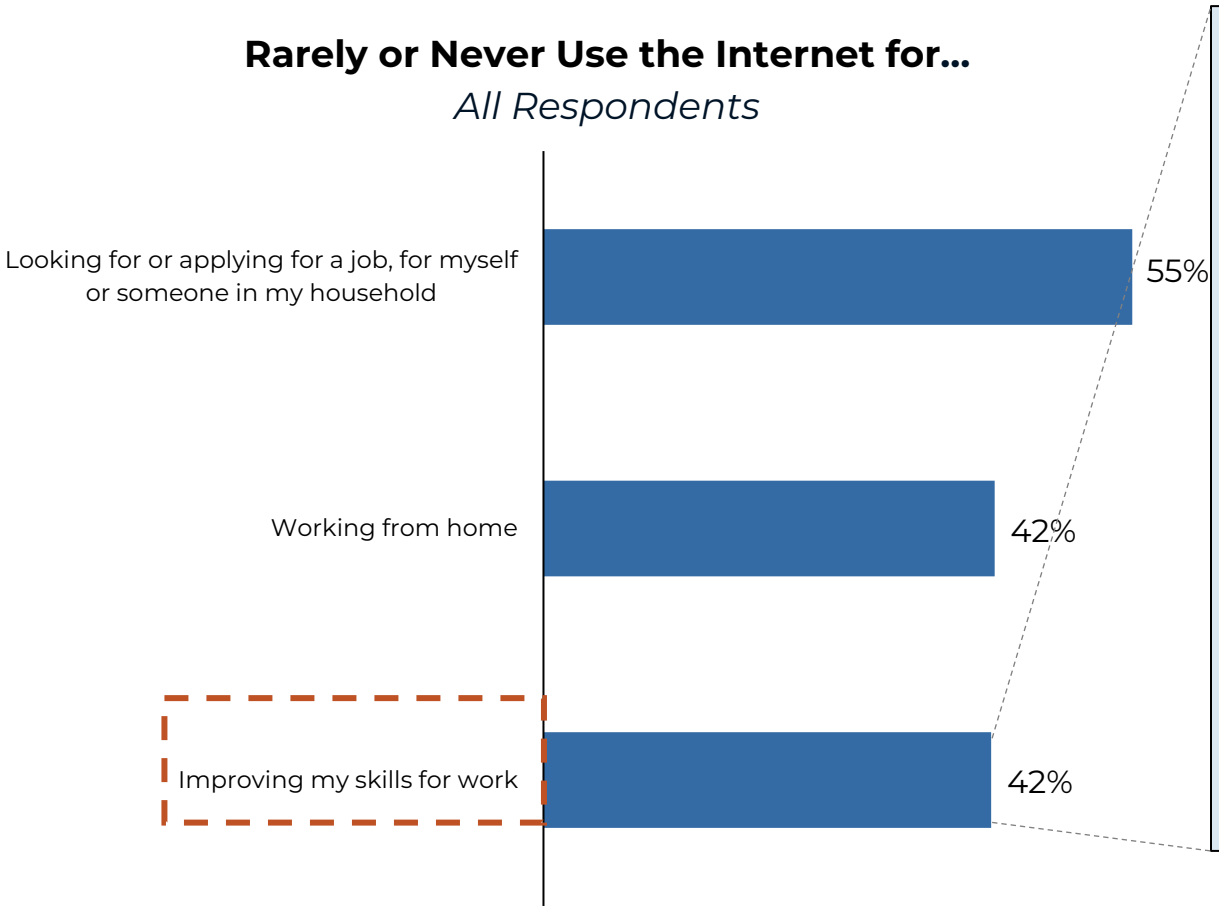
42% of respondents rarely or never use the internet to work from home. Among covered populations, individuals below poverty, unhoused individuals, and aging individuals rarely or never use the internet to work from home. Using the internet to work from home is more likely for respondents in rural areas, immigrants, and LGBTQIA+ individuals.

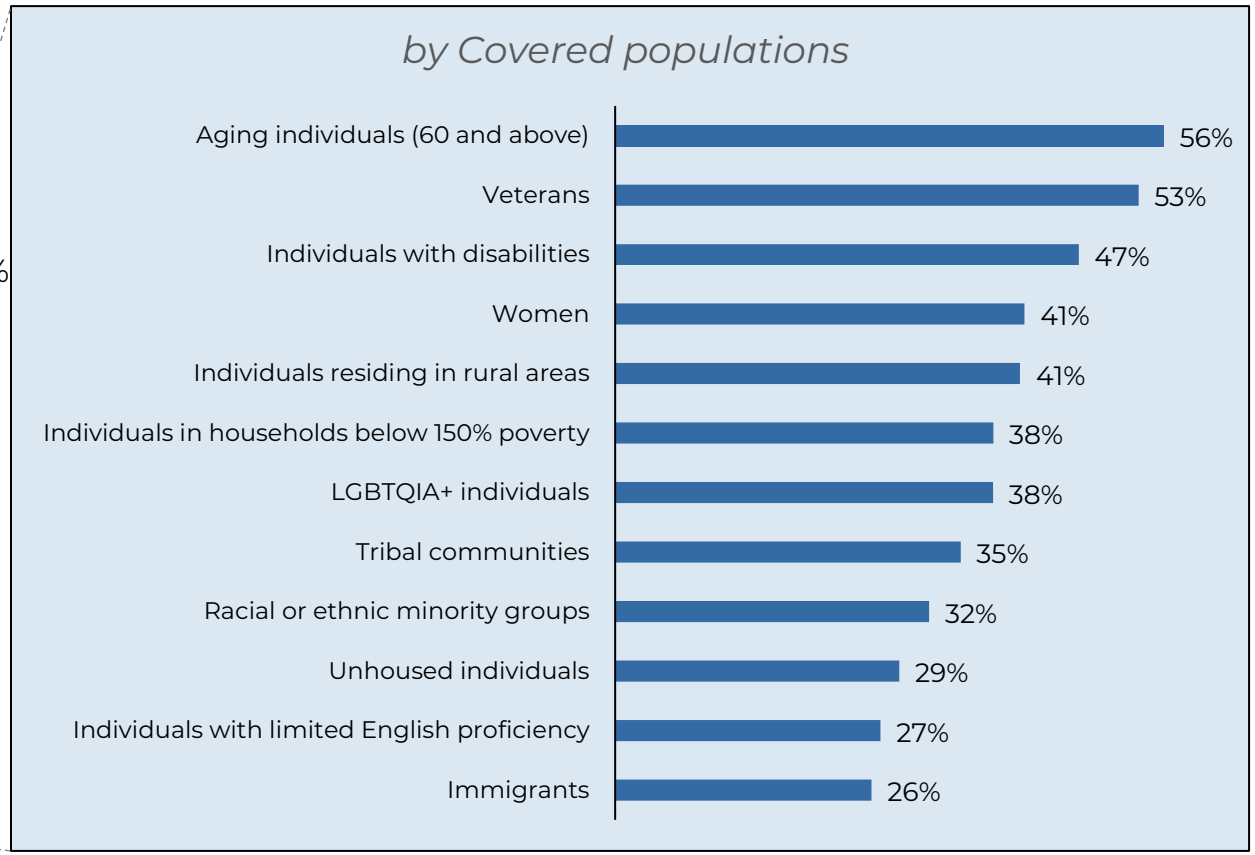




Access & Inclusivity - Workforce Development

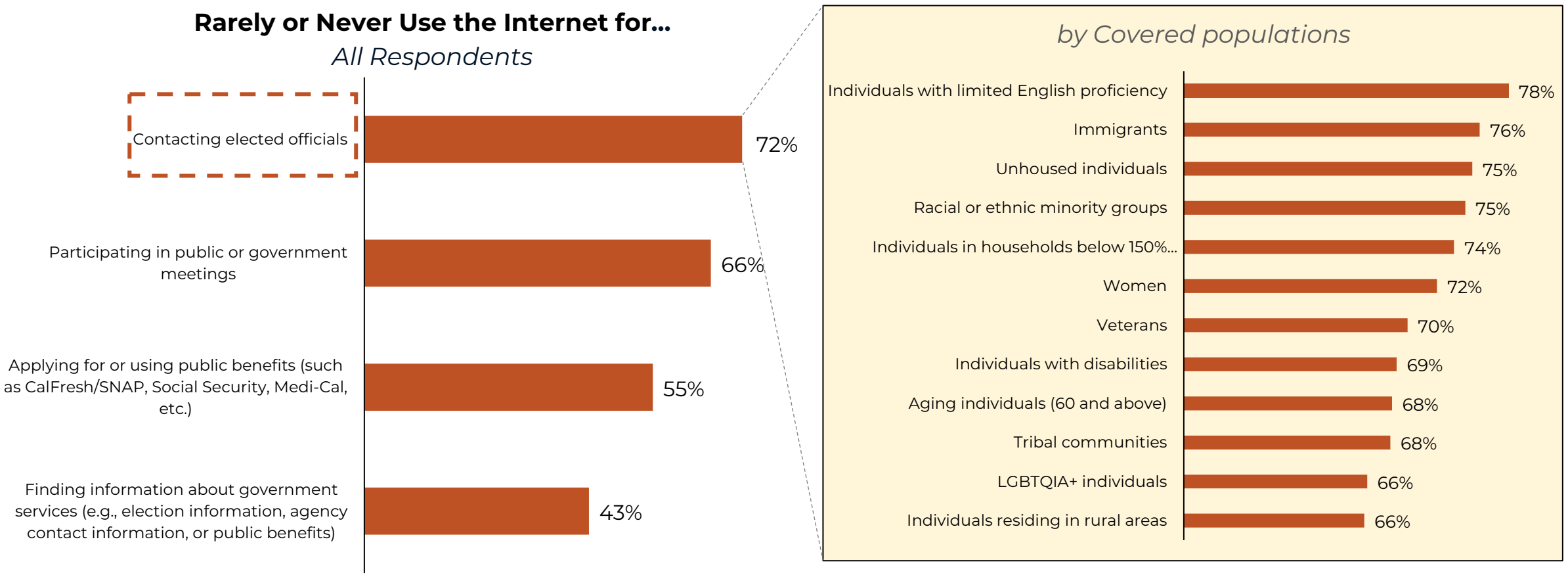
42% of respondents, primarily aging individuals, veterans, and individuals with disabilities, rarely or never use the internet to improve their skills for work. However, immigrants, individuals with limited English proficiency, and unhoused individuals are more likely to rely on the internet to improve their work skills.





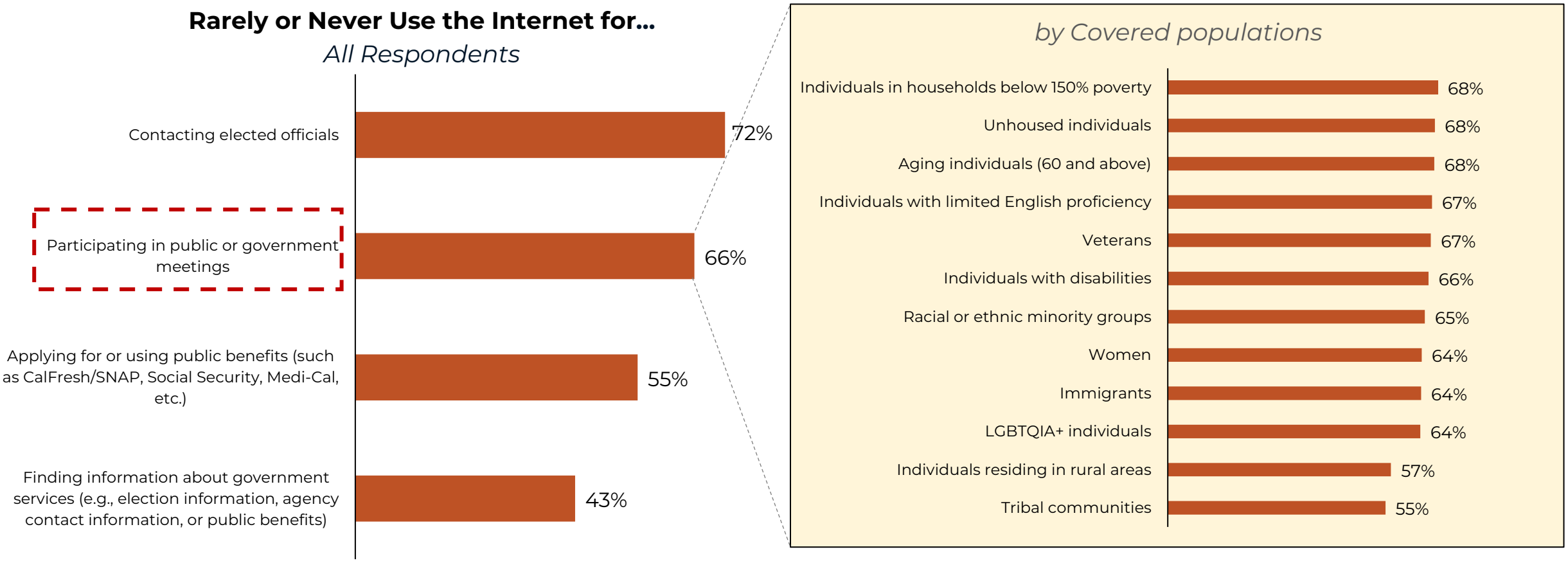
Access & Inclusivity - Civic Engagement

72% of respondents rarely or never use the internet for contacting elected officials. In comparison, a greater share of LGBTQIA+ individuals and individuals in rural areas use the internet to contact their elected officials.



