2023 Access and Adoption Study

Technical Report

September, 2023

Seattle Information Technology

City of Seattle

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Background and Research Goals

Background and Research Goals

- The 2022-23 City of Seattle Technology Access & Adoption Study included preliminary design research, a broad population survey, and focus groups. This report covers the results of the population survey and is intended to help the City of Seattle and partner organizations understand how Seattle residents use technology and the internet, identifies barriers that prevent residents from utilizing digital technologies, and informs potential approaches to close gaps in digital equity. This marks the sixth time this research has been conducted since 2000.
- The study collected reliable data that is comparable to the previous study conducted in 2018. This work measured technology adoption changes, progress toward the City's Internet for All initiative goals, and Covid-19 impacts on digital connectedness and use.
- This study sought to provide actionable insight into how the City can impact communities with the highest needs. It is intended to further Seattle's goal to be a city where all residents and communities are empowered by technology - especially those who are historically underserved or underrepresented.

Methodology and Survey Response

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Methodology

- A total of 4,197 surveys were collected from Seattle residents between February 15 and April 21, 2023.
  - Surveys were collected across multiple modes: mail/paper, online, and in-person.
  - The median time to complete the online survey was 15.1 minutes.
  - The overall survey response was 7.0% (e.g. 7.0% of those invited to respond returned a survey).
    - Of these, the mailed survey response was 15.0% and the emailed survey response was 2.9%.
  - 34 returned surveys were excluded from the total results due to extensive incomplete data.
- The Survey questionnaire was guided by these four elements of digital equity, previous studies, viewing other recent surveys, and preliminary community research with residents and other subject experts.

Internet

Having access to internet that is **affordable, sufficient, and reliable** to obtain necessary resources and both download and contribute content online.

Digital Skills & Tech Support

The knowledge and skills required to use the equipment, applications, and internet effectively with training and support provided **in a culturally appropriate manner**.

Devices

The computers and accessories necessary to **be productive, create content, and participate** (homework, job application, reading, etc.).

Applications & Services

Including diverse users in the design and rollout of services while considering placement, outreach, training, user controls, privacy, universal design, and language.

Eligible Respondents

- Residents that were invited to participate in this survey met the following criteria:
  - Residents living within the Seattle city limits*;
  - Able to complete the survey in English, Spanish, Chinese, Vietnamese, Somali, Amharic, Korean, or Tagalog;
  - Able to complete the survey via mail with paper and pencil/pen, online via computer, tablet, or smartphone, or in-person via paper and pencil/pen; and
  - Able to answer questions on behalf of their entire household on internet access and devices in the household (although, if they needed help completing the survey, they could ask another household member or the survey helpful to assist them).

*Allowances were made for survey respondents living outside of Seattle if they were reached via community outreach efforts (e.g. in-person intercept survey or invited via email from Seattle-based organizations) given those efforts' focus was with residents who have significant involvement in Seattle, even if they reside outside of the city.

Sample Groups

- A sampling plan across four population groups (and across the seven City Council Districts) was used in order to maximize representativeness and inclusivity.

General Population	Seattle Housing Authority (SHA) Residents and Assistance Recipients
Residents were selected from a stratified sampling plan, which pulled equal amounts of sample from each of the seven Seattle City Council Districts. Addresses were identified via Address-Based Sample (ABS) and were pulled randomly and proportionately to the total population number within each district.	A sample of residents of Seattle Housing Authority (SHA) owned properties in the City of Seattle and of residents receiving housing assistance, but not living in SHA owned properties, was drawn for the mail survey. SHA provided addresses for these residents. An email invitation was sent to the remaining SHA benefit recipients inviting them to respond online.
Seattle Public Schools (SPS) Parents/Guardians	**Community Outreach**
Parents/Guardians of Seattle Public Schools (SPS) students attending six schools were selected for inclusion in a mailing based on their higher level of free/reduced lunch participation and high frequency of non-English as the primary language. Addresses were provided by SPS for these parents/guardians. An email invitation was sent to all remaining parents and guardians of Seattle Public School students with an email address available inviting them to respond online. Duplicate individuals within each household were identified so that only one email address per household received the invitation and reminder emails.	The City of Seattle IT team coordinated with Tribal Technology Training (T3) and others to conduct focused outreach to Seattle Native community via in-person survey distribution at UW and Veterans Powwows and other events. Additionally, email there was distribution of the survey link through Native community providers. Lastly, there was limited distribution of the survey information via City of Seattle social media posts and newsletter posts in SHA and SPS materials.

Survey Distribution

- To provide as many opportunities as possible to reach Seattle residents, multiple methods of survey distribution and collection were implemented across the population groups.

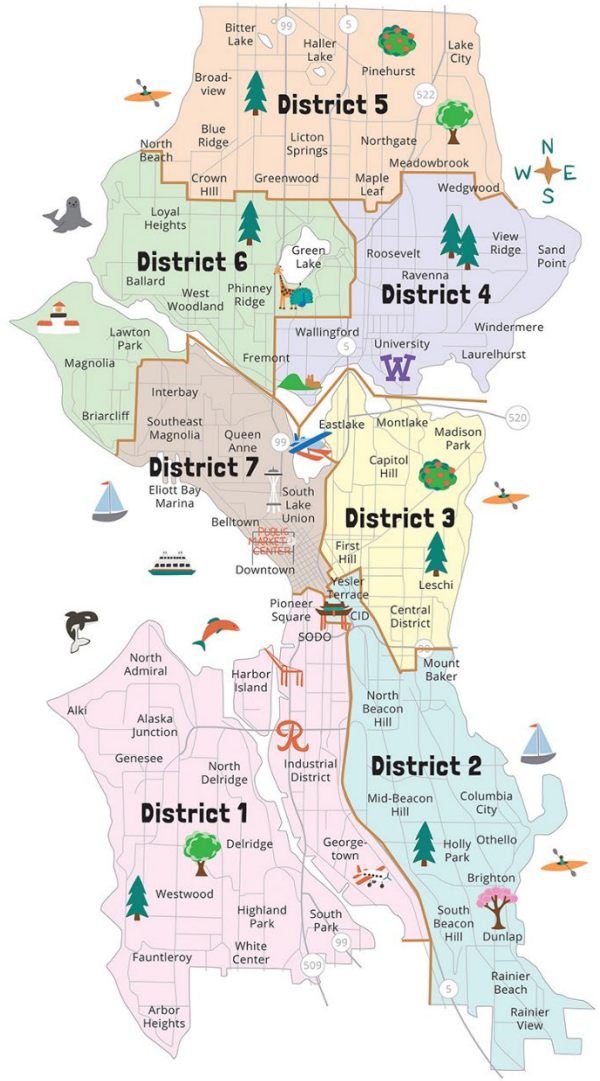
	General Population	Seattle Housing Authority (SHA) Residents and Assistance Recipients	Seattle Public Schools (SPS) Parents/Guardians	Community Outreach
Distribution Method	Mail (with Online Option)	Mail (with Online Option) and Email	Mail (with Online Option) and Email	In-Person at Events, Email and Social Media Links
Materials Used/Sent	Pre-Notification Postcard Survey Packet (Cover Letter, 8-pg. Survey, Return Envelope) Post-Notification Postcard	Pre-Notification Postcard Survey Packet (Cover Letter, 8-pg. Survey, Return Envelope) Post-Notification Postcard Email Invitation	Pre-Notification Postcard Survey Packet (Cover Letter, 8-pg. Survey, Return Envelope) Post-Notification Postcard Email Invitation	8-pg. Survey Email Invitation Social Media Link
Language	Primarily English (with others available upon request or via online survey)	Mailed in Preferred Language if Known, otherwise English	Mailed in Preferred Language if Known, otherwise English	Primarily English (with others available upon request or via online survey)

Responses by Seattle Council Districts (2024)

- Residents' results were also analyzed by where they live according to City of Seattle Council Districts. These council districts are defined by the 2024 boundaries which go into effect January 2024.

Survey Responses by Council District		
Council Districts	**Base Size (n=)**	**Base Size (%)**
1	712	17.0%
2	761	18.1%
3	477	11.4%
4	533	12.7%
5	633	15.1%
6	639	15.2%
7	352	8.4%
Not Classified*	90	2.1%

*Not classified residents are those responding through community outreach. These residents were asked their zip code but either chose not to provide it, their zip code crossed multiple boundaries, or they were outside the City of Seattle limits.



Responses by Focused Population Groups

- To meet the study mandate to represent all residents of the City of Seattle, responses were collected from a wide range of residents including the following groups who often correlate with higher rates of digital inequities:

Number of Completed Surveys in Each Population Group:

*See next page for more information on FPL (Federal Poverty Level) including background and how it is determined.

Income and Federal Poverty Level (FPL)

- In addition to household income, percent of Federal Poverty Level (FPL) is used throughout this report. A households % of FPL is a function of the household's income and the number of people that income is supporting.
- Federal Poverty Level (FPL) "at or below 150% FPL" and "at or below 200% FPL" are used throughout the report.
  - At or below 150% FPL is the federal standard for many means tested programs as well as the targeted population for the Digital Equity Act.
  - At or below 200% FPL is the eligibility requirement for the Affordable Connectivity Program (ACP).
- Survey respondents were asked the number of individuals in their household and their annual household income. The HHS Poverty Guidelines from 2022 were used to determine if a resident fits the criteria for one or both of these groups.

2022 HHS Poverty Guidelines

Household Members	At or Below 150%	At or Below 200%
1	$20,385	$27,180
2	$27,465	$36,620
3	$34,545	$46,060
4	$41,625	$55,500
5	$48,705	$64,940
6	$55,785	$74,380
7	$62,865	$83,820
8	$69,945	$93,260
Each Additional	+$7,080	+$9,440

Research Caveats

- Surveys based on random samples are subject to sampling error, since not everyone in the entire population was surveyed. The reliability of survey results is often reported as a range within which the actual result is expected to fall. This range is based on a specified level of probability the results would be similar if survey was repeated. For this report, that level of probability is 95 percent.
  - Data based on the total sample of 4,197 has a sampling error of ±1.51% at the 95 percent statistical significance threshold. Thus, if a result of 50 percent is achieved based on this sample, we can be sure, 95 percent of the time (or 19 times out of 20), that the result of a census would be between 48.5 percent and 51.5 percent.
  - Data based on sub-groups is subject to greater margins of error. Examples of sub-groups and the associated margins of error are:

	Base for Percentages	Margin of Error*
Total	4,197	±1.5%
Living at or below 150% Federal Poverty Level	754	±3.6%
(e.g.) Smaller groups of respondents	100	±9.8%

* For a result of 50% at a 95% confidence interval

- Percentages may not sum to 100 percent due to rounding and allowable multiple responses.
- Unless otherwise noted, percentages shown are of the responding population. Base size varies.
- The total sample data is weighted, and proportions shown reflects weighted data. Base sizes shown reflect unweighted data.

Data Weighting

- The City of Seattle Technology Access and Adoption Study is a survey of households that collects data on the **individual** responding to the survey as well as the entire **household**. In the latter case, the individual responding is asked to provide data for their entire household.
- To account for this difference in perspective, we have classified each question in the survey as a 'household characteristic' (e.g. household size and income) or an 'individual characteristic' (e.g. age, gender, and race/ethnicity).
- Once classified, we applied either a 'household' post-hoc weighting scheme based to the total number of City of Seattle households (337,361 based on the American Community Survey 2017-2021 5-Year Est.) or an 'individual' post-hoc weighting scheme based to the total adult population (18+) of City of Seattle residents (620,719 based on the American Community Survey 2017-2021 5-Year Est.).
- This is an important distinction to make as it has implications on how the data should be interpreted.
  - For example, we have selected to calculate how many ***households*** have adequate internet access rather than individuals because the adequacy of the internet connection where the survey respondent lives impacts all members of the household, not just the individual respondent.
  - On the other hand, we have selected to calculate how ***individual*** respondents rely on others to access and use the internet and devices since this reliance may vary across household members. In this case, the survey respondent was asked to only respond about their own personal reliance on others (if any).
- Notes in the report footers have been added to indicate if the data is expressed as an 'individual' characteristic weighted to the total adult population of City of Seattle residents or as a 'household' characteristic weighted to the total number of City of Seattle households.

Household Weight Summary

- The household post-hoc weighting scheme was used to balance data on household-level characteristics to the total number of City of Seattle households (337,361 based on the American Community Survey 2017-2021 5-Year Est.).
- This weighting scheme includes City of Seattle Zip Codes, household income, and children in the household who are enrolled in SPS schools vs. not in SPS schools/no children in the household at all.

	Unweighted	Weighted
Less than $26,999	16.9%	13.4%
$27,000- $45,999	7.5%	12.0%
$46,000- $73,999	9.7%	12.6%
$74,000- $99,999	8.9%	10.6%
$100,000 to $149,999	14.5%	17.6%
$150,000 to $199,999	8.9%	11.3%
$200,000 or more	19.2%	22.3%
Prefer not to answer	14.4%	0.1%

	Unweighted	Weighted
Children in SPS	35.0%	14.7%
No Children/No Children in SPS	65.0%	85.3%

	Unweighted	Weighted
98101	1.4%	2.7%
98102	3.4%	4.3%
98103	7.6%	6.7%
98104	3.1%	2.3%
98105	4.2%	4.5%
98106	3.1%	2.8%
98107	3.7%	3.9%
98108	3.5%	2.5%
98109	2.0%	4.6%
98112	3.1%	2.9%
98115	9.1%	6.1%
98116	4.1%	3.4%
98117	4.9%	4.0%
98118	7.7%	5.0%

	Unweighted	Weighted
98119	2.5%	3.6%
98121	1.5%	3.5%
98122	3.7%	5.6%
98125	6.5%	5.2%
98126	4.5%	2.9%
98133	3.9%	5.9%
98134	0.0%	0.1%
98136	2.9%	2.1%
98144	4.7%	4.0%
98146	1.0%	2.5%
98177	1.1%	2.1%
98178	1.0%	2.0%
98199	2.3%	2.8%
Unknown/Other	3.7%	2.0%

Individual Weight Summary

- The individual post-hoc weighting scheme was used to balance data on individual-level characteristics to the total adult population of City of Seattle residents (620,719 based on the American Community Survey 2017-2021 5-Year Est.).
- This weighting scheme includes City of Seattle Zip Codes, age groups, income, and race/ethnicity groups.

	Unweighted	Weighted
Less than $26,999	16.9%	12.7%
$27,000- $45,999	7.5%	12.1%
$46,000- $73,999	9.7%	12.7%
$74,000- $99,999	8.9%	10.6%
$100,000 to $149,999	14.5%	17.8%
$150,000 to $199,999	8.9%	11.4%
$200,000 or more	19.2%	22.5%
Prefer not to answer	14.4%	0.1%

	Unweighted	Weighted
18-34	14.5%	40.6%
35-54	45.2%	32.9%
55 or older	37.9%	26.5%
Prefer not to answer	2.4%	0.0%

	Unweighted	Weighted
Asian	13.3%	16.1%
Black	6.0%	6.7%
Hispanic	7.8%	7.4%
Native	1.9%	0.7%
Native Hawaiian/PI	0.4%	0.2%
White	58.8%	61.8%
Other	1.1%	0.5%
Mixed Race	4.4%	6.7%
Prefer not to answer	6.3%	0.1%

	Unweighted	Weighted		Unweighted	Weighted
98101	1.4%	1.9%	98119	2.5%	3.4%
98102	3.4%	3.5%	98121	1.5%	2.9%
98103	7.6%	6.6%	98122	3.7%	5.4%
98104	3.1%	2.0%	98125	6.5%	5.3%
98105	4.2%	6.4%	98126	4.5%	2.5%
98106	3.1%	3.1%	98133	3.9%	6.0%
98107	3.7%	3.5%	98134	0.0%	0.1%
98108	3.5%	2.8%	98136	2.9%	2.1%
98109	2.0%	3.9%	98144	4.7%	4.0%
98112	3.1%	2.9%	98146	1.0%	2.5%
98115	9.1%	6.3%	98177	1.1%	2.4%
98116	4.1%	3.3%	98178	1.0%	2.4%
98117	4.9%	4.2%	98199	2.3%	2.7%
98118	7.7%	5.8%	Unknown/Other	3.7%	2.2%

Comparison between 2018 Study and 2023 Studies

Comparison between 2018 and 2023 Methodology	(pg. 18)
Questionnaire Comparison between 2018 and 2023 Surveys	(pg. 19)
Comparisons on Key Measures – 2023 vs. 2018 Study Results	(pgs. 20-21)
Comparisons on Key Measures among Critical Groups – 2023 vs. 2018 Study Results	(pgs. 22-25)

Comparison between 2018 and 2023 Methodology

- **Purposeful Sampling/Partnerships:**
  - In both 2023 and 2018, the mailing was focused on a stratified sampling plan directed toward the general population of the City of Seattle based on the latest census information available at the time. Additionally, both studies included partnerships from the Seattle Household Authority (SHA) and Seattle Public Schools (SPS).
  - In 2023, the Seattle Household Authority (SHA) partnerships included survey invitations to randomly selected households who receive household choice vouchers and residents living within SHA owned properties. In 2018, the partnership was limited to those living in SHA owned properties.
  - In 2023, the Seattle Public Schools (SPS) partnership included a mailing to SPS households at six schools, with the remainder of SPS households being invited only by email. In 2018, the partnership with SPS was limited to email invitations only.
  - In 2023, specific outreach targeting the Urban Native community was included. Natives have historically been under-represented within this research and a goal was set to include a minimum of n100 Native voices. In 2018, the primary community outreach and partnership was focused on reaching residents of sanctioned tiny home villages serving the insecurely housed population.
- **Survey Methods:**
  - Both 2023 and 2018 surveys were offered in the following ways: respondents were able to complete the survey via mail with paper and pencil/pen; online via computer, tablet, or smartphone; in-person via tablet or paper and pencil/pen at select events or locations; and over the telephone.
- **Survey Languages:**
  - In 2023, the survey was offered in eight languages (English, Spanish, Chinese, Vietnamese, Somali, Amharic, Korean, or Tagalog) with all languages being offered in the paper format or online. Surveys were mailed in the households preferred language to the extent this information was available or known.
  - In 2018, the survey was offered in English and Spanish – with mailings being sent only in English and a Spanish version available upon request.
- **Weighting:**
  - In both years, weighting was to address the purposeful over-sampling and to ensure total metrics accurately reflect the City's population.
  - The number and type of variables used in calculating the weights differed between 2023 and 2018.
- **Comparable Metrics:**
  - The following slides summarize the comparable metrics between the 2018 and 2023 studies. These differences are shown only among the "total audience", due to the changes in sampling methodology (as detailed above), changes in group definitions, and redistricting Council Districts.

Questionnaire Comparison between 2018 and 2023 Surveys

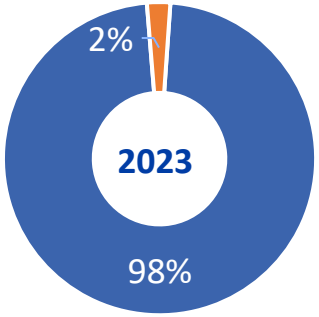
- **Internet Access:**
  - In both 2023 and 2018, residents were asked if they have a way to access the internet where they live, their internet service providers where they live (updated in 2023 to current providers available in Seattle), how much their service costs, and if the service is bundled or not. Residents were also asked about the quality and adequacy of their internet connection and service where they live.
  - Additionally, both surveys asked residents about what type of mobile internet service they had (if any) and what places outside the home they access the internet.
  - In 2023, additional questions were asked about if their households have had continuous internet or had outages lasting a month or more and how often their internet service is interrupted or too slow.
  - Also in 2023, there was a question asked about residents' awareness and use of the national Affordable Connectivity Program (ACP), in addition to other similar assistance programs that we evaluated in 2018.
- **Device Access:**
  - In 2023, residents were asked about the number of smartphones, tablets, desktops, and laptops they have in their homes (both owned and borrowed). While in 2018, residents were asked if they have one or more of each of device in their house so the exact number of devices in the household was not collected).
  - Along with that revision, another new question was added to ask if residents have access to a device with a large enough screen to complete all the tasks they need to do (e.g. homework, write documents, fill out forms).
- **Digital Activity and Skills:**
  - In 2023 and 2018, residents were asked about the level of digital activity and skills, however the questions were updated and revised in 2023.
  - For digital activities, the list of common digital skills was updated to reflect the landscape in 2022/2023 based on feedback from various community stakeholders, including video conferencing and telehealth activities. Additionally, the question was simplified from a scale of how often they complete each activity to asking if they do or do not complete each activity 'at least occasionally during the past six months.'
  - For digital skills, multiple stakeholders and similar studies were references to ensure the latest digital skills were asked. This question was also simplified from multiple answer per skill to a simplified scale of comfort performing each skill activity.
- **Attitudes toward Technology and Community Engagement:**
  - In both 2023 and 2018, residents were asked about how important the internet is to their daily lives, agreement with various technology statements, and concerns about accessing and using the internet.
  - In 2023, residents were only asked about the impact of the internet and technology on society, instead of society and themselves and their families.
  - Moreover, the 2023 survey removed the question about how often they watch The Seattle Channel, while continuing to ask about how often they visit the City of Seattle website, their community involvement, and preferred methods of communication from community groups or the City of Seattle.

Comparisons on Key Measures – 2023 vs. 2018 Study Results

Internet Access in the Home (HH)

- More households have internet access, even taking into account the growth of HHs since 2018.

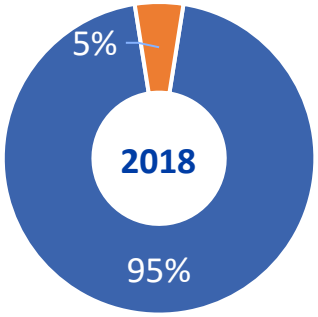
8,123 households/
14,945 residents
without internet access



329,238 households/
605,774 residents
with internet access

337,361 Total Households / 2017-2021 5 year est.
Population growth: +18,236 more HH, comparing 2016 ACS

15,702 households/
32,347 residents
without internet access

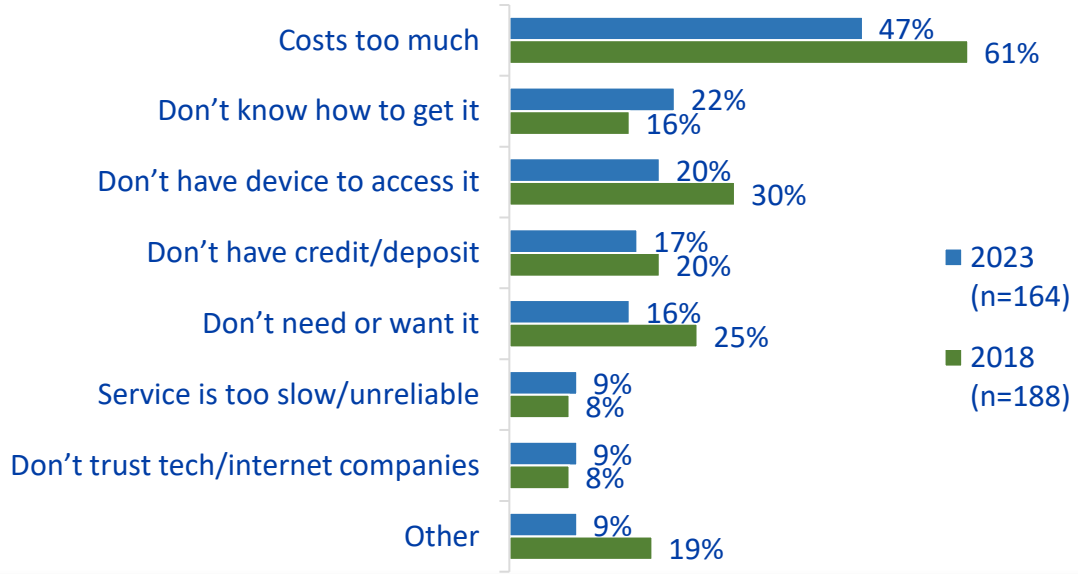


303,423 households/
625,051 residents
with internet access

319,125 Total Households / 2016 ACS

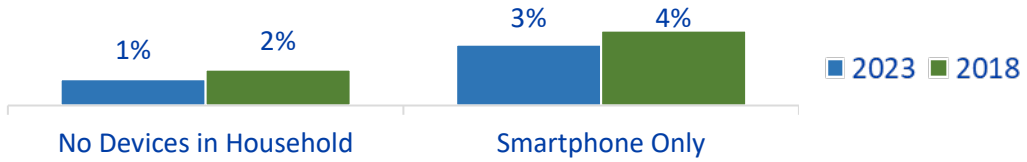
Reasons for Not Having Internet Access Where They Live (Individual)

- Mentions of cost or not having a device as reasons for not having internet access where they live have declined. On the other hand, not knowing how to get internet in the home has increased.



Device Access (Among Total) (HH)

- Only 3% of households are reliant on smartphones alone (compared to 4% of households in 2018).



Internet Adequacy (Among Total) (HH)

- Adequacy of internet has improved in 2023 compared to 2018.

2023

87% ***Completely/Mostly Adequate (among total) +8 points from 2018***

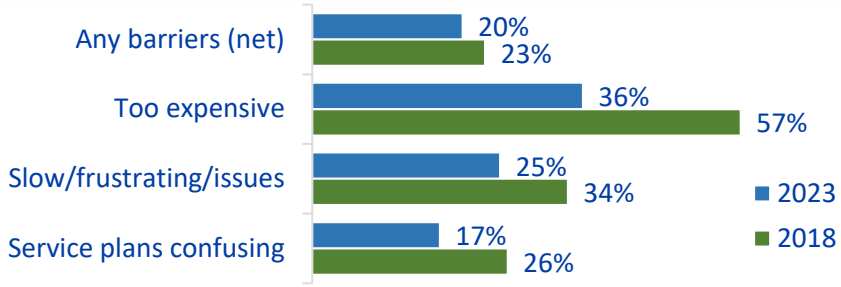
2018

79% ***Completely/Mostly Adequate (among total)***

Comparisons on Key Measures – 2023 vs. 2018 Study Results

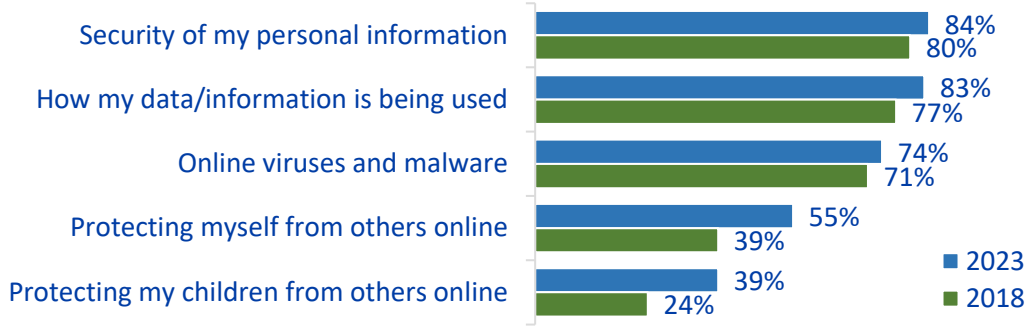
Top Reasons for Not Using the Internet More (Individual)

- In 2023, residents cited fewer barriers to using the internet. They are less likely to say that they do not use internet more because it is too expensive, it is too slow/frustrating, and/or service plans are too confusing.



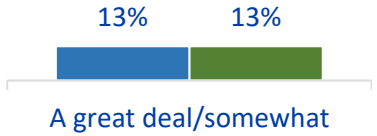
Concerns About Accessing and Using the Internet (Individual)

- More people are worried about each of the following aspects of using the internet in 2023 compared to 2018.



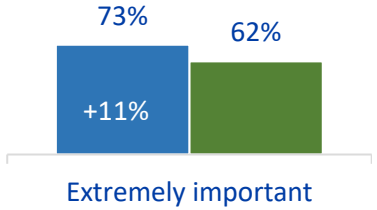
Reliance on Others to Access/Navigate the Internet (Individual)

- There has been no change in the extent to which residents rely on others to help them access and navigate the internet.



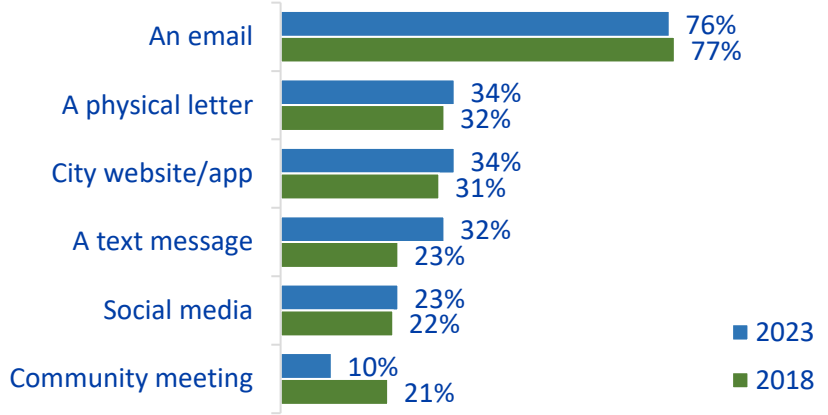
Importance of Technology/Internet in Your Daily Life (Individual)

- Technology's importance to daily life has significantly increased in the past 5 years.



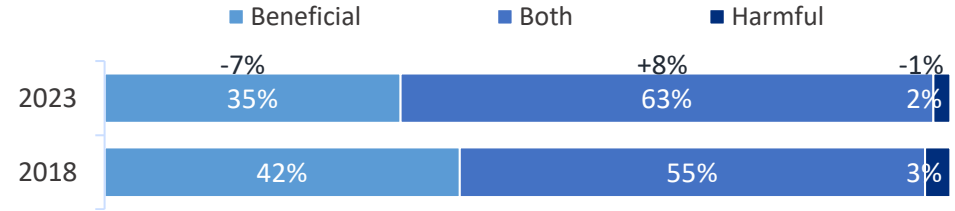
Community Communication Preferences (Individual)

- Communication preferences are fairly consistent between 2023 and 2018, with three quarters citing email and about a third citing a physical letter or the City's website/app. 2023 does show a 9%-point rise in preference for receiving a text and an 11%-point drop in preference for a community meeting.



Impact of the Internet on Society (Individual)

- 2023 shows movement away from considering the internet totally 'beneficial,' but not all the way to totally 'harmful.'

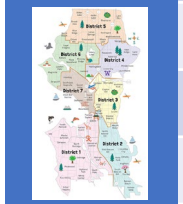


Comparisons on Key Measures among Critical Groups – 2023 vs. 2018 Study Results

Internet access *has improved among many focused populations, including those impacted by a disability, less educated, lower income, older adults, and BIPOC (especially Native). While not statistically significant, increases of 5 percentage points were also seen among Black and Latino/a/x populations.*

Have Internet Access at Home	2023	2018
Total	**98%** +3	95%
At/Below 200% of FPL	**91%** +9	82%
Primary Language English	**98%** +3	95%
Primary Language Not English	91% +1	90%
Households with disabilities	**94%** +9	85%
Ages 65+	**95%** +4	91%
Ages 35-54	**99%** +2	97%
School-aged children in HH	**100%** +2	98%
White Only	**99%** +3	96%
BIPOC (NET)	**95%** +3	92%
Asian	96% +2	94%
Black	94% +5	89%
Latino/a/x	96% +5	91%
Native	**95%** +11	84%
Native HI/PI	100% *no change*	100%

Have Internet Access at Home	2023	2018
<HS Graduate	**81%** +19	62%
HS Grad/Some College/AA Degree	**96%** +7	89%
College Graduate	**99%** +1	98%
Council District 1	**99%** +3	96%
Council District 2	**96%** +3	93%
Council District 3	98% +1	97%
Council District 4	98% +1	97%
Council District 5	97% +2	95%
Council District 6	**99%** +2	97%
Council District 7	96% +1	95%



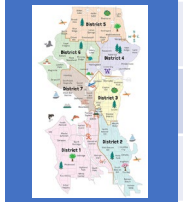
Green - Significantly higher than 2018

Comparisons on Key Measures among Critical Groups – 2023 vs. 2018 Study Results

Internet Adequacy *(completely/mostly) improvement among focused populations has been positive, but not to the same extent as among some non-critical groups. Improvements in adequacy improved significantly among primary language English, more educated, white, and Council District 6.*

Internet Adequacy (completely/mostly)	2023	2018
Total	**89%** +6	83%
At/Below 200% of FPL	76% +3	73%
Primary Language English	**90%** +6	84%
Primary Language Not English	75% +4	71%
Households with disabilities	74% -4	78%
Ages 18-34	**89%** +6	83%
Ages 35-54	**89%** +7	82%
Ages 55-64	**90%** +7	83%
Ages 65+	88% +4	84%
School-aged children in HH	87% *no change*	87%
White Only	**92%** +8	84%
BIPOC (NET)	83% +4	79%
Asian	86% +5	81%
Black	78% *no change*	78%
Latino/a/x	82% +4	78%
Native	83% +3	80%
Native HI/PI	76% -8	84%

Internet Adequacy (completely/mostly)	2023	2018
<HS Graduate	67% *no change*	67%
HS Grad/Some College/AA Degree	**84%** +6	78%
College Graduate	**91%** +6	85%
Council District 1	**89%** +5	84%
Council District 2	84% +4	80%
Council District 3	**88%** +8	80%
Council District 4	92% +3	89%
Council District 5	**90%** +7	83%
Council District 6	**94%** +10	84%
Council District 7	85% +1	84%



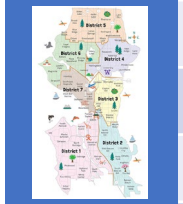
Green - Significantly higher than 2018

Comparisons on Key Measures among Critical Groups – 2023 vs. 2018 Study Results

Importance of Technology and the Internet: *All groups, including focused populations, are more likely to view technology as extremely important vs. 2018. The most dramatic increases are seen among those who are black, impacted by disability, have less than a high school education, and/or ages 55 and older.*

Technology/Internet are "Extremely Important"	2023	2018
Total	**73%** +11	62%
At/Below 200% of FPL	**57%** +16	41%
Primary Language English	**75%** +12	63%
Primary Language Not English	56% +11	45%
Households with disabilities	**68%** +25	43%
Ages 18-34	84% +4	80%
Age 35-54	**78%** +14	64%
Ages 55-64	**66%** +24	42%
Ages 65+	**43%** +17	26%
School-aged children in HH	**77%** +12	65%
White Only	**74%** +11	63%
BIPOC (NET)	**73%** +14	59%
Asian	**75%** +10	65%
Black	**67%** +22	45%
Latino/a/x	**77%** +14	63%
Native	75% +16	59%
Native HI/PI	84% +12	72%

Technology/Internet are "Extremely Important"	2023	2018
<HS Graduate	**44%** +18	26%
HS Grad/Some College/AA Degree	**62%** +12	50%
College Graduate	**78%** +6	72%
Council District 1	**73%** +15	58%
Council District 2	**69%** +15	54%
Council District 3	**76%** +11	65%
Council District 4	**76%** +12	64%
Council District 5	70% +7	63%
Council District 6	**79%** +15	64%
Council District 7	**73%** +10	63%



Green - Significantly higher than 2018

Comparisons on Key Measures among Critical Groups – 2023 vs. 2018 Study Results

Concerns About Using the Internet: *Most focused populations have more concerns about using the internet vs. 2018. Most common increases in concern are about "Protecting myself from other individuals online" and "Protecting my children from other individuals online." Ages 65+, BIPOC, and CD2 are more likely to have a significant increase in all 5 concerns. Ages 35-54, impacted by disability, English/Non-English, Asian, Less than HS grad, and FPL200 HHs are more likely to have an increase in 4 of 5 concerns.*

Concerns About Using the Internet	2023 (v. 2018)
Total	**Rise** in 4 of 5 concerns (*not* viruses)
At/Below 200% of FPL	**Rise** in 4 of 5 concerns (*not* data use)
Primary Language English	**Rise** in 4 of 5 concerns (*not* viruses)
Primary Language Not English	**Rise** in 4 of 5 concerns (*not* data use)
Households with disabilities	**Rise** in 4 of 5 concerns (*not* data use)
Ages 18-34	**Rise** in 2 of 5 concerns (self/children)
Ages 35-54	**Rise** in 4 of 5 concerns (*not* viruses)
Ages 55-64	**Rise** in 2 of 5 concerns (self/children)
Ages 65+	**Rise** in 5 of 5 concerns
School-aged children in HH	**Rise** in 3 of 5 concerns (data/self/children)
White Only	**Rise** in 3 of 5 concerns (data/self/children)
BIPOC (NET)	**Rise** in 5 of 5 concerns
Asian	**Rise** in 4 of 5 concerns (*not* data use)
Black	**Rise** in 2 of 5 concerns (self/children)
Latino/a/x	**Rise** in 2 of 5 concerns (self/children)
Native	**Rise** in 1 of 5 concerns (self)
Native HI/PI	**Rise** in 1 of 5 concerns (children)

Concerns About Using the Internet	2023
<HS Graduate	**Rise** in 4 of 5 concerns (*not* data use)
HS Grad/Some College/AA Degree	**Rise** in 2 of 5 concerns (self/children)
College Graduate	**Rise** in 3 of 5 concerns (data/self/children)
Council District 1	**Rise** in 2 of 5 concerns (self/children)
Council District 2	**Rise** in 5 of 5 concerns
Council District 3	**Rise** in 2 of 5 concerns (self/children)
Council District 4	**Rise** in 3 of 5 concerns (data/self/children)
Council District 5	**Rise** in 2 of 5 concerns (self/children)
Council District 6	**Rise** in 2 of 5 concerns (self/children)
Council District 7	**Rise** in 1 of 5 concerns (self)

Green - Significantly higher than 2018

Concerns:
Protecting myself from other individuals online.
Protecting my children from other individuals online.
Ensuring safety/security of personal information online.
How online data and information is used.
Protecting computer from viruses and malware.

Internet Access

Internet Access at Home	(pgs. 27-31)	Percentage of Income Spent on Internet Service	(pgs. 52-55)
Internet Access at Home, On-The-Go, and Both	(pgs. 32-35)	Adequacy of Internet Connection and Speed	(pgs. 56-59)
Internet Access On-The-Go	(pgs. 36-40)	Typical Download Speed	(pgs. 60-63)
Internet Service Disruptions	(pgs. 41-44)	Internet Service Interruptions	(pgs. 64-67)
Types of Internet Service Providers	(pgs. 45-47)	Awareness of Discounts and Lower Cost Internet Services	(pgs. 68-72)
The Cost of Internet	(pgs. 48-51)		

Internet Access at Home
(where residents live)

Total and Impacted Group Comparison	(pg. 28)
Council District Comparison	(pg. 29)
Income and Federal Poverty Level (FPL) Comparison	(pg. 30)
Top Reasons why Residents do not Have Internet Access where they Live	(pg. 31)

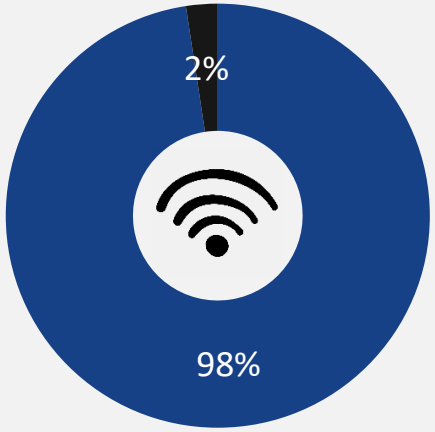
Overall, the vast majority (98%) of Seattle households report having internet access in their home, but differences are observed across impacted groups.

- While households with children are significantly more likely to have internet access compared to nearly all other groups, low-income and those speaking a language other than English lag the most behind the general population when it comes to internet at home.