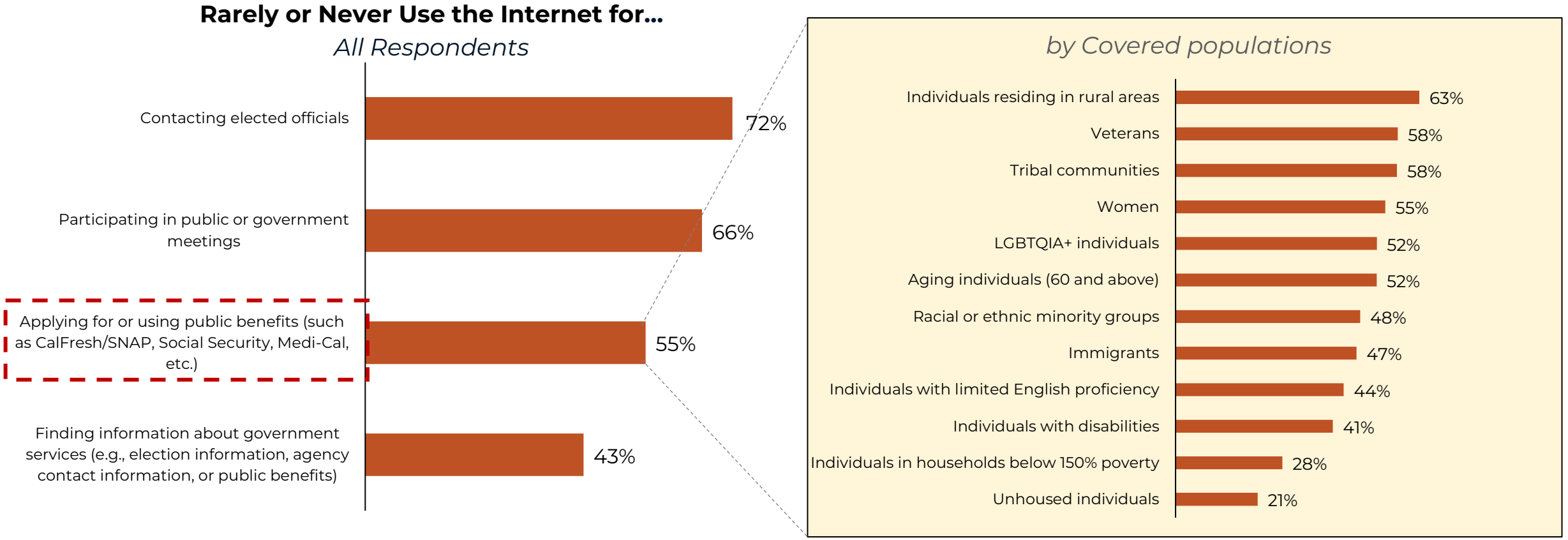
Access & Inclusivity - Civic Engagement

66% of respondents rarely or never use the internet for participating in public or government meetings. In comparison, a greater share of individuals in rural areas and tribal communities use the internet to participate in public or government meetings.



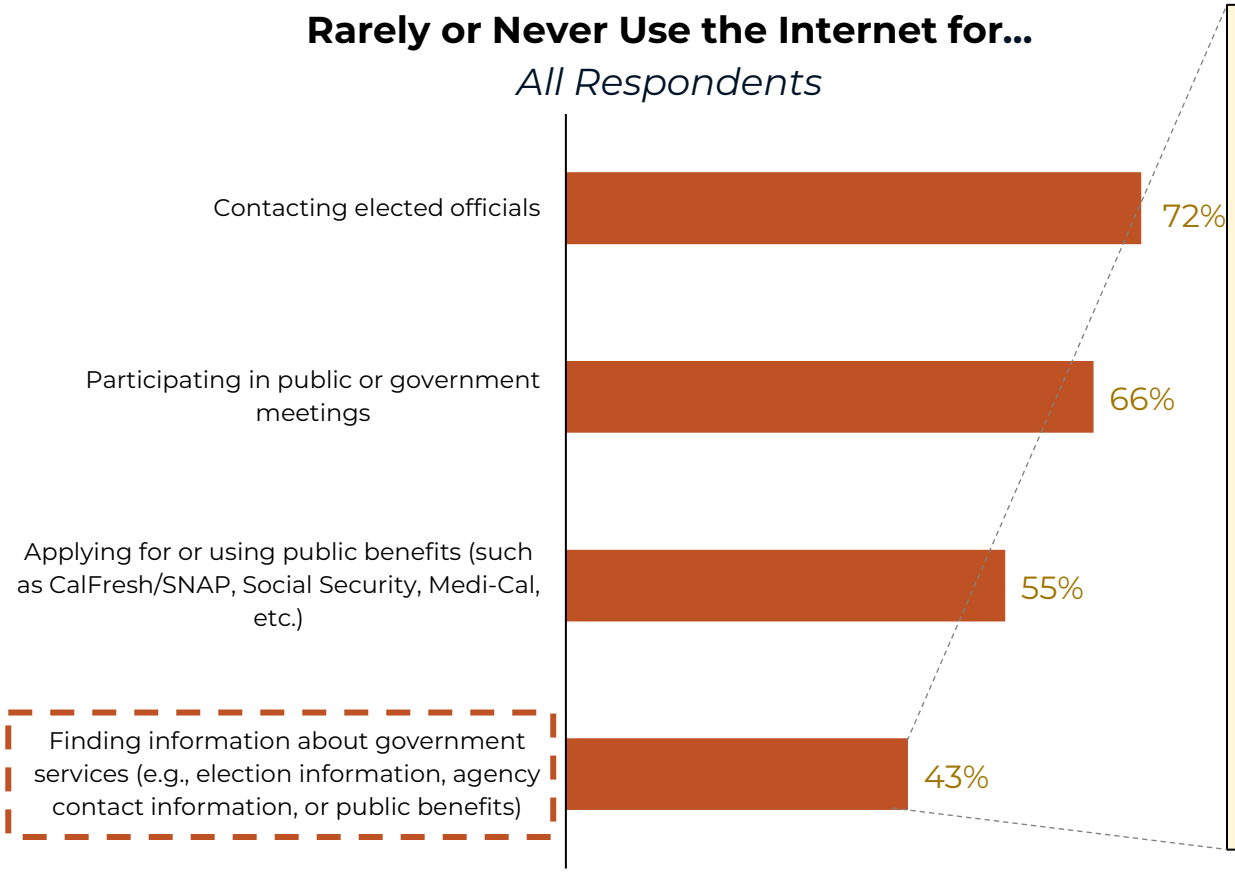
Access & Inclusivity - Civic Engagement

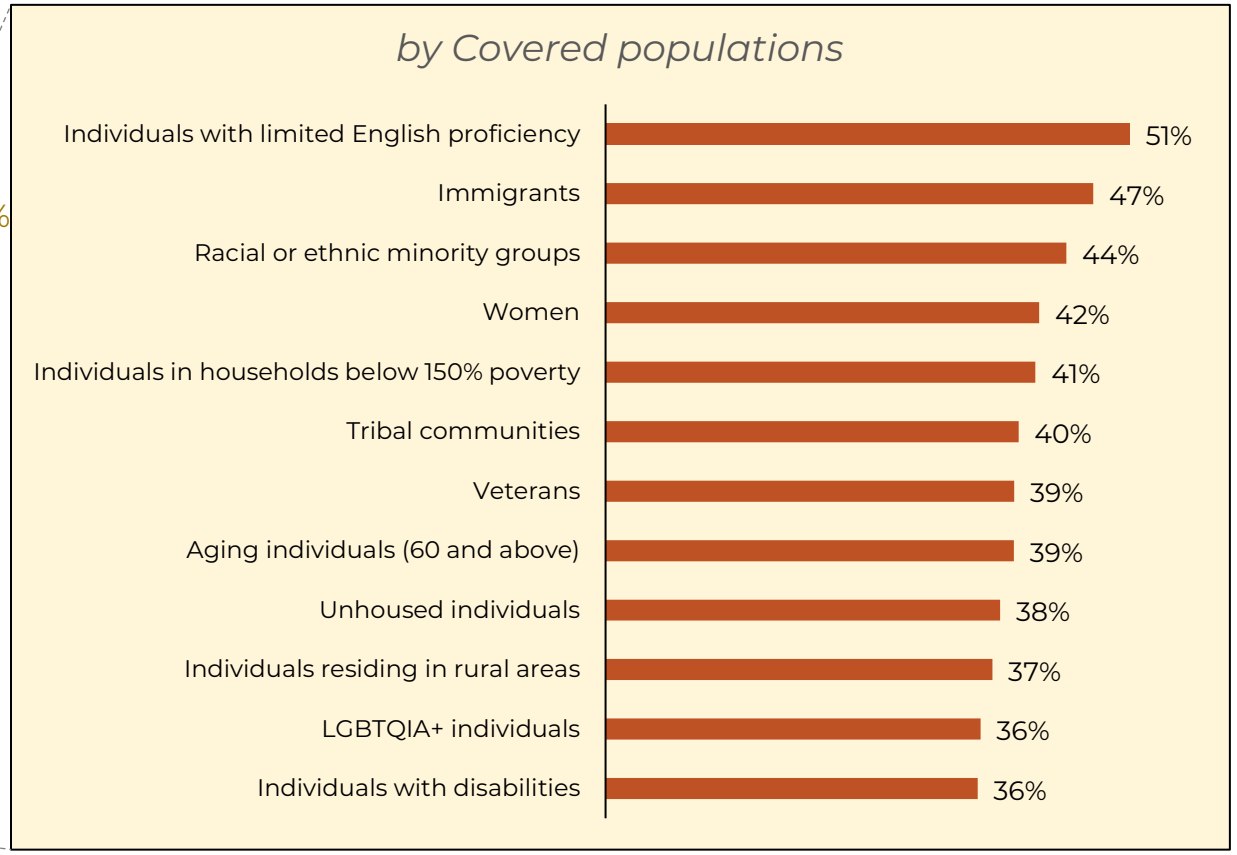
55% of respondents rarely or never use the internet to apply for or use public benefits. This share is higher for individuals in rural areas. In comparison, a greater share of unhoused individuals, individuals below poverty, individuals with disabilities, and individuals with limited English proficiency use the internet to apply for and access public benefits.



Access & Inclusivity - Civic Engagement

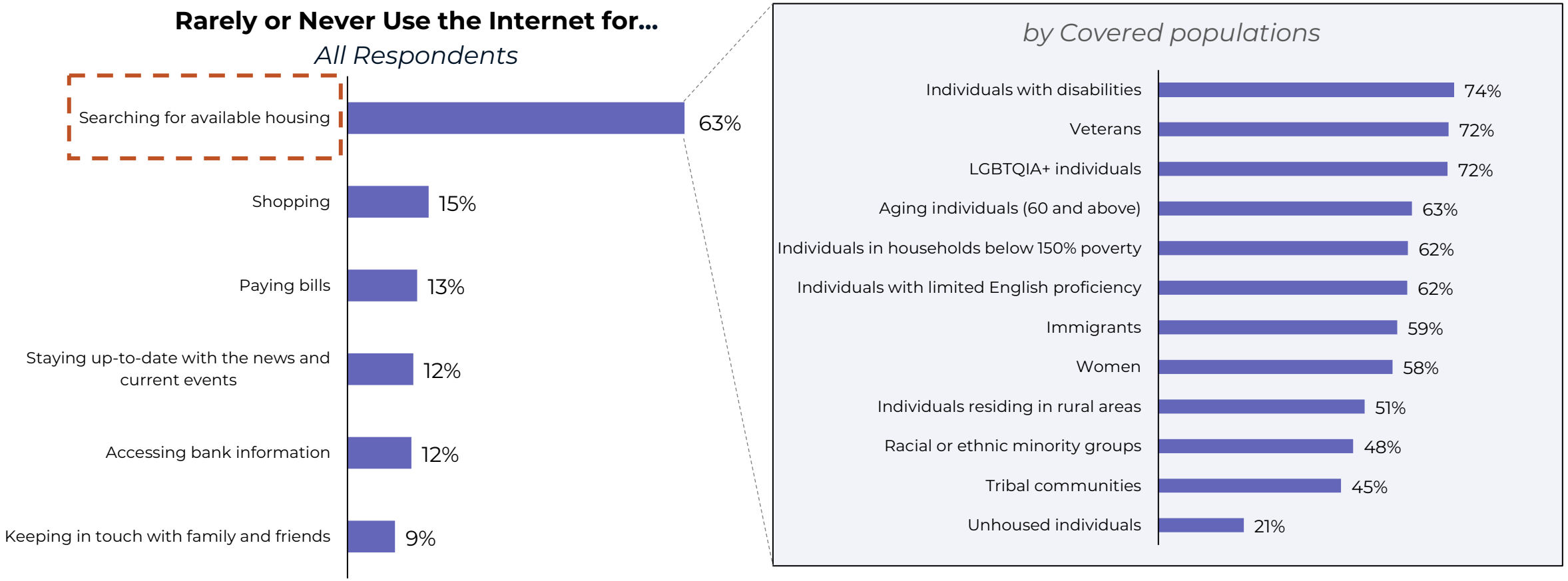
43% of respondents rarely or never use the internet for finding information about government services. This share is higher for individuals with limited English proficiency and immigrants. In comparison, a greater share of unhoused individuals, individuals in rural areas, LGBTQIA+ individuals, and individuals with disabilities, use the internet for finding information about government services.