Internet Access in Home

Seattle General Population*

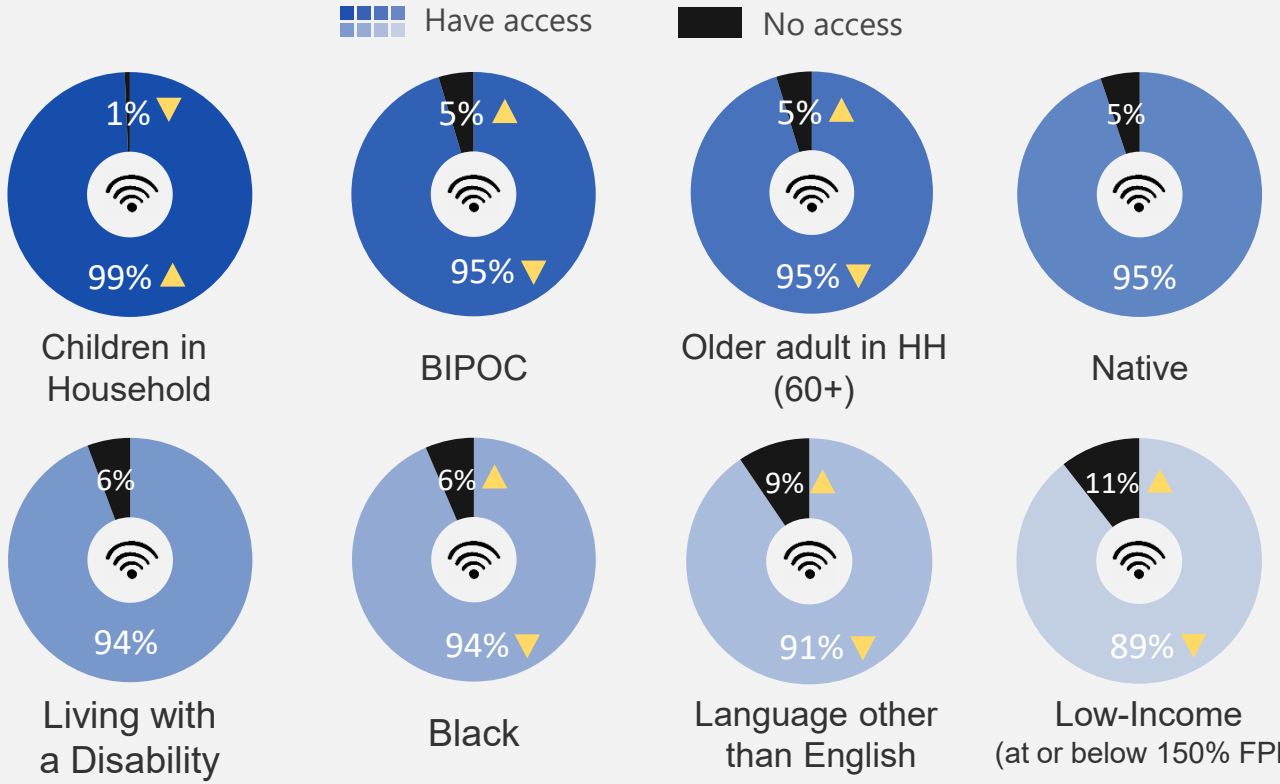
8,123 households/ 14,945 residents without internet access



329,238 households/ 605,774 residents with internet access

*Based on ACS 5-Year Est. 2017-2021

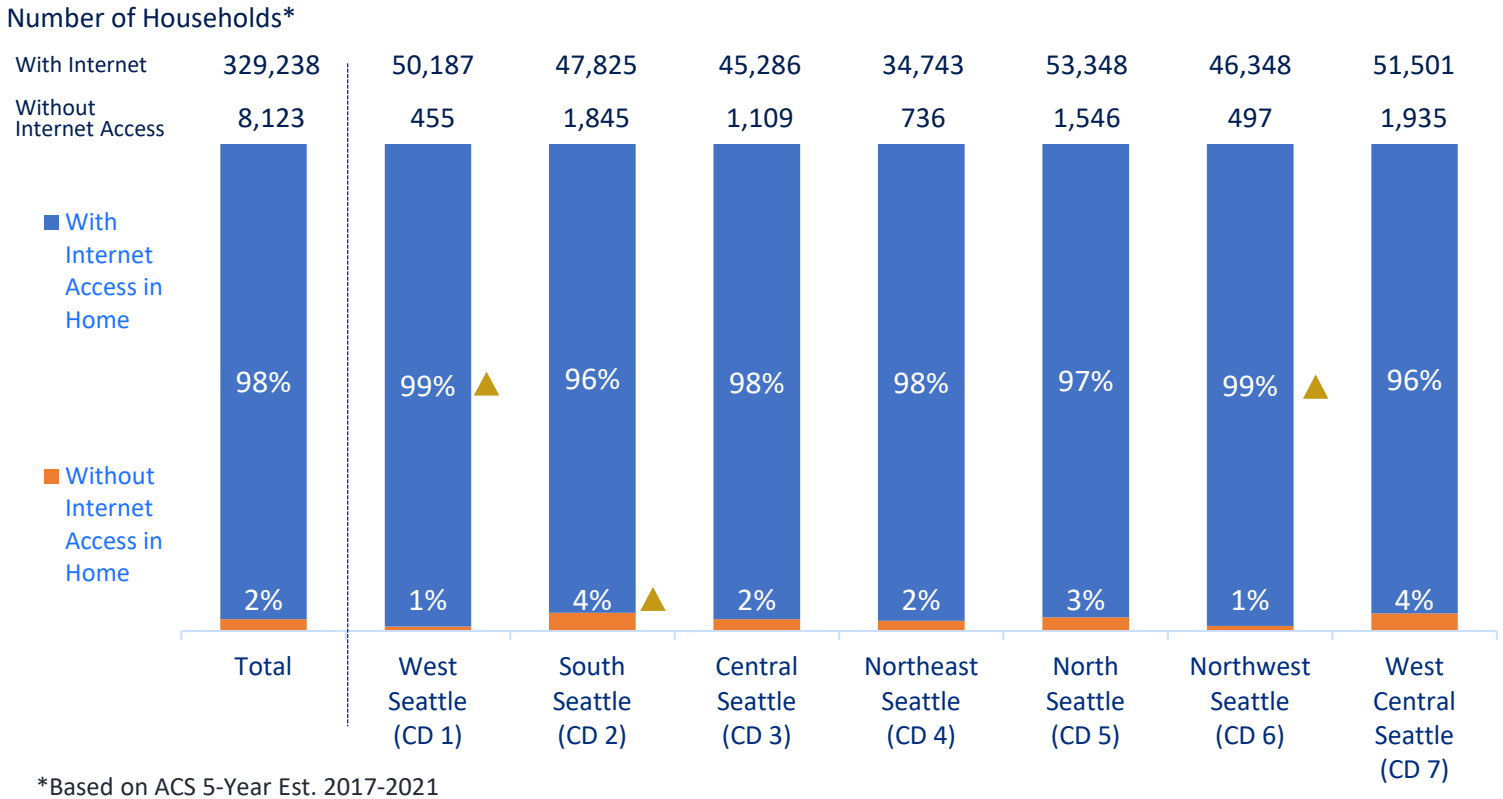
Internet Access in Home - By Impacted Groups



▲▼ Significantly higher or lower than Seattle Total

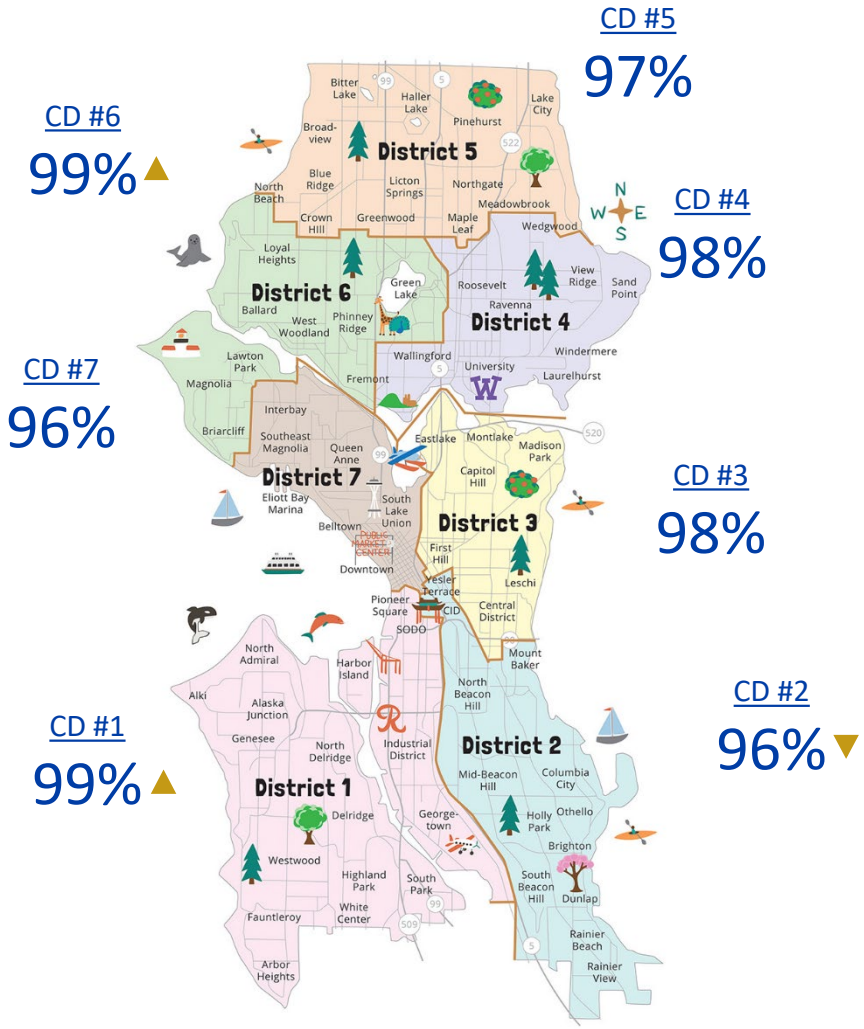
While most of Seattle households have a way to access the internet, there are an estimated 8,123 households within the city that are completely without home internet.

- South Seattle (CD 2) and West Central Seattle (CD 7) have the most households with no way to access the internet where they live – 1,845 households in CD 2 and 1,935 households in CD 7 having no way to access the internet where they live.



*Based on ACS 5-Year Est. 2017-2021

% With Internet Access in Home

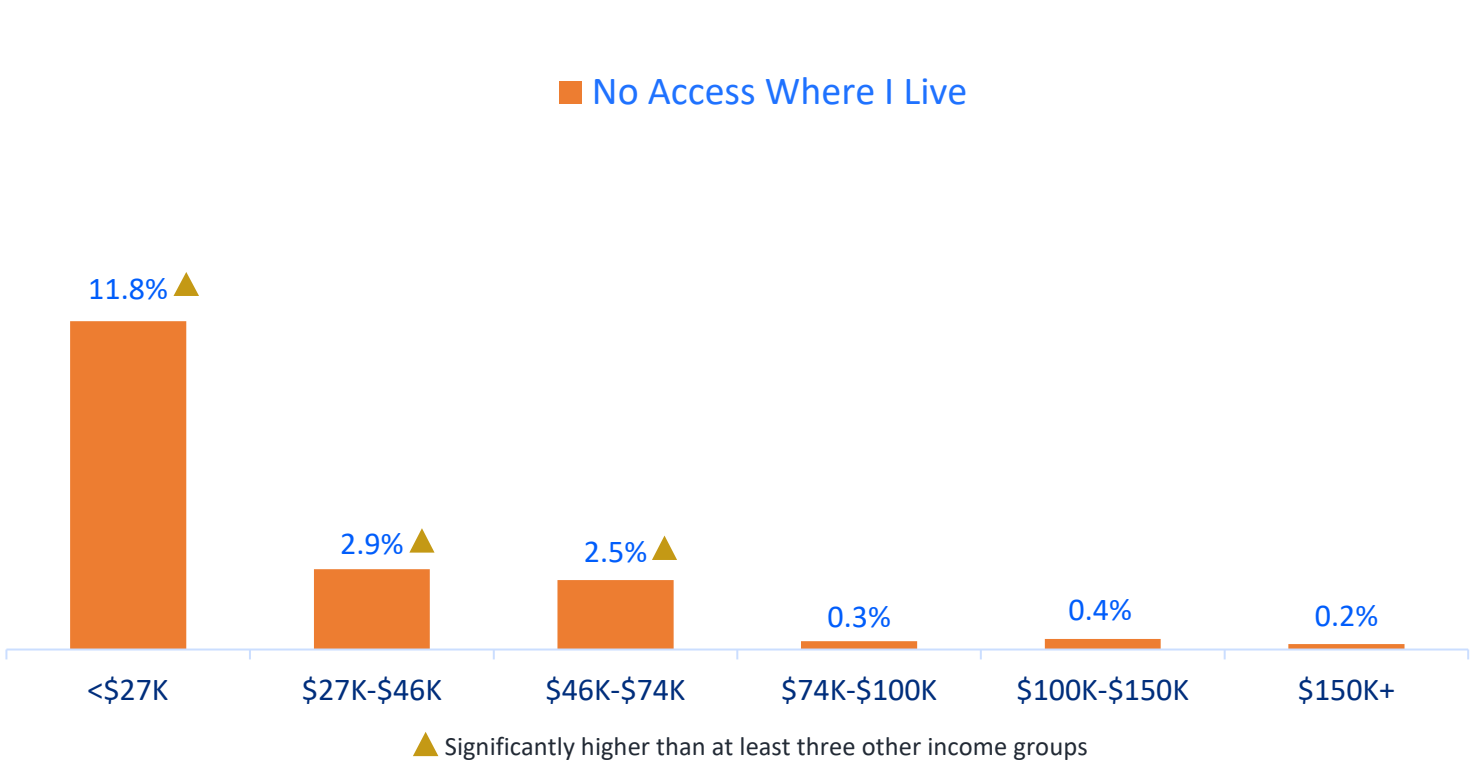


▲▼ Significantly higher or lower than at least one other district

Having internet access is strongly correlated with income. One in eight households with incomes under $27K per year do not have a way to access the internet.

- Additionally, more than one in ten (11%) of households at or below 150% FPL have not access to internet where they live. Virtually all households in Seattle with incomes over $74,000 have internet access.

Internet Access in Home - By Household Income



Household Size and Income…	Internet Access at Home	No Internet Access at Home
At or below 150% of FPL	89%	11%
Above 150% of FPL	99% ▼	1% ▲
At or below 200% of FPL	91%	9%
Above 200% of FPL	99% ▼	1% ▲

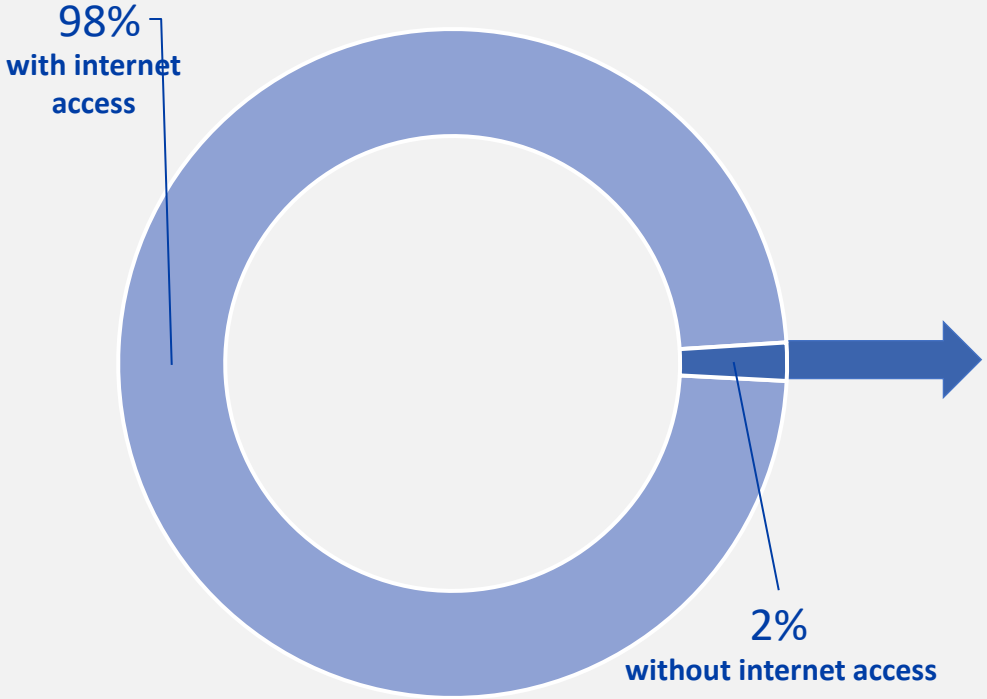
Households with incomes at or below 150% or 200% Federal Poverty Level (FPL) are significantly more likely not to have internet access at home.

▲▼ Significantly higher or lower than HHs earning above 150% or 200% FPL

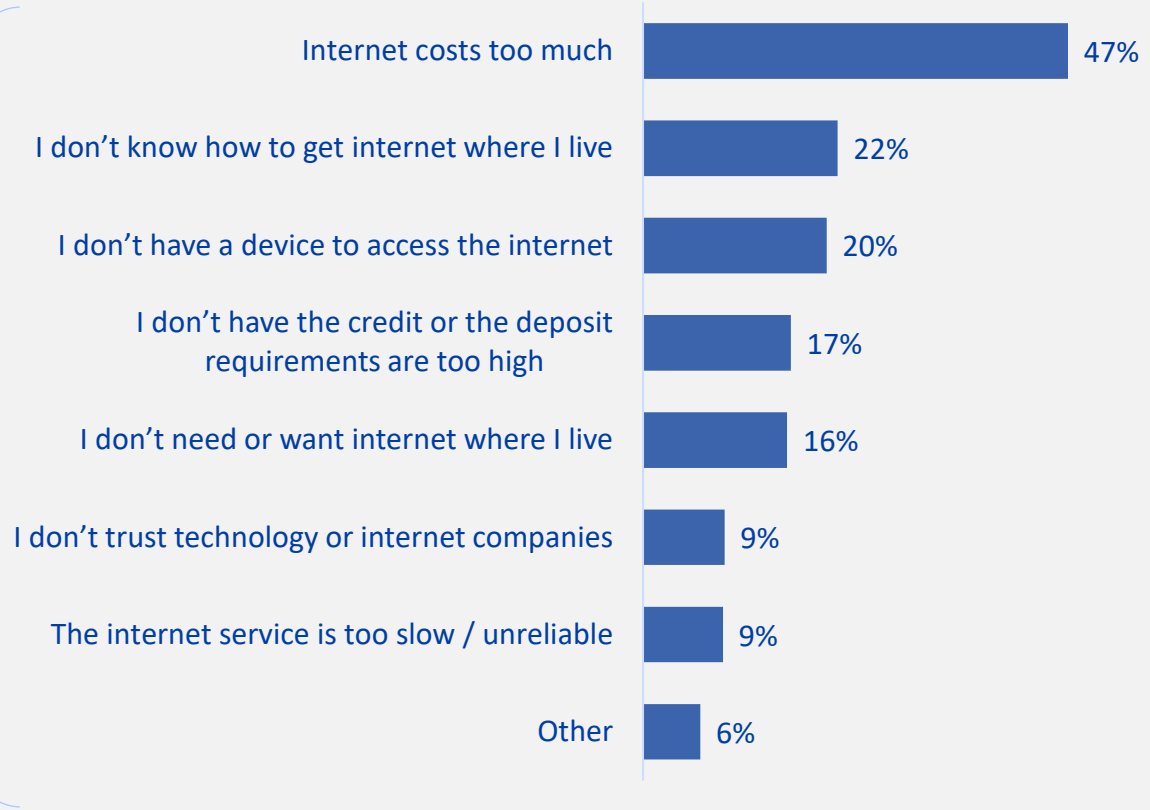
Cost of internet is the most common reason why residents do not have internet in their homes. Not knowing how to get internet or not having a device to access the internet is also an issue.

Around one in six residents who do not have internet in their home report they do not need or want internet.

Internet Access where they Live



Top Reasons why Residents do not Have Internet Access where they Live



Internet Access at Home, On-The-Go, and Both

Total and Impacted Group Summary	(pg. 33)
Council District Comparison	(pg. 34)
Income and Federal Poverty Level (FPL) Comparison	(pg. 35)

Eight percent (8%) or 25,976 households do not have access to the internet at both home and on-the-go.

Compared to the overall population, households with children are significantly more likely to have internet access **both** at home and on-the-go, while all other focused population groups are less likely to have both:

	% Do not have access both at home and on-the-go (at home only, on-the-go only, or neither)
Low-Income (FPL <=150%)	26% ▲
Language other than English	25% ▲
Living with a Disability	18% ▲
Older Adult in Household (60+)	16% ▲
Native	12%
Black	12% ▲
BIPOC	11% ▲
Children in household	3% ▼

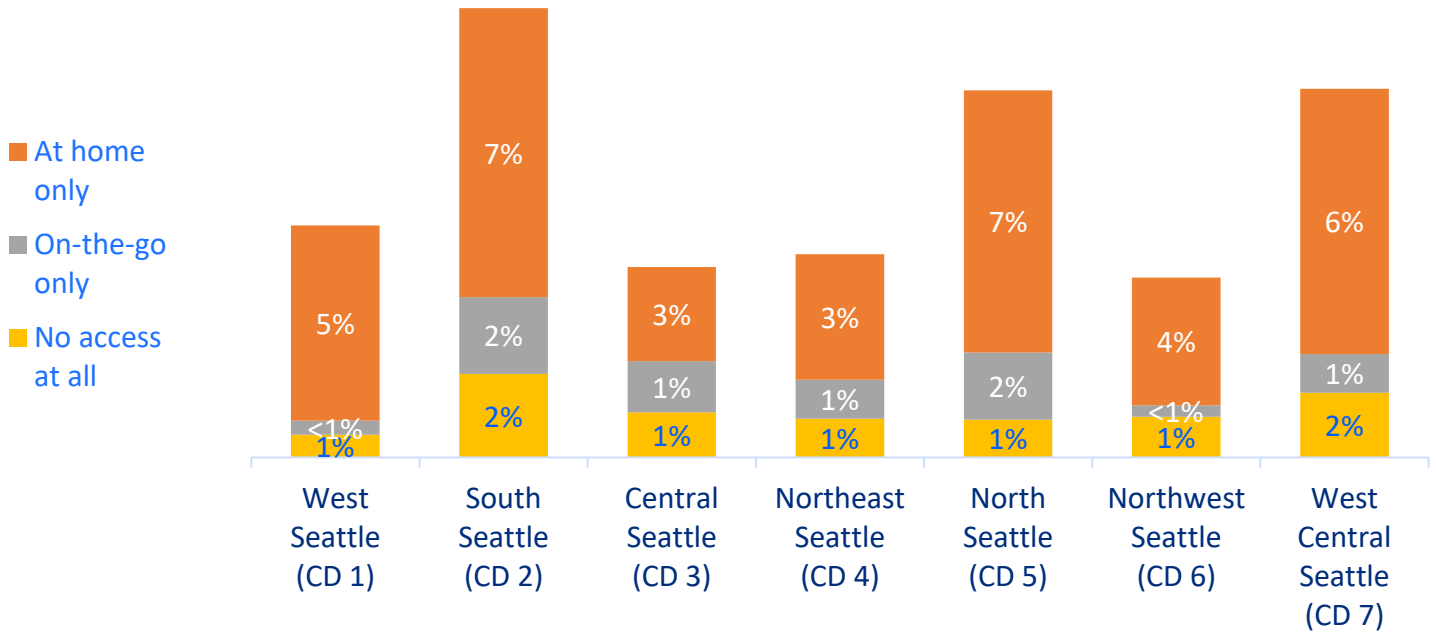
Note: Total may not equal 100% due to rounding.

▲▼ Significantly higher or lower than Seattle Total

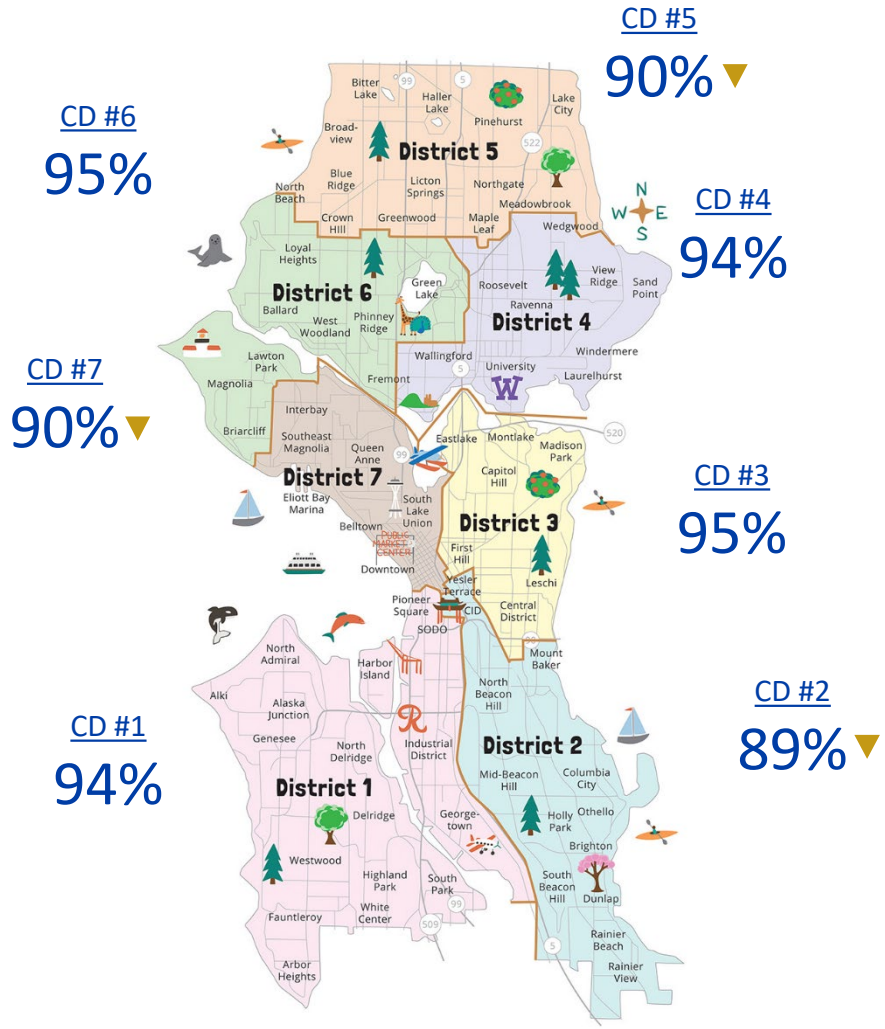
More than nine out of ten (92%) households have Internet access both at home and on-the-go.

- South Seattle (CD 2), North Seattle (CD 5), and West Central Seattle (CD 7) are significantly less likely than other Council Districts to have <u>both</u> internet at home and on the go.

At home and on-the-go	West Seattle (CD 1)	South Seattle (CD 2)	Central Seattle (CD 3)	Northeast Seattle (CD 4)	North Seattle (CD 5)	Northwest Seattle (CD 6)	West Central Seattle (CD 7)
	94%	89% ▼	95%	94%	90% ▼	95%	90% ▼



Internet Access Both At Home and On-the-Go

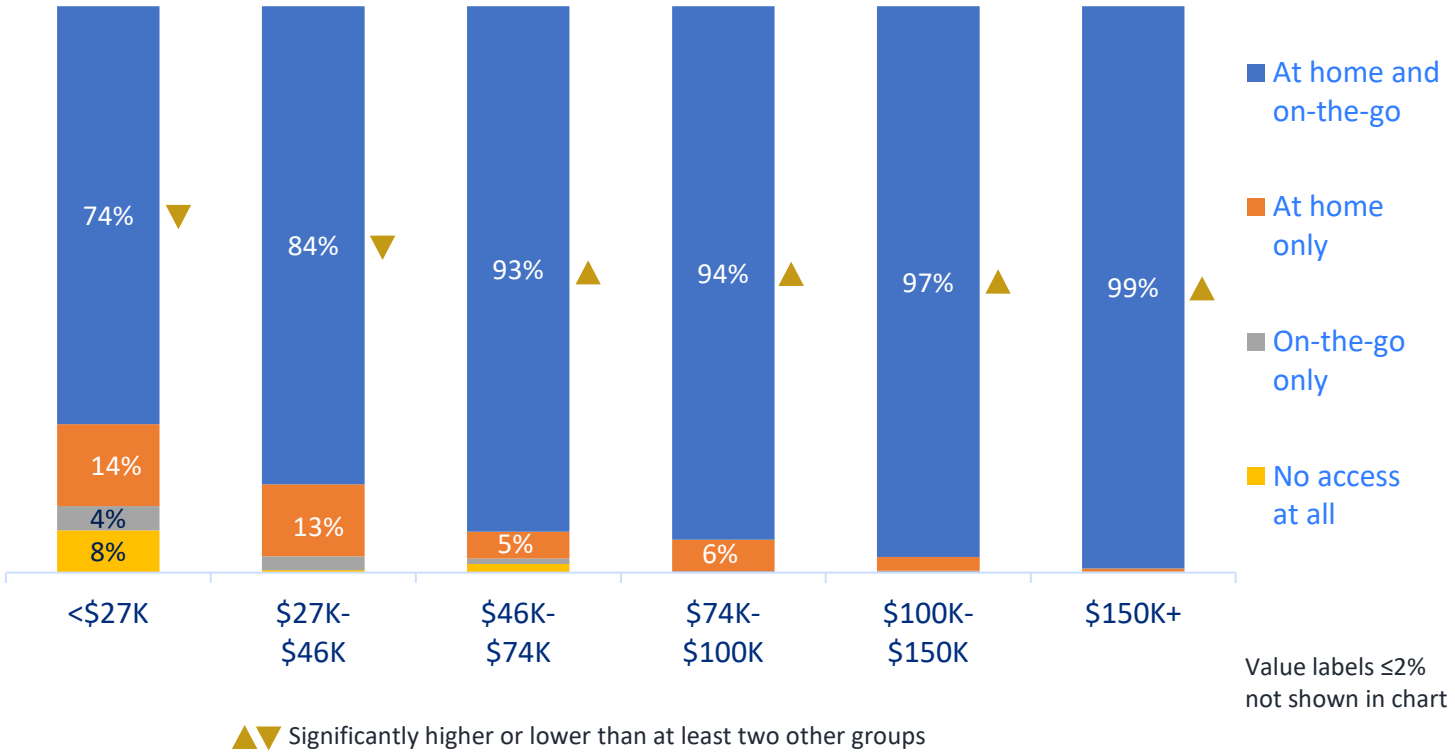


▼ Significantly lower than at least three other districts

Higher income households are significantly more likely to have a way to access the internet both at home and when on-the-go.

- More than one out of four (26%) households with incomes under $27K do not have both home and mobile access. This can be compared to only 2% or less for households with incomes of $100K or higher.

Internet Access On-the-Go and At Home - By Household Income (HHI)



Value labels ≤2% not shown in chart

▲▼ Significantly higher or lower than at least two other groups

Household Size and Income…	At home/ on-the-go	At home only	On-the-go only
At or below 150% of FPL	74% ▼	15% ▲	4% ▲
Above 150% of FPL	95%	4%	1%
At or below 200% of FPL	78% ▼	13% ▲	3% ▲
Above 200% of FPL	96%	4%	1%

Households with incomes at or below 150% or 200% Federal Poverty Level (FPL) are significantly less likely to have a way to access internet both at home and on-the-go.

▲▼ Significantly higher or lower than HHs earning above 150% or 200% FPL

Internet Access On-The-Go

Total and Impacted Group Summary	(pg. 37)
Impacted Group Comparison	(pg. 38)
Council District Comparison	(pg. 39)
Income and Federal Poverty Level (FPL) Comparison	(pg. 40)

One out of twenty (6%) households do not have a source of mobile internet.

Households with older adults (60+), a disability, a primary language other than English, and at or below 150% FPL are significantly less likely than the overall population to have access to any mobile internet service:

	% Any Mobile Service
Children in household	98% ▲
Native	92%
BIPOC	92%
Black	92%
Older Adult in Household (60+)	87% ▼
Living with a Disability	87% ▼
Language other than English	84% ▼
Low-Income (FPL <=150%)	79% ▼

94% Any mobile service

67% Mobile Unlimited

27% Mobile Limited

3% Pay as you go

2% Don't know

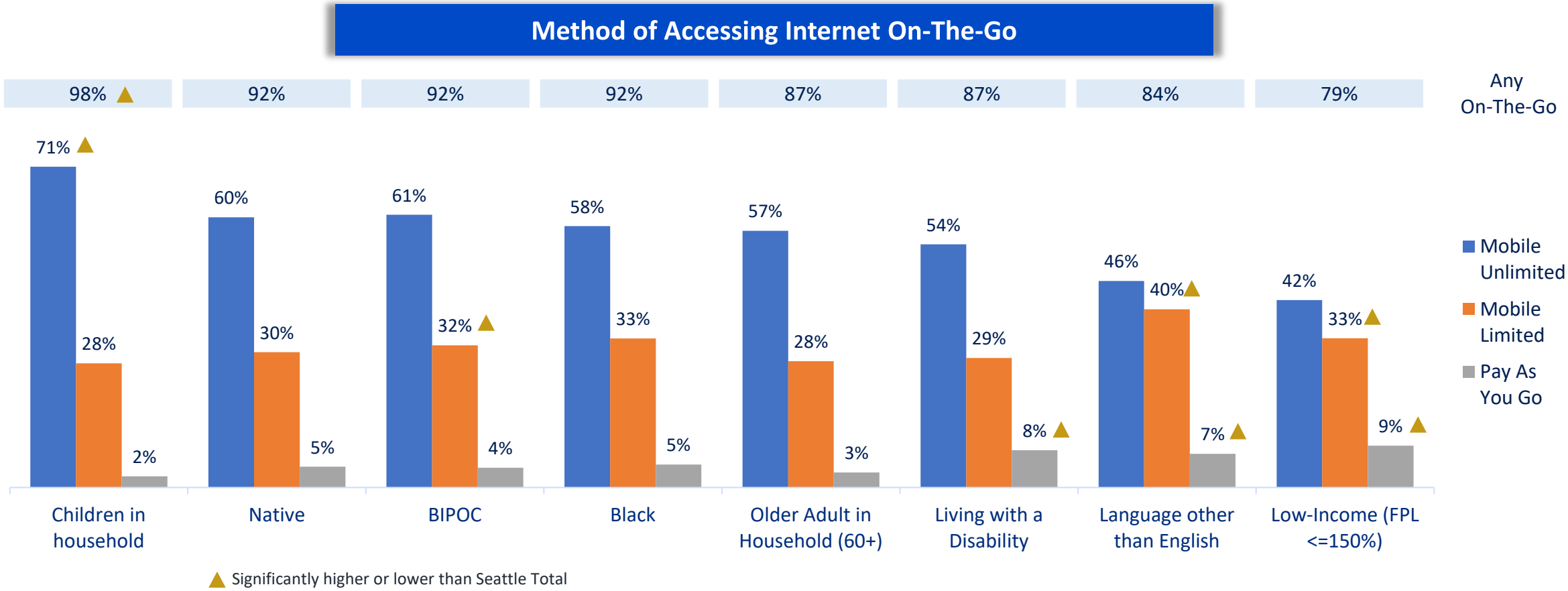
4% No mobile service

Note: Total may not equal 100% due to rounding.

▲▼ Significantly higher or lower than Seattle Total

Two thirds of households have a mobile internet plan with unlimited data; this is especially prevalent in households with children.

- Households living at or below 150% of FPL and those where the primary language is not English are the most likely groups to have limited mobile or pay as you go plans (if they have mobile service at all).



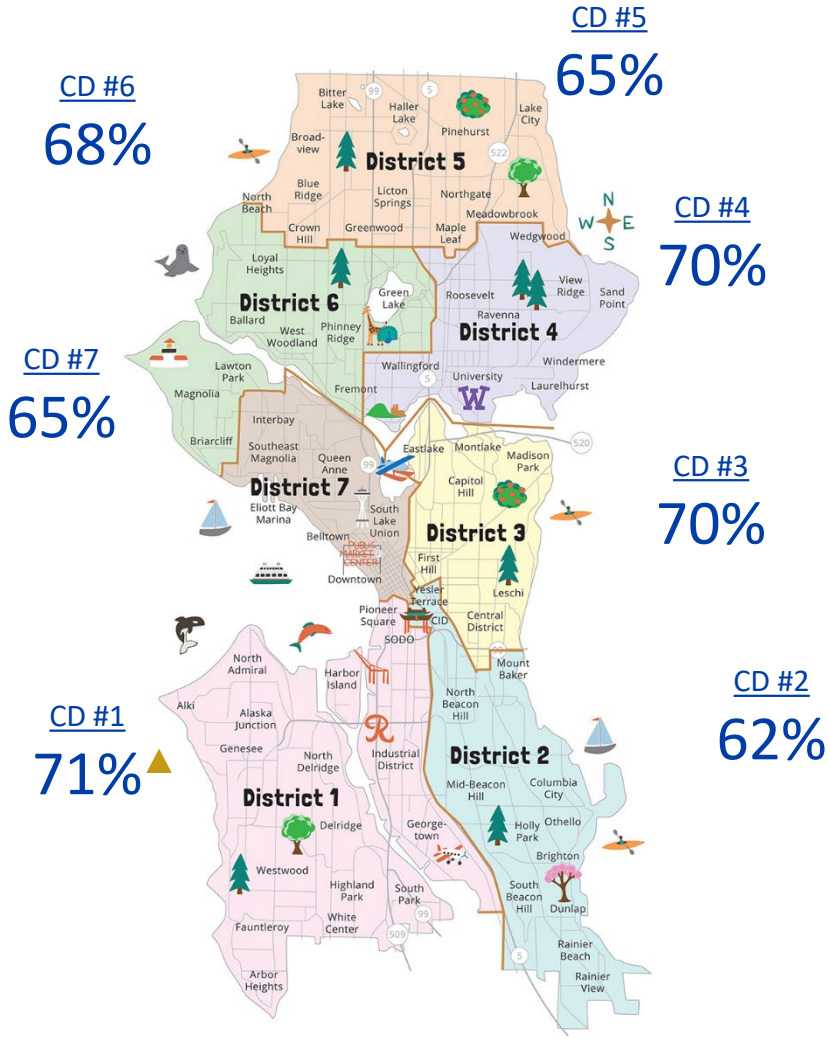
Across all Council Districts, two-thirds (67%) of households use an unlimited mobile data plan for accessing Internet on-the-go.

- South Seattle (CD 2) and North Seattle (CD 5) report a lower percentage of unlimited data plans.

Types of Plans for Internet On-The-Go - By Council District (CD)

	West Seattle (CD 1)	South Seattle (CD 2)	Central Seattle (CD 3)	Northeast Seattle (CD 4)	North Seattle (CD 5)	Northwest Seattle (CD 6)	West Central Seattle (CD 7)
Any On-The-Go Access	95%	91%	96% ▲	96%	93%	96%	92%
Mobile Unlimited	71% ▲	62%	70%	70%	65%	68%	65%
Limited Data Plan	23%	29%	27%	26%	29%	29%	26%
Pay As You Go	2%	3%	3%	2%	3%	3%	3%

% With Unlimited Mobile
(Unlimited, Limited, or Pay As You Go)

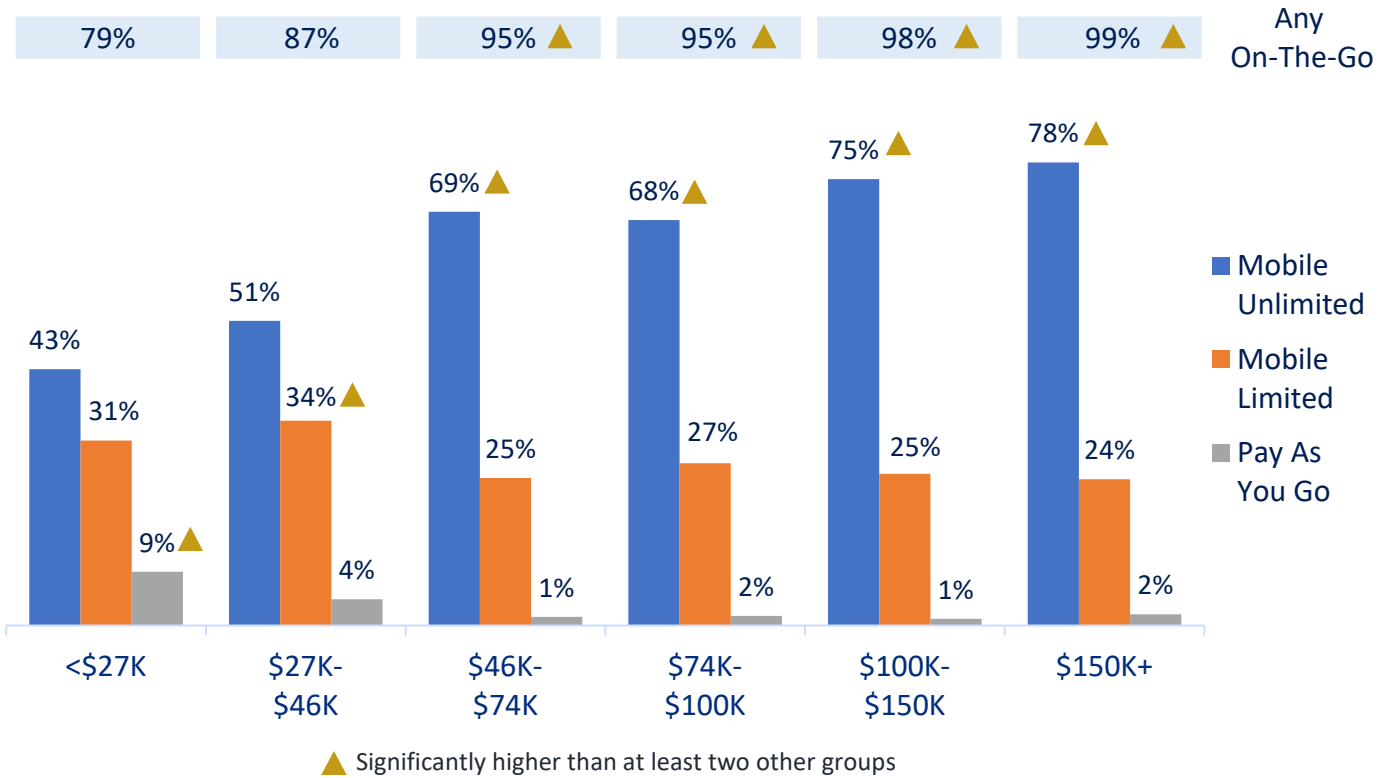


▲ Significantly higher than at least two other districts

Households with incomes under $46K, or those at or below 200% of FPL, are significantly less likely to have access to the internet on the go.

- Low income households that do have access on the go are more likely to have limited or pay as you go mobile internet.

Method of Accessing Internet On-The-Go - By Household Income



▲ Significantly higher than at least two other groups

Household Size and Income…	At or below 150% of FPL	Above 150% of FPL
Any On-The-Go	79%	96% ▲
Mobile Unlimited	42%	71% ▲
Mobile Limited	33% ▲	26%
Pay As You Go	9% ▲	2%

Household Size and Income…	At or below 200% of FPL	Above 200% of FPL
Any On-The-Go	83%	97% ▲
Mobile Unlimited	45%	72% ▲
Mobile Limited	33% ▲	26%
Pay As You Go	8% ▲	2%

▲ Significantly higher than other group

Internet Service Disruptions

Total and Impacted Group Comparison	(pg. 42)
Council District Comparison	(pg. 43)
Income and Federal Poverty Level (FPL) Comparison	(pg. 44)

Over 30,000 households in Seattle lived without internet for a significant amount of time last year.

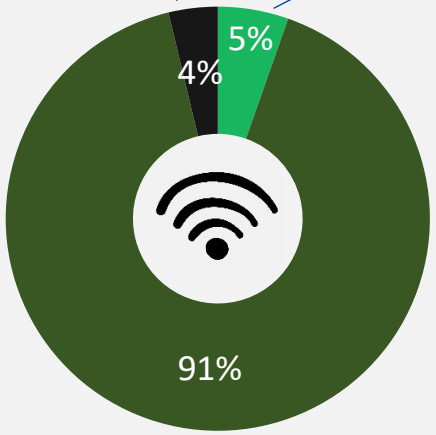
- Those who identify as BIPOC, Native, or Black, living with a disability, speak a primary language other than English, and living at or below 150% of FPL, exceed the general population when it comes to lengthy internet service interruptions.

Internet Access Interruptions

Seattle General Population*

12,620 households/ 23,221 residents Don't know/Not sure

18,167 households/ 33,426 residents with access interruptions

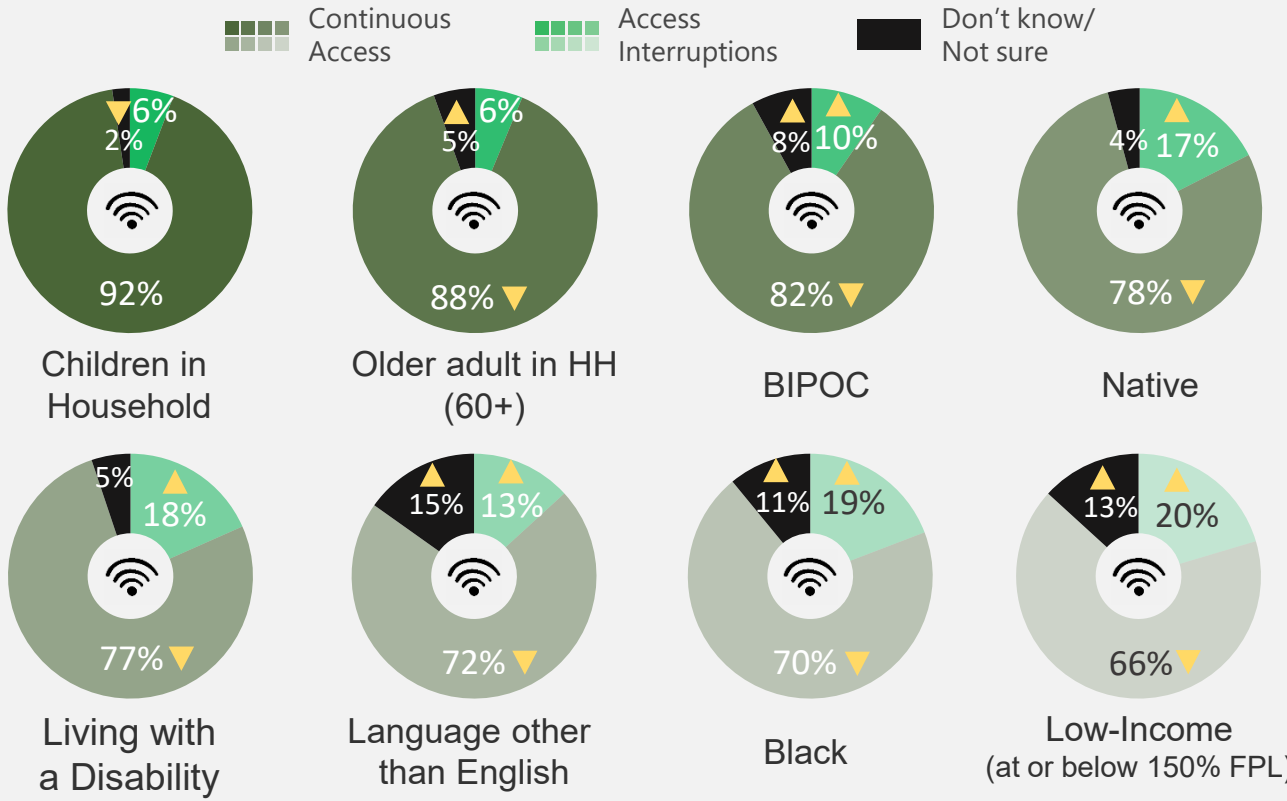


- Yes, went w/out internet for ≥ 1 month
- No, had continuous internet
- Don't know/ Not sure

306,574 households/ 564,073 residents with continuous internet

*Based on ACS 5-Year Est. 2017-2021

Internet Access Interruptions - By Impacted Groups

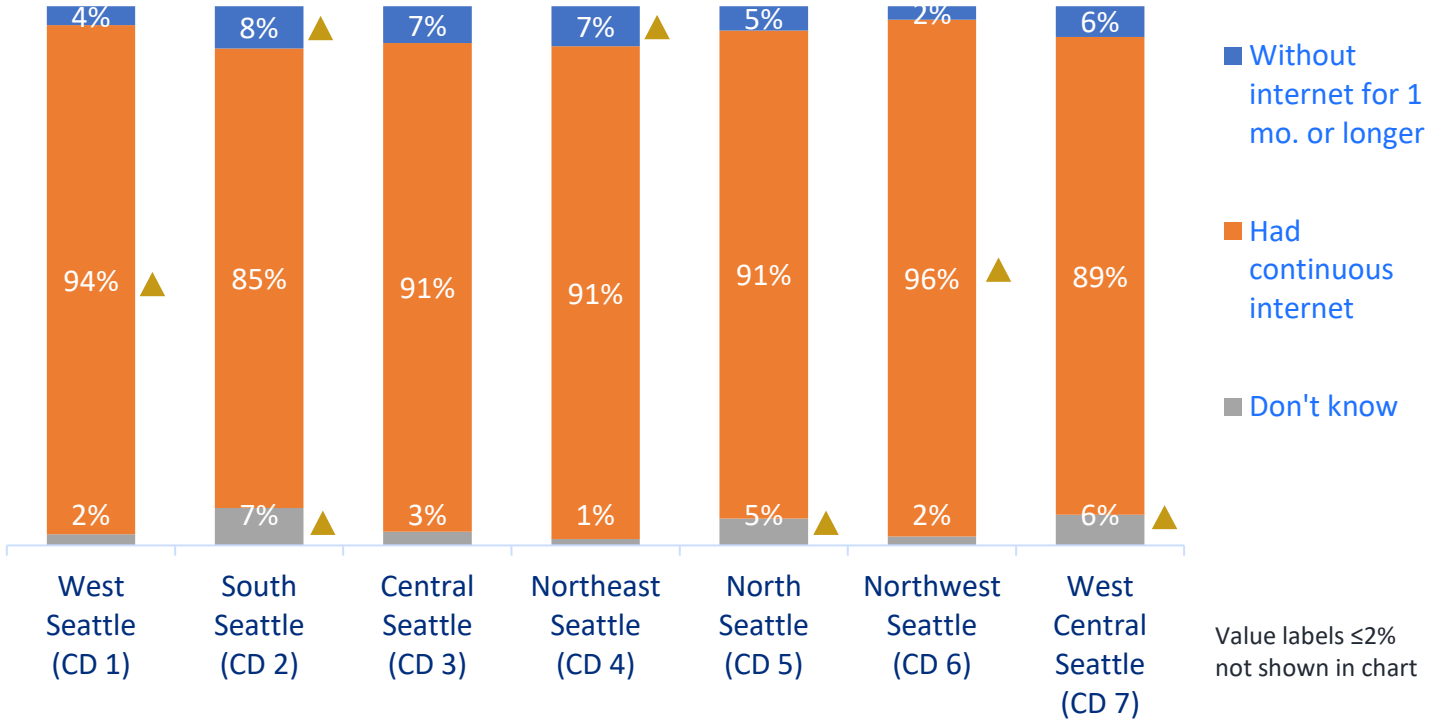


▲▼ Significantly higher or lower than Seattle Total

In the past 12 months, one in twenty (5%) households went without internet at home for one month or longer.

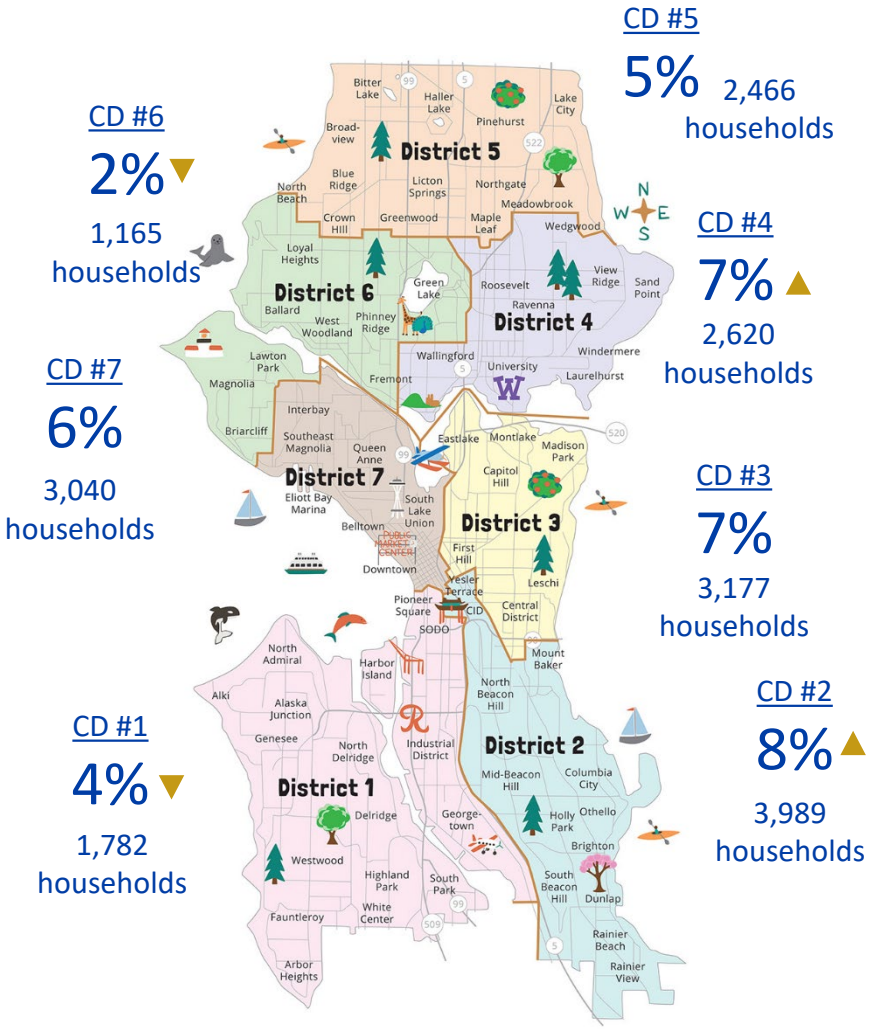
- Rates of prolonged disruption were highest in South Seattle (CD2) and lowest in Northwest Seattle (CD6).

Internet Access Interruptions - By Council District (CD)



Value labels ≤2% not shown in chart

% Without Internet for 1 mo. or Longer

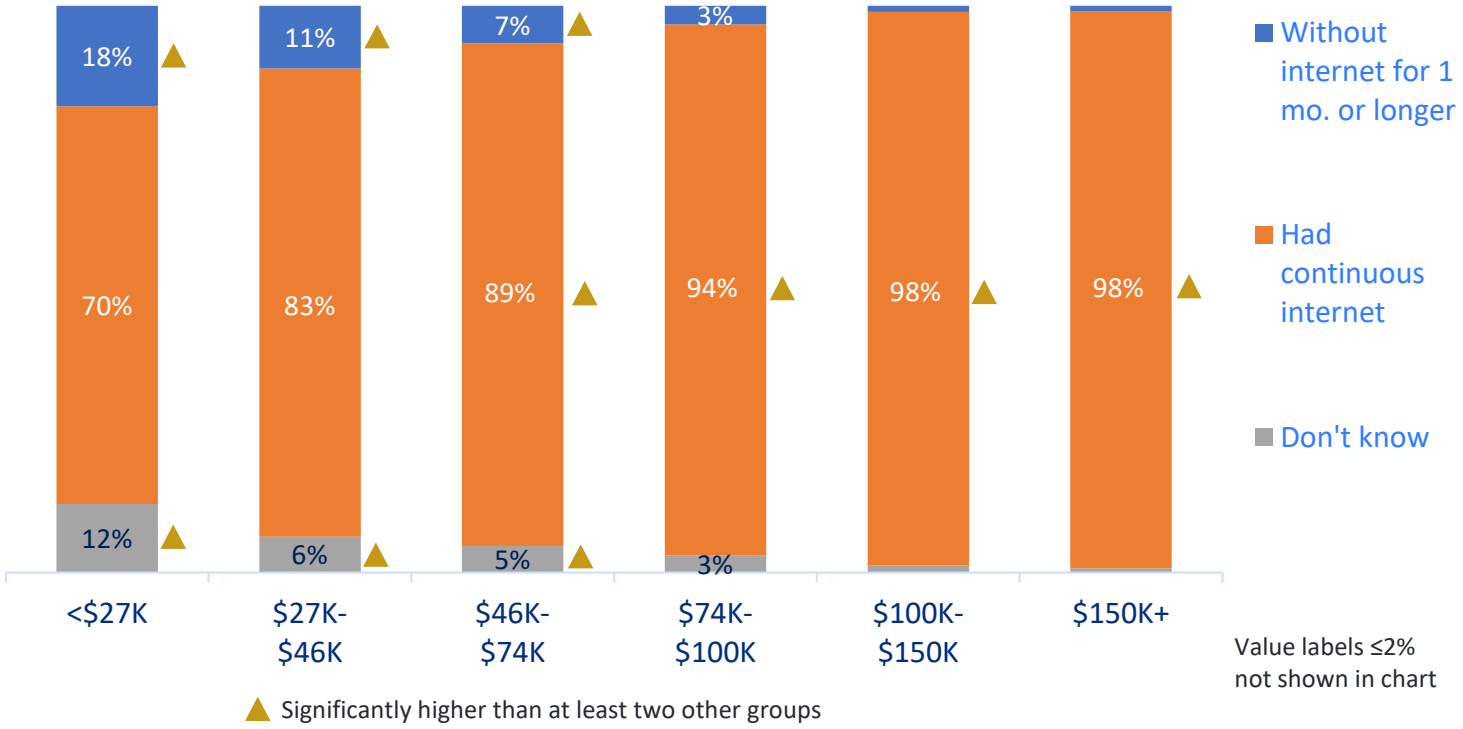


▲▼ Significantly higher or lower than at least two other districts

Households with incomes under $74K were more likely to report a prolonged internet interruption in their home.

- Households at the lowest income level (under $27K) have more than six times the rates of service interruption than households with incomes over $74K (18% compared to 3%, respectively).

Experienced Prolonged Internet Access Interruptions - By Household Income



Household Size and Income…	Without internet for 1+ months	Had continuous internet
At or below 150% of FPL	20% ▲	66% ▼
Above 150% of FPL	3%	95%
At or below 200% of FPL	17% ▲	72% ▼
Above 200% of FPL	3%	95%

Households with incomes at or below 150% or 200% Federal Poverty Level (FPL) are significantly more likely to have experienced prolonged internet interruptions.

▲▼ Significantly higher or lower than HHs earning above 150% or 200% FPL

Types of Internet Service Providers

Total and Impacted Group Summary	(pg. 46)
Income and Federal Poverty Level (FPL) Comparison	(pg. 47)

Half of Seattle households have both cellular and broadband internet providers while 37% have only broadband and 7% have only cellular.

	Both (Broadband + Cellular)	Only Broadband	Only Mobile	Other	None
• Children in Household	58% ▲	37%	3% ▼	1% ▼	1% ▼
• BIPOC	46%	36%	8%	5%	5% ▲
• Older Adult in HH (60+)	42% ▼	41% ▲	7%	5%	5% ▲
• Native	42%	31%	19% ▲	2%	5%
• Living with Disability	41% ▼	40%	8%	5%	6%
• Black	41% ▼	35%	12% ▲	7%	6% ▲
• Language other than English	32% ▼	44%	10%	5%	9% ▲
• Low income (FPL <=150%)	30% ▼	41%	11% ▲	8% ▲	11% ▲

▲▼ Significantly higher or lower than Seattle Total

50% Both cellular and broadband

Among these residents, leading DSL/cable/fibers providers: Xfinity (Comcast) (31%), CenturyLink (Lumen) (16%), Astound (4%)

37% Only broadband

Among these residents, leading DSL/cable/fibers providers: Xfinity (Comcast) (23%), CenturyLink (Lumen) (11%), Astound (4%)

7% Only cellular/mobile

4% Other (Provided by building, etc.)

2% No internet at home

Note: Total may not equal 100% due to multiple responses.

As household income rises, so does the likelihood of having *both* fixed broadband *and* a cellular data plan to access the internet.

Ways in Which They Get Internet Where They Live - By Household Income (HHI)

	Seattle Total	< $27K	$27K - $46K	$46K - $74K	$74K - $100K	$100K - $150K	$150K+	150% FPL or Below		200% FPL or Below	
								Yes	No	Yes	No
Both fixed broadband and cell data plan	50%	29% ▼	35% ▼	49% ▲	52% ▲	55% ▲	61% ▲	30% ▼	53% ▲	32% ▼	54% ▲
Only fixed broadband subscription	37%	39%	48% ▲	40%	36%	36%	33% ▼	41%	37%	41% ▲	37% ▼
Only data cell plan (no fixed bb)	7%	12% ▲	11% ▲	5% ▼	8% ▲	5% ▼	4% ▼	11% ▲	6% ▼	11% ▲	6% ▼
Other (Net)	4%	8% ▲	3%	3%	4%	4%	2% ▼	8% ▲	3% ▼	7% ▲	3% ▼
No internet access at home	2%	12% ▲	3% ▲	2% ▲	<1% ▼	<1% ▼	<1% ▼	11% ▲	1% ▼	9% ▲	1% ▼

▲▼ Significantly higher or lower than at least two other groups

▲▼ Significantly higher or lower than counterpart

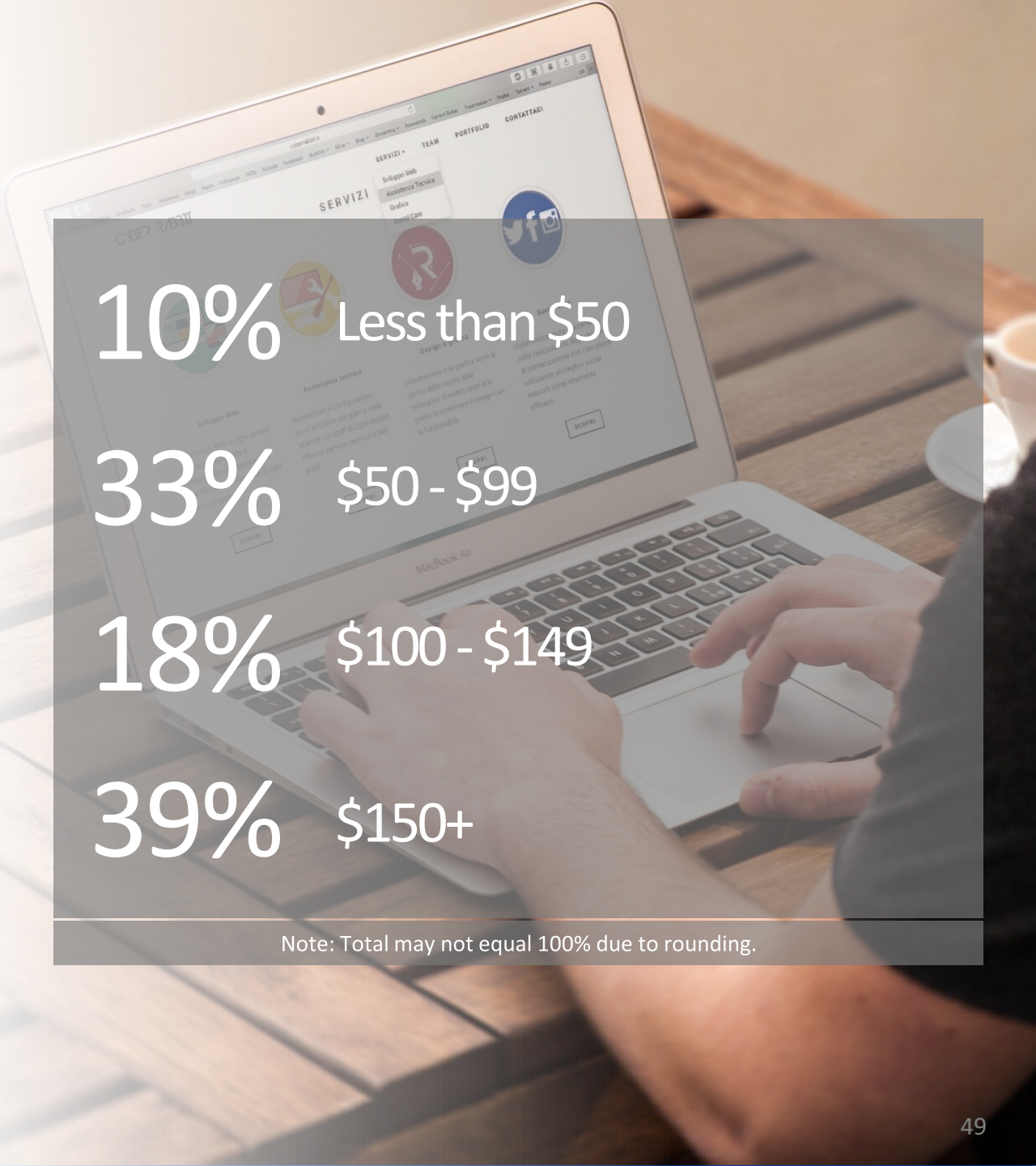
The Cost of Internet

Total and Impacted Group Summary	(pg. 49)
Council District Comparison	(pg. 50)
Income and Federal Poverty Level (FPL) Comparison	(pg. 51)

Two out of five households spend $150 or more per month on internet service.

Households with children and older adults (60+) have a higher average cost per month for internet service, compared to all other focused population groups:

	Mean Cost
• Children in household	$168.2 ▲
• Older Adult in Household (60+)	$160.5 ▲
• Native	$156.0
• Living with Disability	$138.4
• Black	$137.4
• BIPOC	$130.1 ▼
• Language other than English	$108.8 ▼
• Low-Income (FPL <=150%)	$101.8 ▼



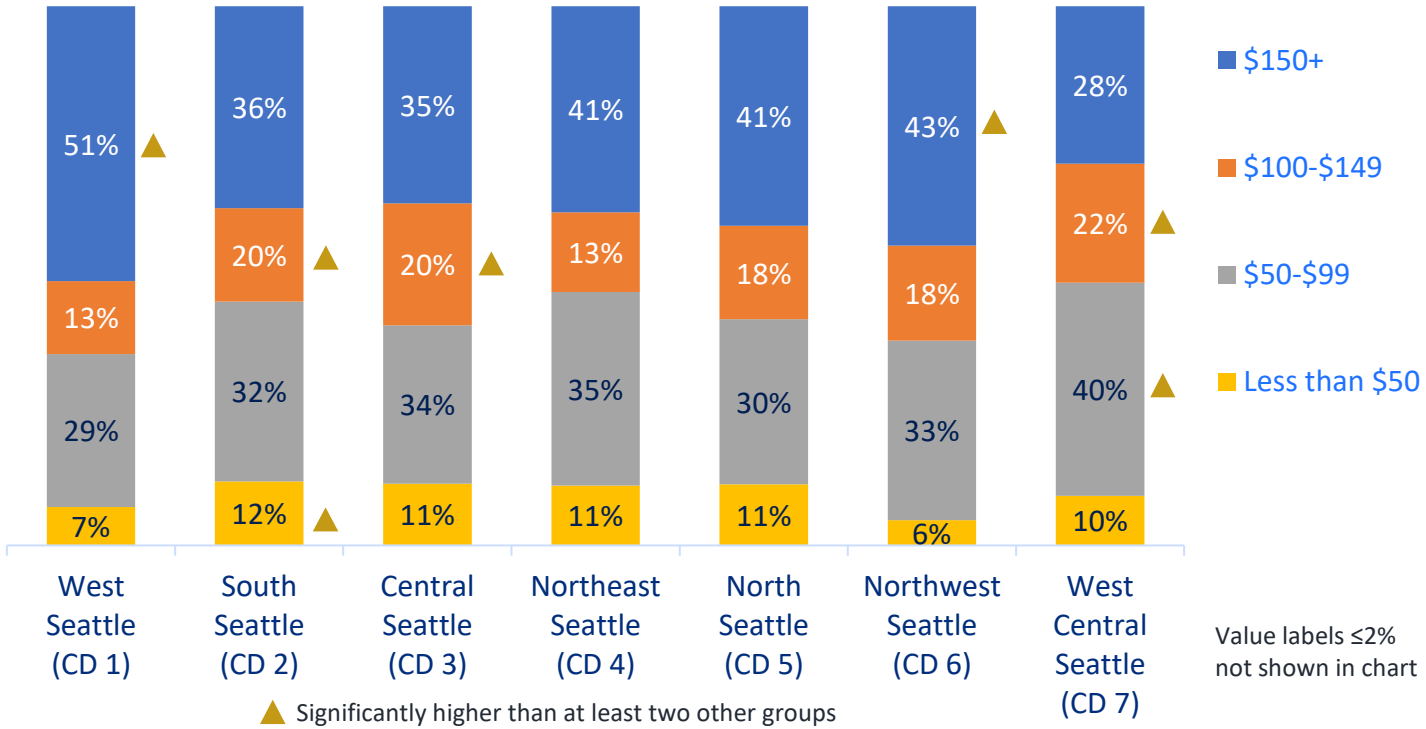
Note: Total may not equal 100% due to rounding.

▲▼ Significantly higher or lower than Seattle Total

Fifty-seven percent (57%) of Seattle households are paying at least $100 per month for internet.

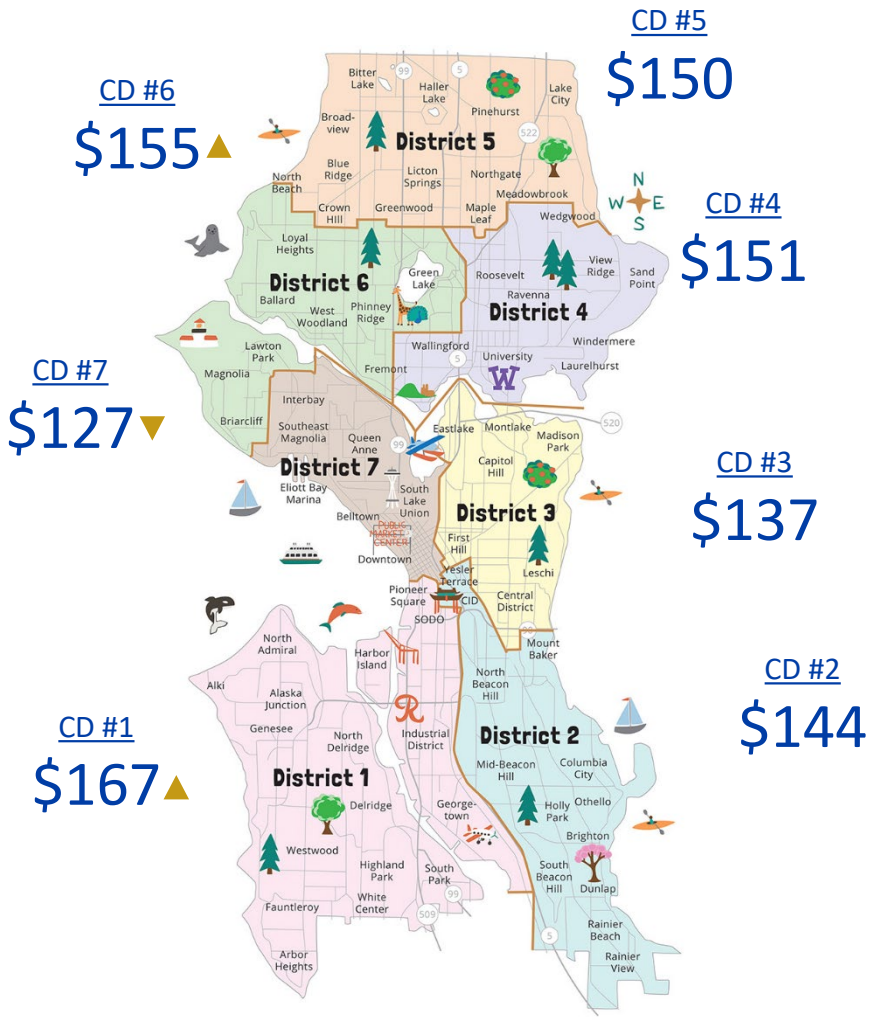
- West Seattle (CD 1) reports a significantly higher mean cost per month ($167) while West Central Seattle (CD7) reports the lowest cost per month ($127).

Cost of Internet Service Per Month - By Council District (CD)



Value labels ≤2% not shown in chart

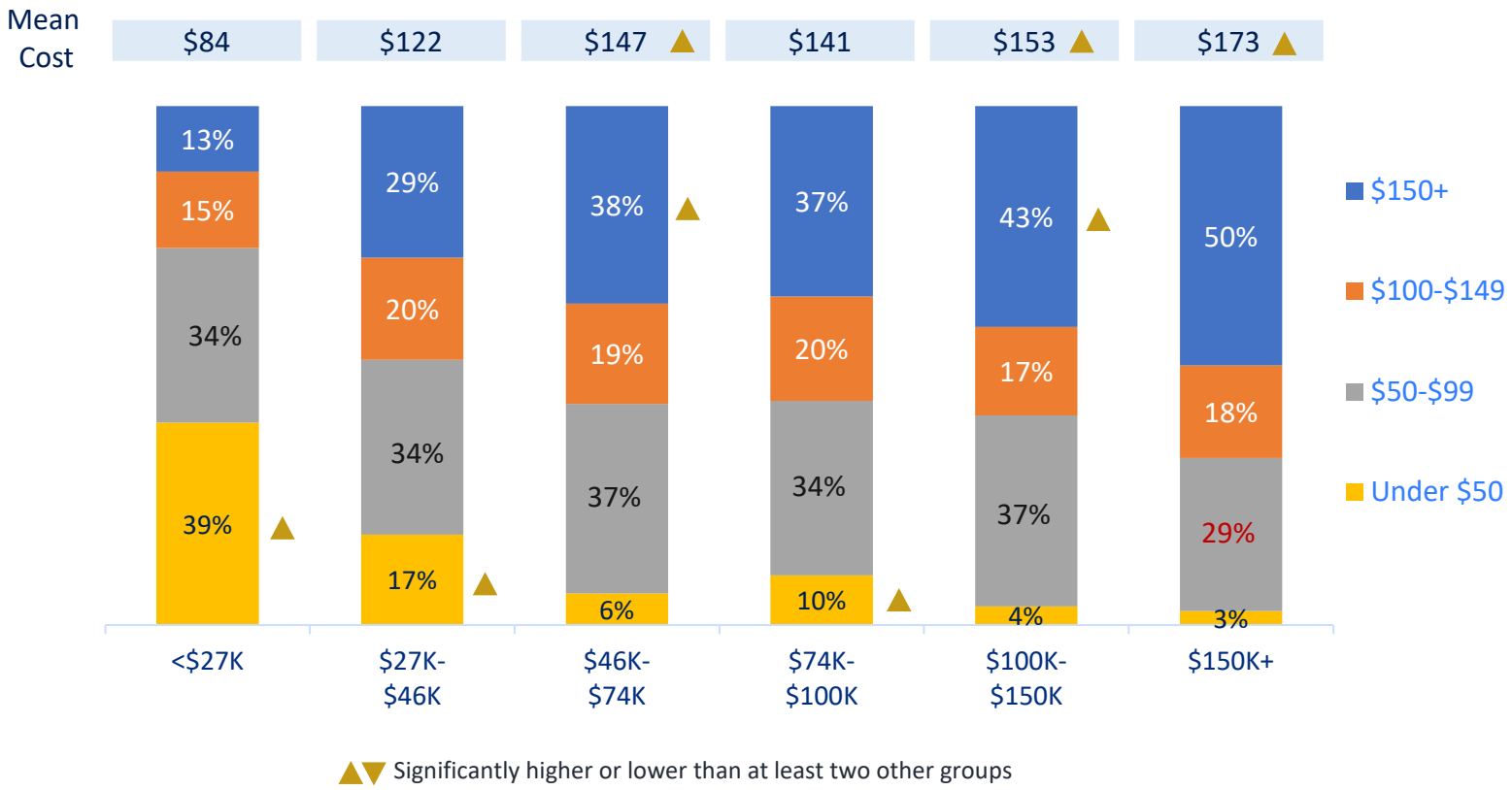
Mean Cost of Internet Service Per Month



As household income rises, so does the average monthly amount residents pay for internet.

- Households earning under $27,000 are paying, on average, about 50% of what a household earning six times that amount per year pays ($84 per month for <$27K compared to $173 per month for $150K plus).

Household Cost of Internet Service per Month - By Household Income (HHI)



▲▼ Significantly higher or lower than at least two other groups

Household Size and Income…	Mean Cost per Month	% Spending $100+ Mo.
At or below 150% of FPL	$102	33%
Above 150% of FPL	$153 ▲	61%
At or below 200% of FPL	$105	36%
Above 200% of FPL	$155 ▲	62%

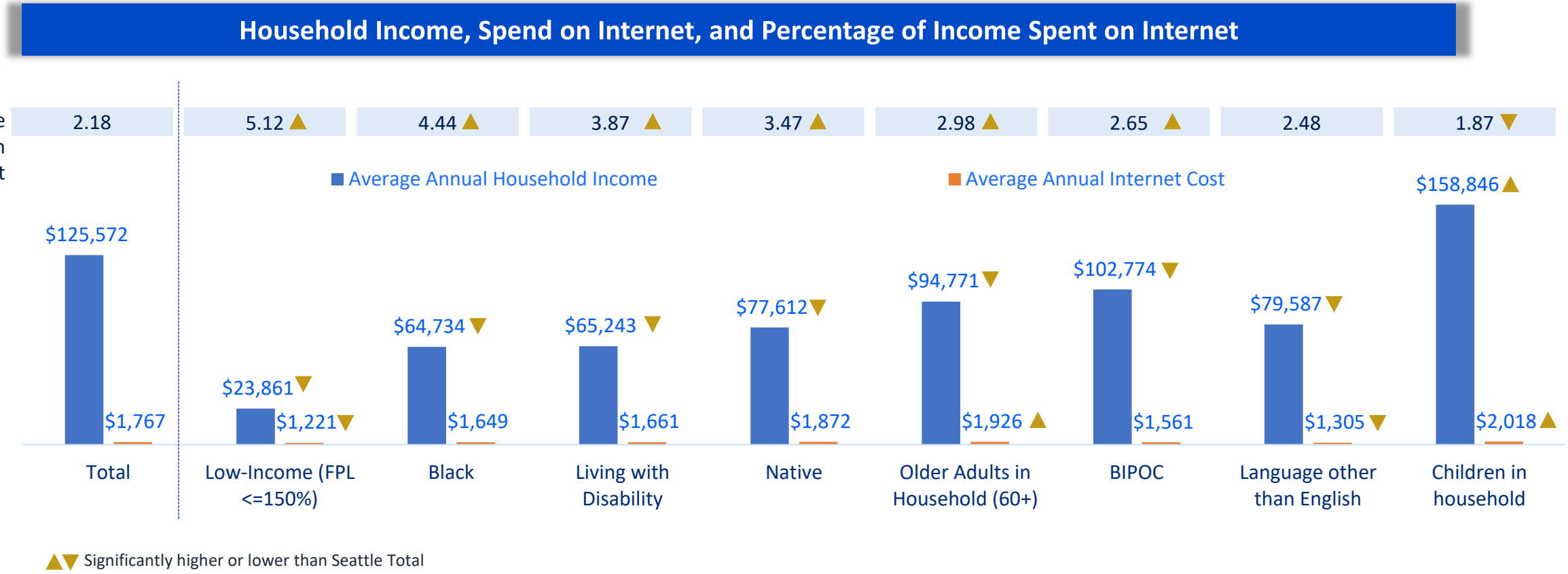
Households with incomes at or below 150% or 200% Federal Poverty Level (FPL) have a significantly lower mean cost per month for internet service; however, about a third are still paying $100 or more per month for internet.

Percentage of Income Spent on Internet Service

Total and Impacted Group Comparison	(pg. 53)
Council District Comparison	(pg. 54)
Income and Federal Poverty Level (FPL) Comparison	(pg. 55)

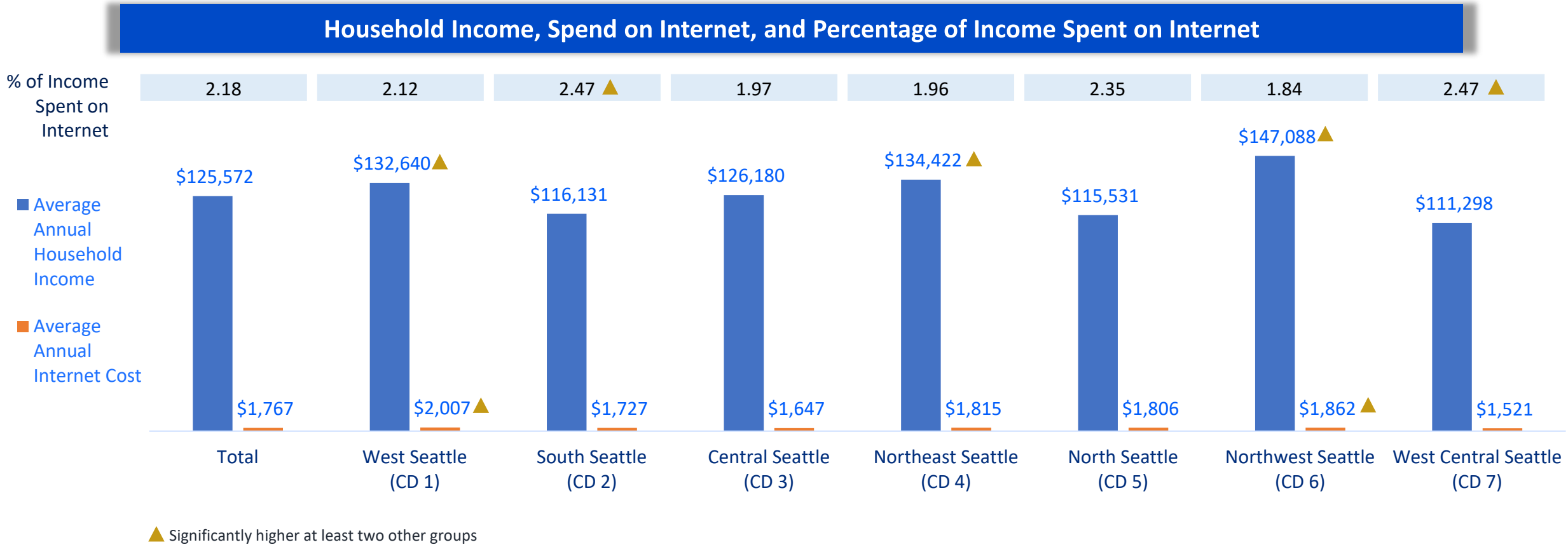
While the average for Seattle residents is slightly over two percent of their annual income, many groups of residents use significantly more of their income to pay for internet service.

- Those living at or below 150% of FPL, black, living with a disability, native, have an older adult in their household, and BIPOC all pay significantly more relative to their income on internet service than the city average.



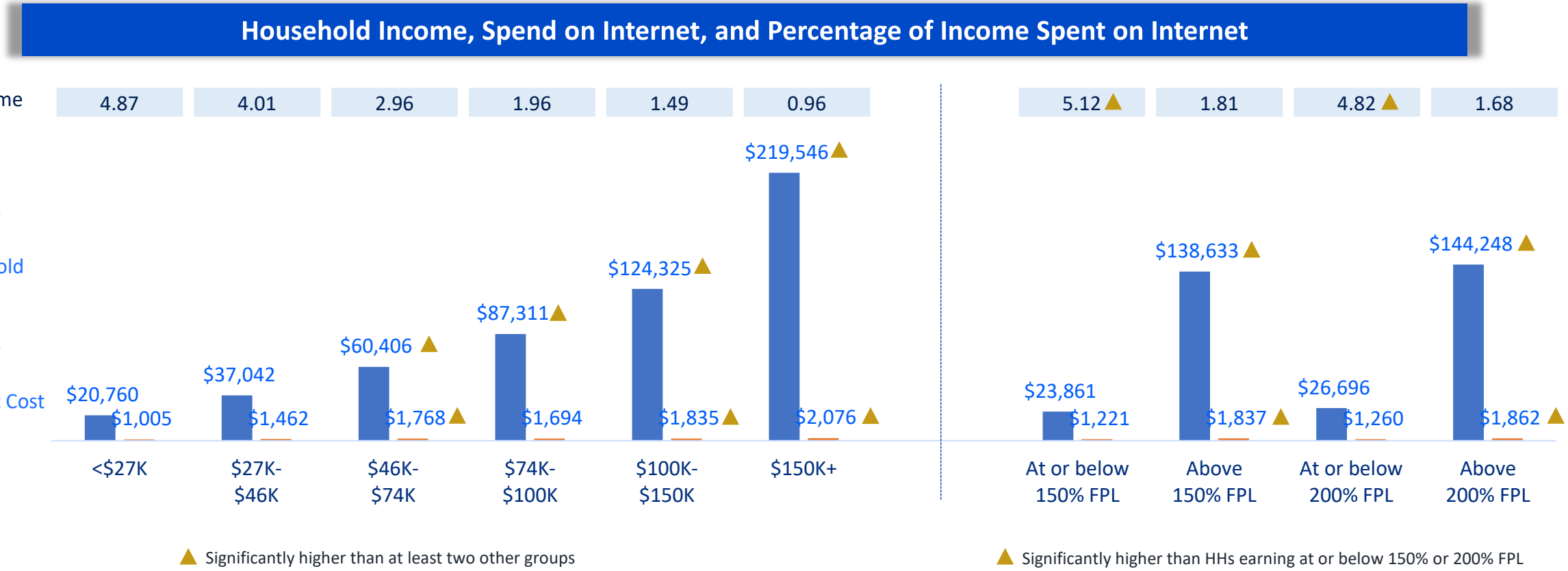
Council Districts with higher average incomes pay more for internet service.

- A notable exception is South Seattle (CD2) and West Central Seattle (CD7) – where residents have a significantly lower annual household income and pay a similar average cost for internet. This results in a significantly higher percentage of income spent on internet in these Council Districts.



Households with lower incomes pay a significantly greater share of income towards internet.

- Residents at or below 150% of FPL or under $46,000 per year in annual income pay 4-5% of their annual income towards internet. This can be compared to those in the highest income brackets paying less than 1% of their annual income towards internet.