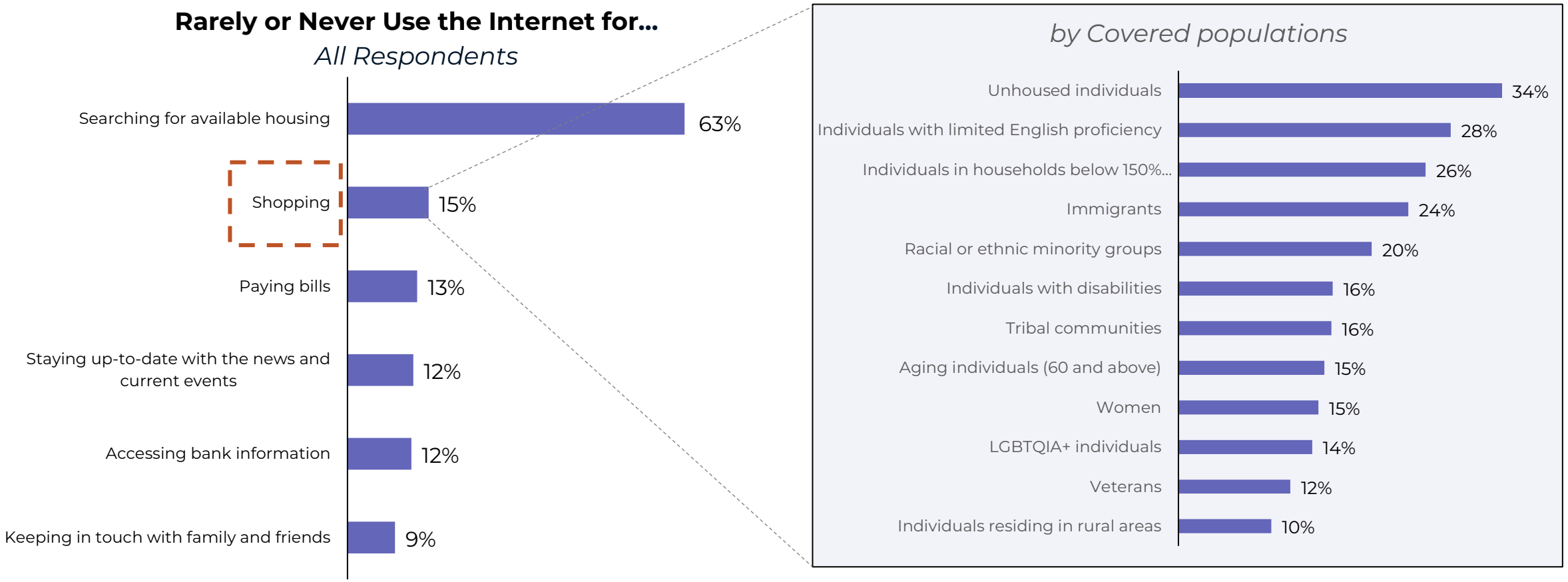
Access & Inclusivity - Essential Services

63% of respondents rarely or never use the internet to search for available housing. In comparison, a greater share of unhoused individuals, tribal communities, and racial or ethnic minority groups use the internet to search for available housing.



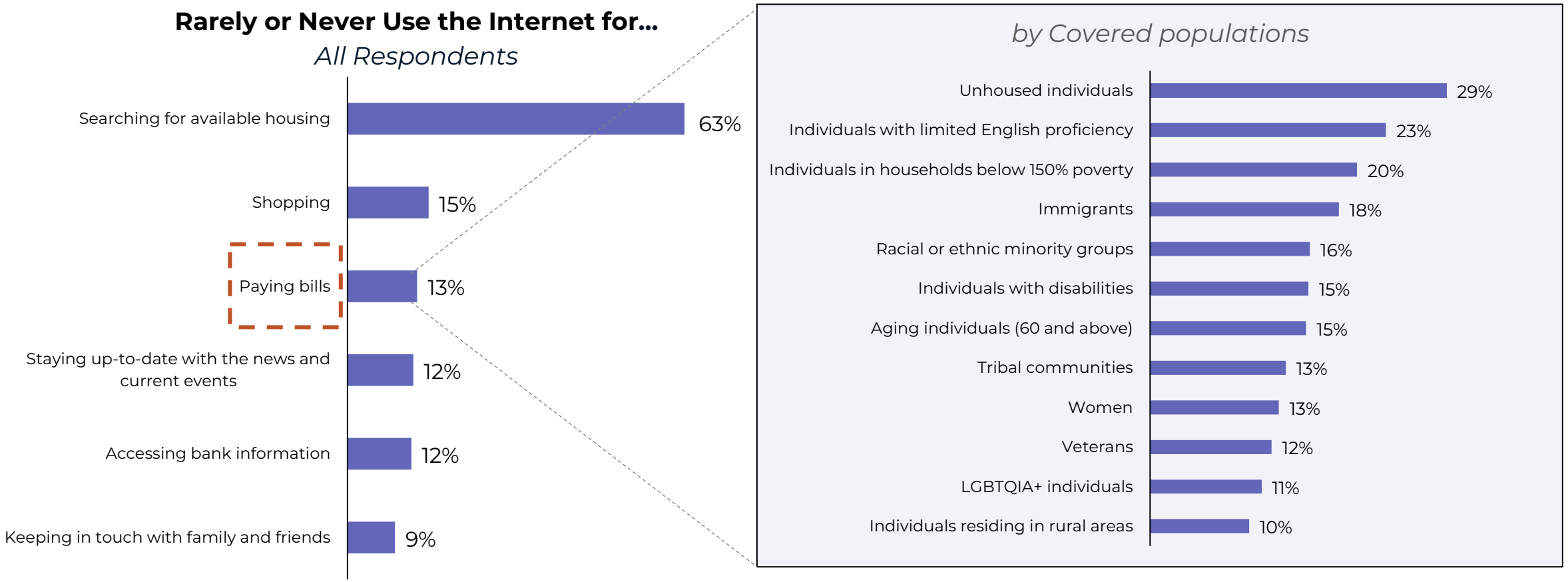
Access & Inclusivity - Essential Services

15% of respondents rarely or never use the internet for shopping. This share is higher for unhoused individuals, individuals with limited English proficiency, individuals below poverty, immigrants, and racial or ethnic minority groups. In comparison, a greater share of veterans and individuals in rural areas use the internet for shopping.



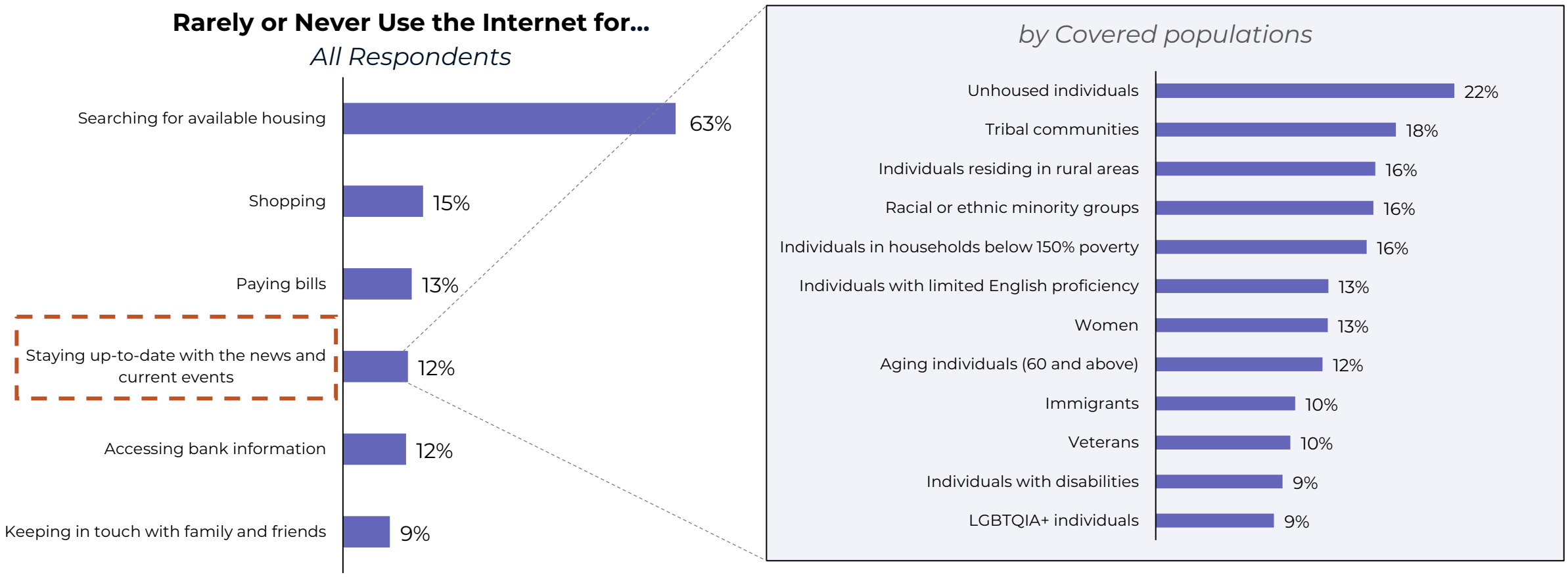
Access & Inclusivity - Essential Services

13% of respondents rarely or never use the internet for paying bills. This share is higher for unhoused individuals, individuals with limited English proficiency, individuals below poverty, immigrants, and racial or ethnic minority groups. In comparison, a greater share of individuals in rural areas use the internet for paying bills.



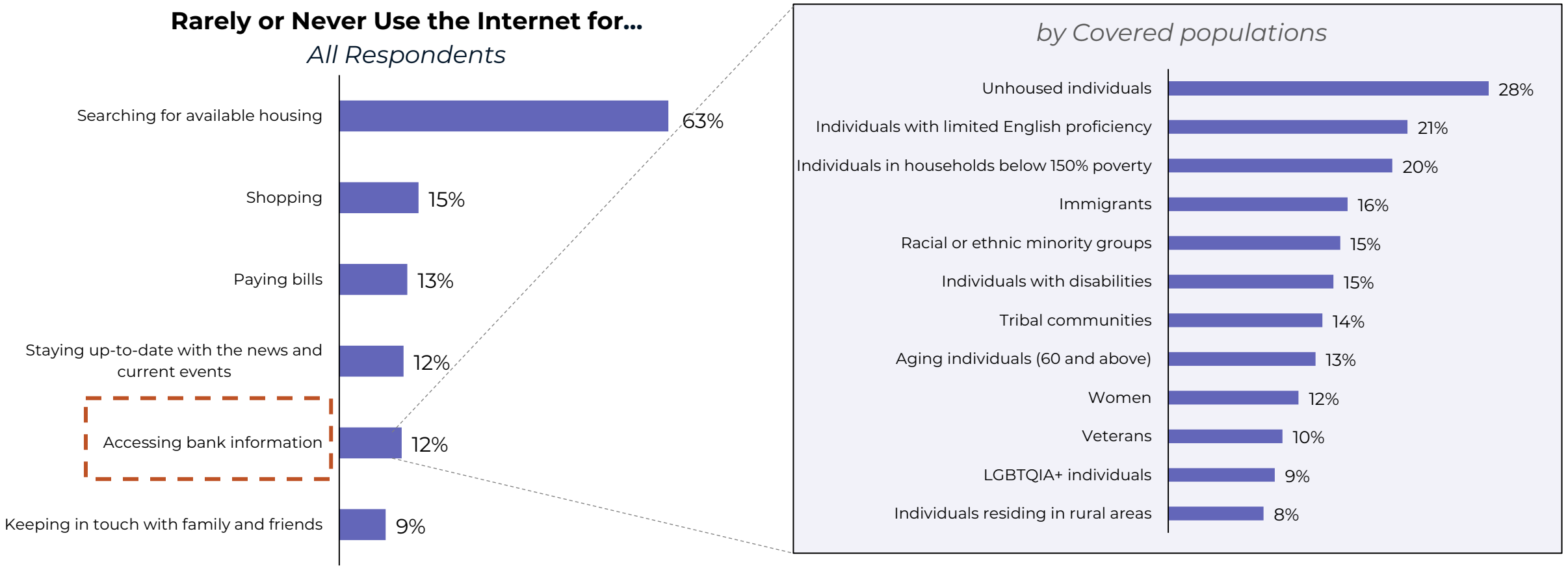
Access & Inclusivity - Essential Services

12% of respondents rarely or never use the internet for news updates. This share is higher for unhoused individuals and tribal communities. In comparison, a greater share of individuals with disabilities and LGBTQIA+ individuals use the internet for news updates.



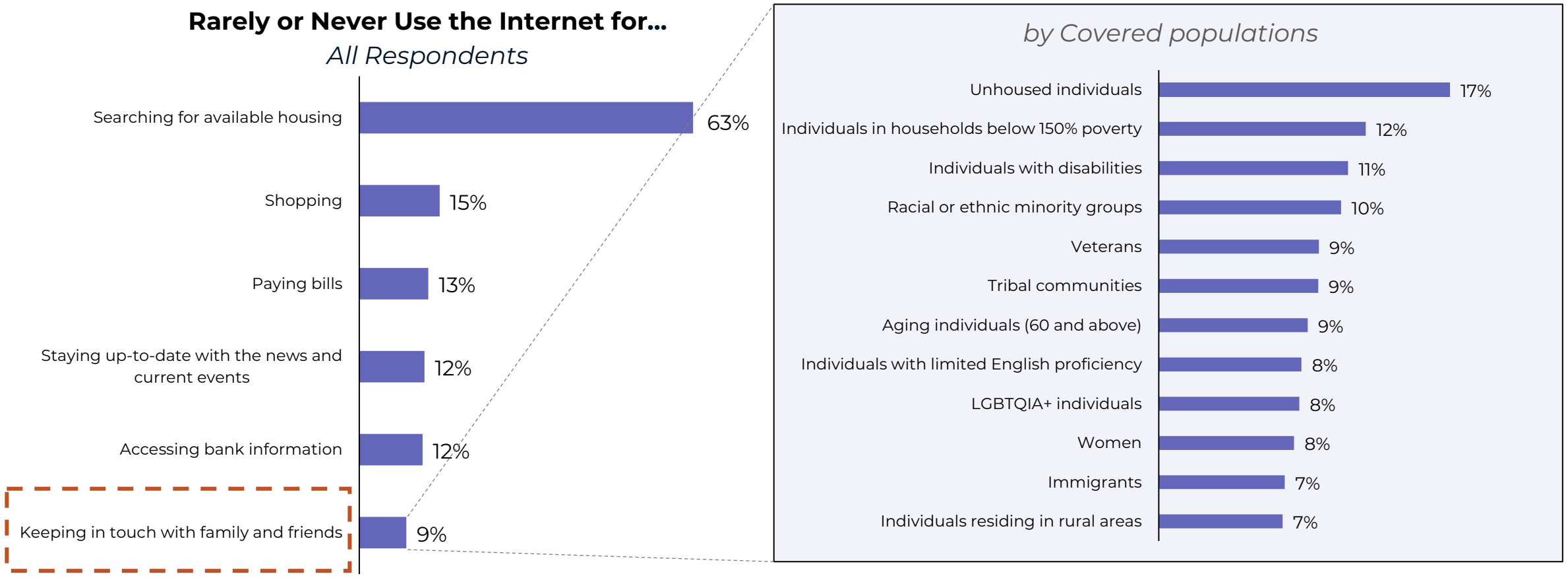
Access & Inclusivity - Essential Services

12% of respondents rarely or never use the internet for bank services. This share is higher for unhoused individuals, individuals with limited English proficiency, and individuals below poverty. In comparison, a greater share of individuals in rural areas and LGBTQIA+ individuals use the internet for accessing bank services.



Access & Inclusivity - Essential Services

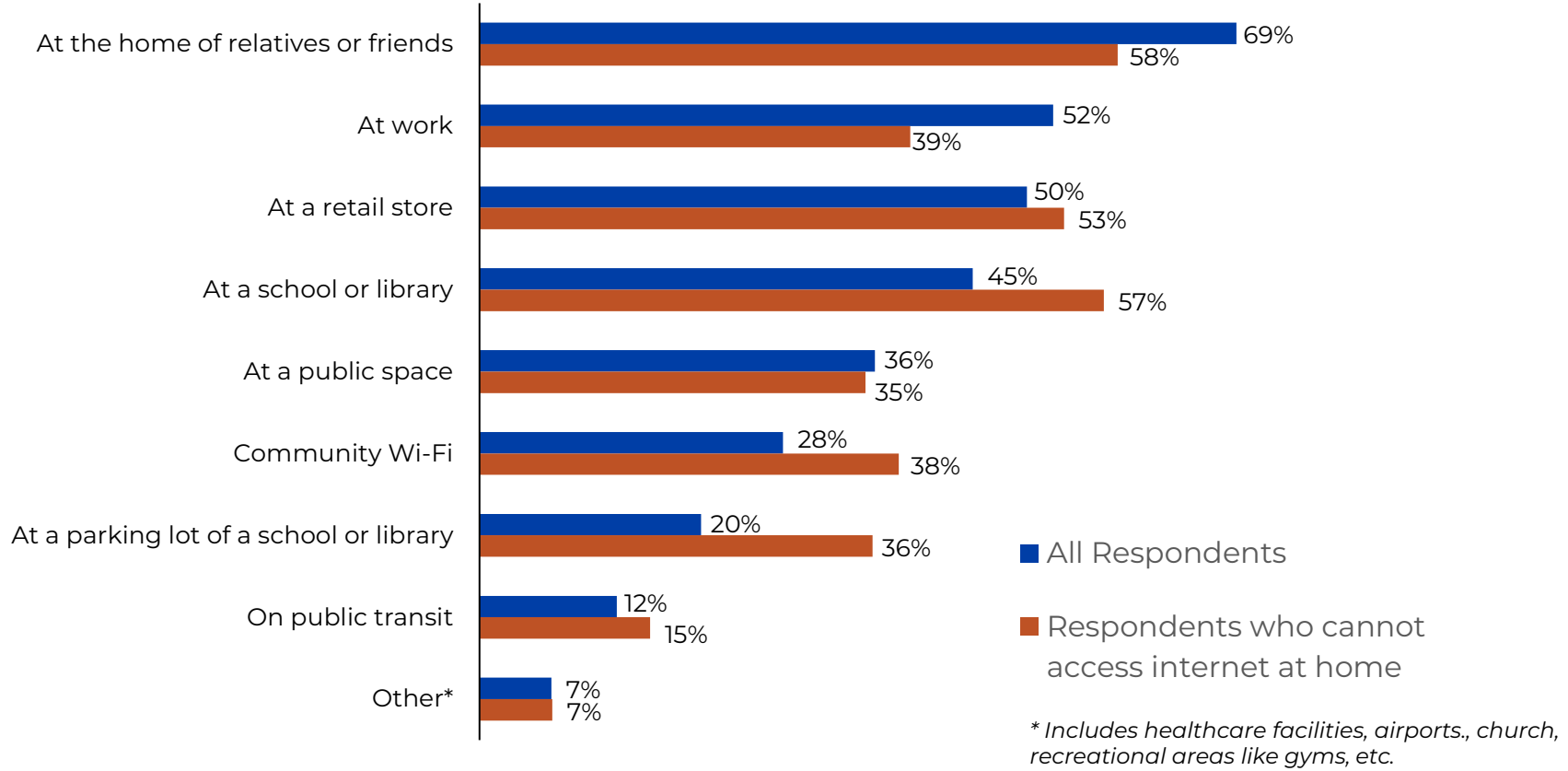
9% of respondents rarely or never use the internet for contacting family or friends. This share is higher for unhoused individuals and individuals below poverty. In comparison, a greater share of immigrants and individuals residing in rural areas use the internet for keeping in touch with family and friends.



Access & Inclusivity - Public Internet Access

More than 50% of respondents connect to the internet at the home of relatives or friends, at work, or at retail stores, when not using their own connection plan. In comparison, respondents who cannot access the internet at home are more reliant on public facilities such as a school or library, retail store, or community Wi-Fi.

SURVEY QUESTION: Where else do you connect to the internet when not using your own connection plan?



** Includes healthcare facilities, airports., church, recreational areas like gyms, etc.*

Access & Inclusivity - Public Internet Access

SURVEY QUESTION: Where else do you connect to the internet when not using your own connection plan?

	All Respondents	Respondents who cannot access internet at home
At the home of relatives or friends	69%	58%
At work	52%	39%
At a retail store	50%	53%
At a school or library	45%	57%
At a public space	36%	35%
Community Wi-Fi	28%	38%
At a parking lot of a school or library	20%	36%
On public transit	12%	15%
Other*	7%	7%

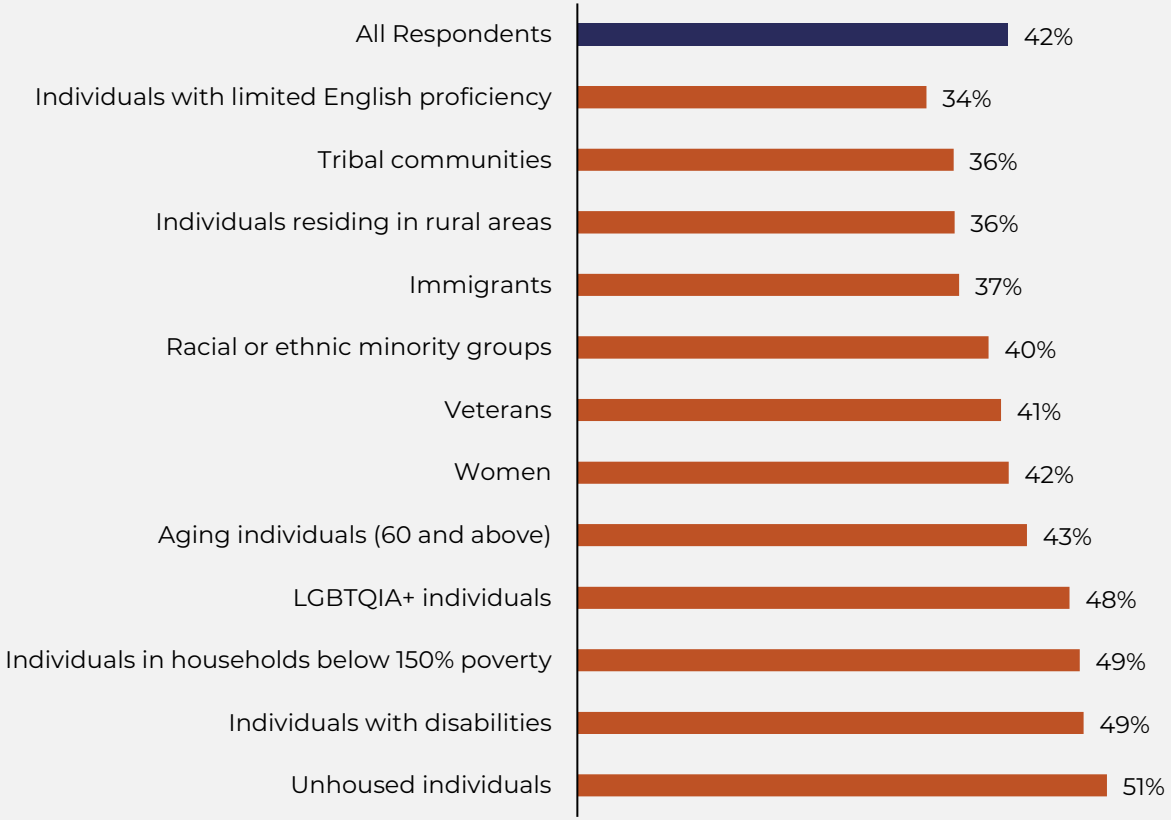
** Includes healthcare facilities, airports., church, recreational areas like gyms, etc.*

Access & Inclusivity - Discounted Internet

42% of respondents have heard about ACP and 22% have heard about discounted internet services by ISPs. ACP awareness is lower among individuals with limited English proficiency, tribal communities, individuals in rural areas, and immigrants. Awareness about discounted internet services is almost the same across all covered populations.