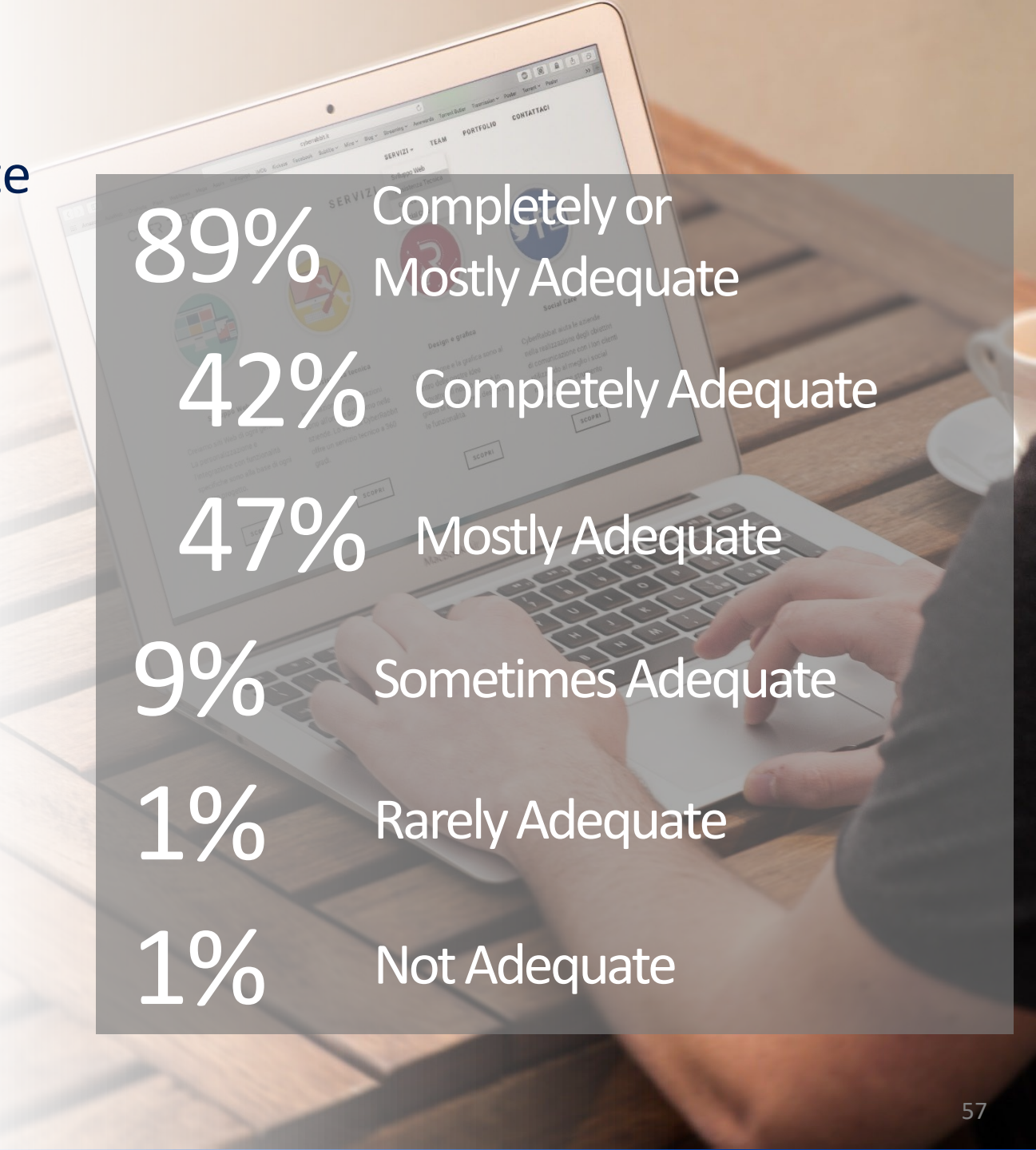
Adequacy of Internet Connection and Speed

Total and Impacted Group Summary	(pg. 57)
Council District Comparison	(pg. 58)
Income and Federal Poverty Level (FPL) Comparison	(pg. 59)

Nearly nine in ten households report having ‘mostly’ or ‘completely’ adequate internet connection and speed.

Compared to the overall population, the following groups are less likely to say their internet access is ‘mostly’ or ‘completely’ adequate:

· Older Adult in Household (60+)	88%	**Completely or Mostly Adequate**
· Children in Household	87%	
· Native	83%	
· BIPOC	83% ▼	
· Black	78% ▼	
· Language other than English	75% ▼	
· Living with a Disability	74% ▼	
· Low-Income (FPL <=150%)	73% ▼	

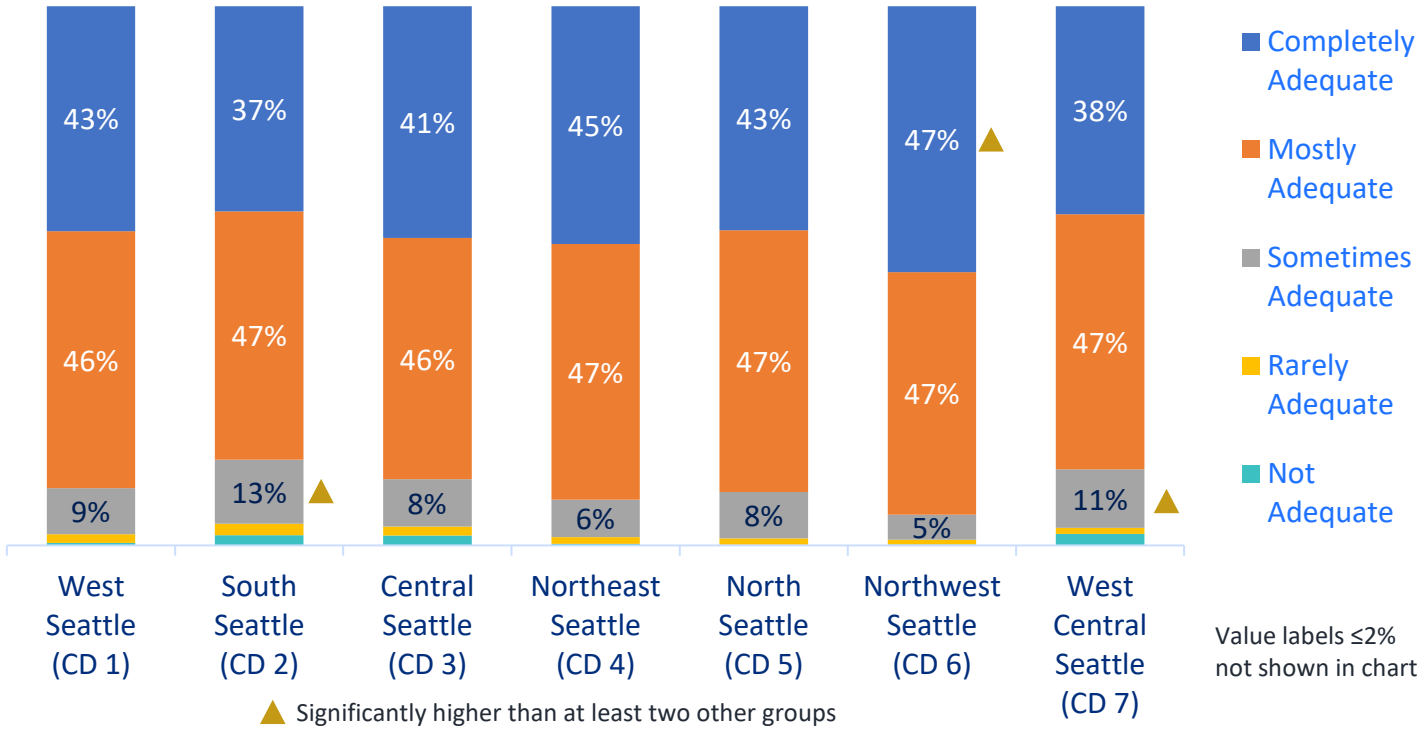


▲▼ Significantly higher or lower than Seattle Total

Eighty-nine percent (89%) of households report having a ‘mostly’ or ‘completely’ adequate internet connection and speed.

- Northwest Seattle (CD 6) reports the highest adequacy while West Central Seattle (CD7) and South Seattle (CD 2) report significantly lower rates of adequacy.

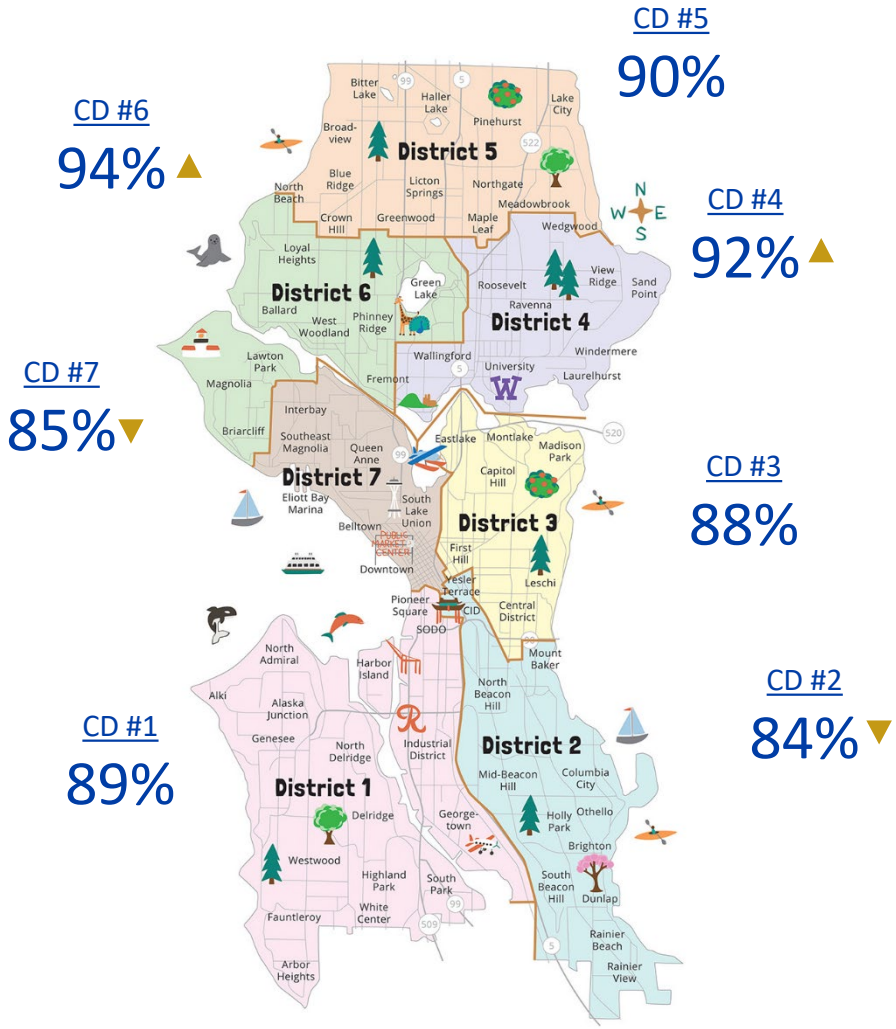
Adequacy of Internet Connection and Speed - By Council District (CD)



▲ Significantly higher than at least two other groups

Value labels ≤2% not shown in chart

% Completely or Mostly Adequate Internet

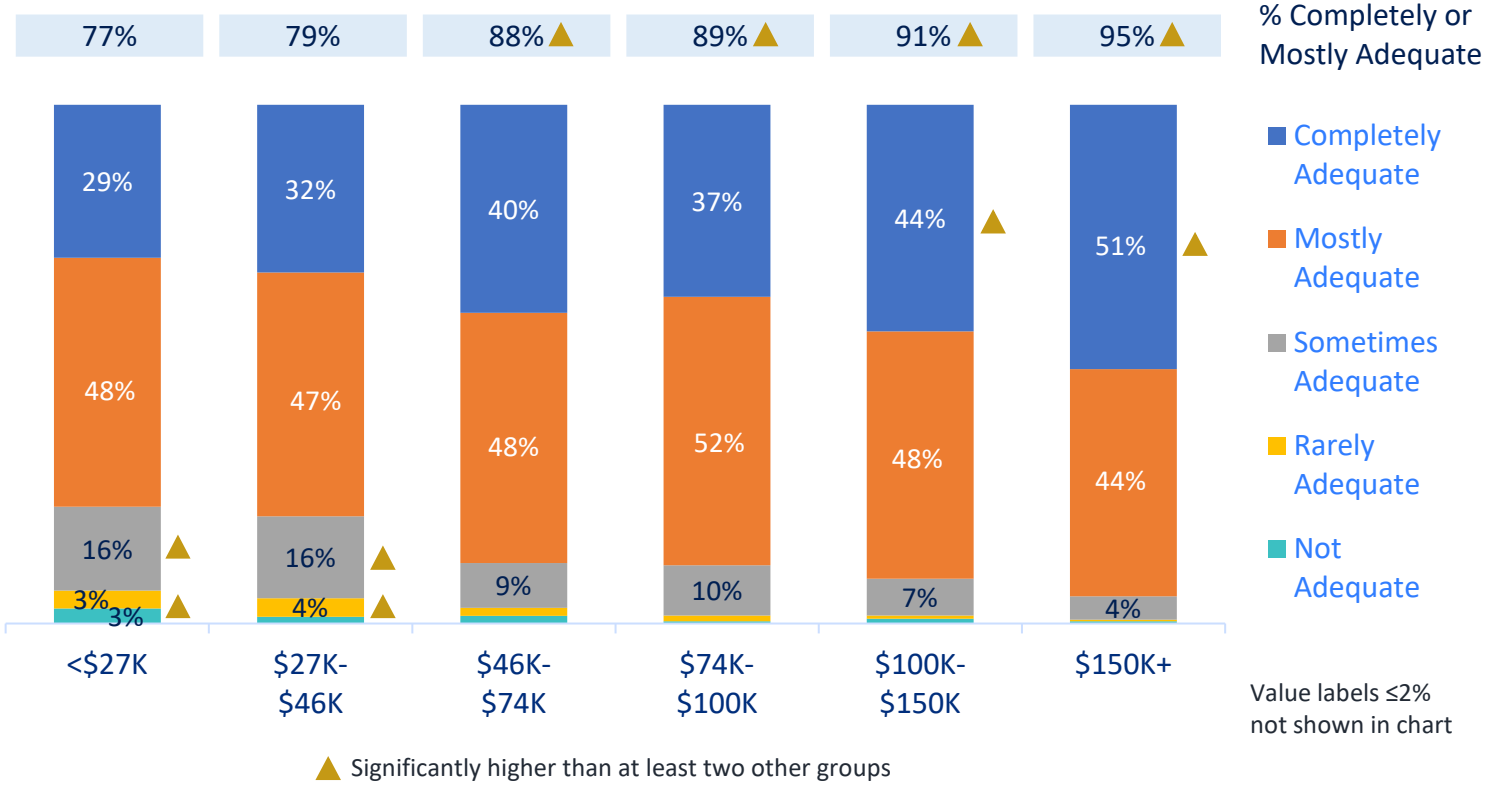


▲▼ Significantly higher or lower than at least two other districts

Lower income households report inadequate internet at far higher rates than their higher income counterparts.

- One in five (22%) low-income households (under $27K per year) say their internet is sometimes, rarely, or not adequate for their needs.

Adequacy of Internet Connection and Speed - By Household Income



Household Size and Income…	Completely /Mostly	Sometimes Adequate	Rarely/ Not
At or below 150% of FPL	73% ▼	18% ▲	8% ▲
Above 150% of FPL	91%	7%	2%
At or below 200% of FPL	76% ▼	17% ▲	7% ▲
Above 200% of FPL	92%	7%	1%

Households with incomes at or below 150% or 200% Federal Poverty Level (FPL) are significantly less likely to have completely or mostly adequate internet connection/speed and are significantly more likely to have sometimes, rarely or not adequate connection/speed.

▲▼ Significantly higher or lower than HHs earning above 150% or 200% FPL

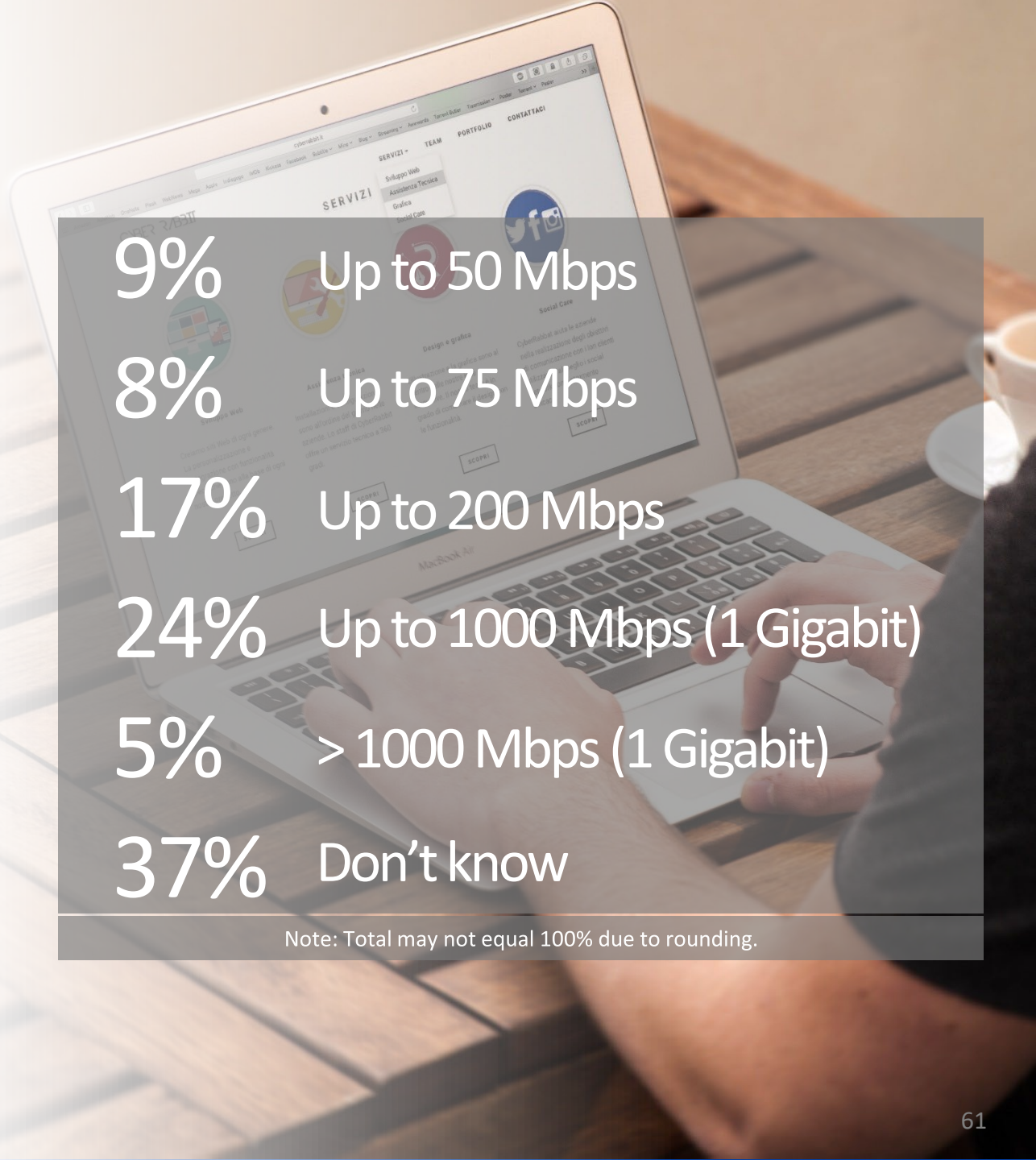
Typical Download Speed

Total and Impacted Group Summary	(pg. 61)
Council District Comparison	(pg. 62)
Income and Federal Poverty Level (FPL) Comparison	(pg. 63)

Almost one in ten (9%) have internet speeds under 50 Mbps. More than a third do not know their internet speed.

Among the focused population groups, households under 150% of FPL and those who speak a language other than English are more likely to have the slowest internet speed.

• Low Income (FPL <=150%)	19% ▲	**Up to 50 Mbps**
• Language other than English	16% ▲	
• Living with Disability	14%	
• Black	13%	
• BIPOC	11%	
• Older Adult in Household (60+)	10%	
• Children in Household	8%	
• Native	5%	



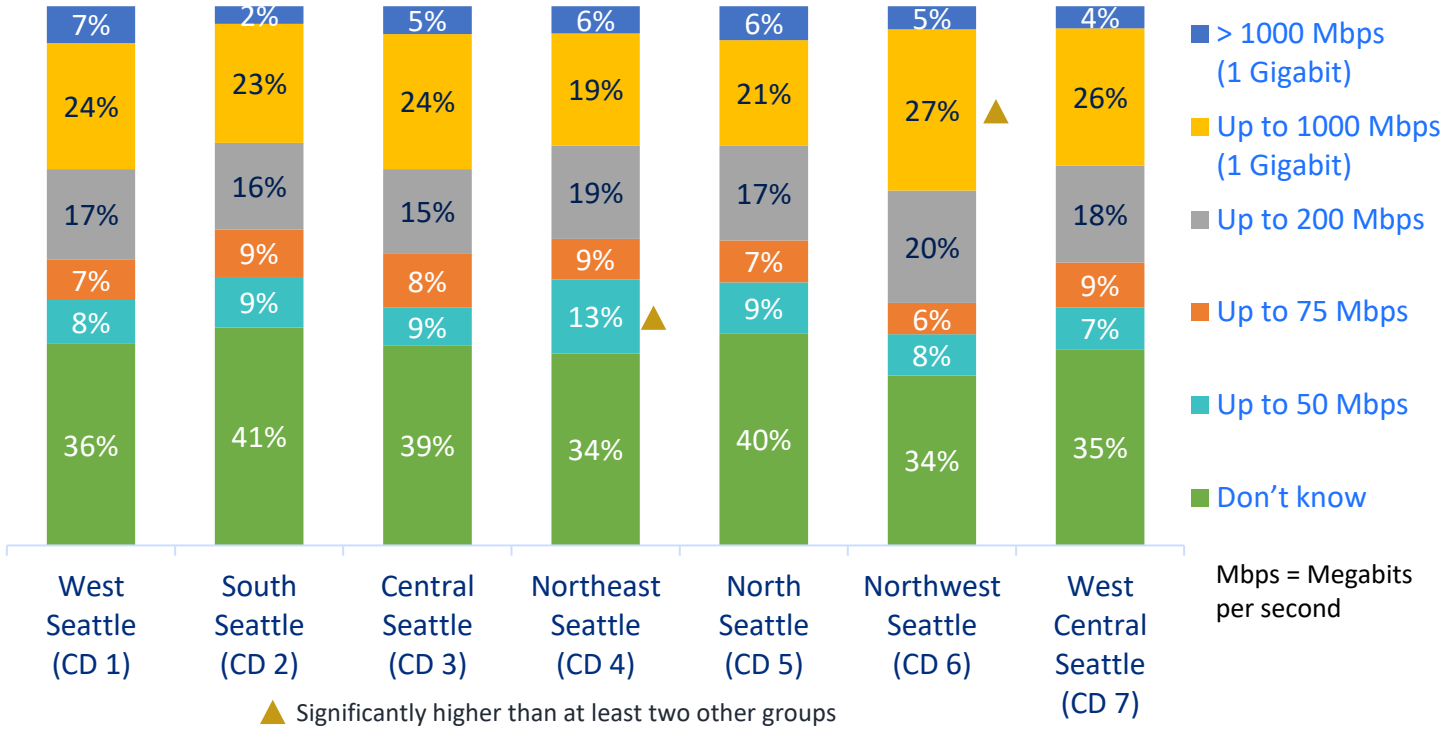
Note: Total may not equal 100% due to rounding.

▲▼ Significantly higher or lower than Seattle Total

Over half (54%) of households either have slower internet speeds (≤75 Mbps) or do not know their speed.

- Northeast Seattle (CD 4) households are significantly more likely to say their internet speeds are 50 Mbps or less. South Seattle (CD 2) and North Seattle (CD 5) are most likely to not know their speeds.

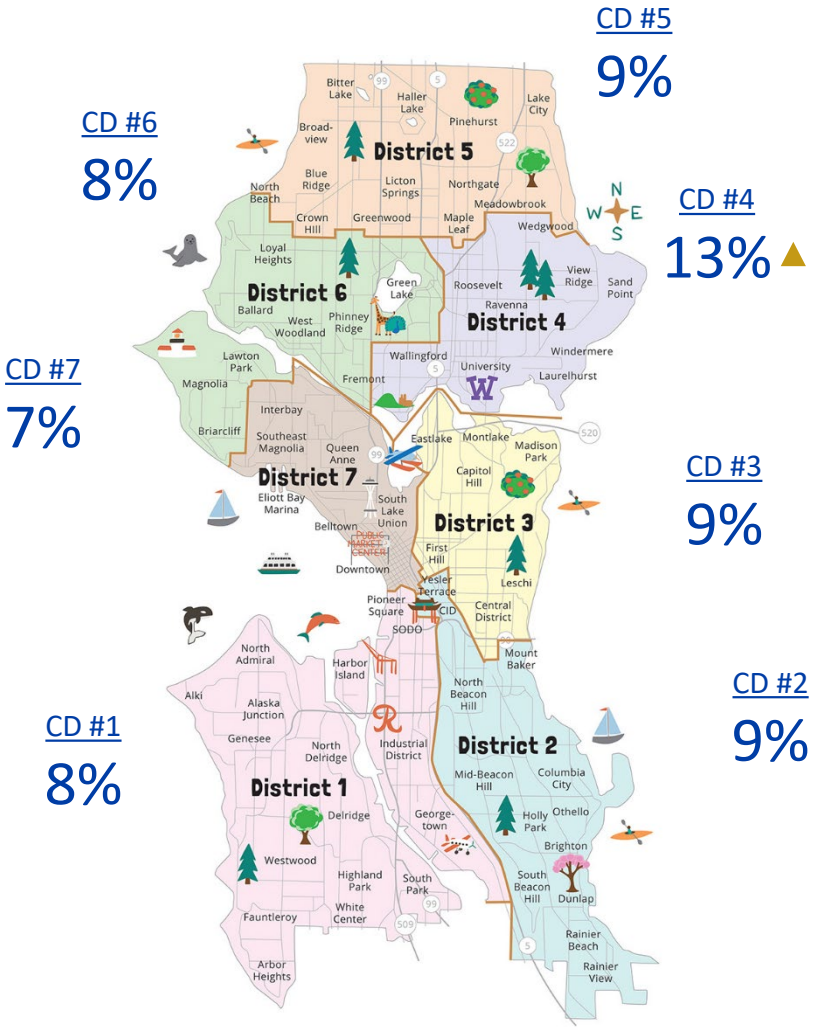
Download Speed (Mbps) of Internet Service - By Council District (CD)



Mbps = Megabits per second

▲ Significantly higher than at least two other groups

% Up to 50 Mbps Download Speed

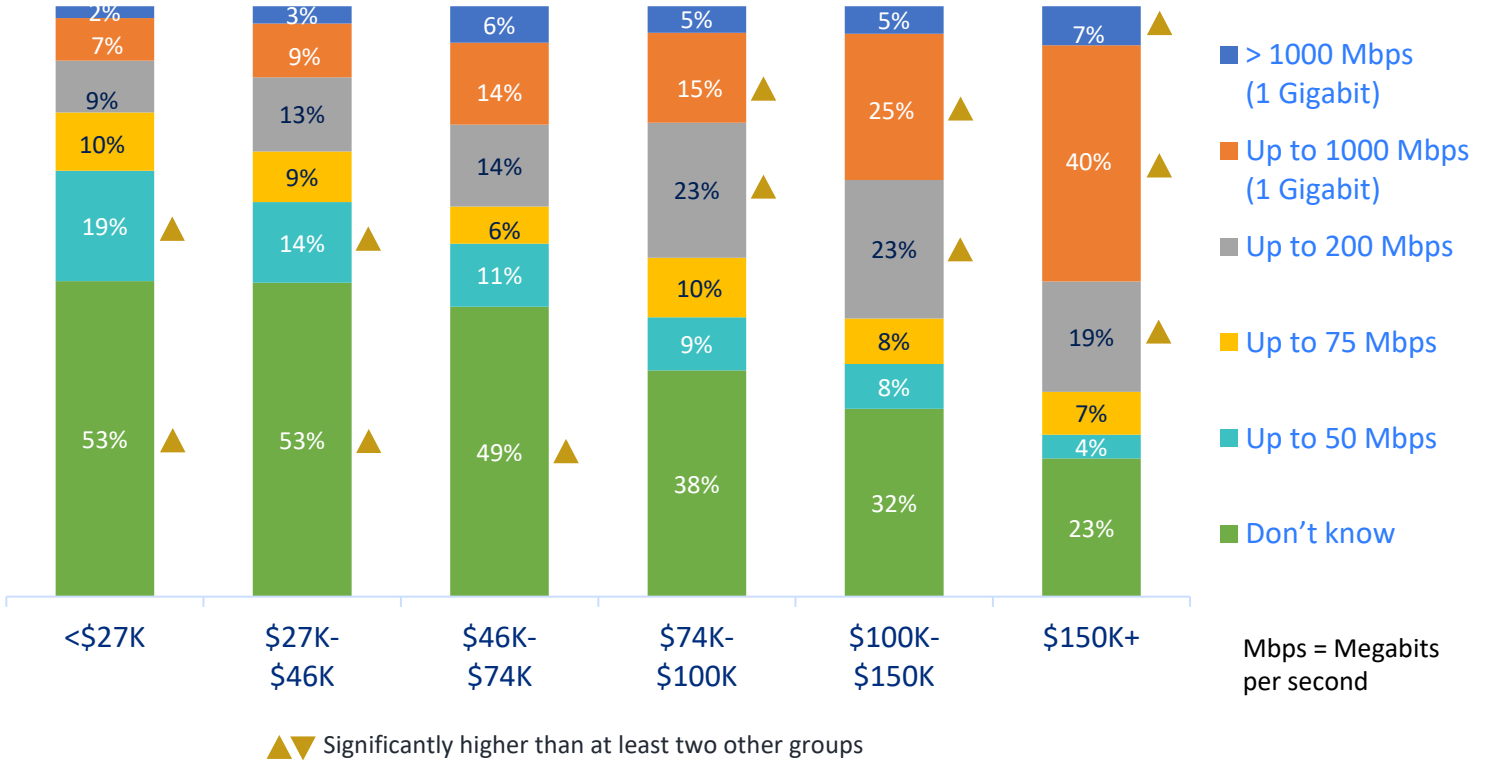


▲▼ Significantly higher or lower than at least two other districts

Internet download speeds correlate with household income. The higher the income, the faster the household's download speed.

- Lower income households ($46K or less) are significantly more likely not to know their connectivity speed. They are also significantly more likely to have speeds at or below 50 Mbps.

Download Speed (Mbps) of Internet Service - By Household Income



Household Size and Income…	Up to 50 Mbps	Don't know
At or below 150% of FPL	19% ▲	54% ▲
Above 150% of FPL	7%	34%
At or below 200% of FPL	17% ▲	54% ▲
Above 200% of FPL	7%	33%

Households earnings at or below 150% or 200% Federal Poverty Level (FPL) are significantly more likely to report speeds of up to 50 Mbps or not know their internet speed.

▲▼ Significantly higher or lower than HHs earning above 150% or 200% FPL

Internet Service Interruptions

Total and Impacted Group Summary	(pg. 65)
Council District Comparison	(pg. 66)
Income and Federal Poverty Level (FPL) Comparison	(pg. 67)

One quarter (24%) say they experience weekly episodes of their internet service being interrupted or too slow.

Among the focused population groups, households at or under 150% of FPL and those with a member living with a disability report the highest incidence of frequent internet interruption, while households with older adults (60+) report the lowest:

· Low Income (FPL <=150%)	39% ▲	**Daily or Weekly**
· Living with Disability	34% ▲	
· Native	33%	
· Language other than English	32% ▲	
· Black	31%	
· BIPOC	28%	
· Children in Household	26%	
· Older Adult in Household (60+)	22%	

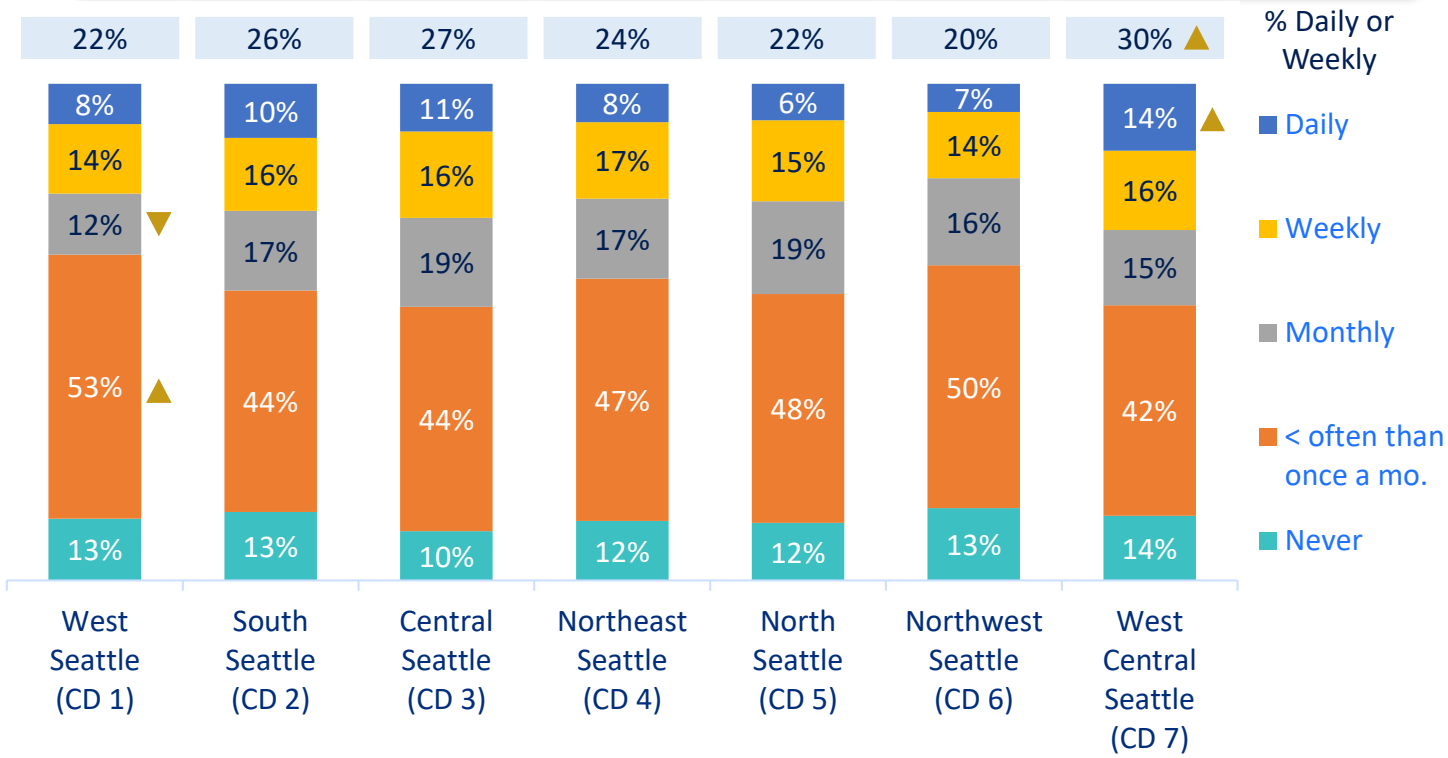
Note: Total may not equal 100% due to rounding.

▲▼ Significantly higher or lower than Seattle Total

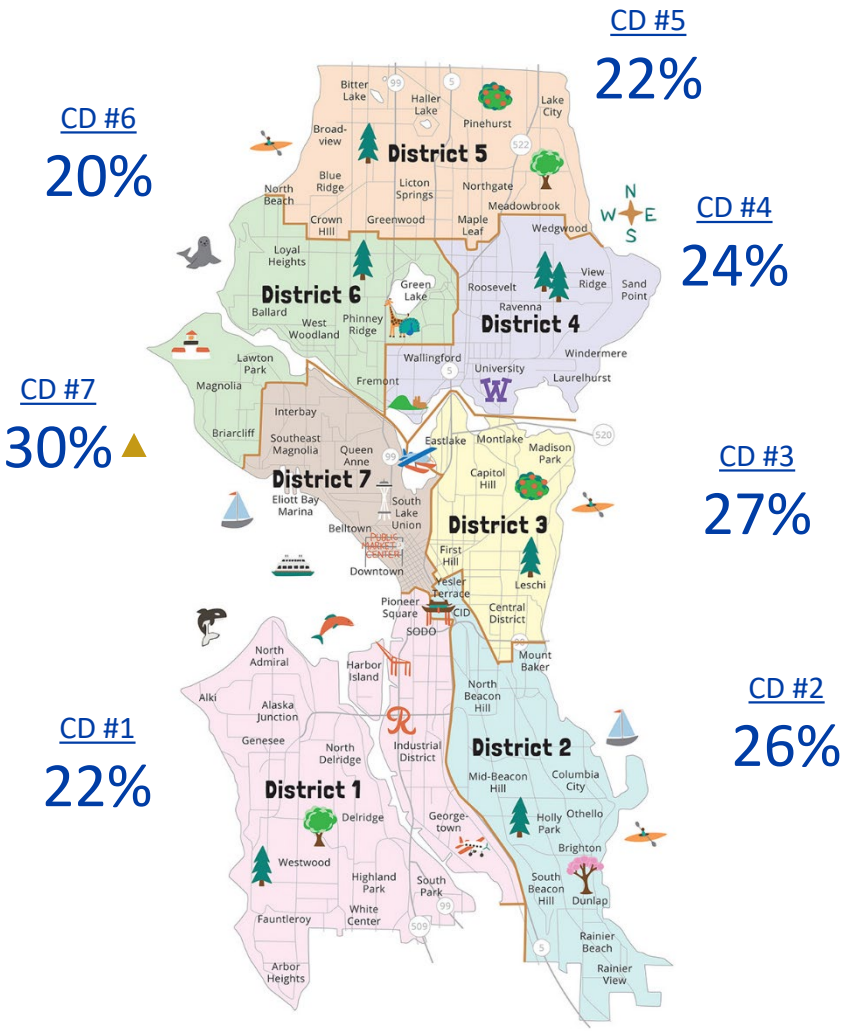
One in four (24%) households say that their internet is interrupted or too slow at least weekly, if not more often.

- West Central Seattle (CD 7) is the most likely Council District to say their internet is interrupted or too slow at least weekly.

Frequency of Internet Service Interruption - By Council District (CD)



% Daily or Weekly Internet Service Interruptions

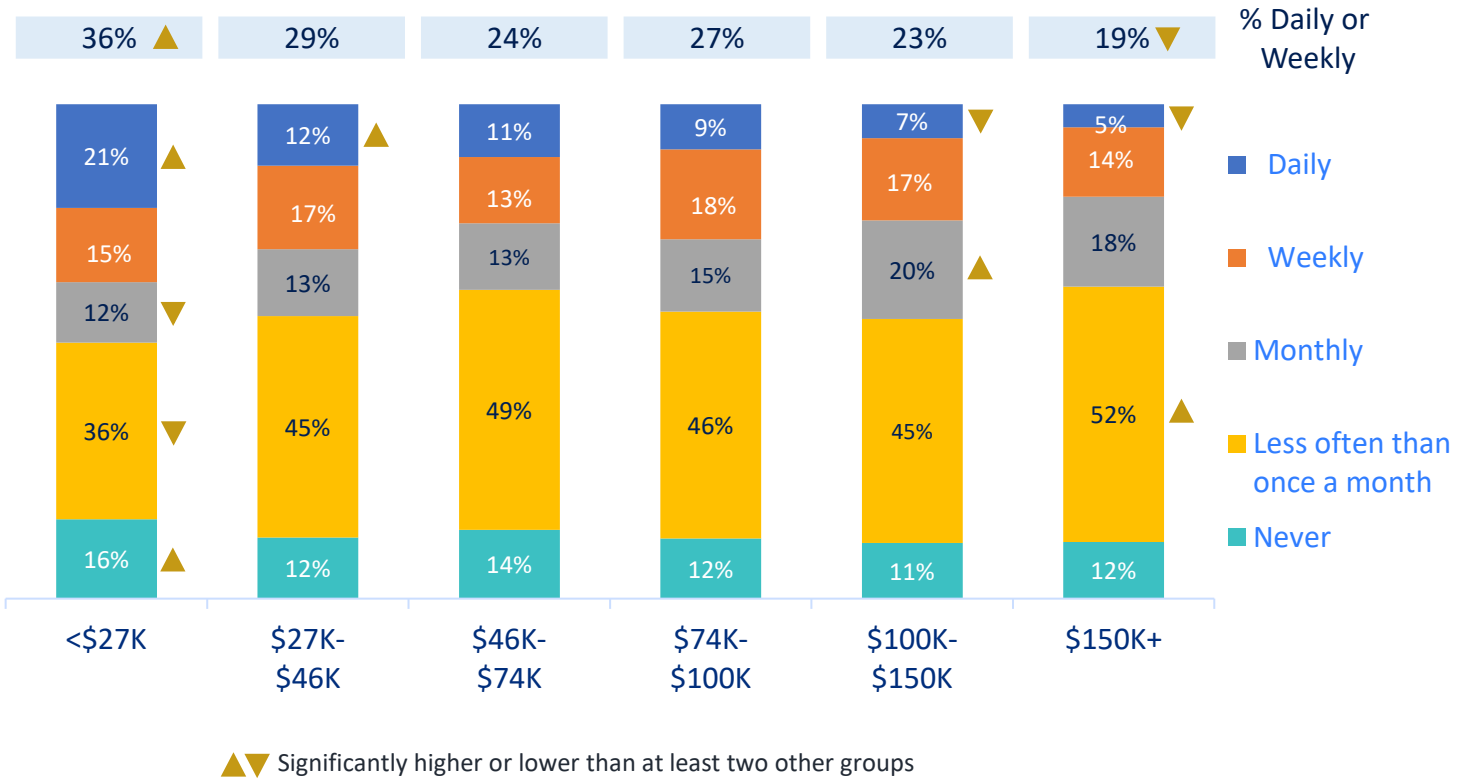


▲▼ Significantly higher or lower than at least two other districts

Lower incomes households ($46,000 or less) are more likely than higher income households to experience daily internet service interruptions.

- The majority of households with incomes of at least $100K per year have service interruptions less often than once a month or never.

Frequency of Internet Service Interruption - By Household Income (HHI)



▲▼ Significantly higher or lower than at least two other groups

Household Size and Income…	% Daily or Weekly	Never
At or below 150% of FPL	39% ▲	14%
Above 150% of FPL	22%	12%
At or below 200% of FPL	36% ▲	14%
Above 200% of FPL	22%	12%

Households with incomes at or below 150% or 200% Federal Poverty Level (FPL) are significantly more likely to experience weekly internet service interruptions.