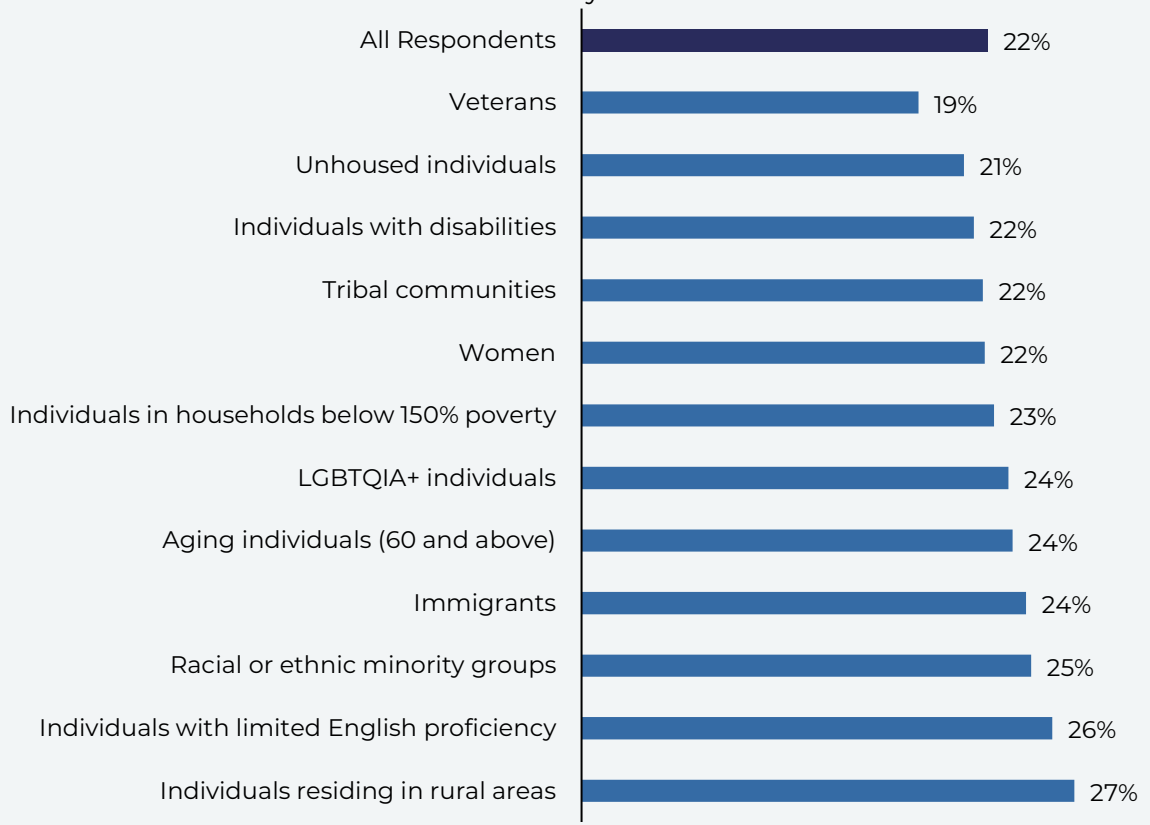
ACP Awareness

Respondents who have heard about ACP



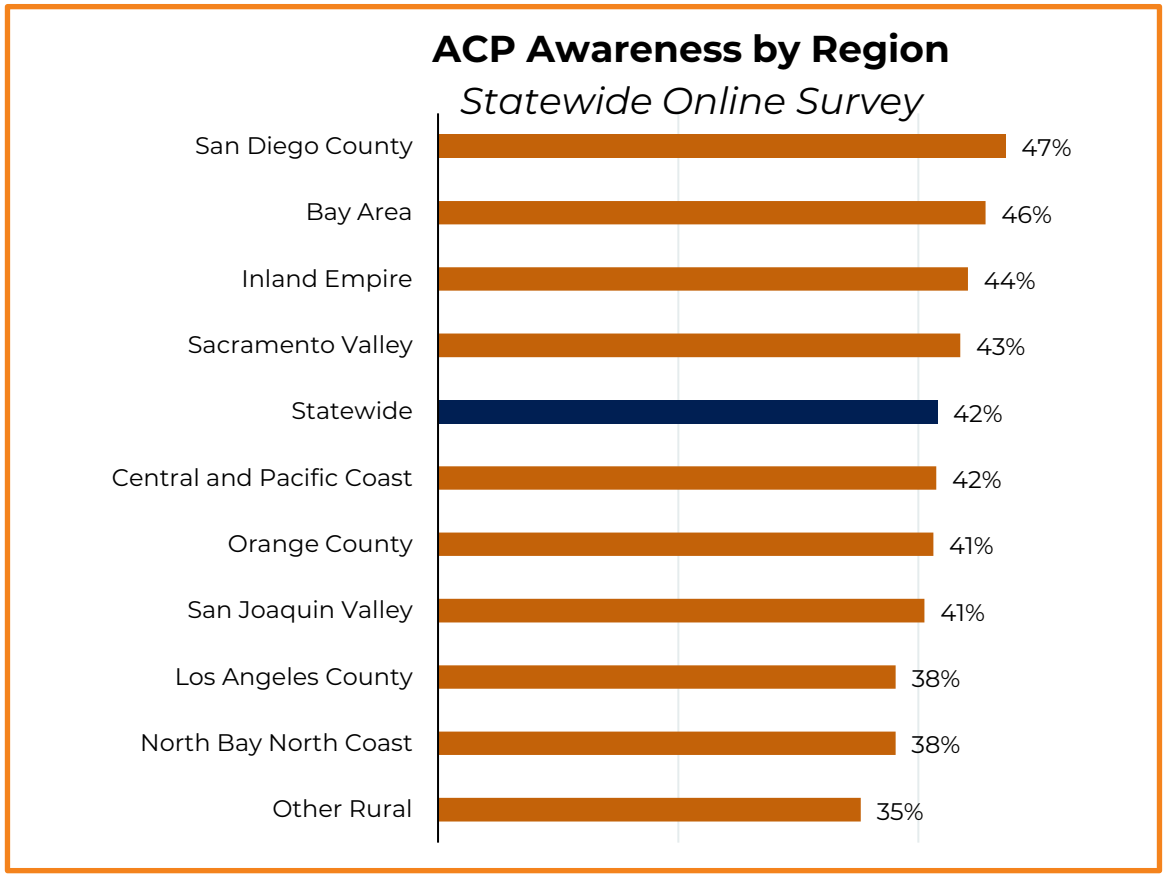
Discounted Internet Awareness

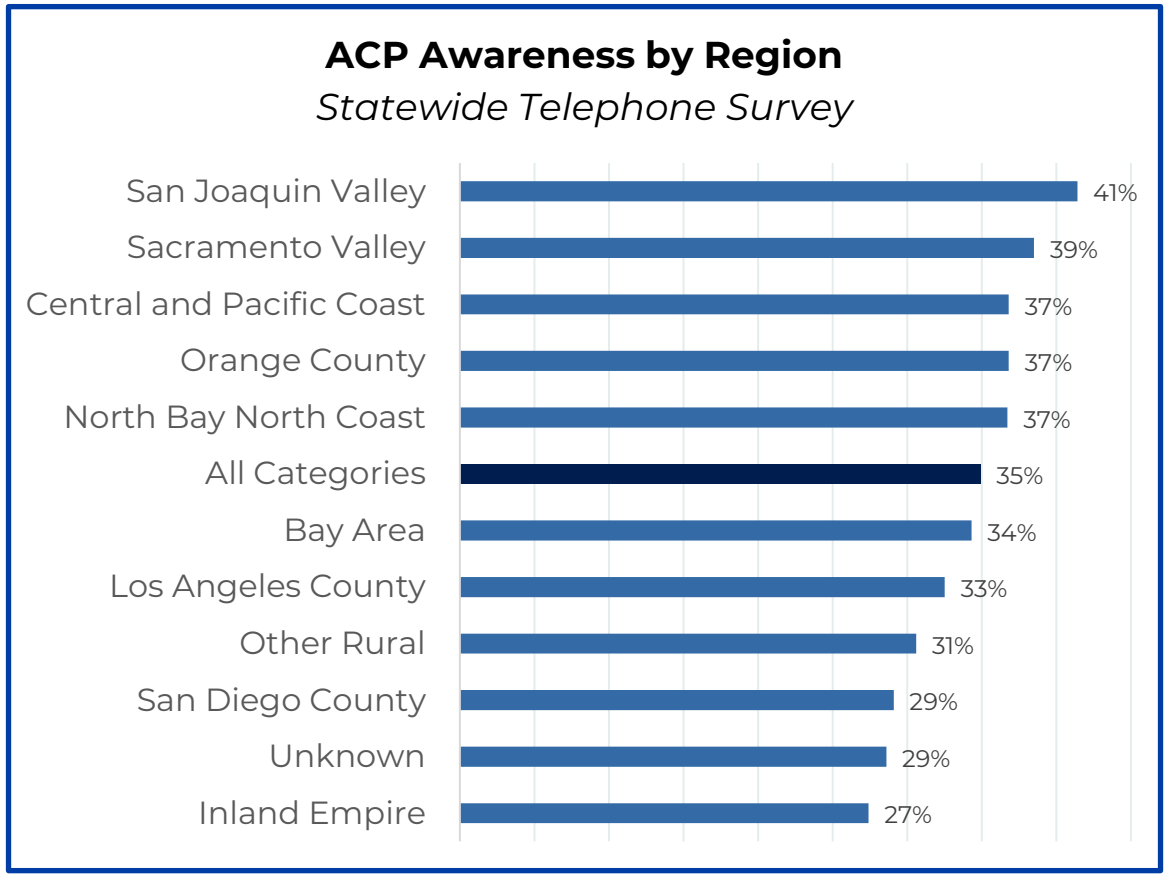
Respondents who have heard about discounted internet services by ISPs



Access & Inclusivity - Discounted Internet

While there are regional differences in ACP awareness when comparing both surveys, overall, a larger share of online survey respondents are aware about ACP when compared to the telephone survey respondents.*



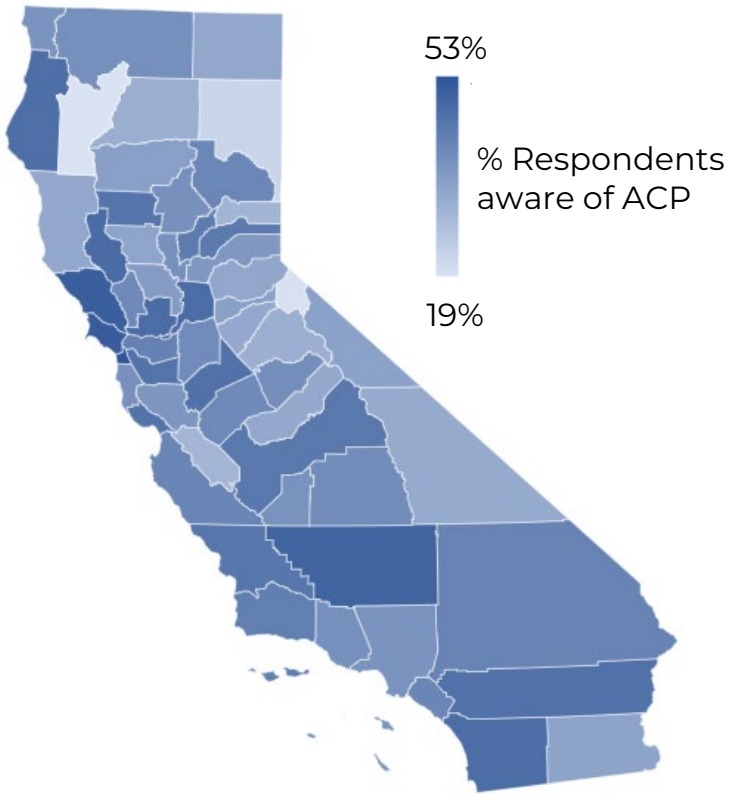


** Statewide Telephone Survey collected responses through random digit dialing, while oversampling for rural areas in each region.*

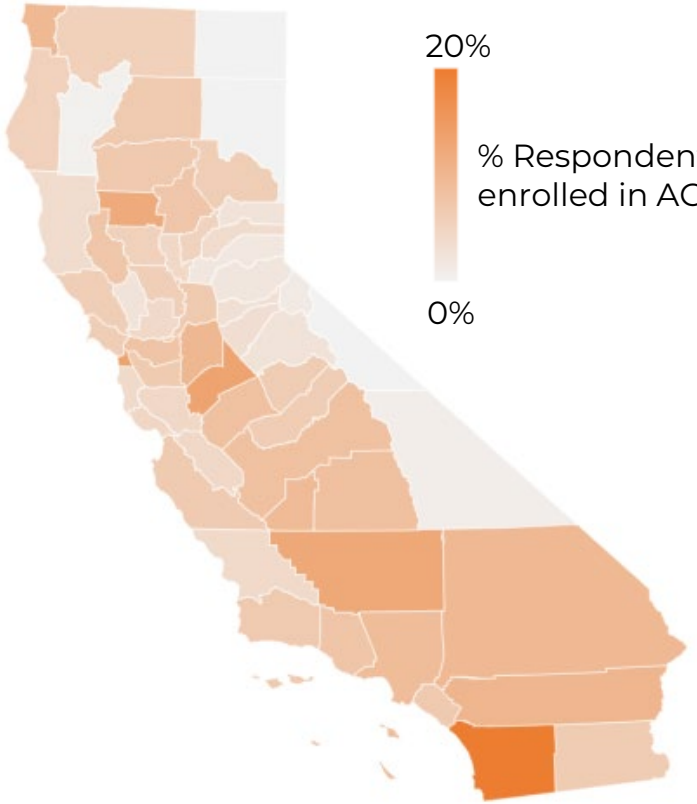
Access & Inclusivity - ACP

ACP enrollment by respondents is similar to the statewide enrollment trend across counties. The Western and Southern areas of California have a greater share of respondents who are aware about ACP.

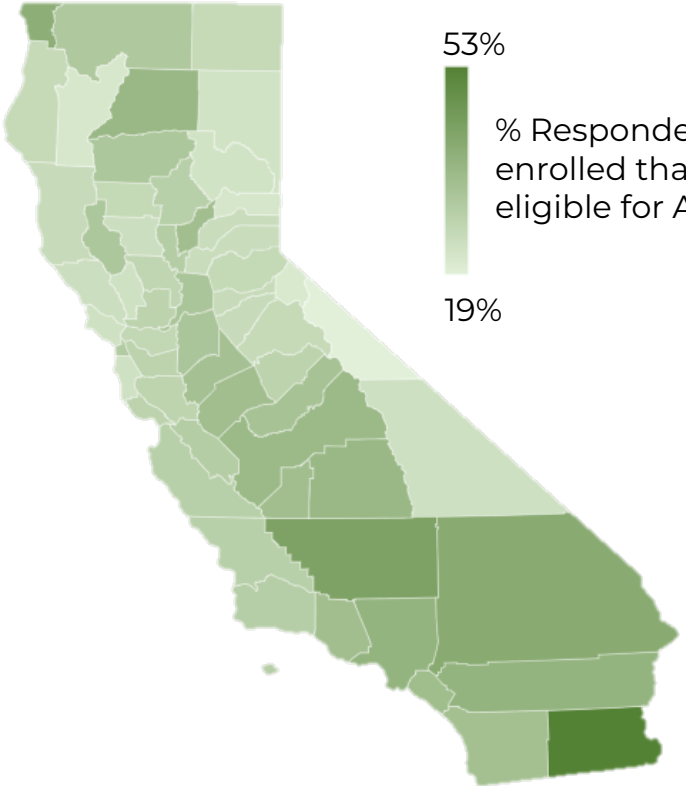
Survey Respondents Aware of ACP



Respondents Enrolled in ACP



ACP Enrollment Rate by Eligible Households* (June 2023)



** Source: CETF, via CDT website*

Access & Inclusivity - ACP

ACP enrollment by respondents is similar to the statewide enrollment trend across counties. The Western and Southern areas of California have a greater share of respondents who are aware about ACP.

Respondents aware of ACP

Top 5 Counties	Bottom 5 Counties
San Diego	Lassen
Los Angeles	Alpine
San Francisco	Glenn
Mendocino	Mariposa
Sacramento	Modoc

ACP Enrollment by Respondents

Top 5 Counties	Bottom 5 Counties
San Diego	Alpine
San Francisco	Trinity
Kern	Lassen
Stanislaus	Modoc
Glenn	Mono

ACP Enrollment Rate by Eligible Households* (June 2023)

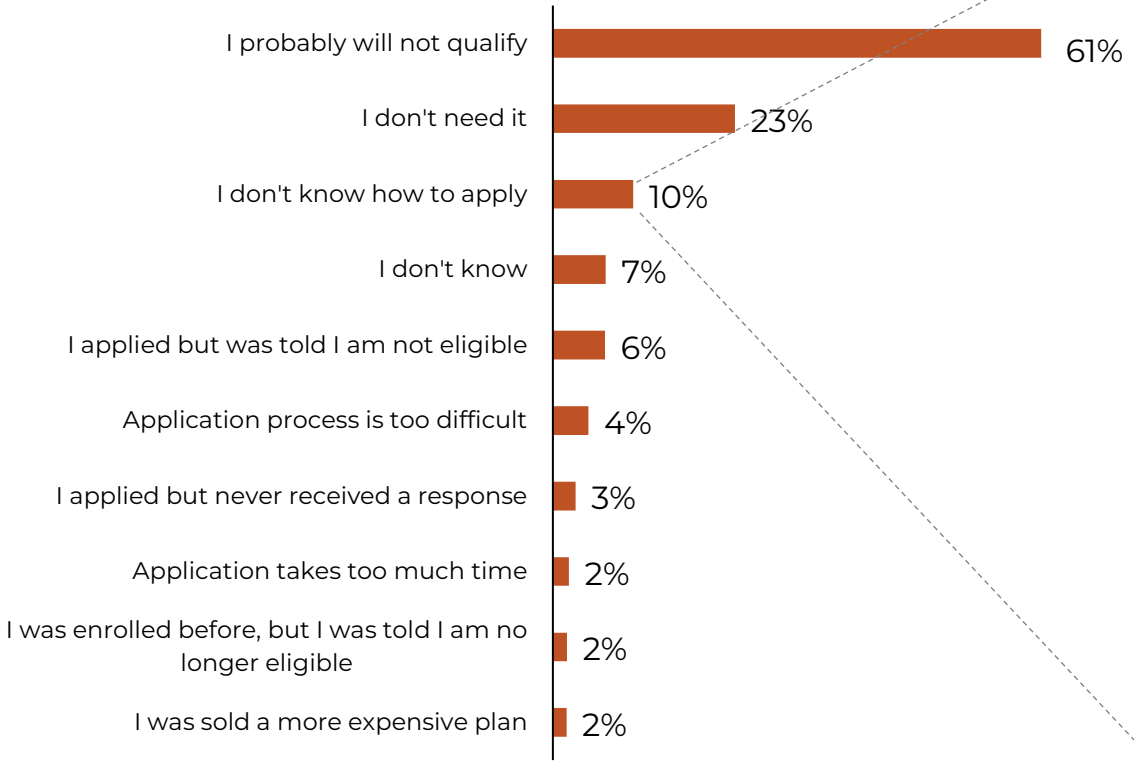
Top 5 Counties	Bottom 5 Counties
Imperial	Mono
Kern	Alpine
San Bernardino	Trinity
Del Norte	Sierra
Los Angeles	Plumas

** Source: CETF, via CDT website*

Access & Inclusivity - Discounted Internet

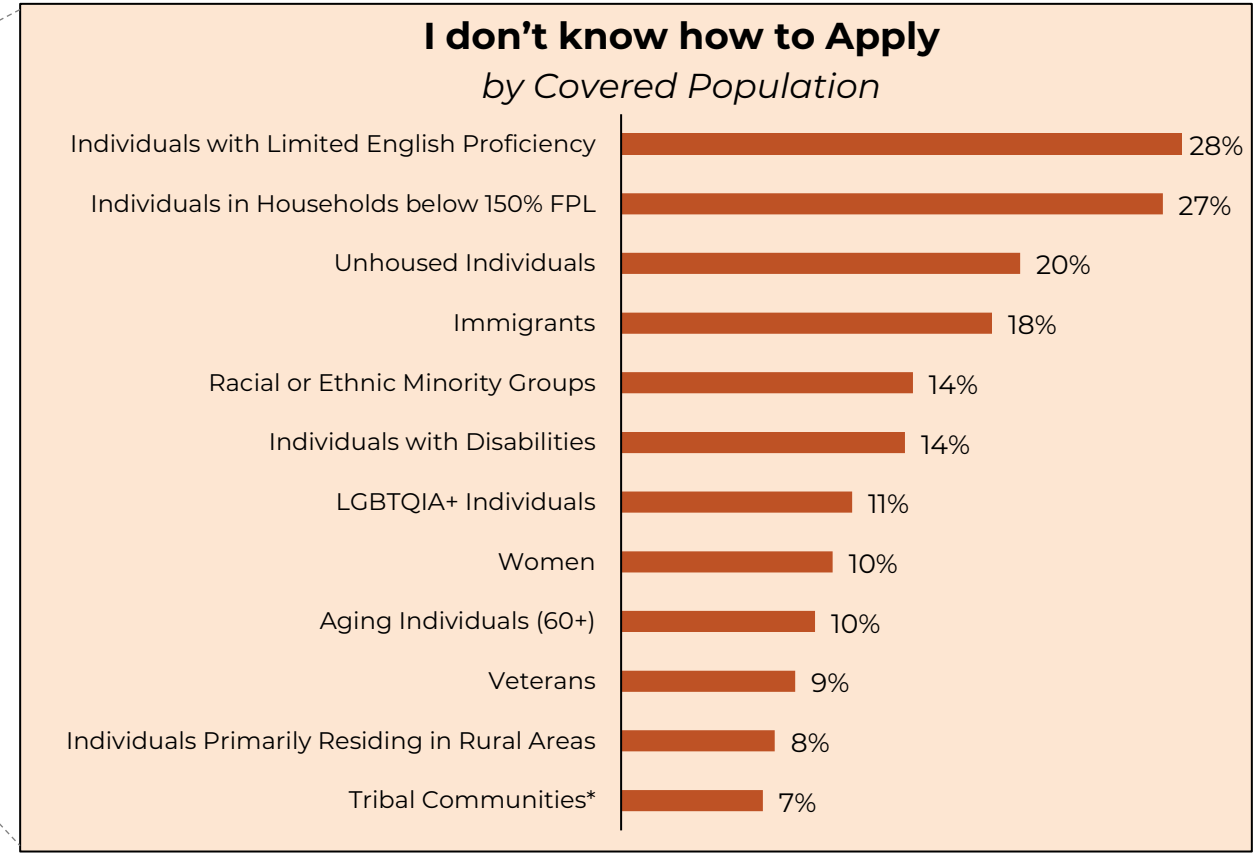
61% of respondents who are aware of but not enrolled in discounted internet programs feel that they will probably not qualify. Another 10% don't know how to apply. Individuals with limited English proficiency, individuals below poverty, unhoused individuals, and immigrants have a higher share of respondents who don't know how to apply.

Why are you not enrolled in discounted internet programs? - *All Respondents*



I don't know how to Apply

by Covered Population



** Result may not be statistically significant due to small sample size*

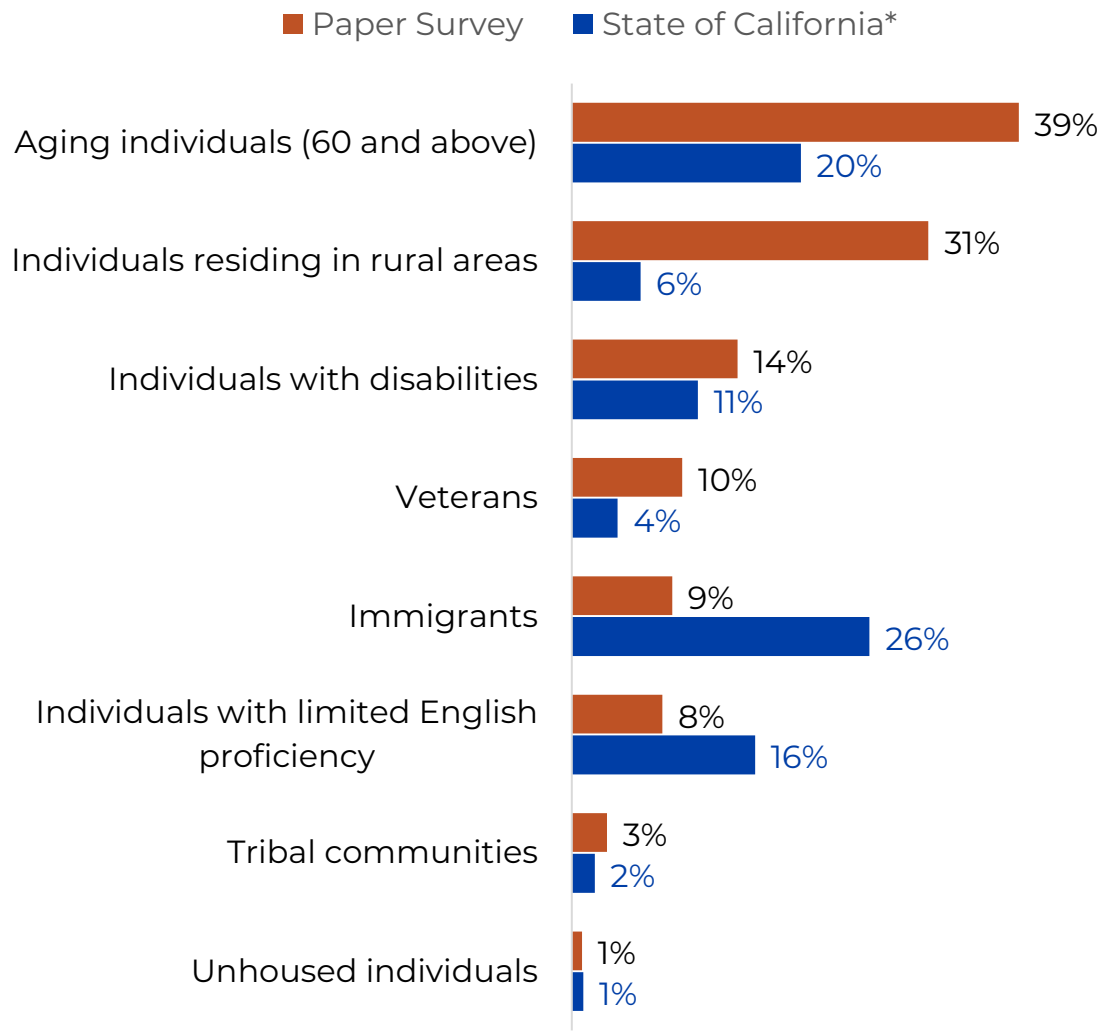
2.2 Paper Survey Analysis

Paper Public Survey Responses by Covered Population

The Paper Survey was released and disseminated across the state to encourage widespread participation from individuals uncomfortable with answering or unable to access the online survey. A total of 228 valid responses were recorded to the paper survey.

More than 72% of paper survey respondents belonged to one or more covered populations. Aging individuals, individuals primarily residing in rural areas, and individuals with disabilities were the most represented covered populations among paper survey respondents.

Covered Populations' Distribution



** From U.S. Census Bureau's ACS 2021 5-year estimates, 2020 Decennial Census (for rural population), and .California Senate Housing Committee 2020 Fact Sheet.*

Paper Survey Responses by Covered Population

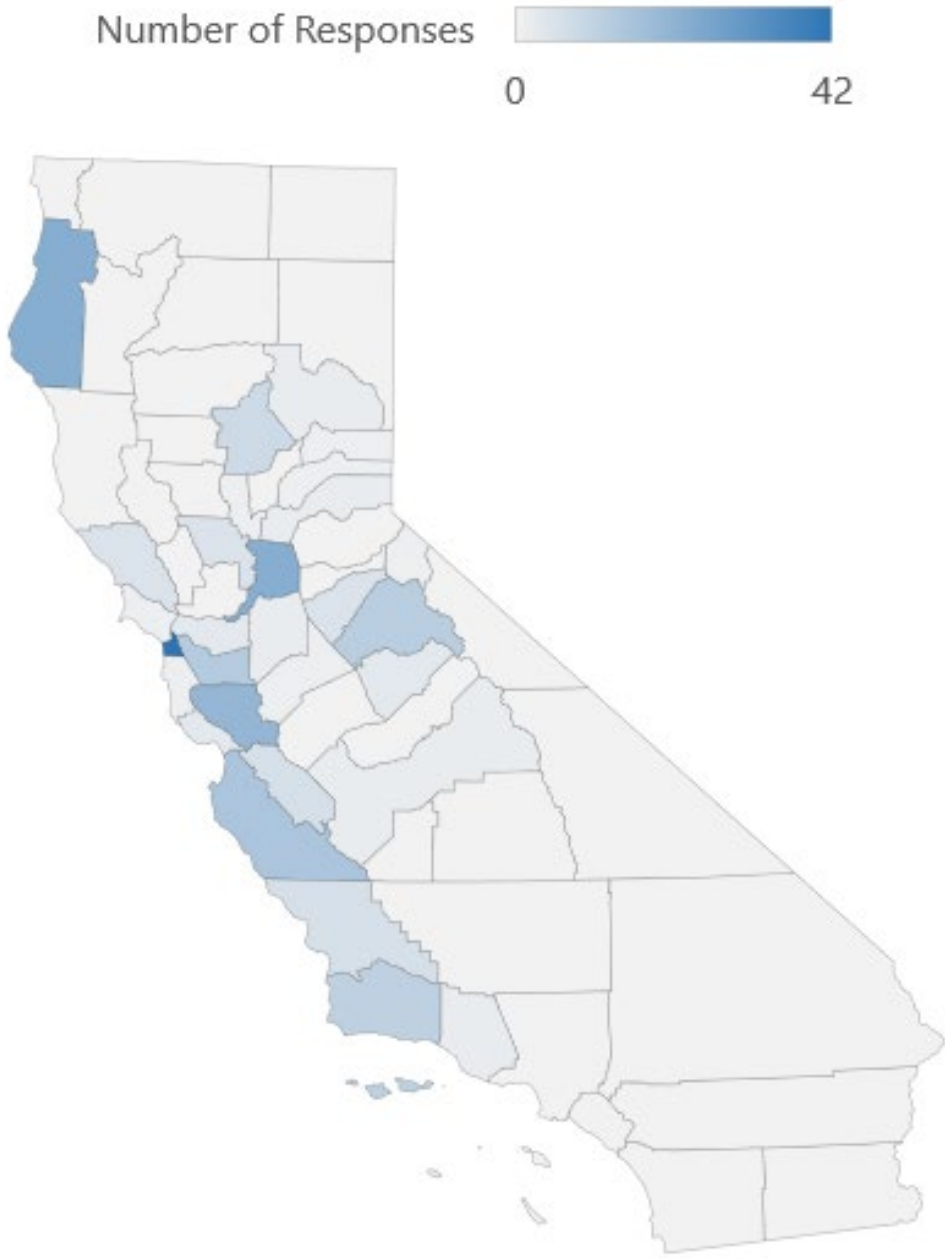
	Paper Survey	State of California*
Aging individuals (60 and above)	39%	20%
Individuals residing in rural areas	31%	6%
Individuals with disabilities	14%	11%
Veterans	10%	4%
Immigrants	9%	26%
Individuals with limited English proficiency	8%	16%
Tribal communities	3%	2%
Unhoused individuals	1%	1%