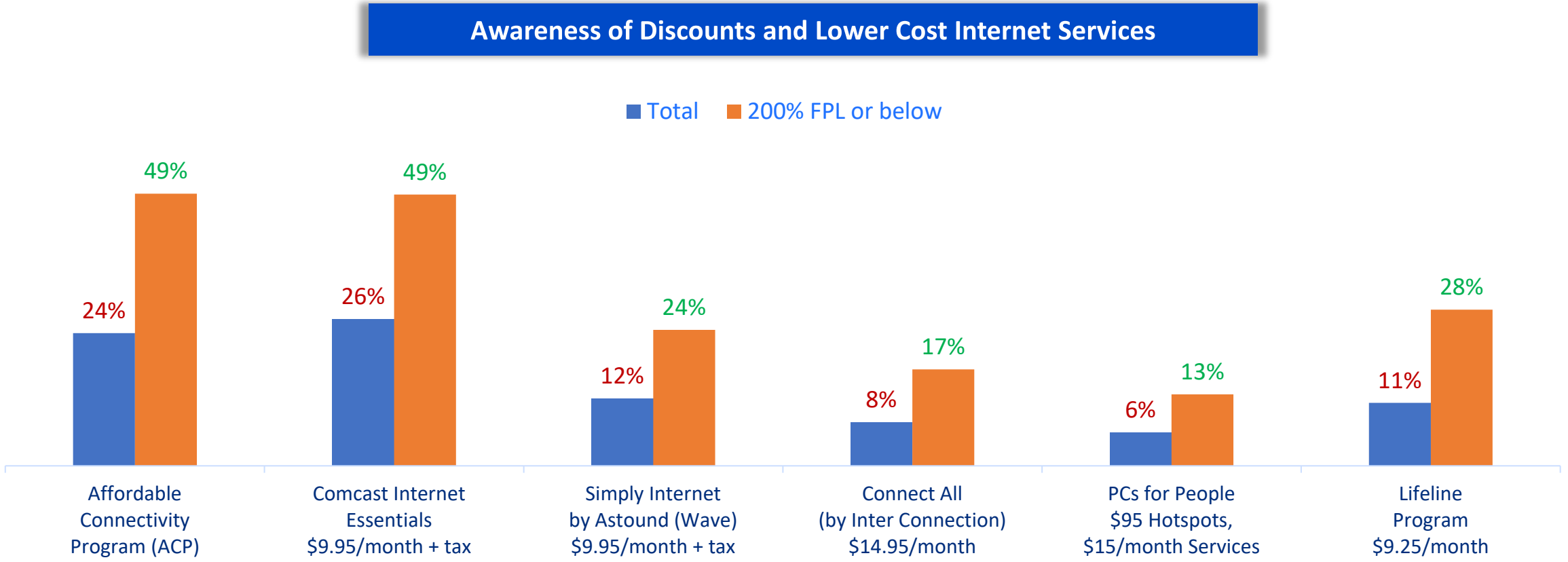
▲▼ Significantly higher or lower than HHs earning above 150% or 200% FPL

Awareness of Discounts and Lower Cost Internet Services

Total and At or Below 200% Federal Poverty Level (FPL) Summary	(pg. 69)
Federal Poverty Level (FPL) Comparison	(pg. 70)
Demographic Comparison	(pg. 71)
Council District Comparison	(pg. 72)

Only half of those who are eligible for the ACP are aware of the program.

- These households are more aware of programs like the Affordable Connectivity Program and Comcast Internet Essentials compared to all others.



Green/Red - Significantly higher or lower than other group

Among households that qualify for low-income internet access programs, about half are aware of the ACP and/or Comcast Internet Essentials.

- Only half of the households at or below 150% of FPL are using one or more programs to help with internet and technology affordability.

Awareness and Use of Lower Cost Internet Services – By Federal Poverty Level (FPL)

	Affordable Connectivity Program (ACP)		Comcast Internet Essentials $9.95/month + tax		Simply Internet by Astound (Wave) $9.95/month + tax		Connect All (by Inter Connection) $14.95/month		PCs for People $95 Hotspots, $15/month Services		Lifeline Program $9.25/month	
	Aware	**Use**	**Aware**	**Use**	**Aware**	**Use**	**Aware**	**Use**	**Aware**	**Use**	**Aware**	**Use**
At or below 150% of FPL	53%	30%	53%	26%	28%	11%	18%	5%	14%	2%	33%	14%
Above 150% of FPL	19%	3%	22%	2%	10%	1%	6%	1%	5%	0%	8%	1%
At or below 200% of FPL	49%	28%	49%	24%	24%	9%	17%	4%	13%	2%	28%	11%
Above 200% of FPL	18%	1%	21%	1%	10%	1%	6%	0%	5%	0%	8%	0%

	At or below 200% of FPL	
Use Any Except ACP	34%	21,055 HHs
Use Any Except ACP or Lifeline	29%	18,442 HHs

Among households qualifying for the ACP (at/below 200% FPL), English speakers, black residents, white residents, and those with older adults in the household are most likely to be aware of and currently use the ACP.

Awareness and Usage of ACP (among 200% FPL)	Aware	Use
Total (at or below 200% FPL)	49%	28%
Primary Language English	51%	30%
Primary Language Not English	40%	20%
Households with disabilities	53%	28%
Ages 18-34	33%	18%
Age 35-54	54%	34%
Ages 55-64	55%	33%
Ages 65+	48%	25%
School-aged children in HH	43%	23%
Older Adult in HH	48%	26%
White Only	56%	35%
BIPOC (NET)	43%	22%
Asian	39%	18%
Black	57%	29%
Latino/a/x	30%	17%
Native	50%	22%

Awareness and Usage of ACP (among 200% FPL)	Aware	Use
<HS Graduate	46%	30%
HS Grad/Some College/AA Degree	53%	28%
College Graduate	46%	30%
CD 1	43%	24%
CD 2	45%	26%
CD 3	57%	35%
CD 4	46%	28%
CD 5	57%	36%
CD 6	45%	26%
CD 7	47%	21%

Green - Significantly higher than at least two other groups

Among those at or below 200% FPL, awareness of the ACP and Lifeline Program is similar across al Council Districts. On the other hand, usage of the ACP is significantly lower in West Central Seattle (CD7).

- Awareness and usage of Comcast's Internet Essentials is similar across all Council Districts. Awareness of PCs for People is highest in Northeast Seattle (CD4) and Central Seattle (CD3).

Awareness and Use of Lower Cost Internet Services – By Council Districts (CDs) Among HH at or Below 200% FPL

	Affordable Connectivity Program (ACP)		Comcast Internet Essentials $9.95/month + tax		Simply Internet by Astound (Wave) $9.95/month + tax		Connect All (by Inter Connection) $14.95/month		PCs for People $95 Hotspots, $15/month Services		Lifeline Program $9.25/month	
	Aware	Use	Aware	Use	Aware	Use	Aware	Use	Aware	Use	Aware	Use
Total	49%	28%	49%	24%	24%	9%	17%	4%	13%	2%	28%	11%
West Seattle (CD 1)	43%	24%	49%	19%	12% ▼	6%	9%	1%	8%	2%	18%	5%
South Seattle (CD 2)	45%	26%	49%	24%	32% ▲	15% ▲	15%	2%	11%	2%	24%	7%
Central Seattle (CD 3)	57%	35%	58%	25%	25%	5%	22%	4%	20%	1%	29%	12%
Northeast Seattle (CD 4)	46%	28%	42%	23%	18%	2% ▼	20%	4%	21%	3%	31%	11%
North Seattle (CD 5)	57%	36%	55%	33%	17% ▼	5%	19%	5%	9% ▼	2%	26%	14%
Northwest Seattle (CD 6)	45%	26%	38%	25%	14% ▼	7%	11%	3%	10%	1%	33%	10%
West Central Seattle (CD 7)	47%	21% ▼	43%	16%	32% ▲	12%	20%	8%	13%	3%	35%	16%

▲▼ Significantly higher or lower than at least two other CDs

Device Access

Number and Types of Devices	(pgs. 74-79)
Ratio of Devices to Household Members (enough devices for households)	(pgs. 80-84)
Access to Device with Large Enough Screen	(pgs. 85-89)

Number and Types of Devices

Total and Impacted Group Summary	(pg. 75)
Council District Comparison	(pg. 76)
Income Comparison	(pg. 77)
Federal Poverty Level (FPL) Comparison	(pg. 78)
Household Composition Comparison	(pg. 79)

All but 5% of households have a smartphone, but 14% do not have a laptop.

Among the focused population groups, households with children are the most likely to have internet enabled devices. Households living at or below 150% of Federal Poverty Level are least likely to have internet enabled devices.

	Total	Smartphone	Laptop	Tablet	Desktop
• Children in Household	8.6 ▲	2.8 ▲	3.1 ▲	1.9 ▲	0.7 ▲
• BIPOC	5.4 ▼	1.9	1.9 ▼	1.0 ▼	0.6
• Language other than English	4.9 ▼	2.0	1.5 ▼	0.9 ▼	0.4 ▼
• Native	4.9	1.8	1.7	0.7 ▼	0.6
• Black	4.5 ▼	1.6 ▼	1.4 ▼	1.0 ▼	0.5
• Older Adult in HH (60+)	4.5 ▼	1.6 ▼	1.4 ▼	1.0 ▼	0.6
• Living with Disability	4.3 ▼	1.5 ▼	1.2 ▼	0.9 ▼	0.5
• Low income (FPL <=150%)	3.4 ▼	1.4 ▼	0.9 ▼	0.6 ▼	0.4 ▼

▲▼ Significantly higher or lower than Seattle Total

% of Households With This Many Devices

	0	1	2	3	4+
Total Devices	1%	5%	11%	14%	69%
Smartphone	5%	36%	37%	12%	9%
Laptop	14%	29%	26%	14%	18%
Tablet	33%	36%	18%	7%	5%
Desktop	55%	33%	8%	2%	1%

Note: Total may not equal 100% due to rounding.

NONE/LIMITED IN THE HOUSEHOLD SUMMARY:

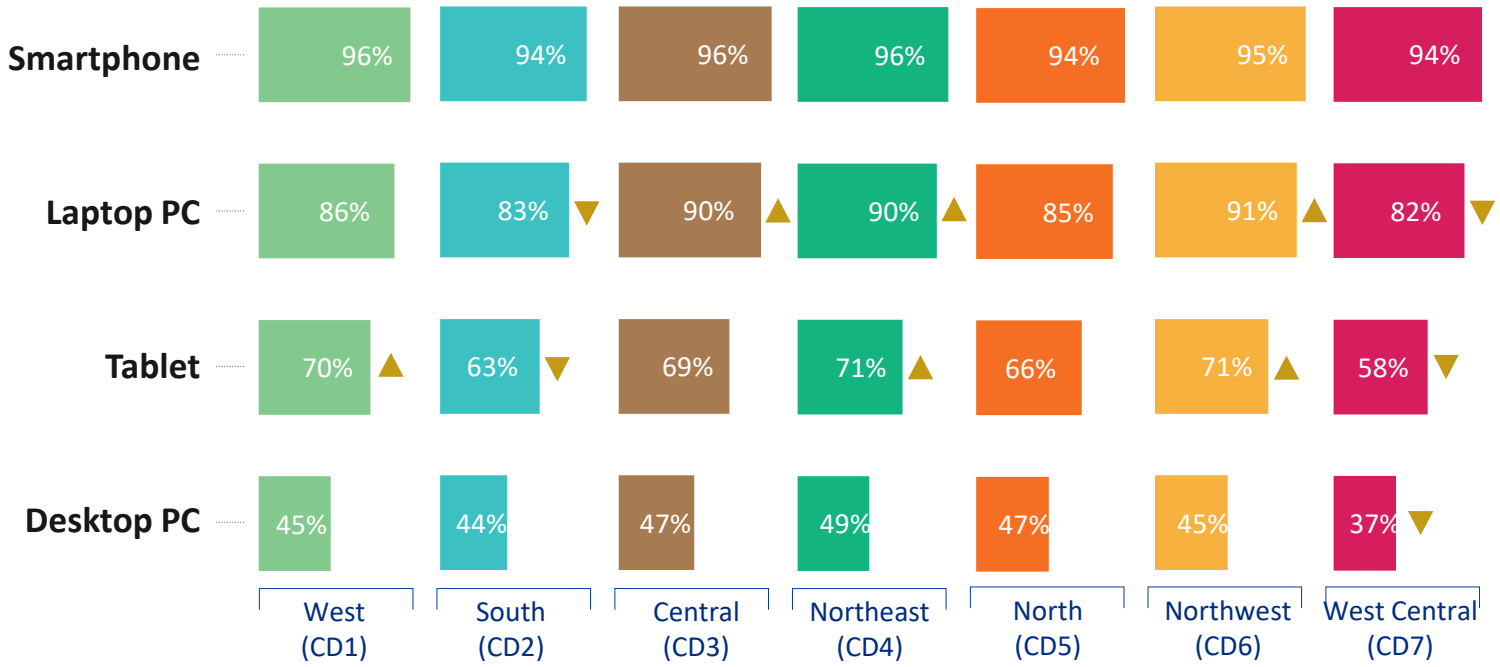
- 55% Have No Desktop
- 33% Have No Tablet
- 14% Have No Laptop
- 7% Have No Tablet Or Laptop
- 4% Have No Tablet, Laptop, or Desktop
- 3% Have Smartphone ONLY

There is a disparity between districts when it comes to laptops and tablets. Council Districts 2 and 5 are less likely to have these devices, while Council Districts 4 and 6 are more likely to have them.

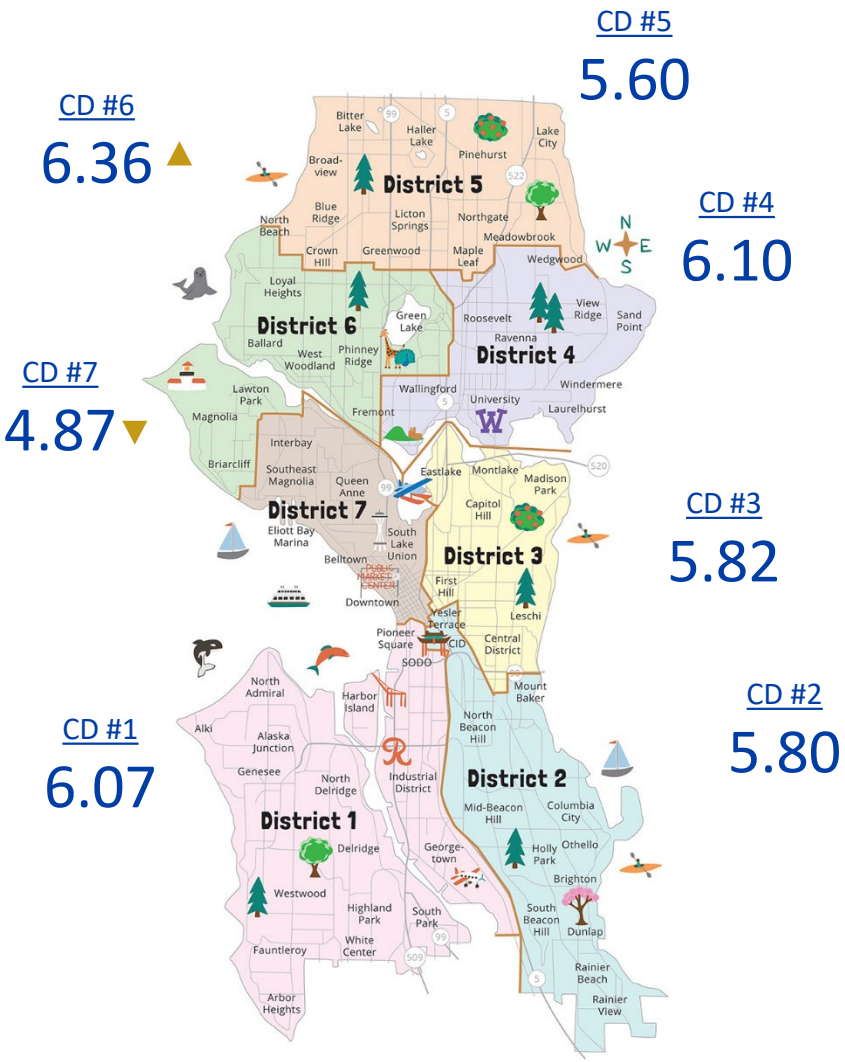
- Northwest Seattle (CD 6) households are significantly more likely to have internet enabled devices, while West Central Seattle (CD 7) households are significantly less likely to have internet enabled devices.

Have Each Device Where They Live - By Council District (CD)

Total - Owned + Borrowed



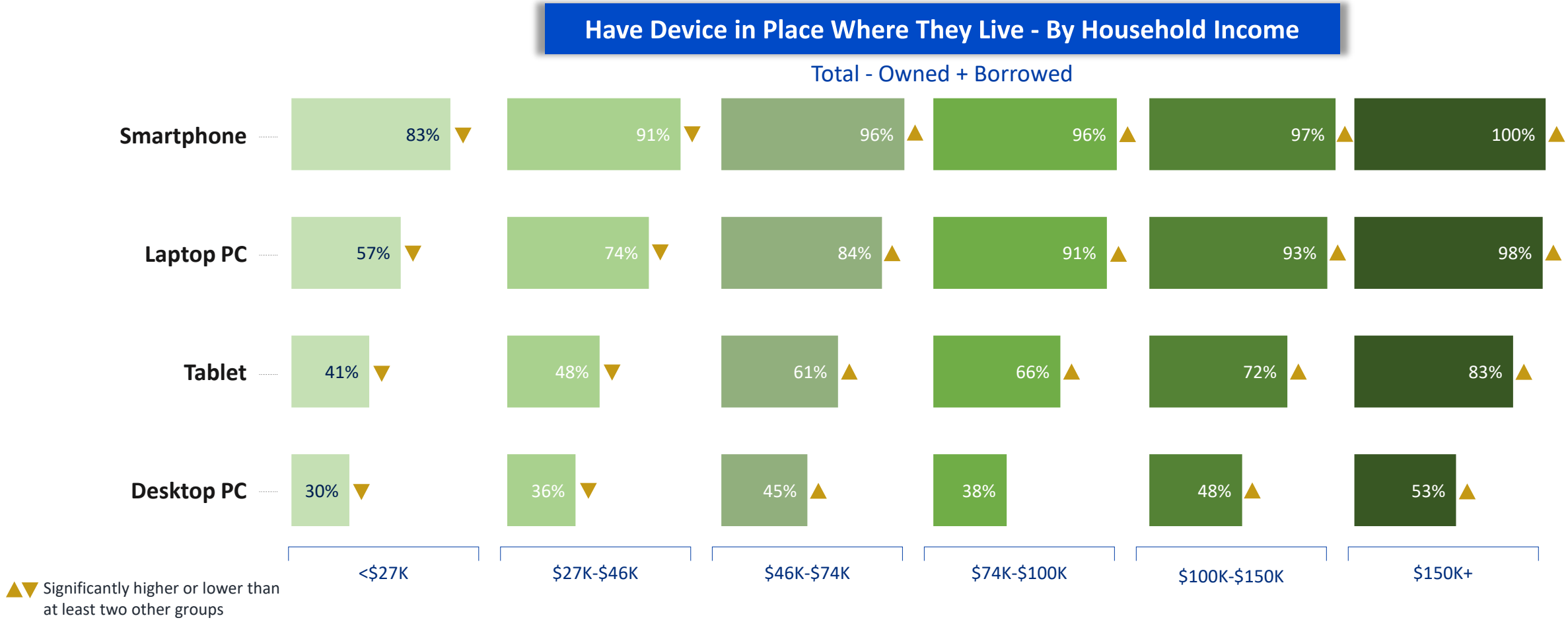
Average Number of Devices Where They Live



▲▼ Significantly higher or lower than at least two other districts

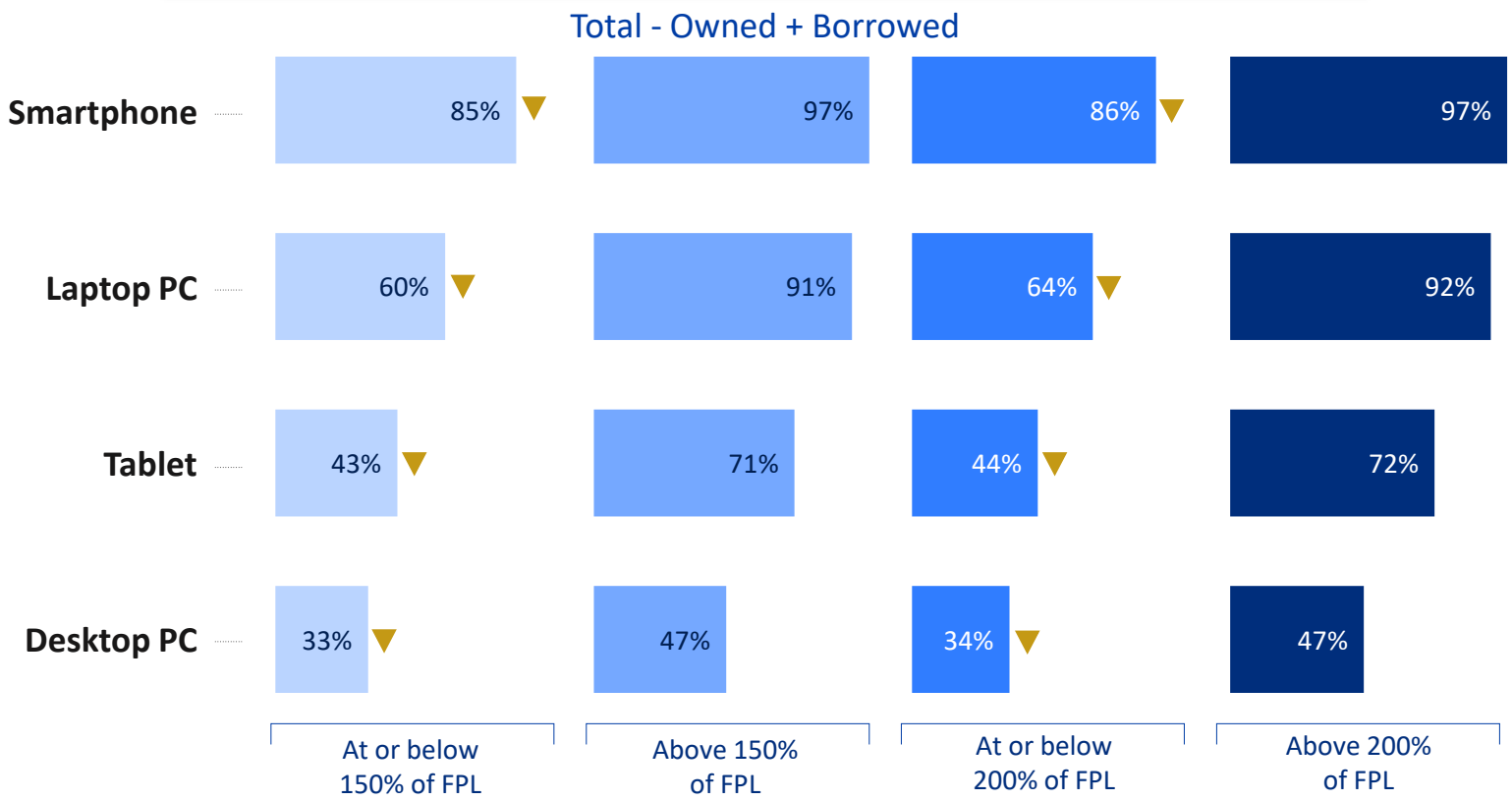
Higher income households have significantly more internet enabled devices.

- For those in the highest income group ($150K+), the presence of laptops, tablets, and desktop PCs in the household is double that of those in the lowest income group (<$27K).



Households with incomes at or below 150% or 200% Federal Poverty Level (FPL) are significantly less likely to have all types of internet enabled devices in the household.

Have Device in Place Where They Live - By Federal Poverty Level



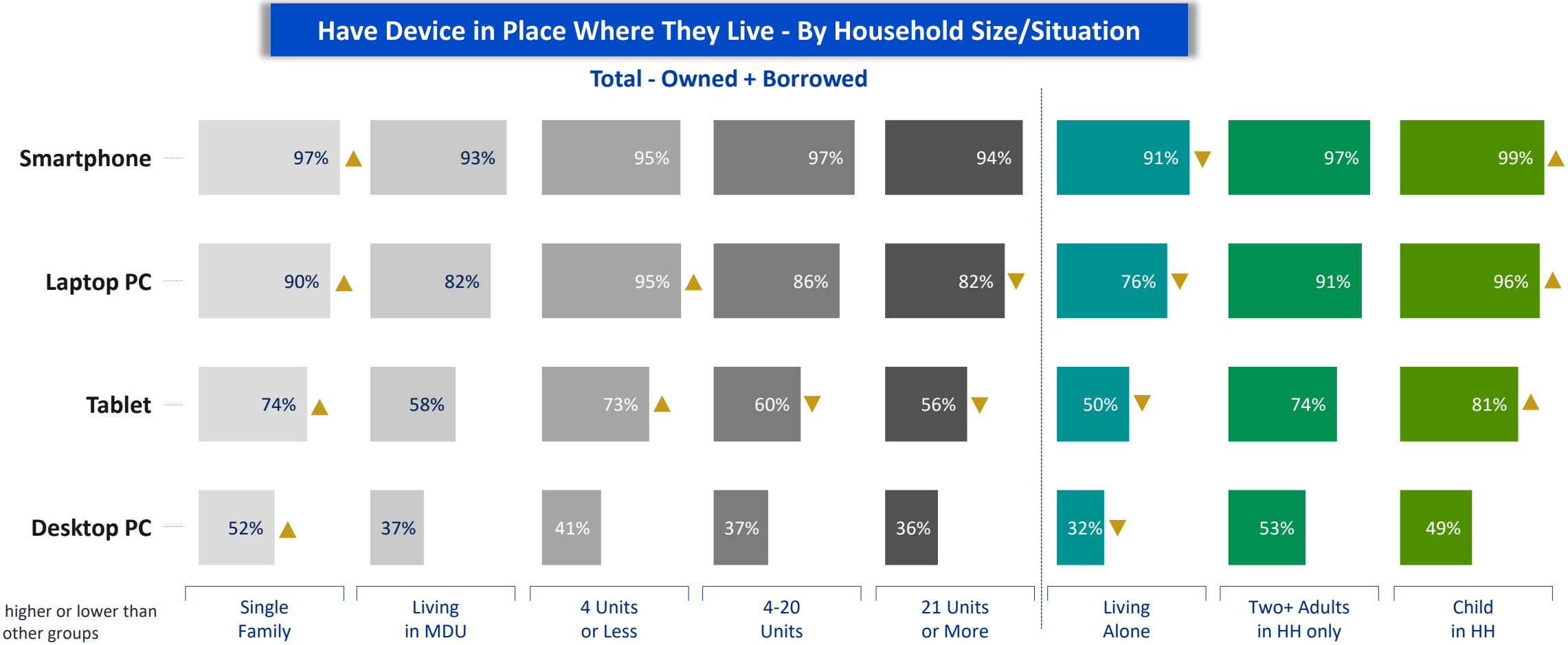
Federal Poverty Level (FPL)	% With No Devices in Household	% With Only Smartphone(s) (no desktop, laptop, or tablet)
At or below 150% of FPL	4% ▲	13% ▲
Above 150% of FPL	<1%	1%
At or below 200% of FPL	3% ▲	11% ▲
Above 200% of FPL	<1%	1%

Households with incomes at or below 150% or 200% Federal Poverty Level (FPL) are significantly more likely to NOT have access to a any devices and, if they have access to devices, are significantly more likely to have only a smartphone(s) in their households.

▲▼ Significantly higher/lower than HHs earning above 150% or 200% FPL

Single family households are more likely to have all types of internet enabled devices.

- Those living alone are significantly less likely than households with children or multiple adults to have internet enabled devices.



Ratio of Devices to Household Members (enough devices for households)

Total and Impacted Group Comparison	(pg. 81)
Council District Comparison	(pg. 82)
Income and Federal Poverty Level (FPL) Comparison	(pg. 83)
Household Composition Comparison	(pg. 84)

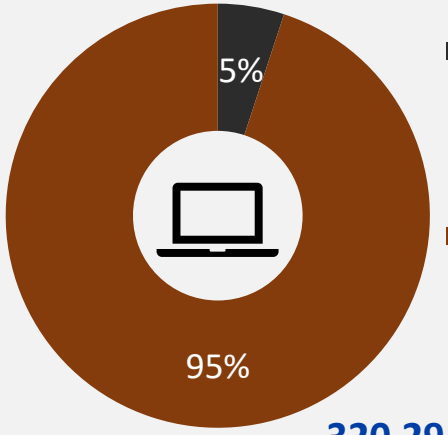
The vast majority (95%) of Seattle households report owning at least one internet enabled device for each household member.

- While older adults (60+) are most likely to own equal/more devices vs. household members, the other focused population groups are less likely than the general population to have at least one owned device per household member.

Devices Owned in Home

Seattle General Population*

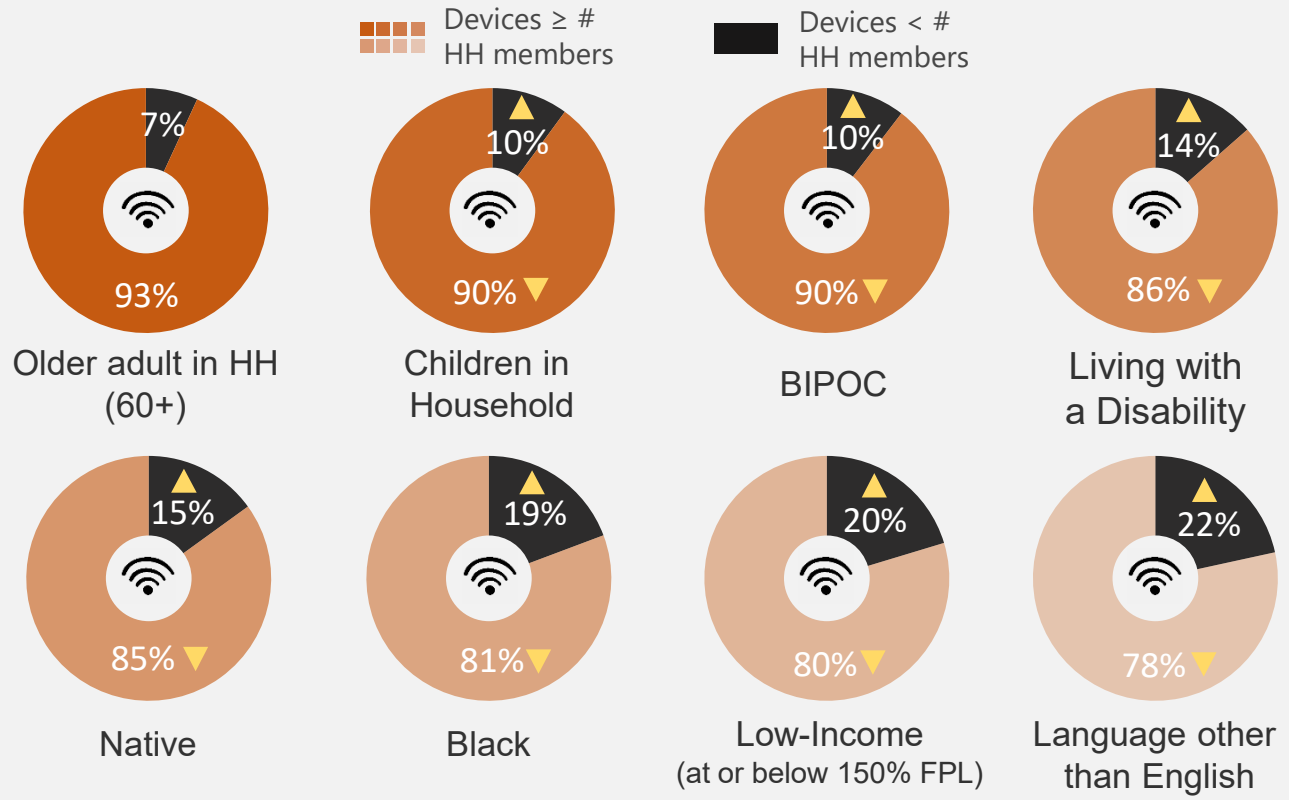
17,067 households/
31,401 residents
have less devices owned than household members



320,294 households/
589,318 residents
Have same or more devices owned than household members

*Based on ACS 5-Year Est. 2017-2021

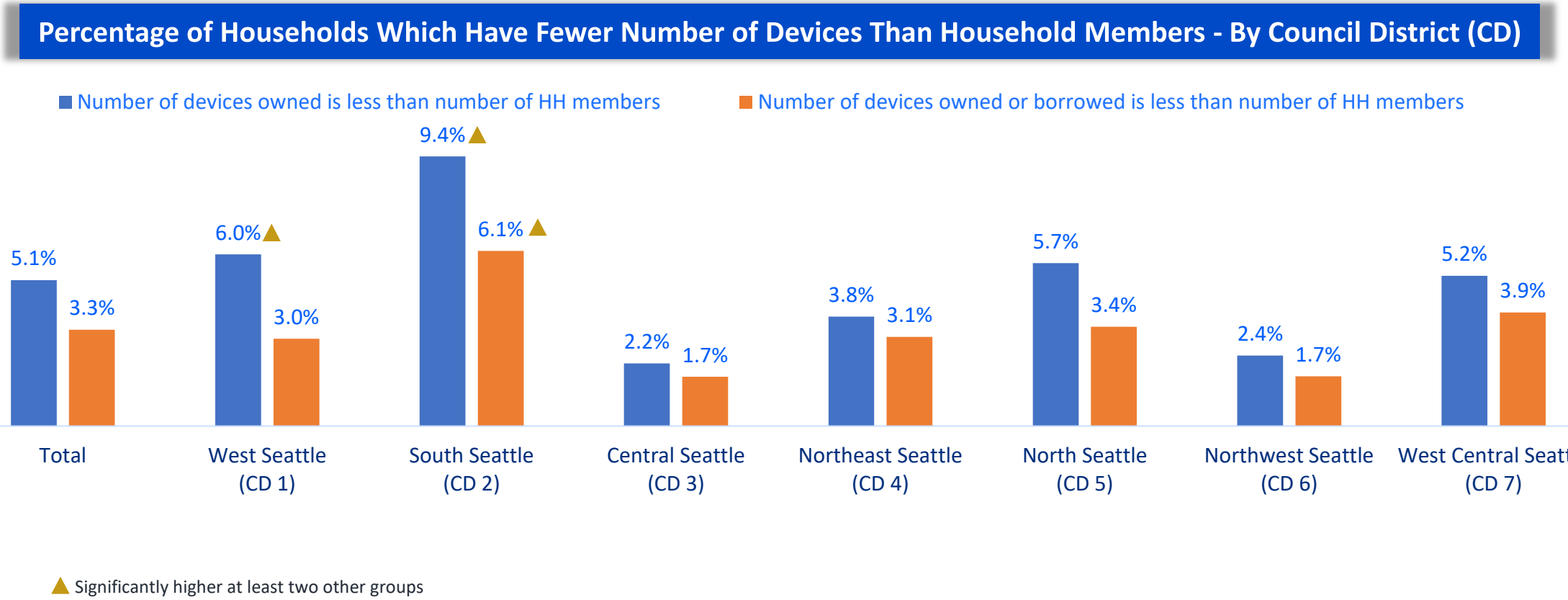
Devices Owned in HH - By Impacted Groups



▲▼ Significantly higher or lower than Seattle Total

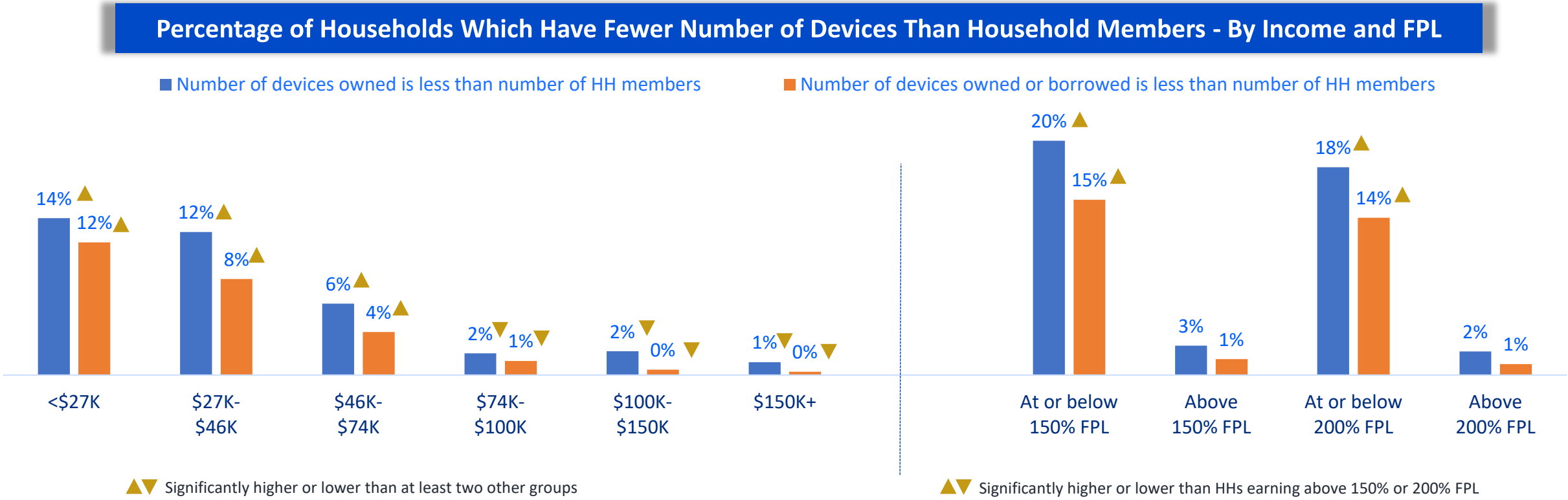
While most residents have at least one device per person in the household, one in twenty (5%) households have fewer “owned” devices than people in the household.

- A significantly higher proportion of households in South Seattle (CD 2) report their total number of devices owned and/or borrowed is less than the number of household members.



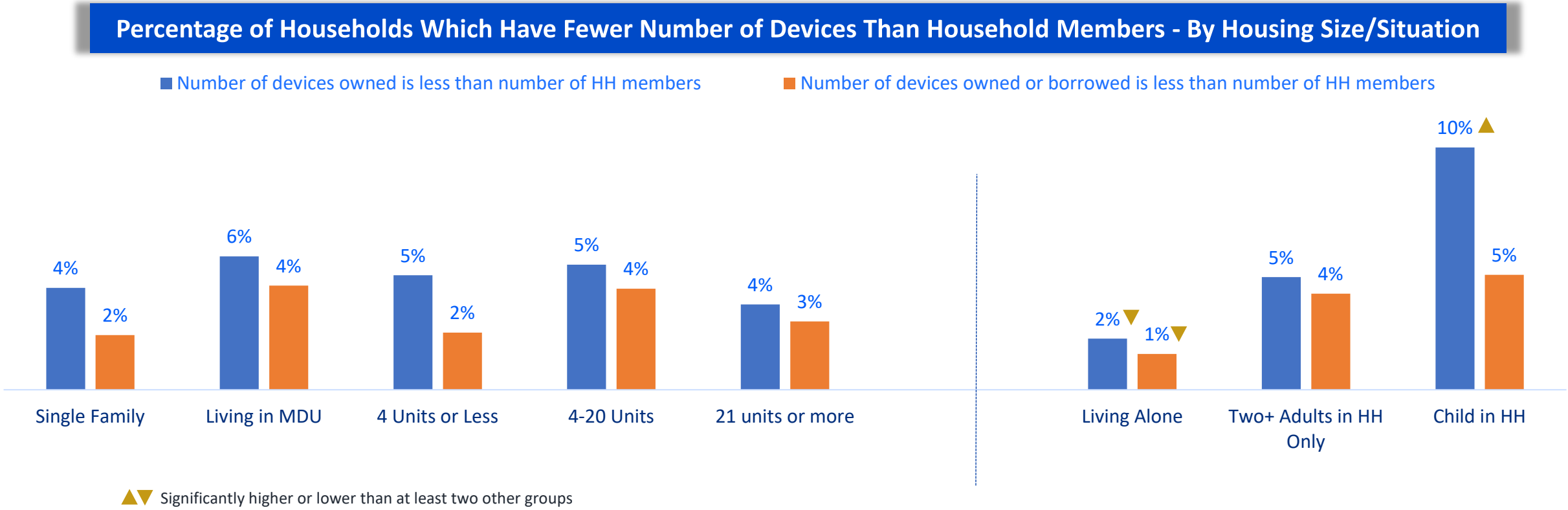
Households with less income are more likely to be sharing devices across household members.

- Residents of households with incomes of less than $27K are at least three times more likely than households with incomes above $46K to have fewer “owned” devices in the household than family members.
- Households with incomes at or below 150% or 200% Federal Poverty Level (FPL) are significantly less likely to have at least one device for each member of the household.



Type of housing does not correlate with the number of devices owned/borrowed. More than nine in ten households in all situations indicate having equal/more devices “owned” or “owned/borrowed” than the number of household members.

- However, households with children are significantly more likely to report that the number of devices “owned” is less than the number of household members.



Access to Device with Large Enough Screen

Total and Impacted Group Comparison	(pg. 86)
Council District Comparison	(pg. 87)
Income and Federal Poverty Level (FPL) Comparison	(pg. 88)
Age Group Comparison	(pg. 89)

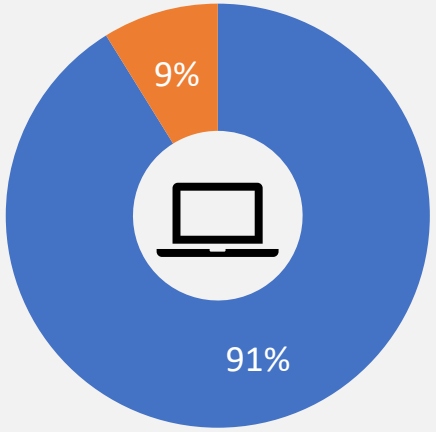
Nine in ten (91%) Seattle residents have access to a device with a screen large enough to do all they need to do; however, differences exist among some populations.

- Not having access to a device with a screen large enough to perform all needed tasks is more common among all of the focused population groups.

Access to Device w/ Large Enough Screen

Seattle General Population*

29,793 households/ 54,817 residents without device with large enough screen



Have device with screen large enough

No device with screen large enough

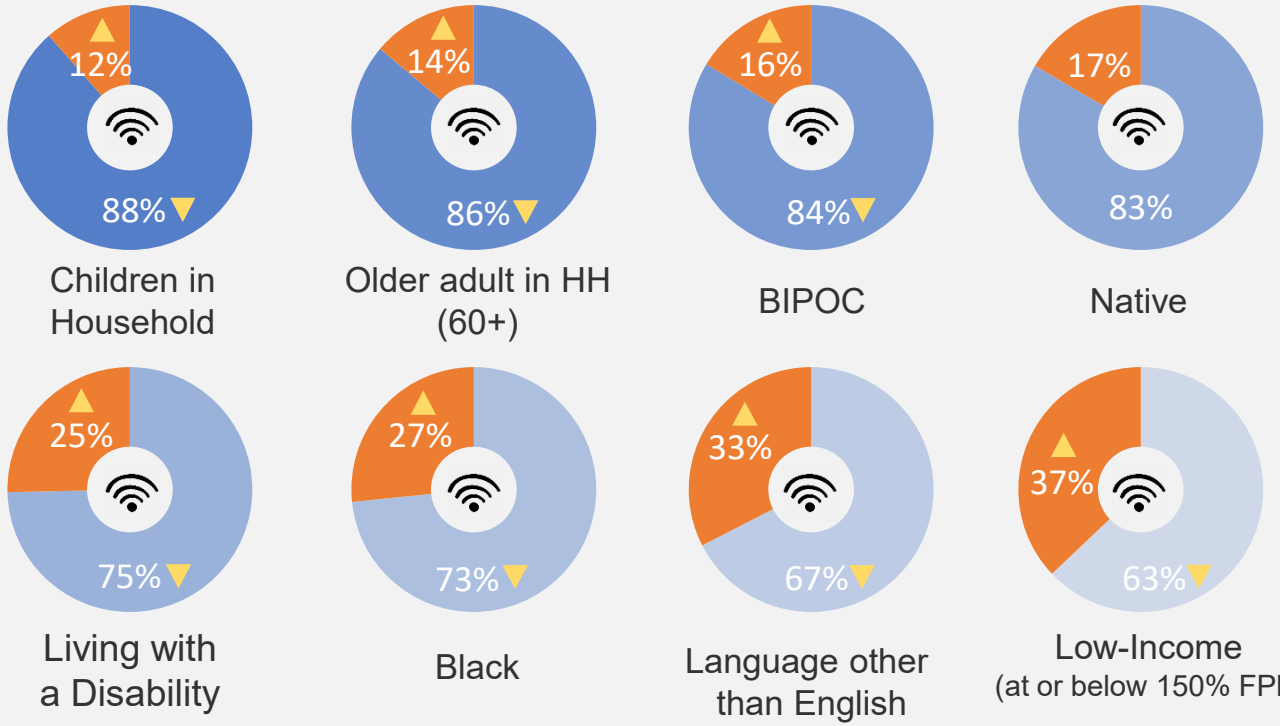
307,568 households/ 565,902 residents with device with large enough screen

*Based on ACS 5-Year Est. 2017-2021

Device with Large Enough Screen - By Impacted Groups

Have Device with Large Enough Screen

Have No Device with Large Enough Screen

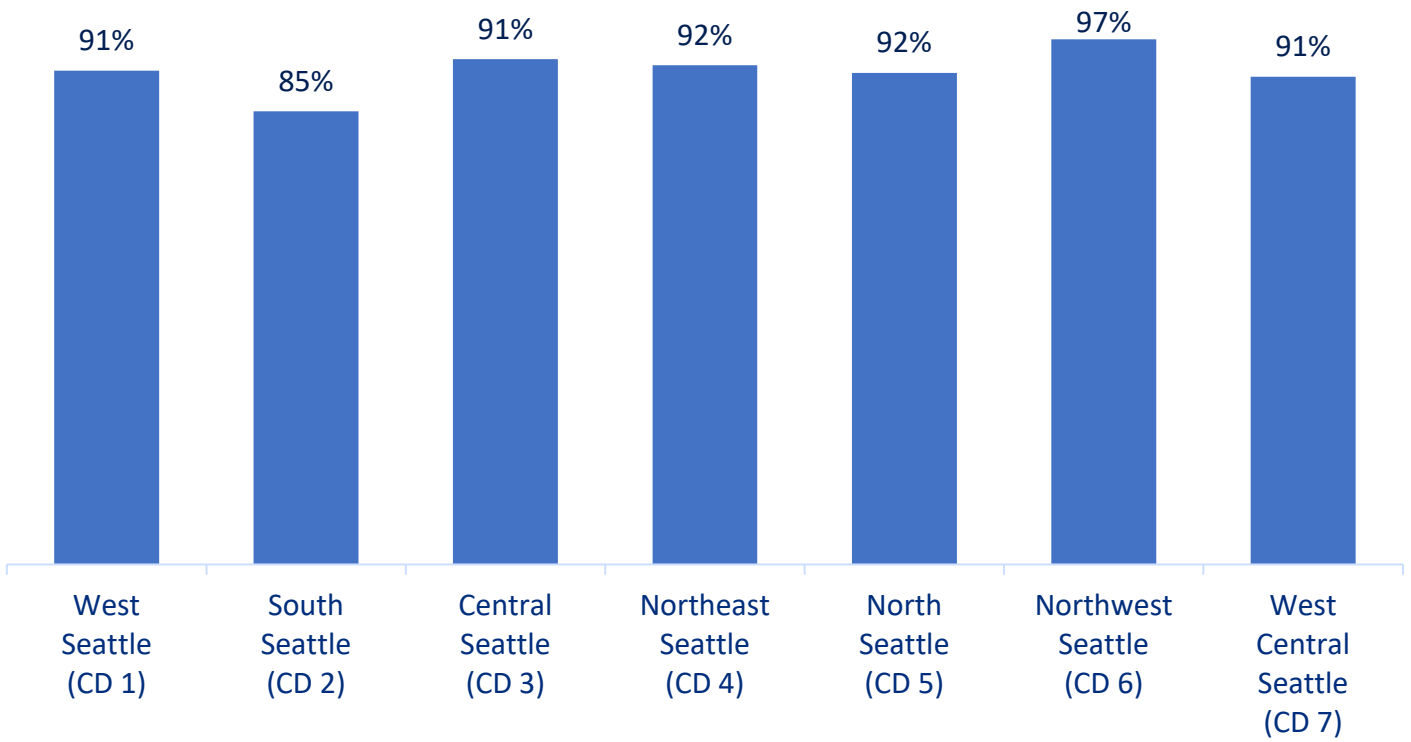


▲▼ Significantly higher or lower than Seattle Total

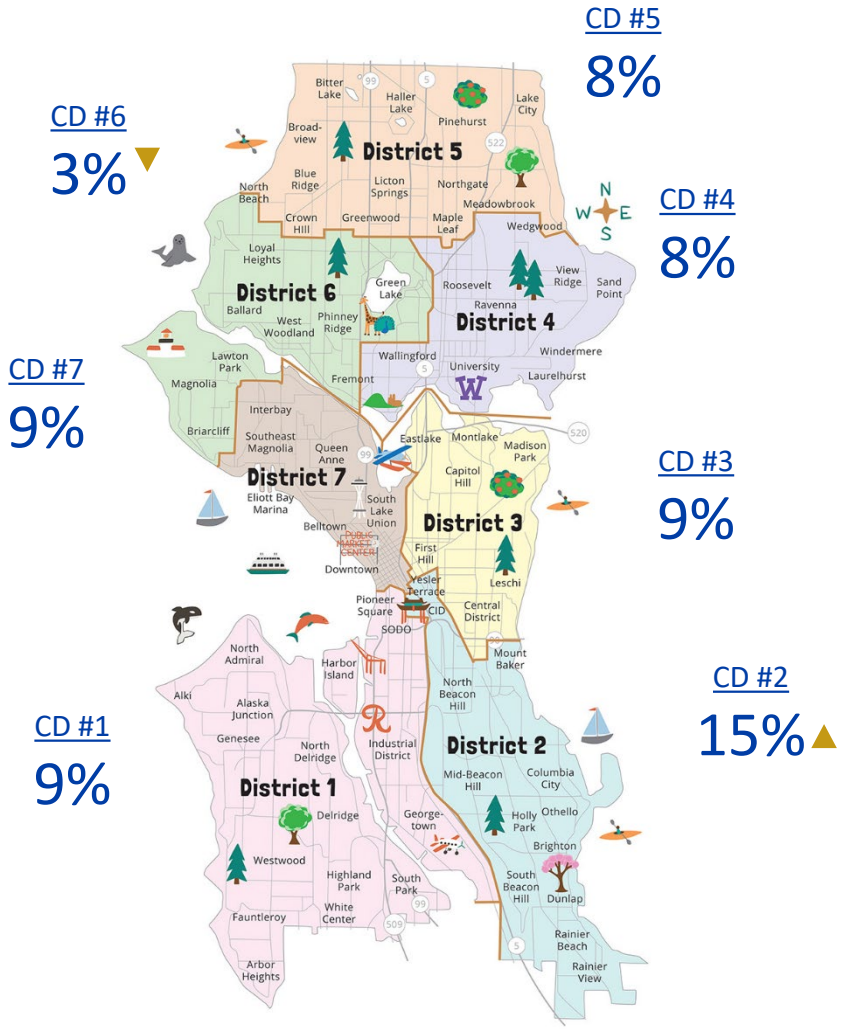
Almost one in ten (9%) residents have a device with too small a screen to do all the tasks they need to do.

- South Seattle (CD 2) is significantly less likely than all other Council Districts to have a device with an adequate screen size.

% Device with Large Enough Screen - By Council District (CD)



% No Device with Large Enough Screen

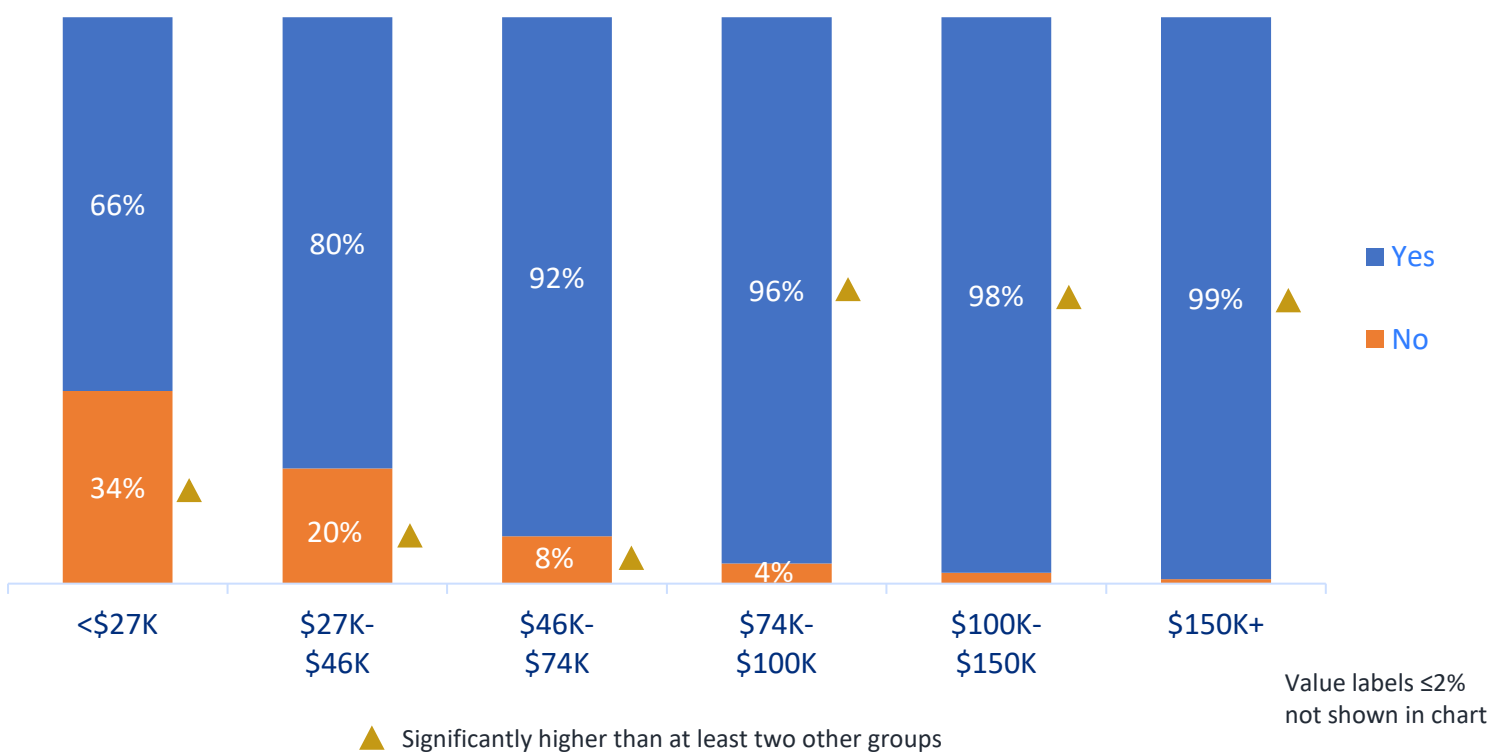


▲▼ Significantly higher or lower than at least two other districts

Over a third of those living at or below 150% poverty level report that their device does not have an adequate screen size.

- Over a third of residents living in households with incomes under $27K and one in five residents living in households with incomes between $27K and $46K report their screen size as too small to allow them to do what they need to do.

Access to a Device with Large Enough Screen - By Household Income

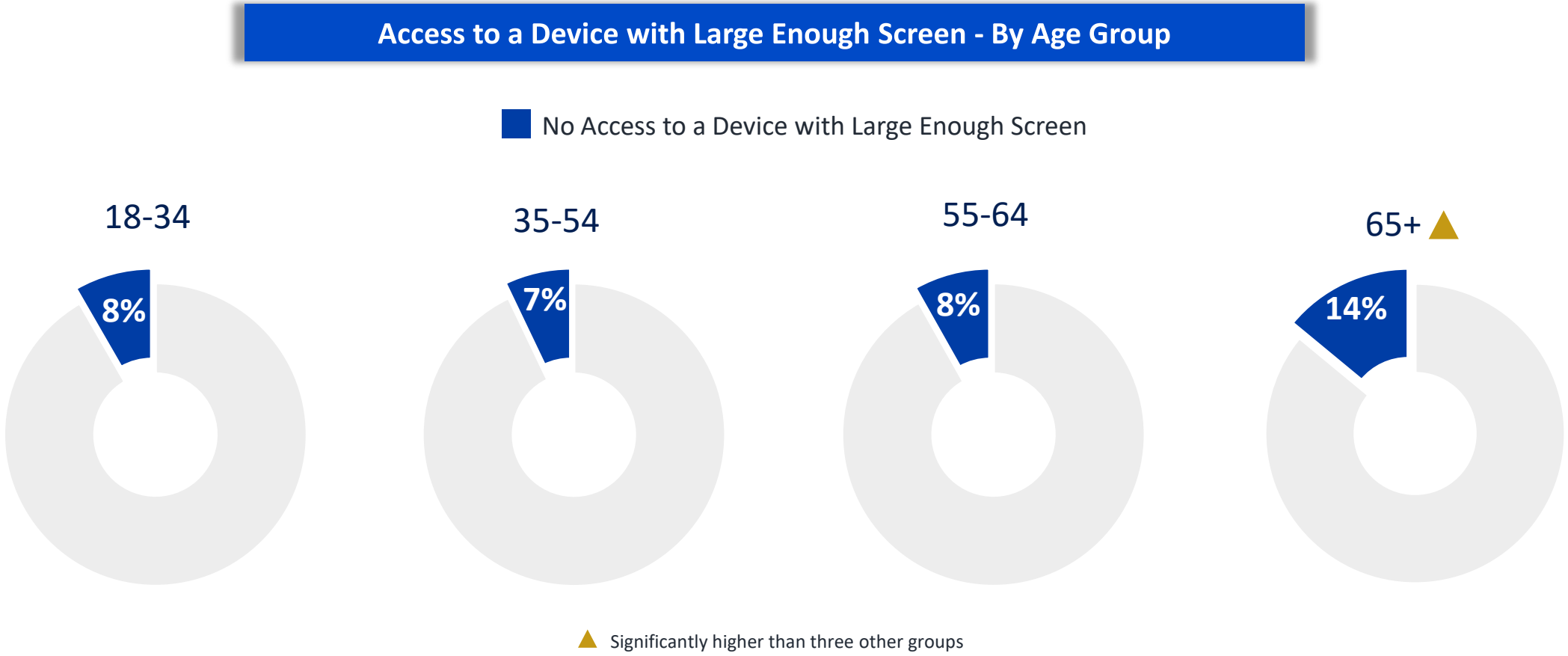


Federal Poverty Level (FPL)	% Adequate Screen Size	% Too Small Screen
At or below 150% of FPL	63% ▼	37% ▲
Above 150% of FPL	96%	4%
At or below 200% of FPL	70% ▼	30% ▲
Above 200% of FPL	96%	4%

Households with incomes at or below 150% or 200% Federal Poverty Level (FPL) are significantly less likely to have access to a device with a large enough screen to do the tasks they need to do.

▲▼ Significantly higher or lower than HHs earning above 150% or 200% FPL

Adults 65 years and older are twice as likely as younger adults to have an inadequate screen size for what they need to do.



Digital Activities & Skills

Online Activity Levels	(pgs. 91-99)
Digital Skills	(pgs. 100-107)
Reliance on Others	(pgs. 108-113)
Barriers to Internet Use	(pgs. 114-115)
Interest in Training Topics	(pgs. 116-122)

Online Activity Levels

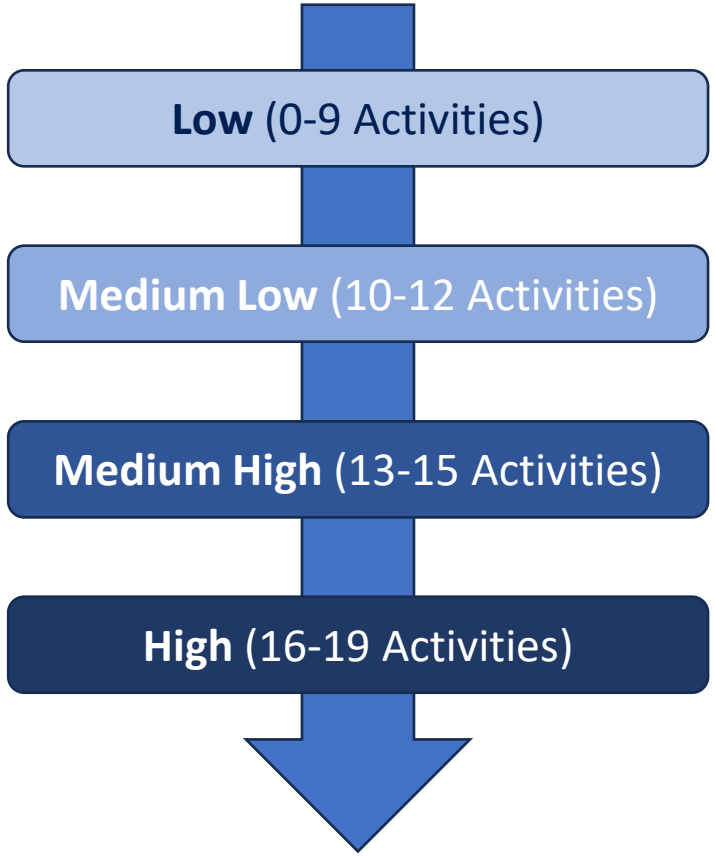
Overview of Online Activity Evaluation	(pg. 92)
Average Number of Online Activities	(pg. 93)
Total Online Activities	(pg. 94)
Total and Impacted Group Summary	(pg. 95)
Council District Comparison	(pg. 96)
Income and Federal Poverty Level (FPL) Comparison	(pg. 97)
Age Group Comparison	(pg. 98)
Race/Ethnicity Comparison	(pg. 99)

The number of online activities was used to create a summary metric which measures an individual residents' range of activities online.

Survey respondents were asked which of the following nineteen (19) activities they have done online at least occasionally during the past six months.

Use email online	Telecommute or work online while away from a central workplace, such as working from home
Watch or listen to videos, music, radio programs, or podcasts online	Create and post original media (photos, graphics, video, audio, podcasts, etc.)
Use the internet for online shopping, travel reservations, or other consumer services such as rideshare (Uber, Lyft, etc.)	Use the internet to search or apply for a job online
Use the internet for financial services such as banking, investing, paying bills online, or sending money to other people	Participate in or attend school or job training online
Text or use instant messaging online	Play video games online
Access health records or health insurance records online	Find legal or consumer rights information online
Use social media online (Facebook, Instagram, Twitter, Tik Tok, etc.)	Use the internet to sell goods (eBay, Etsy, Craigslist, Facebook Marketplace, etc.)
Access government services online (registering to vote, renewing your driver's license, applying for government benefits, etc.)	Do schoolwork or conduct online research for school
Research health information online (WebMD, etc.)	Use the internet to offer your own services for sale such as driving for Uber or Lyft, offering rentals on Airbnb, consulting/professional services, etc.
Participate in a health appointment with a doctor or other health professional online	

The total number of activities each individual reported engaging in was used to classify the resident into one of the following categories:



Of the common online activities measured, Seattle residents perform an average of 13 activities at least occasionally. Older residents (55+), those with an annual income under $46K, non-English speakers, and non-college graduates are significantly less likely to perform as many activities as others.

Average Number of Online Activities Done At Least Occasionally During The Past Six Months (19 total)

13.1
of 19
measured

Seattle
Total

Median: 14.0
Standard Deviation: 3.9

Age Groups	Average
18-34	14.3 ▲
35-54	14.0 ▲
55-64	12.2 ▼
65+	8.8 ▼

Income	Average
< $27K	10.8 ▼
$27K - $46K	11.6 ▼
$46K - $74K	12.8
$74K - $100K	13.1
$100K - $150K	13.6
$150K+	14.3

Race/Ethnicity	Average
BIPOC (NET)	13.1
White Only	13.1

Race/Ethnicity	Average
Asian	13.1
Black	12.6
Latino/a/x	13.4
Native	13.3
Native Hi. / PI*	14.6
Other	13.8

Language	Average
English	13.2
Non-English	11.6 ▼

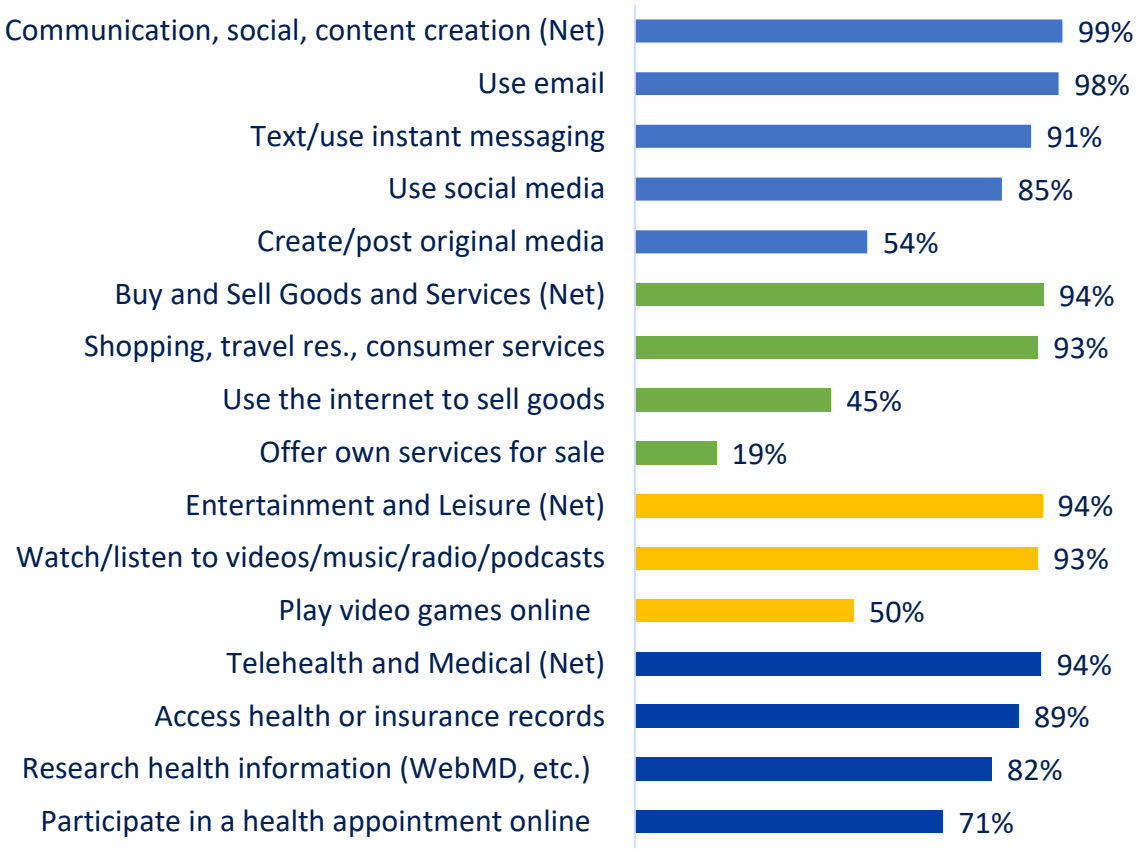
Education	Average
< HS Graduate	9.6 ▼
HS Grad/Some Coll/ Associate Degree	11.9 ▼
College Graduate+	13.7 ▲

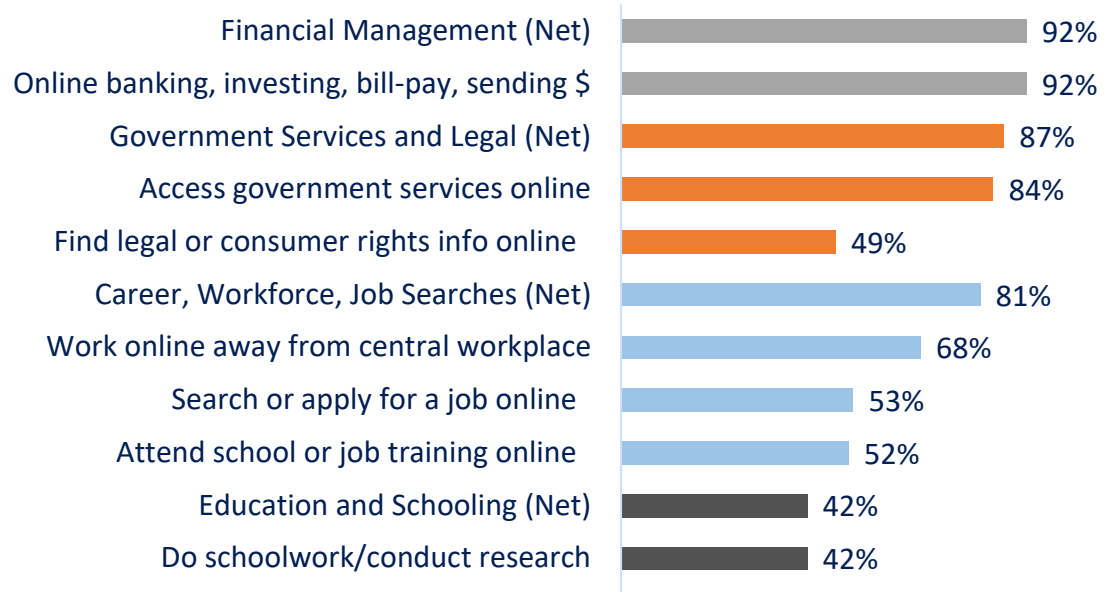
*Caution: Small sample size.

▲▼ Significantly higher or lower than Seattle Total

Seattle residents perform many tasks online, most commonly using email, shopping, watching/listening to media, performing banking tasks, or messaging others.

Online Activities Done At Least Occasionally During The Past Six Months





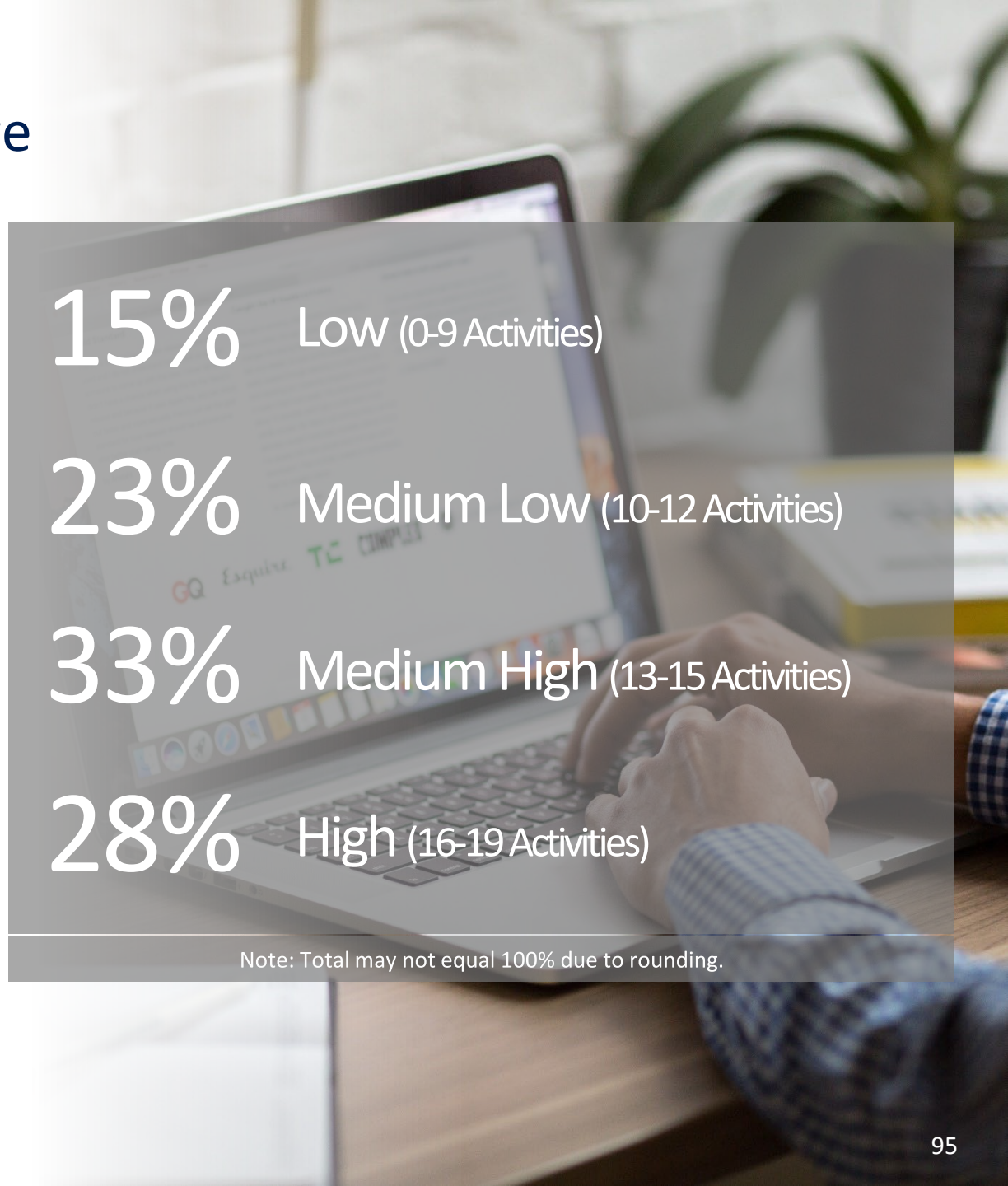
94% of Seattle residents have performed telehealth activities online in the past six months.

15% of Seattle residents report a low range of activities online.

Those with older adults in the household (60+), those living at or below 150% of FPL, those living in households where the language is not English, and those living with a disability far exceed the general population when it comes to range of online activity:

	%Low
• Older Adult in Household (60+)	39% ▲
• Low-Income (FPL <=150%)	32% ▲
• Language other than English	29% ▲
• Living with a Disability	25% ▲
• Black	19%
• BIPOC	17%
• Native	16%
• Children in Household	8% ▼

On the other hand, households with children are significantly more likely to be doing a high range of online activities.

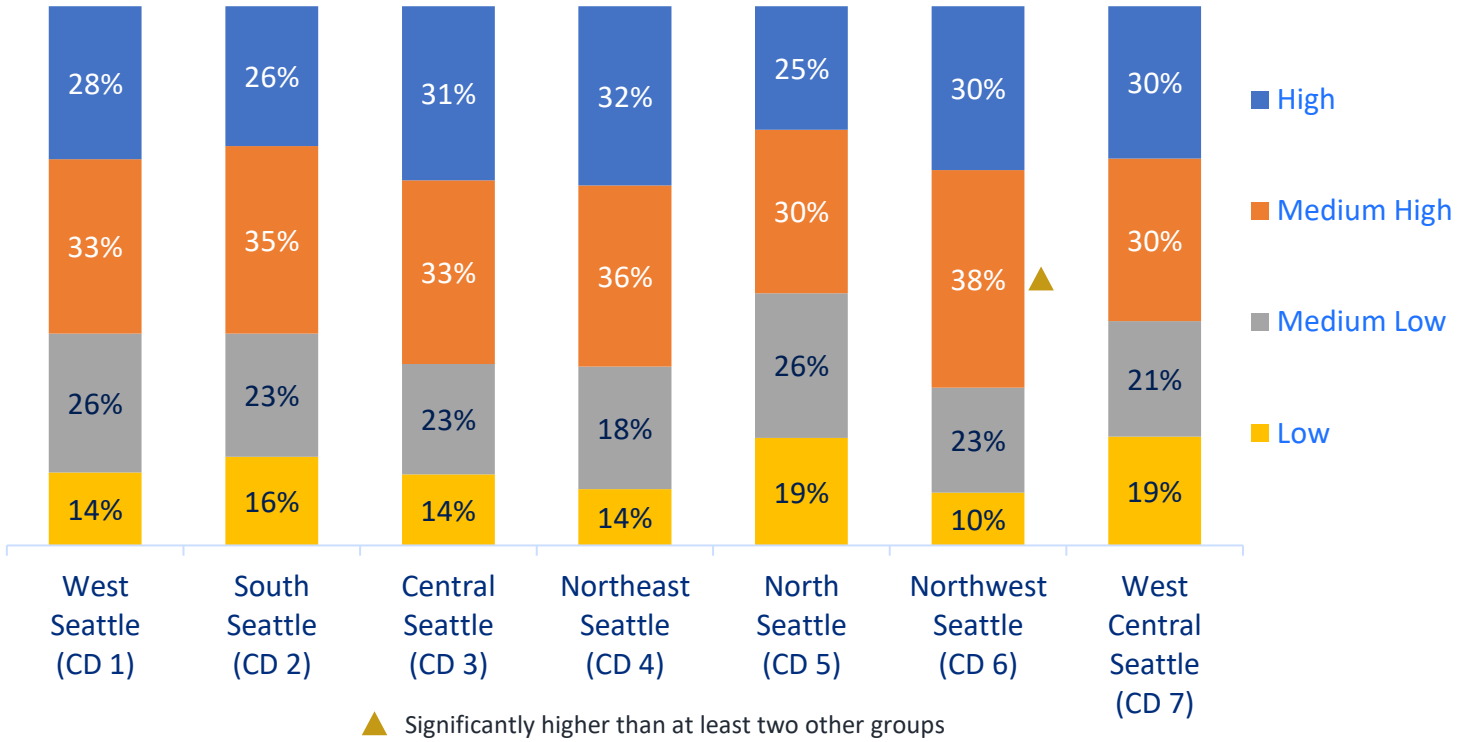


▲▼ Significantly higher or lower than Seattle Total

Across the Council Districts, around one in six residents report *low* range of online activity.

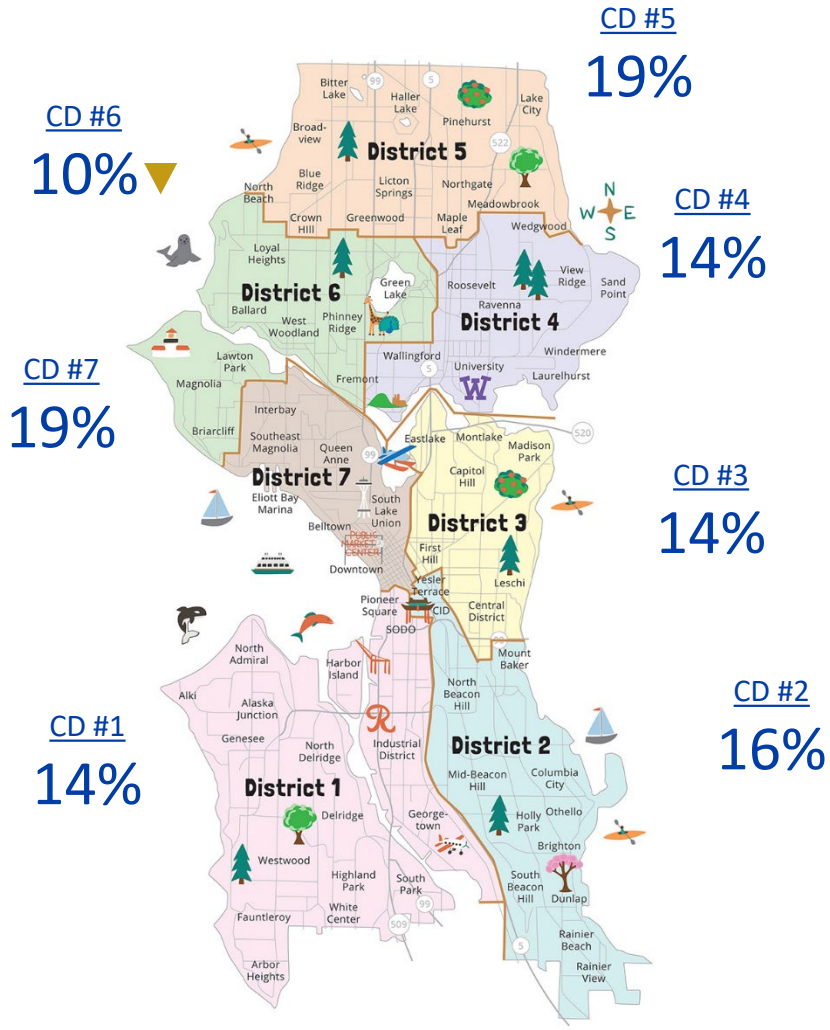
- Residents of Northwest Seattle (CD 6) are less likely than those in North Seattle (CD 5) and West Central Seattle (CD 7) to have low range of online activity.

Online Activity Range - By Council District (CD)



▲ Significantly higher than at least two other groups

% Low Range of Online Activity

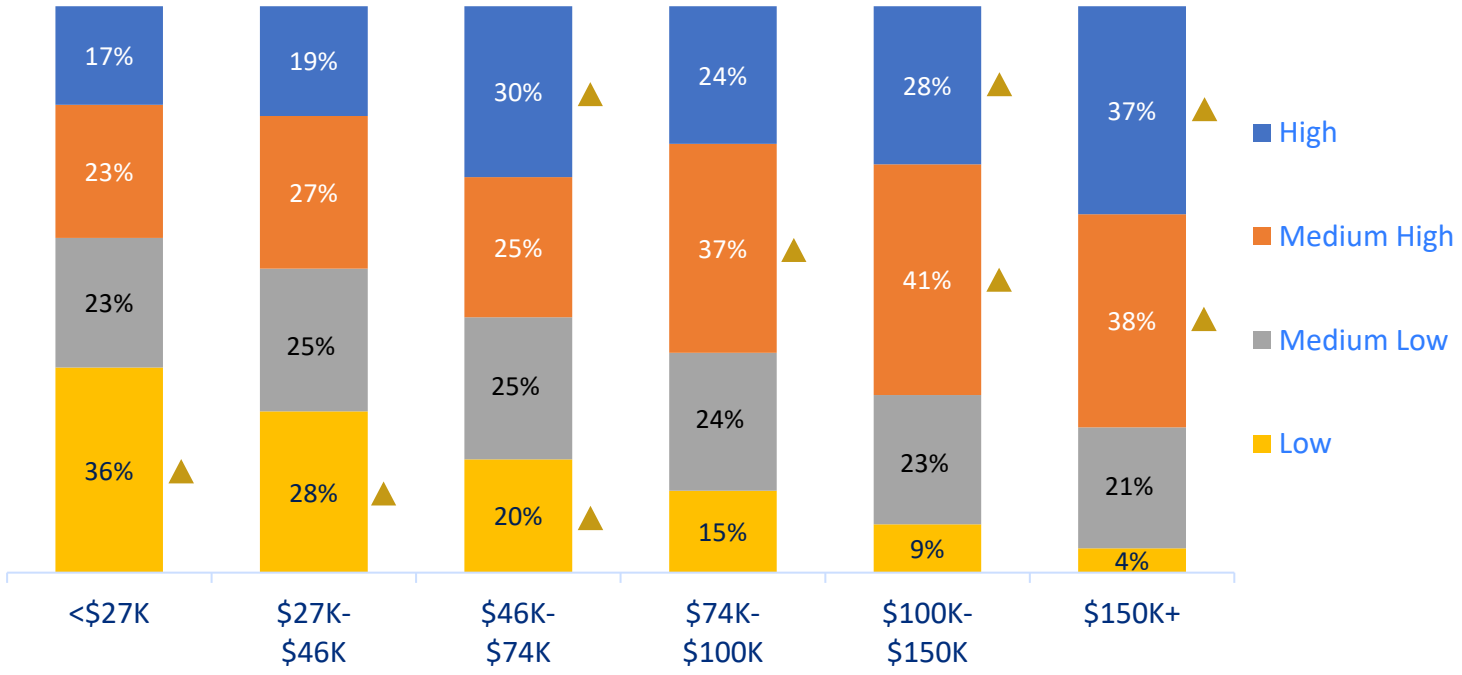


▲▼ Significantly higher or lower than at least two other districts

As household income rises, so does the range of online activity levels.

- There is a direct correlation between income levels and range of online activity. Households with incomes at or below 150% or 200% of Federal Poverty Level (FPL) are significantly more likely to have a low range of online activity levels.