** From U.S. Census Bureau's ACS 2021 5-year estimates, 2020 Decennial Census (for rural population), and .California Senate Housing Committee 2020 Fact Sheet.*

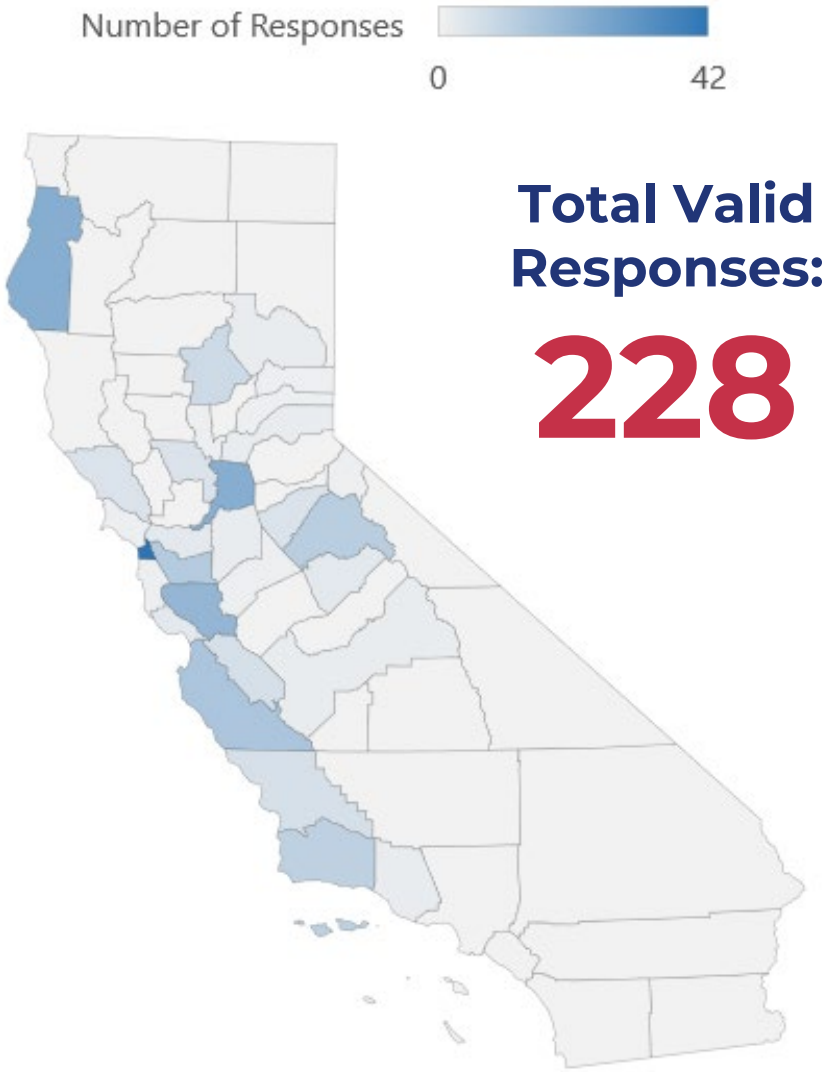
Paper Public Survey Responses by County

The paper Public Survey received responses from 29 counties in California.

San Francisco County, Humboldt County, Sacramento County, Santa Clara County, and Monterey County are the top 5 participating counties, each with more than 15 respondents.



Paper Public Survey Responses by County



Total Valid Responses:

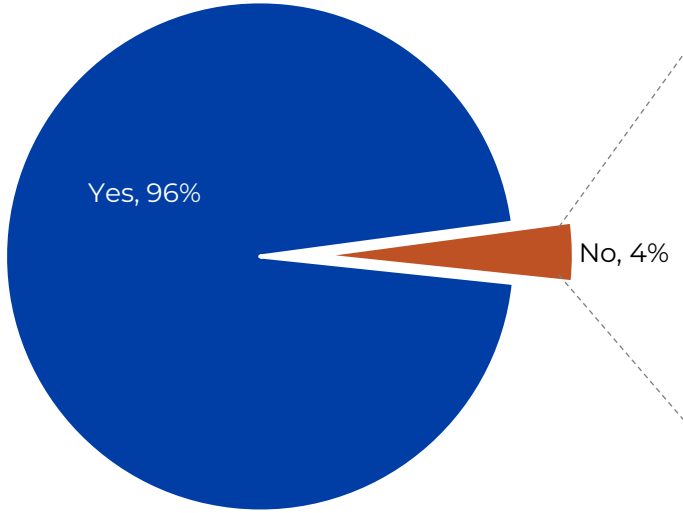
228

San Francisco	42	San Joaquin	2	Los Angeles	0
Humboldt	23	Ventura	2	Madera	0
Sacramento	23	Alpine	1	Mendocino	0
Santa Clara	20	Marin	1	Merced	0
Monterey	15	Nevada	1	Modoc	0
Alameda	13	San Mateo	1	Mono	0
Tuolumne	12	Sierra	1	Napa	0
Santa Barbara	11	Stanislaus	1	Orange	0
Butte	8	Sutter	1	Riverside	0
San Benito	6	Amador	0	San Bernardino	0
San Luis Obispo	6	Colusa	0	San Diego	0
Calaveras	5	Del Norte	0	Shasta	0
Sonoma	5	El Dorado	0	Siskiyou	0
Yolo	5	Glenn	0	Solano	0
Contra Costa	3	Imperial	0	Tehama	0
Mariposa	3	Inyo	0	Trinity	0
Santa Cruz	3	Kern	0	Tulare	0
Fresno	2	Kings	0	Yuba	0
Placer	2	Lake	0		
Plumas	2	Lassen	0	Unanswered	8

Broadband Availability & Affordability

While a majority of survey respondents can connect to the internet from home, 4% don't have internet available in their home. The most prominent reason for not having internet at home is cost (60% respondents) followed by lack of adequate internet services in the area (20% respondents).

SURVEY QUESTION: Can you connect to the internet from home?



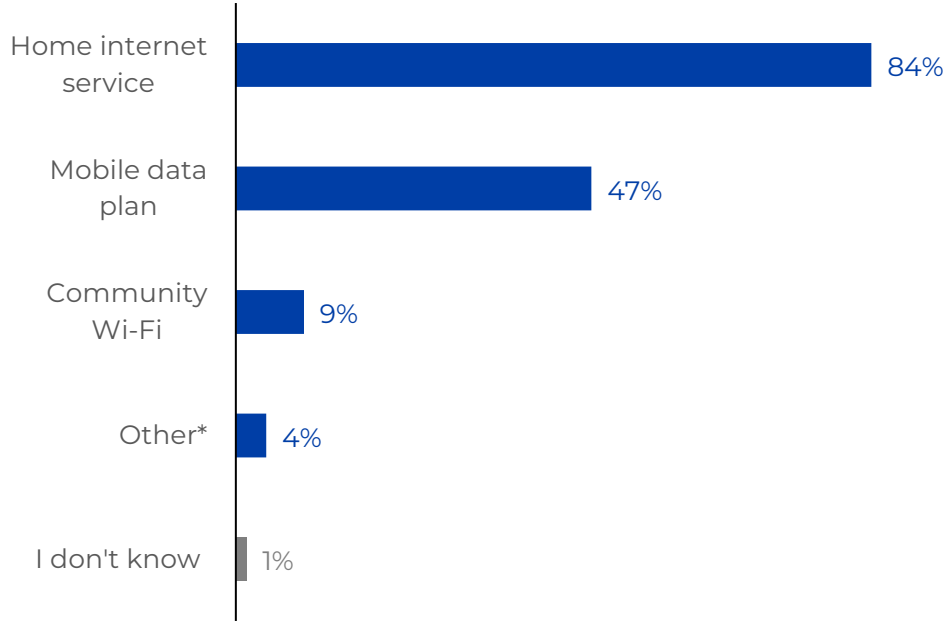
SURVEY QUESTION: Which of the following explains why you do not currently subscribe to home internet?

Broadband & Device: Availability

84% of respondents with home internet access subscribe to home internet service, followed by 47% who use a mobile data plan. 89% of respondents with home internet access use smartphones, 83% use a laptop, 54% use a tablet, and 45% use a desktop to connect to the internet.

SURVEY QUESTION: How do you connect to the internet at home?

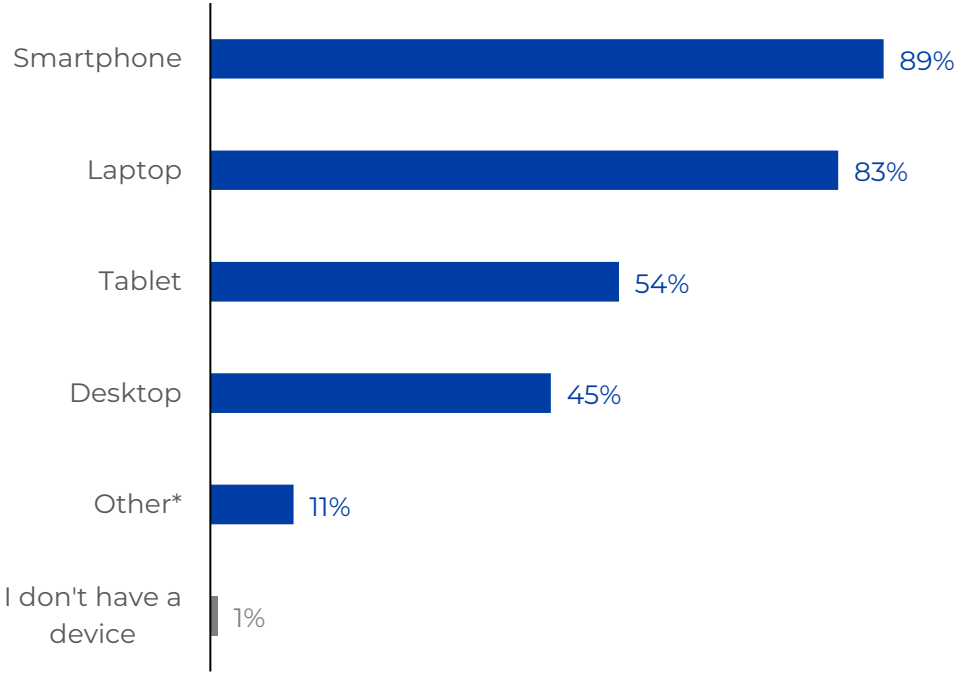
Respondents with Home Internet Access



** Includes Satellite and business internet.*

SURVEY QUESTION: Which of the following devices do you use to connect to the internet at home?

Respondents with Home Internet Access



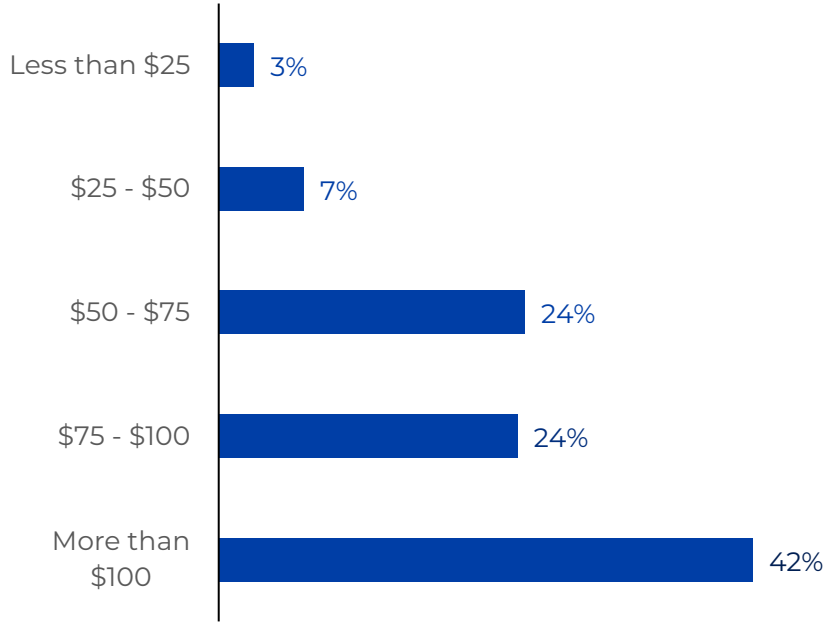
** Includes TV and other smart devices.*

Broadband Availability & Affordability

More than 42% of respondents with home internet access pay more than $100 for their internet service. Further, only 5% of respondents are enrolled in ACP and 2% are enrolled in Lifeline.

SURVEY QUESTION: Approximately how much is your total monthly bill for home internet?