Online Activity Range - By Household Income



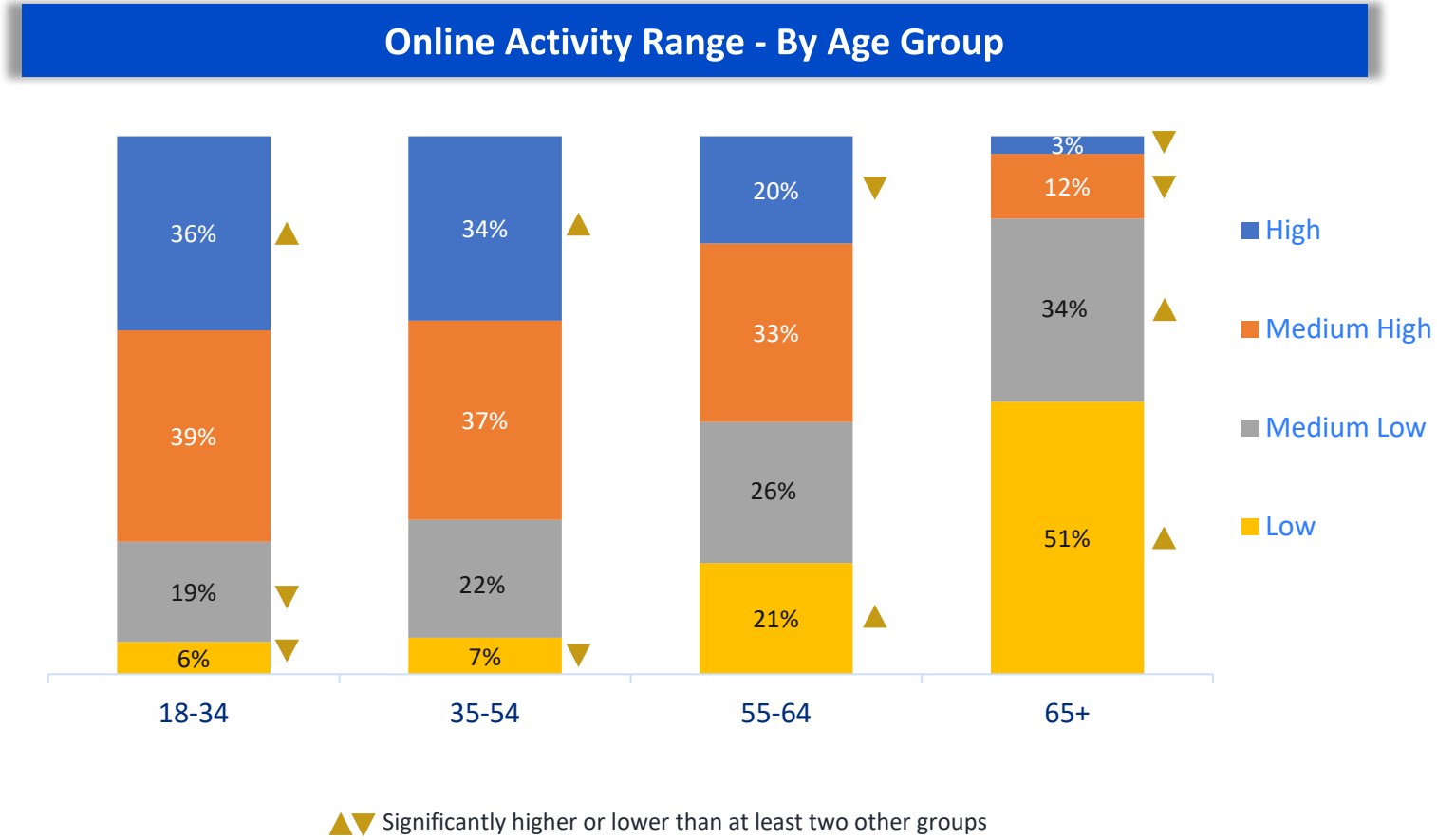
▲ Significantly higher or lower than at least two other groups

Household Size and Income…	% Low	% High
At or below 150% of FPL	32% ▲	21% ▼
Above 150% of FPL	12%	30%
At or below 200% of FPL	30% ▲	22% ▼
Above 200% of FPL	12%	30%

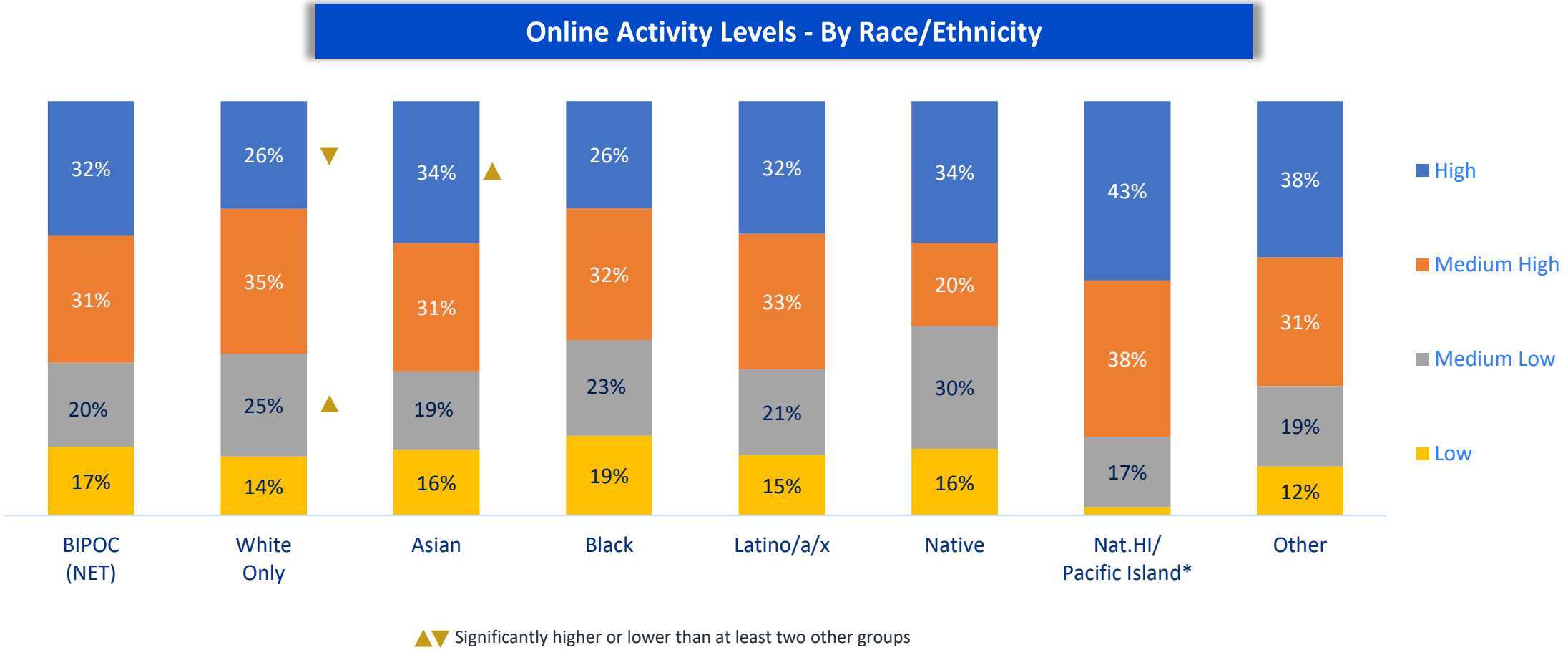
▲▼ Significantly higher or lower than HHs earning above 150% or 200% FPL

The younger one's age, the higher the range of online activity.

- The oldest age group (65+) is significantly more likely that all other age groups to have *low* and *medium low* range of online activity.



Residents who identify as Native or Black have relatively lower ranges of online activity, while Native Hawaiian and Pacific Islanders, Asian, Latino/a/x and Other-race individuals have a higher range of online activities.

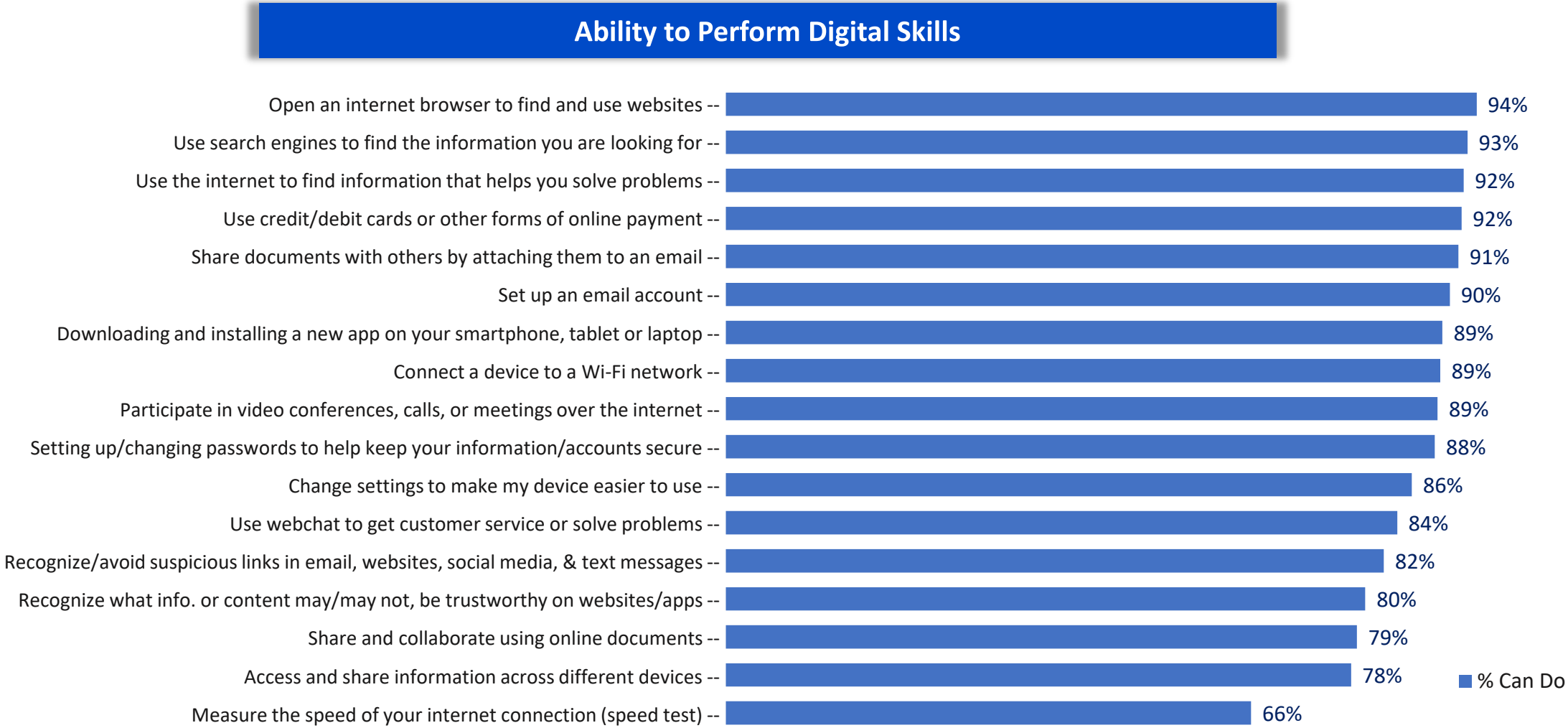


*Caution: small sample size

Digital Skills

Total Ability to Perform Digital Skills	(pg. 101)
Overview of Digital Skills Evaluation	(pg. 102)
Total and Impacted Group Comparison	(pg. 103)
Total and Impacted Group Summary	(pg. 104)
Digital Skills Critical Group Comparisons	(pg. 105)
Council District Comparison	(pg. 106)
Income and Federal Poverty Level (FPL) Comparison	(pg. 107)

Seattle residents are the least comfortable with measuring the speed of their internet, recognizing what info or content may not be trustworthy on websites/apps, accessing and sharing information across devices, and sharing and collaborating using online documents.

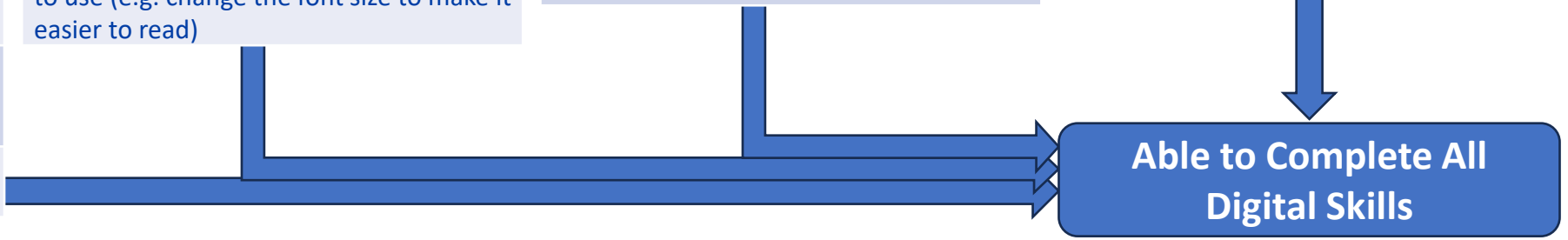


Summary metrics were created to measure digital skill levels when it comes to performing different types of online tasks.

Survey respondents were asked how comfortable they are performing each of the following digital activities.

In processing these results, the activities were broken out into the categories below. If a respondent is "Completely comfortable" doing ALL the skills in a category, they are classified with category skill. Individuals who are able to complete all skills in each category are classified as 'Able to Complete All Digital Skills.'

Basic Skills	Setup Skills	Security Skills	Collaboration Skills
Open an internet browser to find and use websites	Set up an email account	Recognize and avoid suspicious links in email, websites, social media, and text messages	Share documents with others by attaching them to an email
Use search engines to find the information you are looking for	Downloading and installing a new app on your smartphone, tablet or laptop	Recognize what information or content may, or may not, be trustworthy on websites/apps	Share and collaborate using online documents (e.g. Google docs, Dropbox)
Use the internet to find information that helps you solve problems	Connect a device to a Wi-Fi network	Setting up and changing passwords to help keep your information and accounts secure	Access and share information across different devices (e.g. manage a calendar or appointment system across your smartphone and laptop)
Use credit/debit cards or other forms of online payment (e.g. PayPal, Venmo) to buy goods/services online	Change settings to make my device easier to use (e.g. change the font size to make it easier to read)		
Participate in video conferences, calls, or meetings over the internet (e.g. Teams, Zoom)			
Use webchat to get customer service or solve problems			



"Measure the speed of your internet connection (speed test)" was included as a skill in the survey, but excluded from these categories due to low numbers of residents being "completely comfortable performing this activity" - only two-thirds (66%).

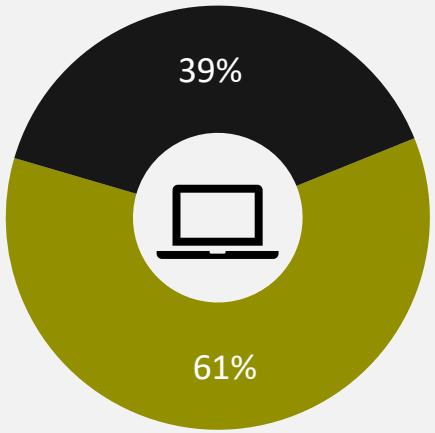
Three in five (61%) Seattle residents reported they can perform a full set of digital skills without help, but differences are observed across focused population groups.

- Households with children are the most likely to report ability to perform a set of digital skills without assistance. Older adults (60+) are the least likely to report their ability to do so.

Ability to Perform Skills w/out Help

Seattle General Population*

132,749 households/
244,248 residents
not able to complete all digital skills



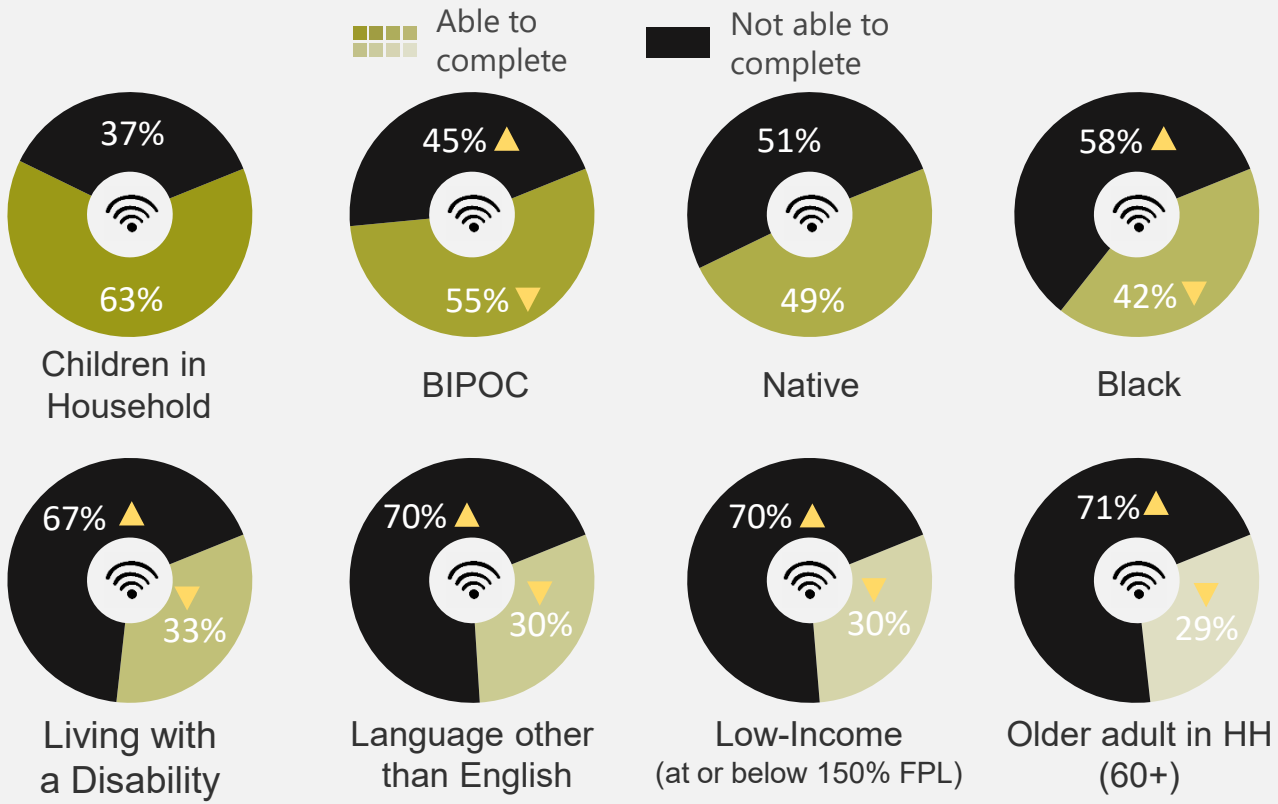
Able to complete all digital skills

Not able to complete all digital skills

204,612 households/
376,471 residents
able to complete all digital skills

*Based on ACS 5-Year Est. 2017-2021

Digital Skills Ability - By Impacted Groups



▲▼ Significantly higher or lower than Seattle Total

Overall, more than seven in ten residents are able to perform all types of digital skills without help.

Digital skills vary across segments of the population. BIPOC, those living with a disability, older adults, those living under 150% of Federal Poverty Level, and those in households that speak a language other than English all have significantly lower levels of digital skills.

	Basic	Setup	Security	Collaboration
• Children in Household	79%	81%	77%	74%
• BIPOC	69% ▼	71% ▼	68% ▼	67%
• Native	66%	61% ▼	64%	65%
• Black	64% ▼	66% ▼	56% ▼	59% ▼
• Living with a Disability	54% ▼	51% ▼	50% ▼	46% ▼
• Older Adults in HH (60+)	49% ▼	52% ▼	53% ▼	38% ▼
• Low Income (FPL <=150%)	42% ▼	50% ▼	49% ▼	43% ▼
• Language other than English	42% ▼	48% ▼	45% ▼	45% ▼

78% Basic skills

78% Setup skills

74% Security skills

71% Collaboration skills

▲▼ Significantly higher or lower than Seattle Total

Residents who are older (55+ years of age), BIPOC, lower income, speak a language other than English, and/or are not college graduates are significantly less likely to have digital skills.

Ability To Perform Digital Skills Without Help

	Seattle Total	18-34	35-54	55-64	65+	BIPOC (NET)	White Only	Asian	Black	Latino/ a/x	Native	Native Hi. / PI*	Other
Able to Complete All Digital Skills	**61%**	**73% ▲**	**69% ▲**	**49% ▼**	**21% ▼**	**55%**	**64% ▲**	**59%**	**42% ▼**	**55%**	**49%**	**74%**	**47%**
Basic skills without help	78%	89% ▲	85% ▲	71% ▼	40% ▼	69%	83% ▲	73%	64% ▼	68% ▼	66%	82%	64% ▼
Setup skills without help	78%	88% ▲	84% ▲	72% ▼	44% ▼	71%	82% ▲	74%	66% ▼	73%	61% ▼	89%	59% ▼
Security skills without help	74%	83% ▲	80% ▲	67% ▼	47% ▼	68%	79% ▲	69% ▼	56% ▼	75%	64%	89%	65%
Collaboration skills without help	71%	85% ▲	79% ▲	59% ▼	28% ▼	67%	74%	70%	59% ▼	68%	65%	76%	59%

	< $27K	$27K - $46K	$46K - $74K	$74K - $100K	$100K - $150K	$150K+	English	Non-English	<HS Graduate	HS Grad/Some Coll/ Associate Degree	College Graduate
Able to Complete All Digital Skills	**32% ▼**	**31% ▼**	**54% ▼**	**59%**	**67% ▲**	**82% ▲**	**64%**	**30% ▼**	**21% ▼**	**48% ▼**	**67% ▲**
Basic skills without help	44% ▼	52% ▼	73%	82%	88% ▲	95% ▲	81% ▲	42% ▼	28% ▼	62% ▼	86% ▲
Setup skills without help	52% ▼	56% ▼	72%	80%	84% ▲	93% ▲	81%	48% ▼	36% ▼	64% ▼	84% ▲
Security skills without help	52% ▼	56% ▼	68% ▼	72%	80% ▲	90% ▲	77% ▲	45% ▼	37% ▼	66% ▼	79% ▲
Collaboration skills without help	43% ▼	45% ▼	65%	71%	80% ▲	89% ▲	74%	45% ▼	29% ▼	56% ▼	78% ▲

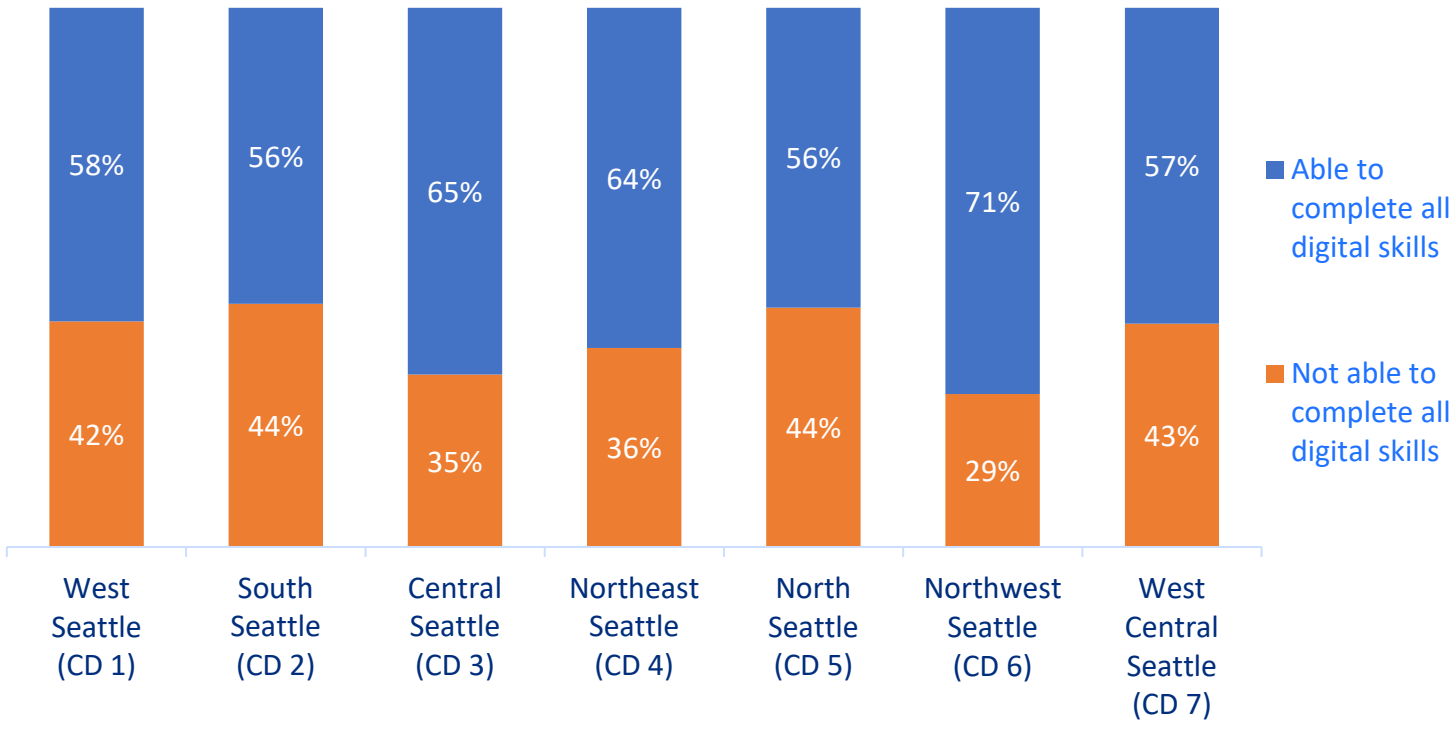
▲▼ Significantly higher or lower than Seattle Total

*Caution: Small sample size.

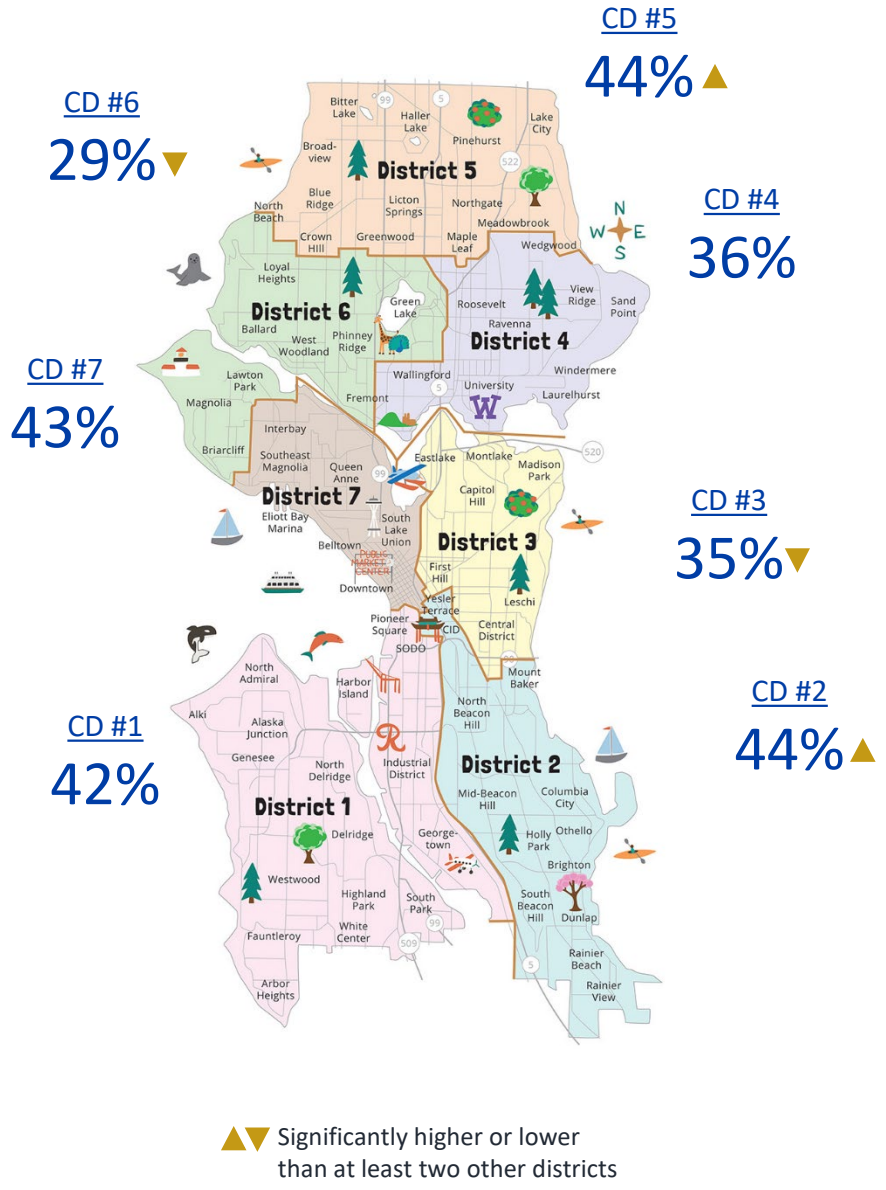
About two in five (39%) residents are not able to perform one or more digital skill without assistance.

- South Seattle (CD 2) and North Seattle (CD 5) are significantly more likely not to be able to complete all skills.

Ability to Complete Online Digital Skills - By Council District (CD)

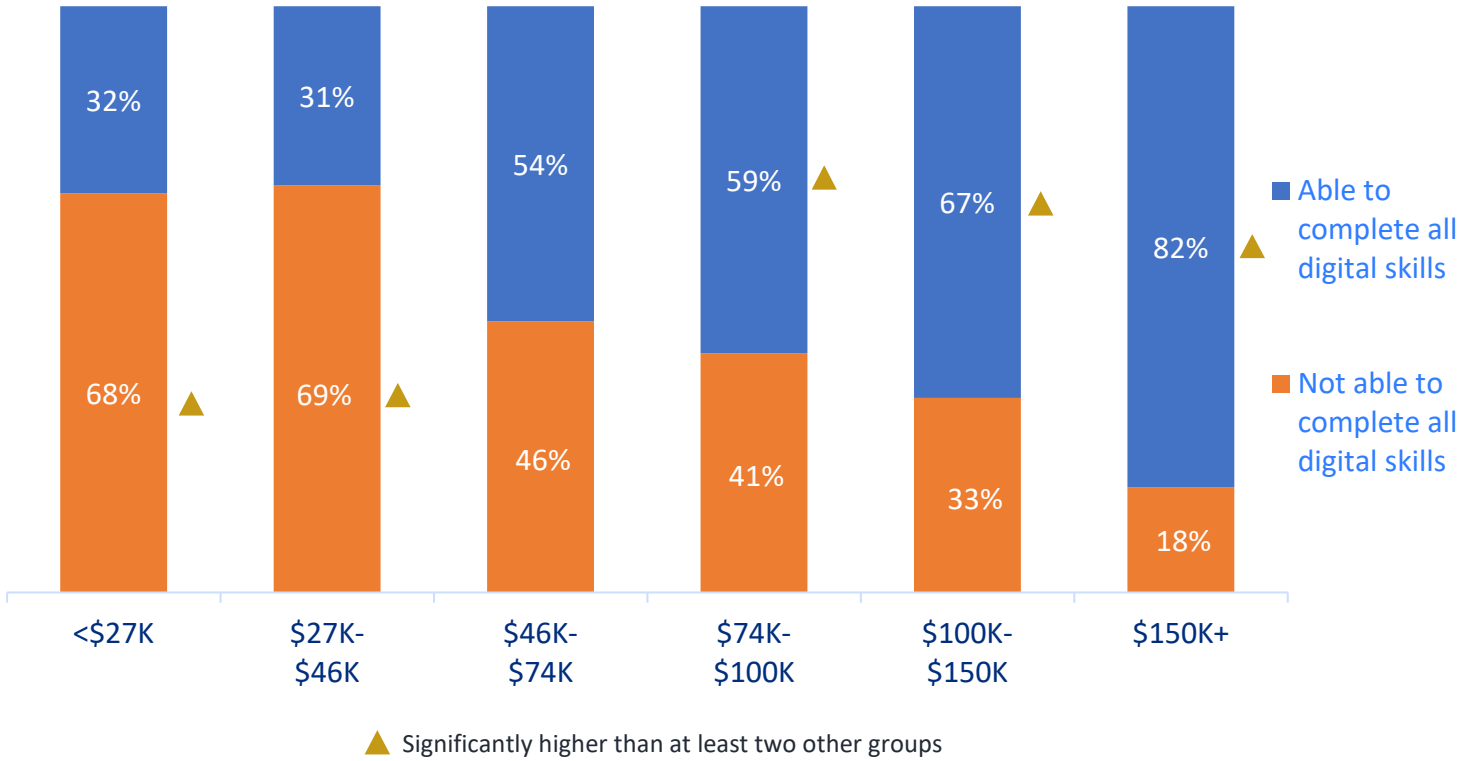


% Not Able to Complete All Digital Skills



Lower income households have fewer digital skills than higher income households. Less than a third of those living at or below 200% of FPL can complete all digital skills without assistance.

Ability to Complete Online Digital Skills - By Household Income (HHI)



Household Size and Income…	% Able to complete all digital skills	% Not Able to complete all digital skills
At or below 150% of FPL	30% ▼	70% ▲
Above 150% of FPL	66%	34%
At or below 200% of FPL	32% ▼	68% ▲
Above 200% of FPL	68%	32%

Households with incomes at or below 150% or 200% Federal Poverty Level (FPL) are significantly less likely to be able to complete all digital skills.

▲▼ Significantly higher or lower than HHs earning above 150% or 200% FPL

Reliance on Others

Total and Impacted Group Comparison	(pg. 109)
Council District Comparison	(pg. 110)
Income and Federal Poverty Level (FPL) Comparison	(pg. 111)
Age Group Comparison	(pg. 112)
Race/Ethnicity Comparison	(pg. 113)

Overall, around one in eight (13%) residents rely at least somewhat on others to access and navigate the internet.

Residents with children in the household are less likely to rely on others to navigate the internet, while many other groups significantly rely on others to navigate the internet.

· Language other than English	34% ▲
· Low-Income (FPL <=150%)	32% ▲
· Older Adult in Household (60+)	32% ▲
· Black	29% ▲
· Living with Disability	29% ▲
· Native	20%
· BIPOC	19%
· Children in household	13%

Rely a great deal OR somewhat on others

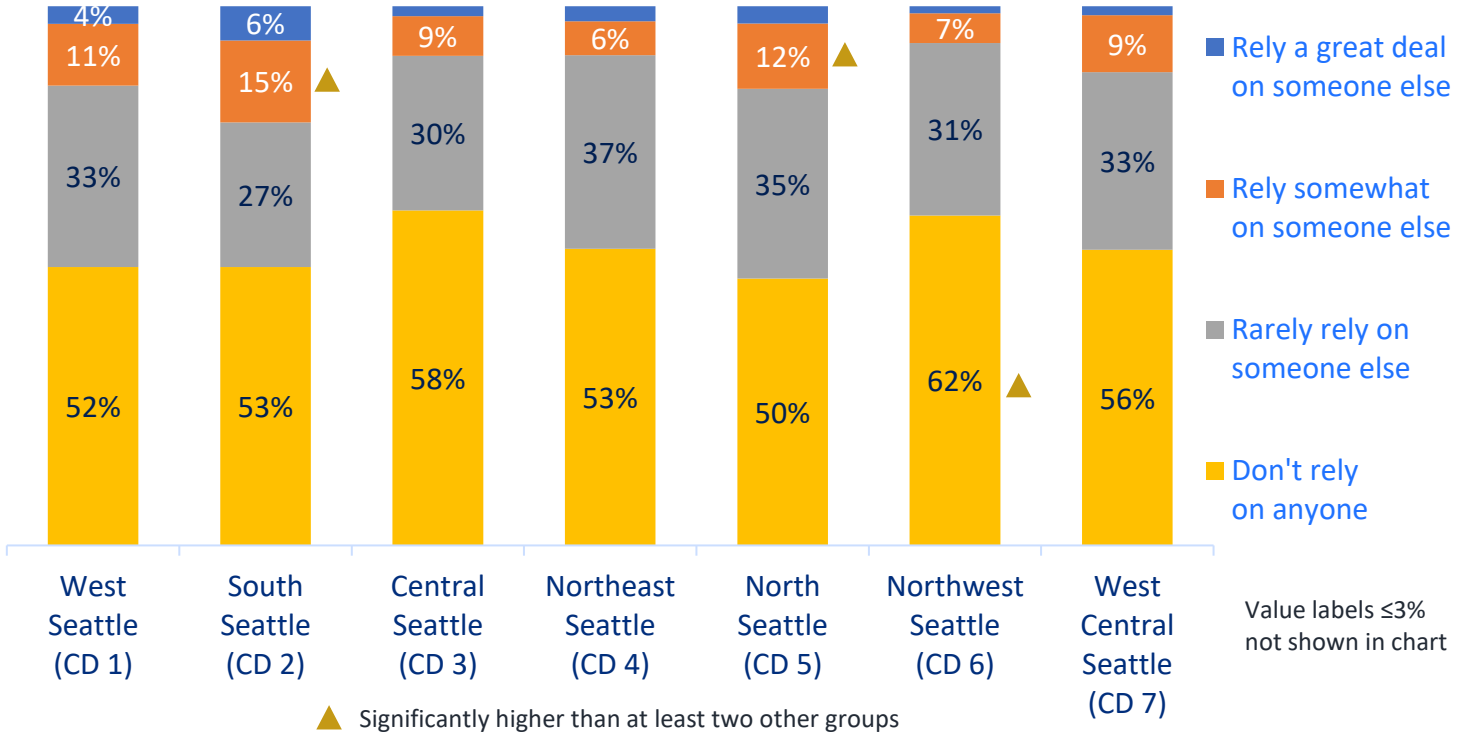
Note: Total may not equal 100% due to rounding.

▲▼ Significantly higher or lower than Seattle Total

Thirteen percent (13%) of residents rely on assistance from others to access the internet to some extent.

- Northwest Seattle (CD 6) residents are significantly less likely to rely on others to access the internet, while South Seattle (CD 2) residents are the most likely to rely on assistance from others.

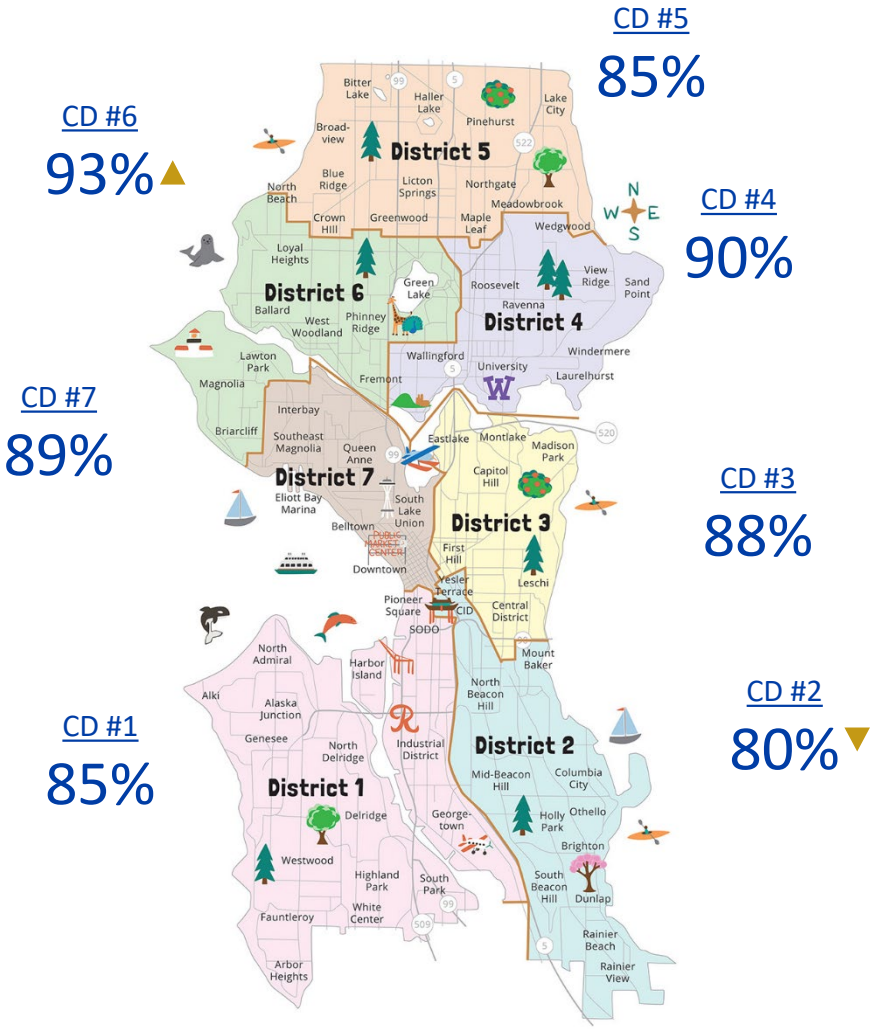
Reliance on Others to Access the Internet - By Council District (CD)



Value labels ≤3% not shown in chart

▲ Significantly higher than at least two other groups

% Rarely/Never Rely on Others to Access the Internet

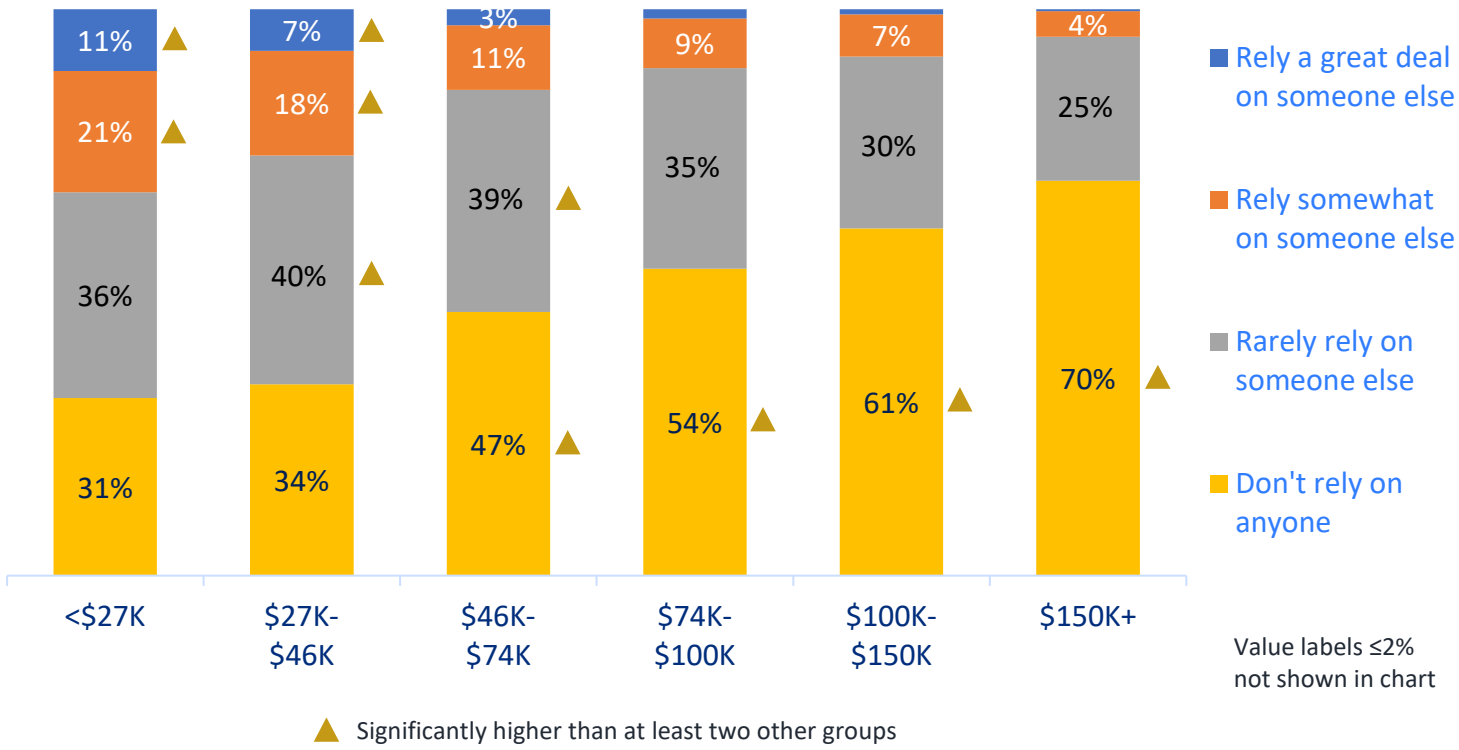


▲▼ Significantly higher or lower than at least two other districts

Residents with higher household incomes are less likely to rely on others to navigate the internet.