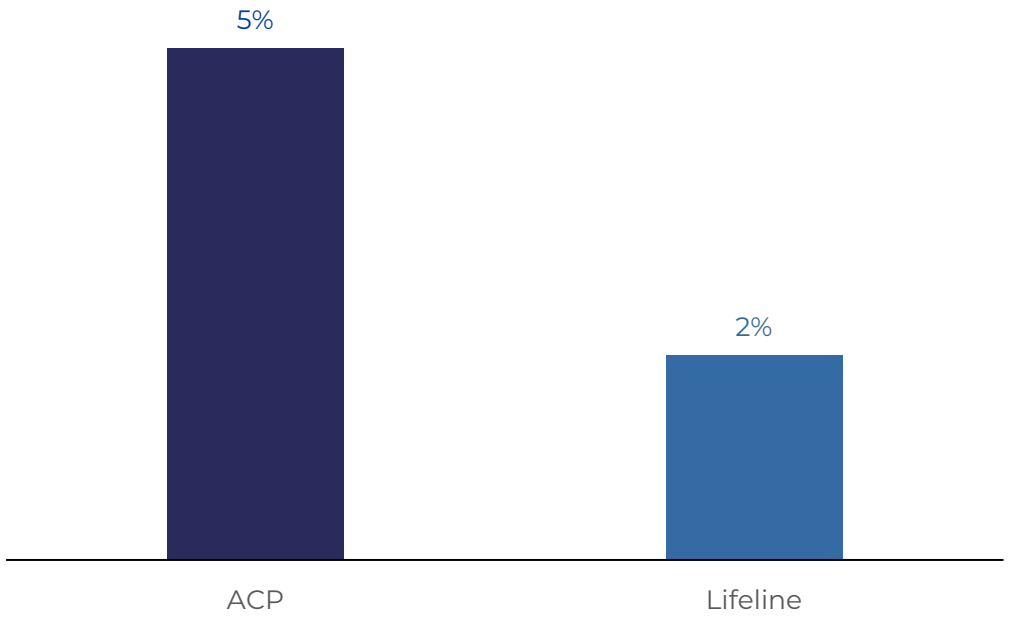
Respondents with Home Internet Access



** Monthly bill may include bundled services such as TV, phone service, etc.*

SURVEY QUESTION: Are you currently enrolled in any of these discounted internet service programs?

Respondents with Home Internet Access

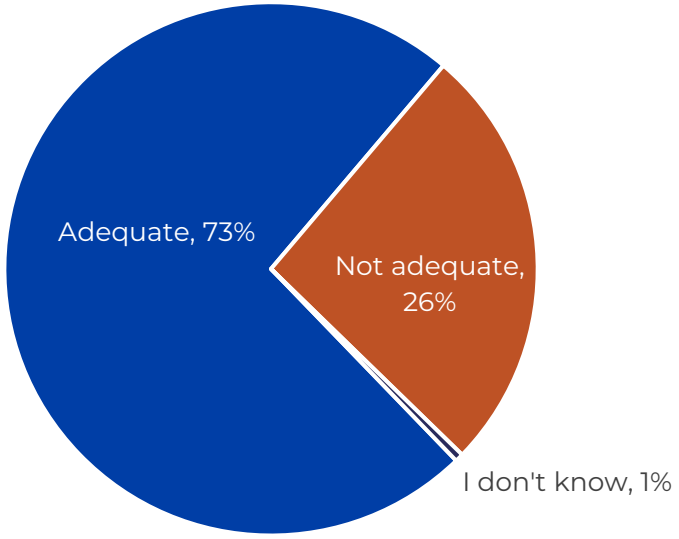


Broadband Availability & Affordability

26% of respondents with home internet access feel that their internet service is not adequate in terms of speed and reliability. Further, 23% of respondents feel their ISP is only slightly reliable or not at all reliable.

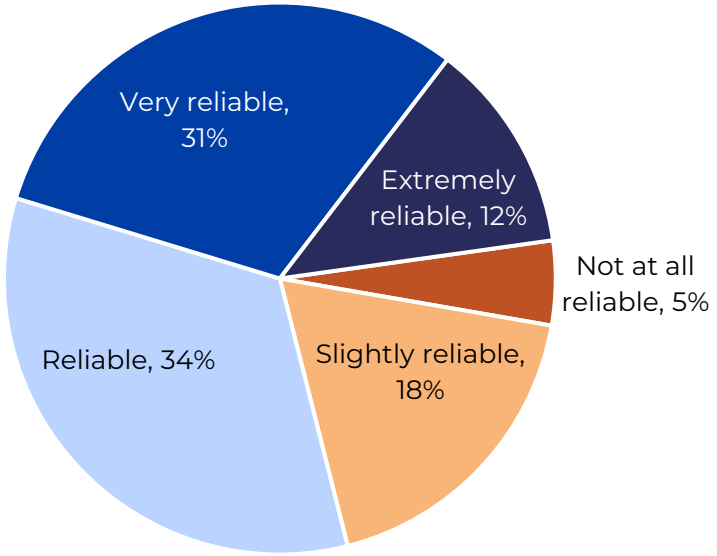
SURVEY QUESTION: Which of these options best describes your internet service at home in terms of speed and reliability?

Respondents with Home Internet Access



SURVEY QUESTION: How would you rate your Internet Service Provider in terms of: Reliability of the Internet service

Respondents with Home Internet Access

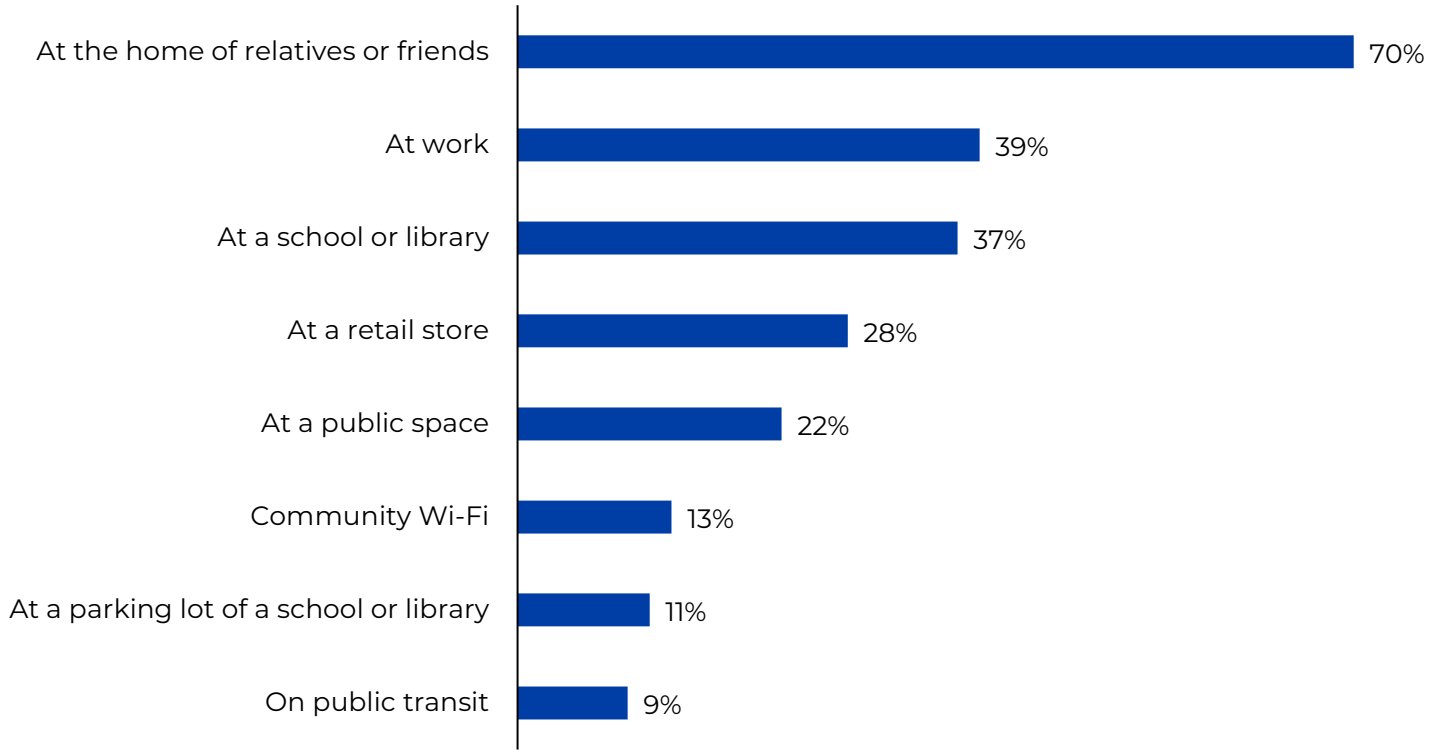


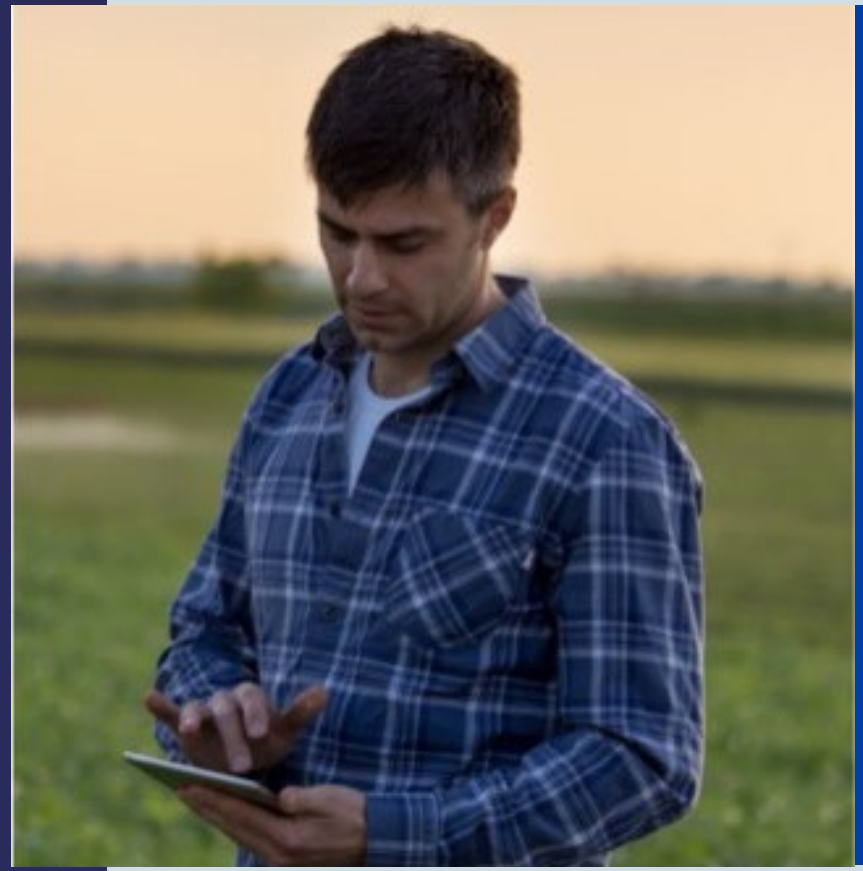
Accessibility & Inclusivity: Public Internet

70% of respondents who don't have access to internet at home connect to the internet at the home of friends or relatives, followed by 39% who connect at work and 37% who connect at a school or library.

SURVEY QUESTION: Where else do you connect to the internet when not using your own connection plan?

Respondents without Home Internet Access





3. Appendix

Survey Analysis Methodology

Public Survey

For public survey data (both online and paper), the number of valid responses used for analysis purposes are based on the following criteria:

1. Respondents answered “Yes” to being a resident of California above the age of 18.
2. Respondents answered with a ZIP code that belongs to California.
3. Respondents answered one or more questions beyond the demographics section.

Each response was assigned a county based on the ZIP code they entered. The ZIP code to county crosswalk was provided by the California Emerging Technology Fund.

The speed test data was collected using an MLab speed test solution linked to the online survey.

Definitions: Survey Responses

TERM	DEFINITION
Total Reach	Number of people who accessed the online survey through various distribution means. Each person starting the survey is given a unique ID on the survey platform.
Invalid Responses	Survey responses where one or more of the following conditions is met: • The survey response is blank • The survey respondent self-reported to not be a resident of California or to be below the age of 18 • The survey respondent provided a ZIP code that does not belong to California • The survey respondent did not answer any questions other than the demographic questions • For DEEM only, some of the response columns indicate that the respondent was testing the survey or did not put in any relevant or useful information (such as organization name, contact, program info, etc.)
Valid Responses	Survey responses after eliminating all the Invalid Responses. Valid Responses are used for survey analysis.
Complete Responses	Valid Responses where the respondent went through the entire survey, from the beginning to the end. A Complete Response does not mean that the respondent answered every survey question.

Definitions: Covered Populations

TERM	DEFINITION
Aging Individuals	Survey respondents who selected “I am 60 years of age or older” in the Preliminary Demographic Information section.
Veterans	Survey respondents who selected “I am a veteran” in the Preliminary Demographic Information section.
Individuals with disabilities	Survey respondents who selected “I am an individual living with a disability” in the Preliminary Demographic Information section.
Individuals with limited English proficiency	Survey respondents who selected “I am an English language learner and/or I have difficulty understanding English” in the Preliminary Demographic Information section.
Racial or ethnic minority groups	Survey respondents who selected one or more race categories other than “White” in the Preliminary Demographic Information section.
Tribal communities	Survey respondents who selected “I belong to a Tribe or Tribal community” in the Preliminary Demographic Information section.

Definitions: Covered Populations

TERM	DEFINITION
Individuals residing in rural areas	Survey respondents who selected “I live in a rural area” in the Preliminary Demographic Information section.
Individuals in households below 150% poverty	Survey respondents who selected that their total annual household income before taxes is “Less” than the 150% poverty line threshold for the state of California in the Preliminary Demographic Information section. The 150% poverty line threshold shown to each survey respondent was based on their self-reported household size.
Immigrants	Survey respondents who selected “I am an immigrant living in California” in the Preliminary Demographic Information section.
Unhoused individuals	Survey respondents who selected “I am unhoused or experiencing homelessness” in the Preliminary Demographic Information section.
Women	Survey respondents who selected “Female/Woman” in the Final Demographics section.
LGBTQIA+	Survey respondents who selected “Yes” to identify as a member of the LGBTQIA+ community in the Final Demographics section.

Thank You

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