- About a third of residents with an income under $46,000 can access and navigate the internet independently. Those in the lowest income groups are significantly more likely than higher income groups to need a “great deal” of help from others.

Reliance on Others to Access the Internet- By Household Income (HHI)

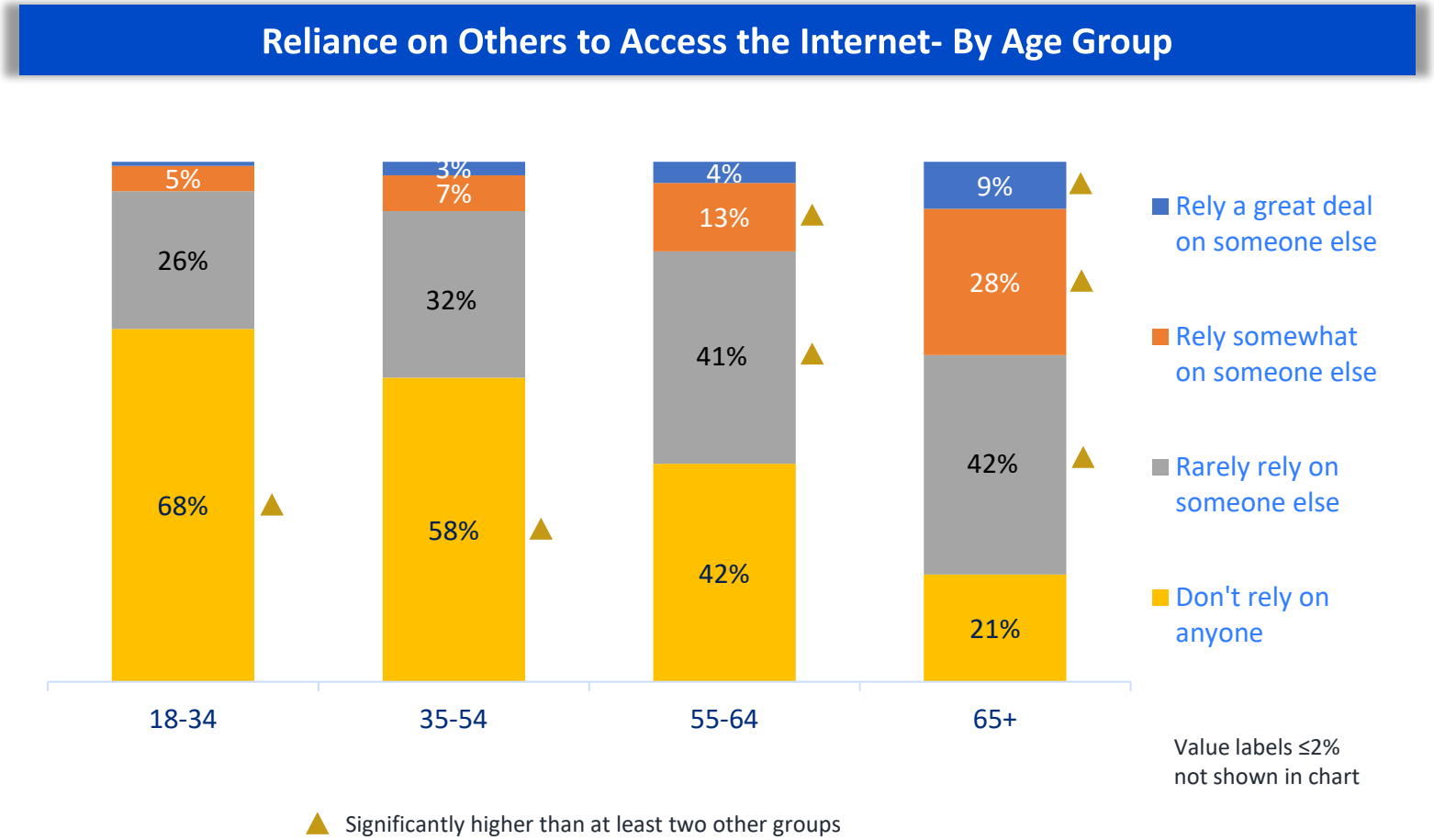


Household Size and Income…	Rely a great deal or somewhat	Rarely/never rely on others
At or below 150% of FPL	32% ▲	68% ▼
Above 150% of FPL	10%	90%
At or below 200% of FPL	30% ▲	70% ▼
Above 200% of FPL	9%	91%

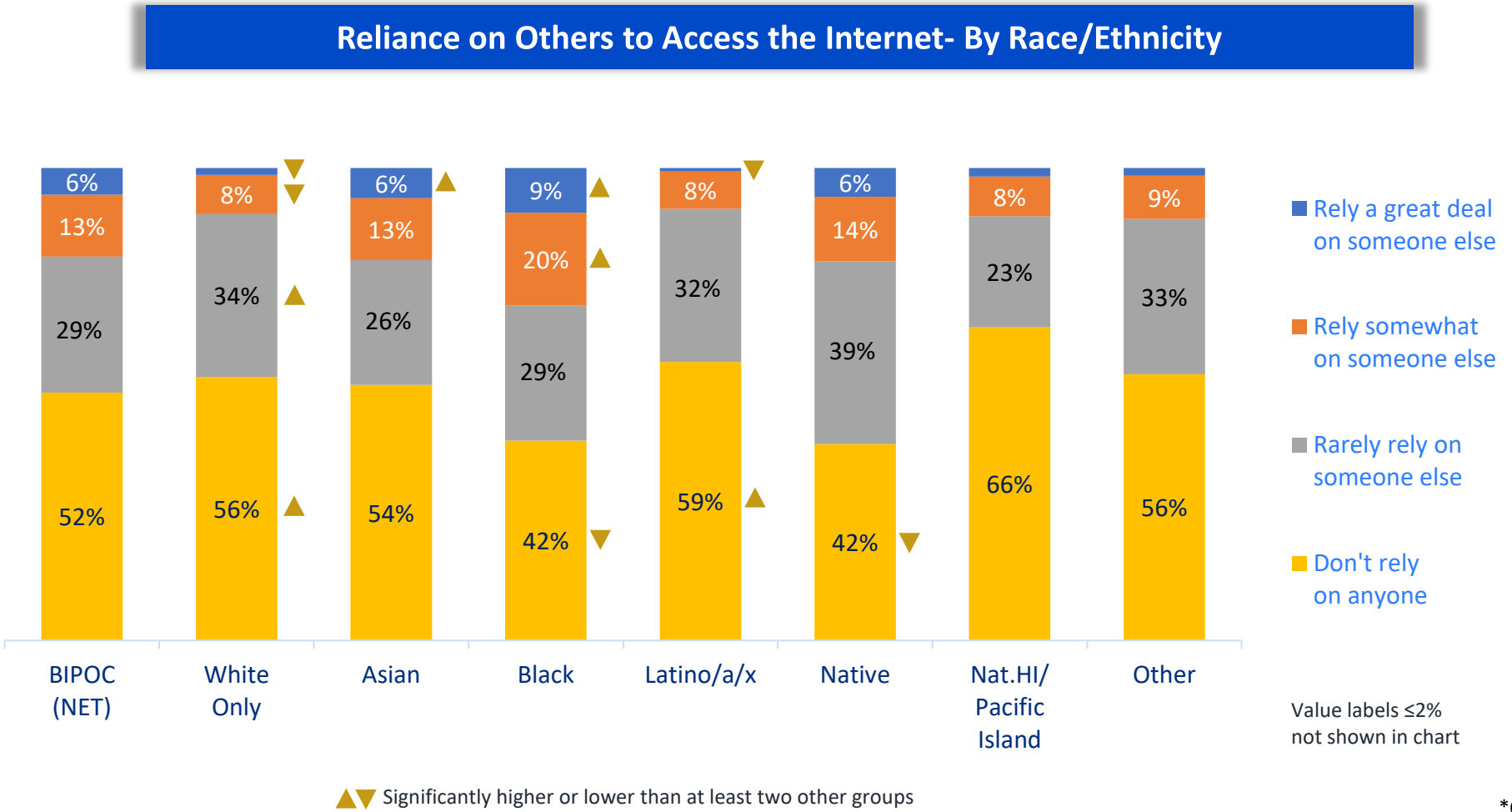
▲▼ Significantly higher or lower than HHs earning above 150% or 200% FPL

Younger residents are less likely to rely on others to navigate the internet.

- About one in five (21%) residents 65 or older can access and navigate the internet independently. Older individuals are significantly more likely than their younger counterparts to need a “great deal” of help from someone else.



Across race/ethnic groups, residents who identify as White and Latino/a/x are less likely to rely on others to navigate the internet, while residents who identify as Black are more likely to need assistance from someone else.



*Caution: small sample size

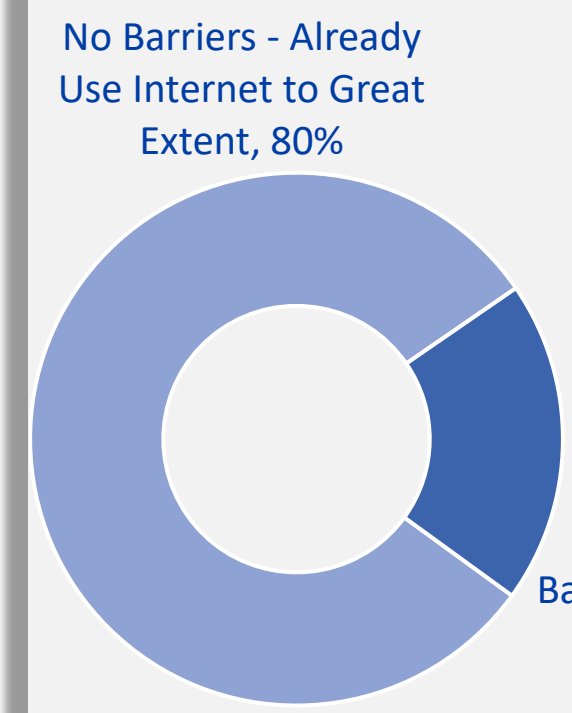
Barriers to Internet Use

Total Summary (pg. 115)

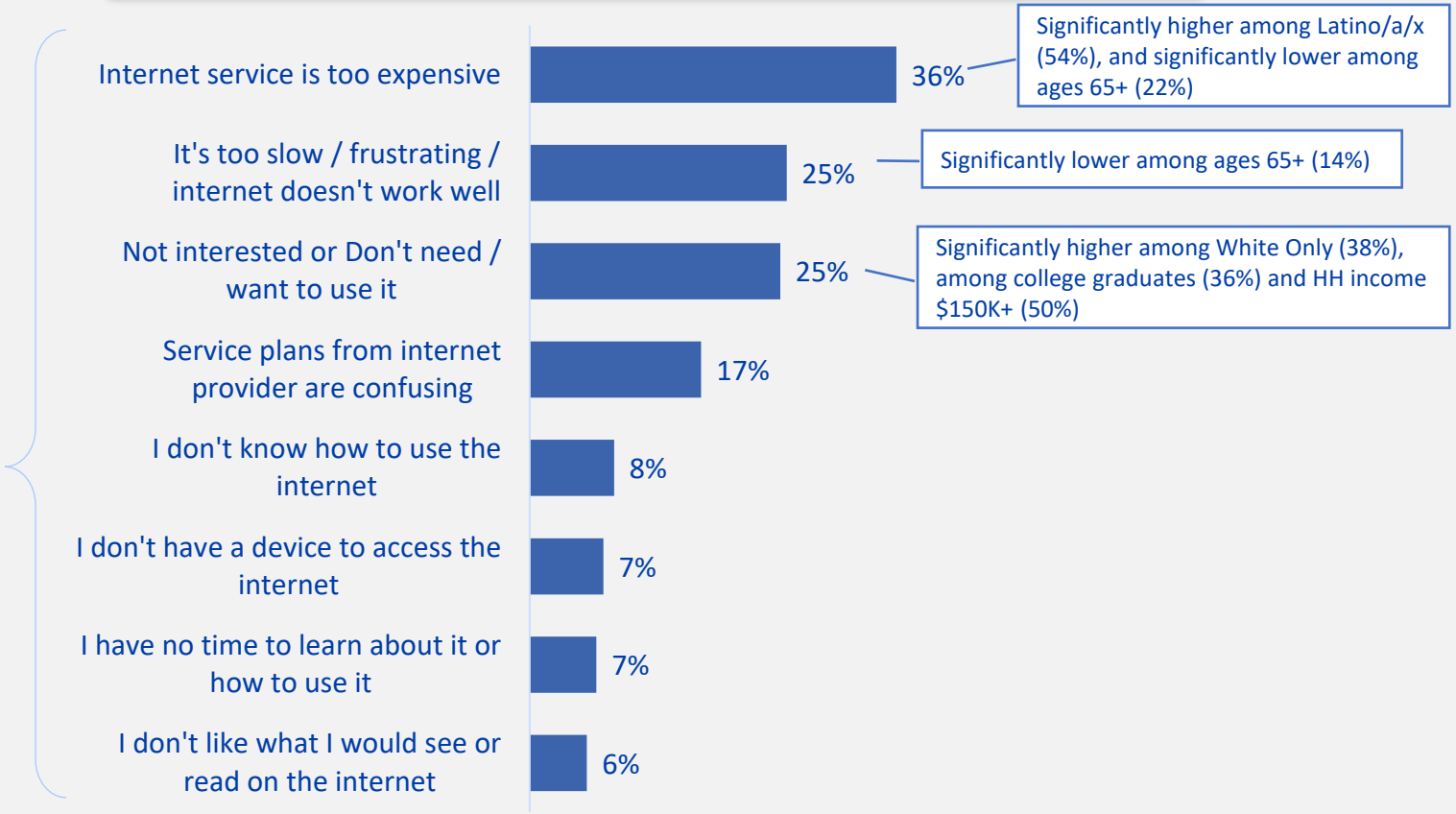
While most residents are using the internet extensively, one out of five (20%) cite something that is keeping them from using the internet more.

The cost of service is the most common barrier, followed by slow or inconsistent speeds and just not interested or don't need/want to use it.

Report ANY Barriers or Reasons for Not Using the Internet More



Top reasons why residents do not use the internet more (Among those with ANY barriers)



Interest in Training Topics

Total Summary	(pg. 117)
Council District Comparison	(pg. 118)
Income Comparison	(pg. 119)
Federal Poverty Level (FPL) Comparison	(pg. 120)
Age Group Comparison	(pg. 121)
Race/Ethnicity Comparison	(pg. 122)

Overall, half of Seattle residents are interested in training topics about “protecting yourself and your data online” and “learning how to code software and applications.”

More than two in five are ‘very’ or ‘possibly’ interested in technology training focused on:

- Computer hardware/mobile device troubleshooting
- Learning to create, edit, and publish own work
- Creating a copy or back-up of files

Another three in ten (29%) have interest in learning basic software and selling products or services online.

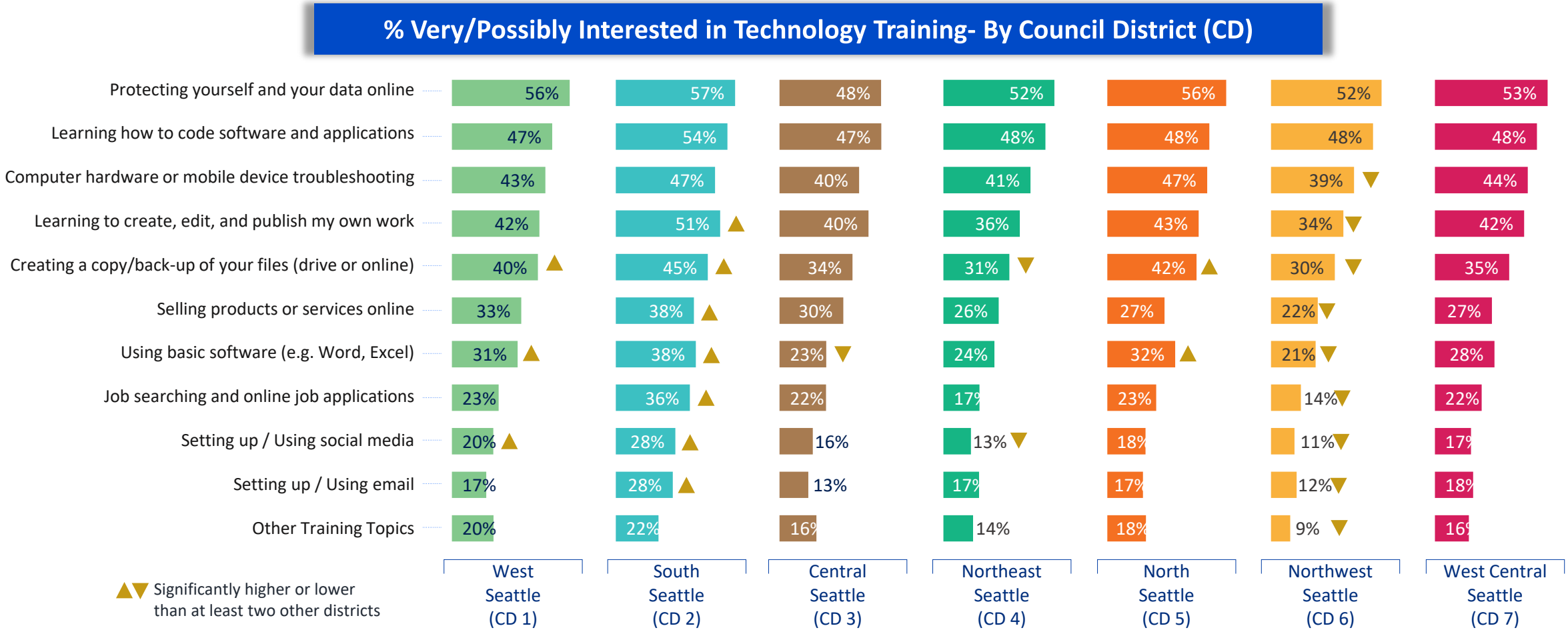
Less than a fourth want to learn about online job search and applications, and an even fewer number want to learn about setting up and/or using social media or email.

Very/Possibly Interested	
54%	Protecting yourself and your data online
49%	Learning how to code software and applications
43%	Computer hardware/mobile device troubleshooting
41%	Learning to create, edit, and publish own work
37%	Creating a copy or back-up of files
29%	Learning about selling product or services online
29%	Using basic software (Word, Excel, etc...)
23%	Job searching and online job applications
18%	Setting up / Using social media
18%	Setting up / Using email
17%	Other (wrote in training topics)

Note: Some residents are interested in more than one training topic.
Total interest will add up to more than 100%.

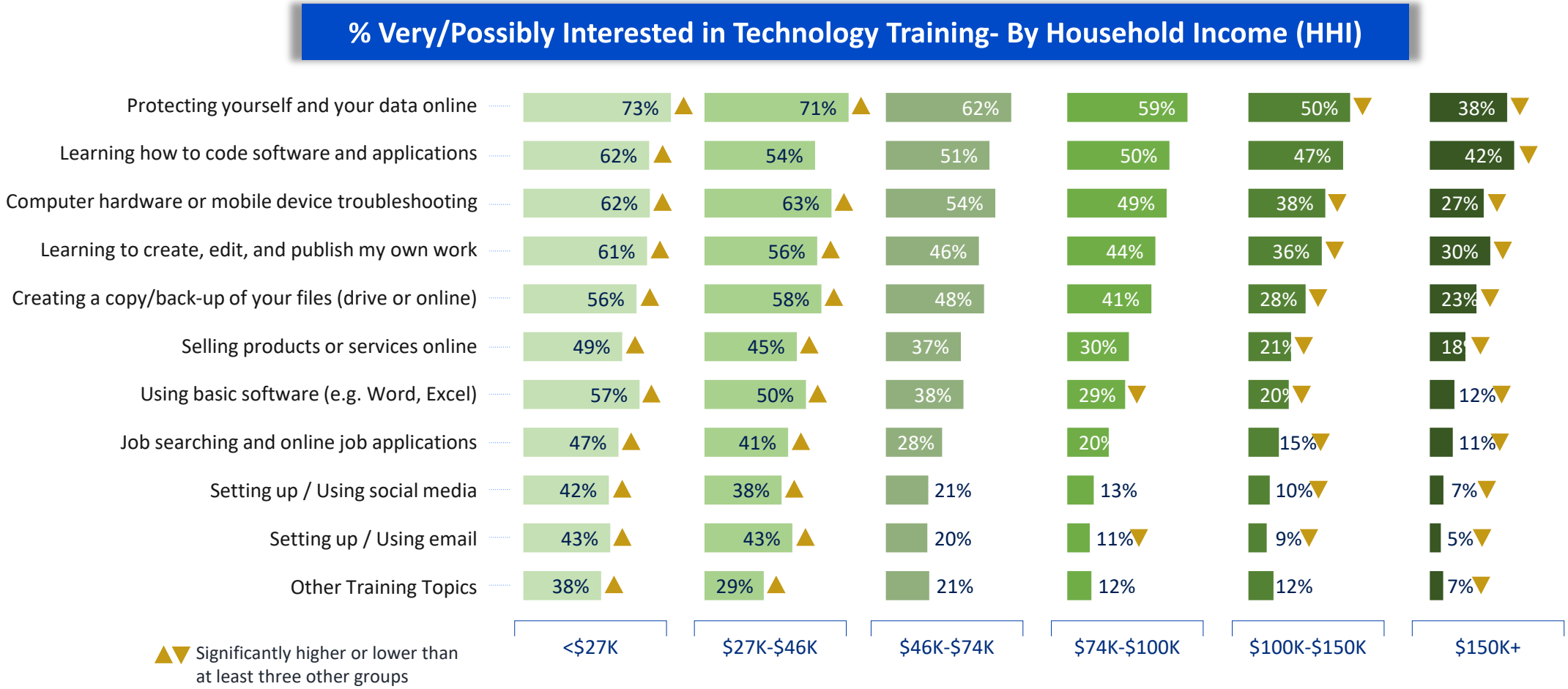
When asking about technology training topics “protecting yourself and your data online” generated the most interest across all Council Districts.

- South Seattle (CD 2) is more likely to express higher interest in all technology training topics, while Northwest Seattle (CD 6) is less likely to be interested in many of the technology training topics.

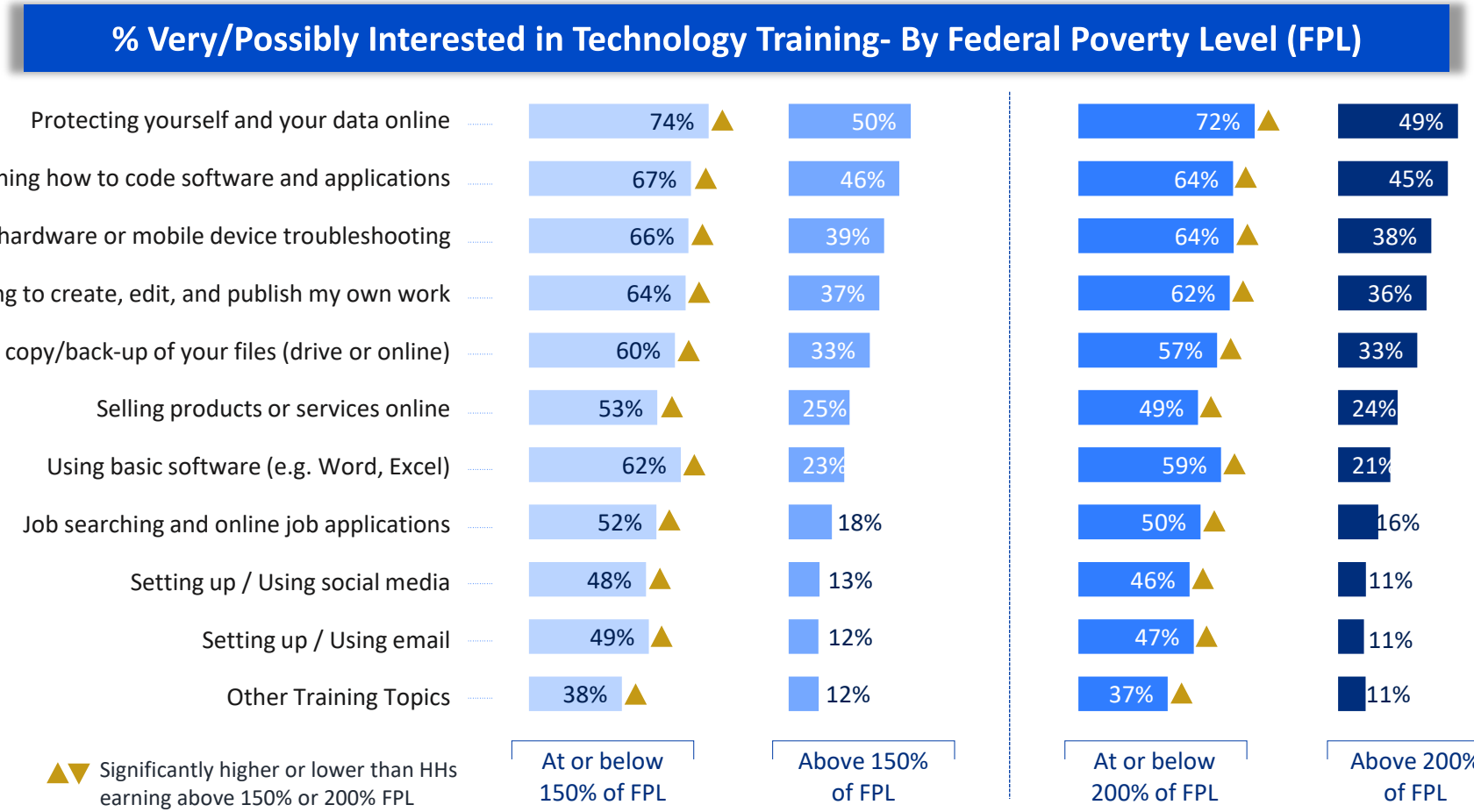


Residents with lower incomes are significantly more interested in attending nearly all technology training courses.

- Those in households with $27K-$46K in annual income are significantly more interested in learning about all topics presented, except for how to code software and applications.

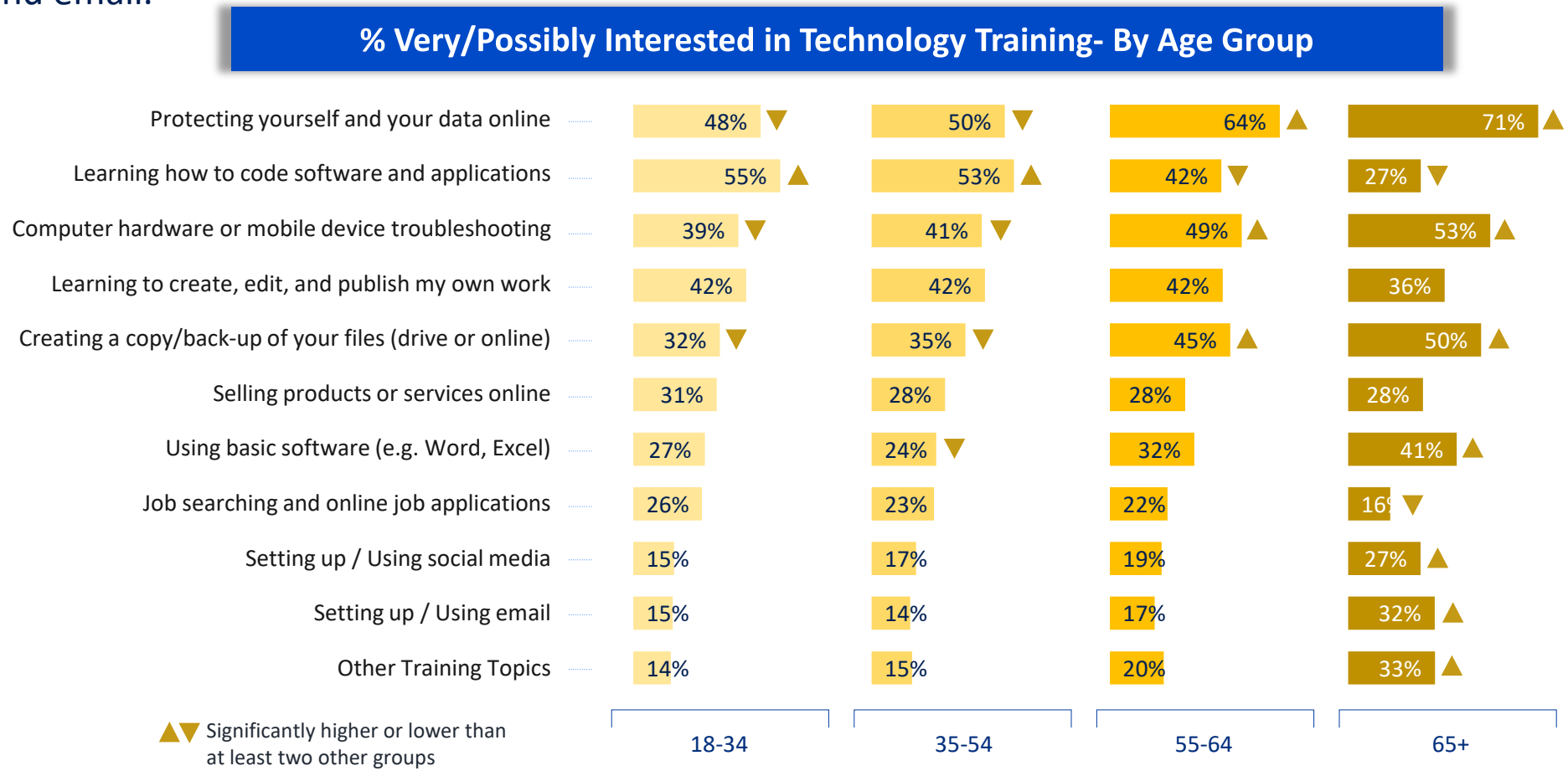


Households with incomes at or below 150% or 200% Federal Poverty Level (FPL) are significantly more likely to be interested in all technology training topics.



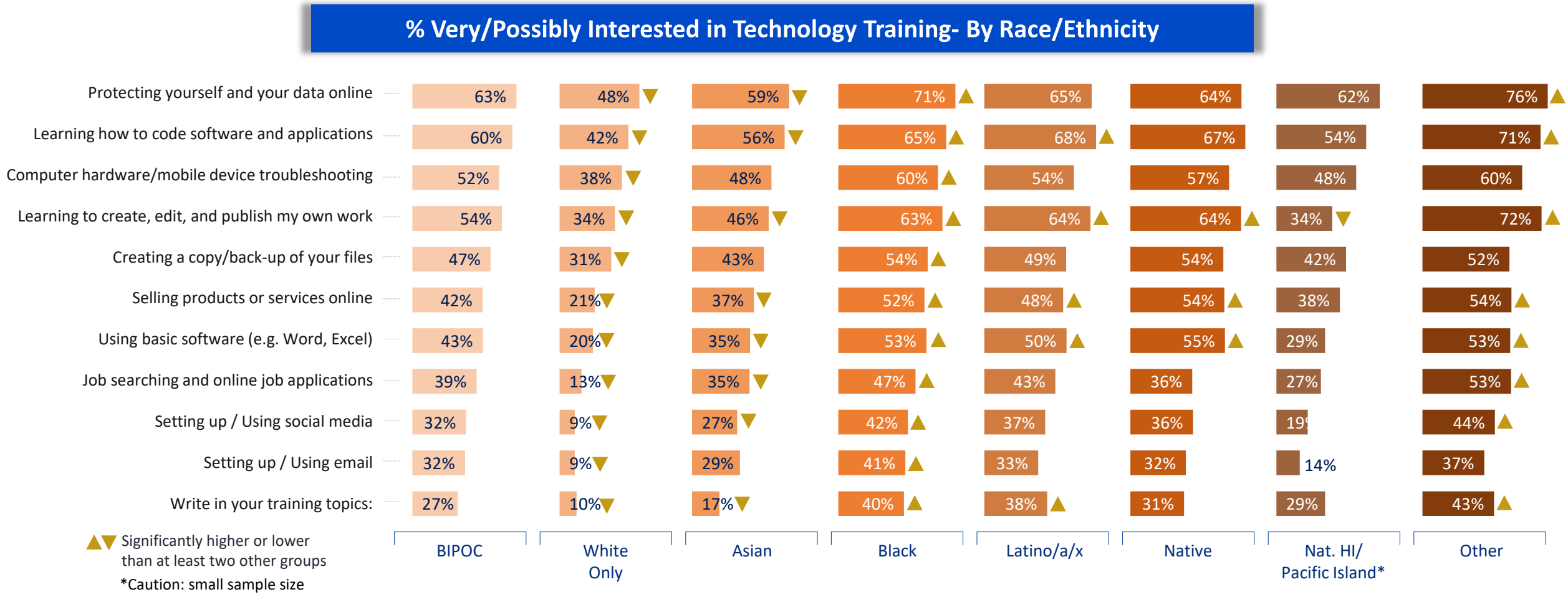
Interest in training programs is high across all age groups, although interest in topics varies.

- Younger residents are significantly more interested in learning how to code software and applications; while older residents resonate more with training for self protection, troubleshooting, creating back-ups, basic software, social media, and email.



Residents who identify as Black are the most likely to be interested in attending technology training, while White and Asian residents are the least interested.

- Black and Other-race residents are significantly more interested in training for self protection, while Latino/a/x and Native residents are most interested in learning how to code software and applications.



Concerns, Importance, and Impact of Technology

Privacy, Safety, and Security	(pgs. 124-129)
Importance of Technology	(pgs. 130-135)
Impact of Technology on Society	(pgs. 136-141)
Technology Attitudes and Perceptions	(pgs. 142-147)

Privacy, Safety, and Security

Total Summary	(pg. 125)
Council District Comparison	(pg. 126)
Income Comparison	(pg. 127)
Age Group Comparison	(pg. 128)
Race/Ethnicity Comparison	(pg. 129)

Overall, more than four in five residents are concerned about the safety and security of their information on the internet and how it will be used.

Three fourths are concerned about protecting themselves from online viruses and malware.

More than half are worried about protecting themselves from other individuals online.

Two in five expressed concern over protecting their children from cyberstalking and cyberbullying.

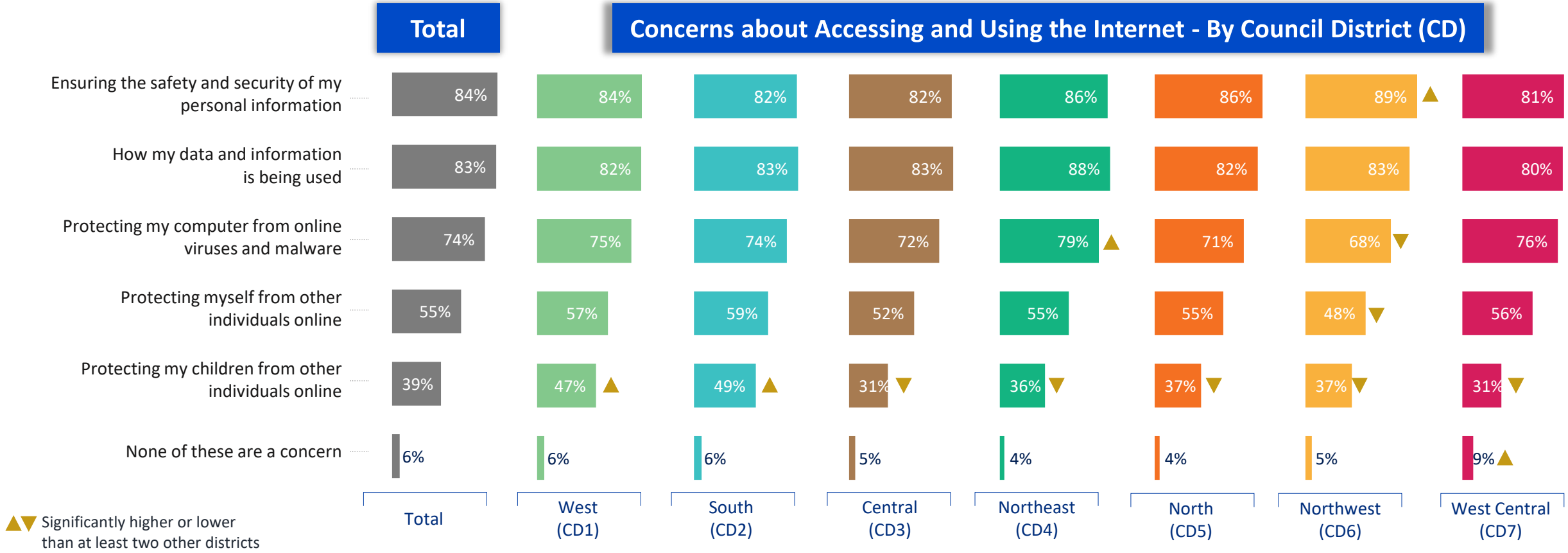
Only six (6%) percent do not have any concerns when it comes to accessing and using the internet.

84%	Ensuring the safety/security of personal information
83%	How data/information is used
74%	Protecting computer from online viruses and malware
55%	Protecting myself from others online
39%	Protecting children from others online
6%	None of these are a concern

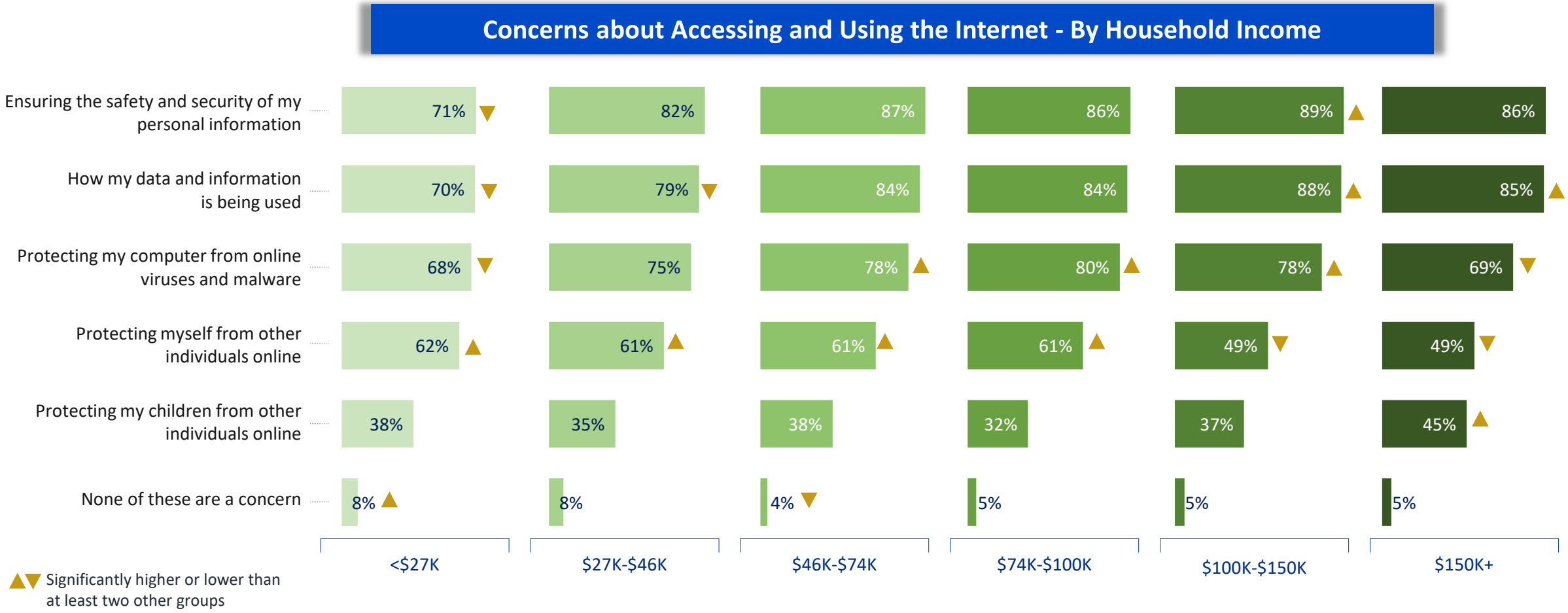
Note: Some residents expressed more than one concern.
Total concerns will add up to more than 100%.

More than four out of five residents are concerned about safety and security of personal information when accessing the internet.

- Residents of Northwest Seattle (CD6) are particularly concerned about their personal information.

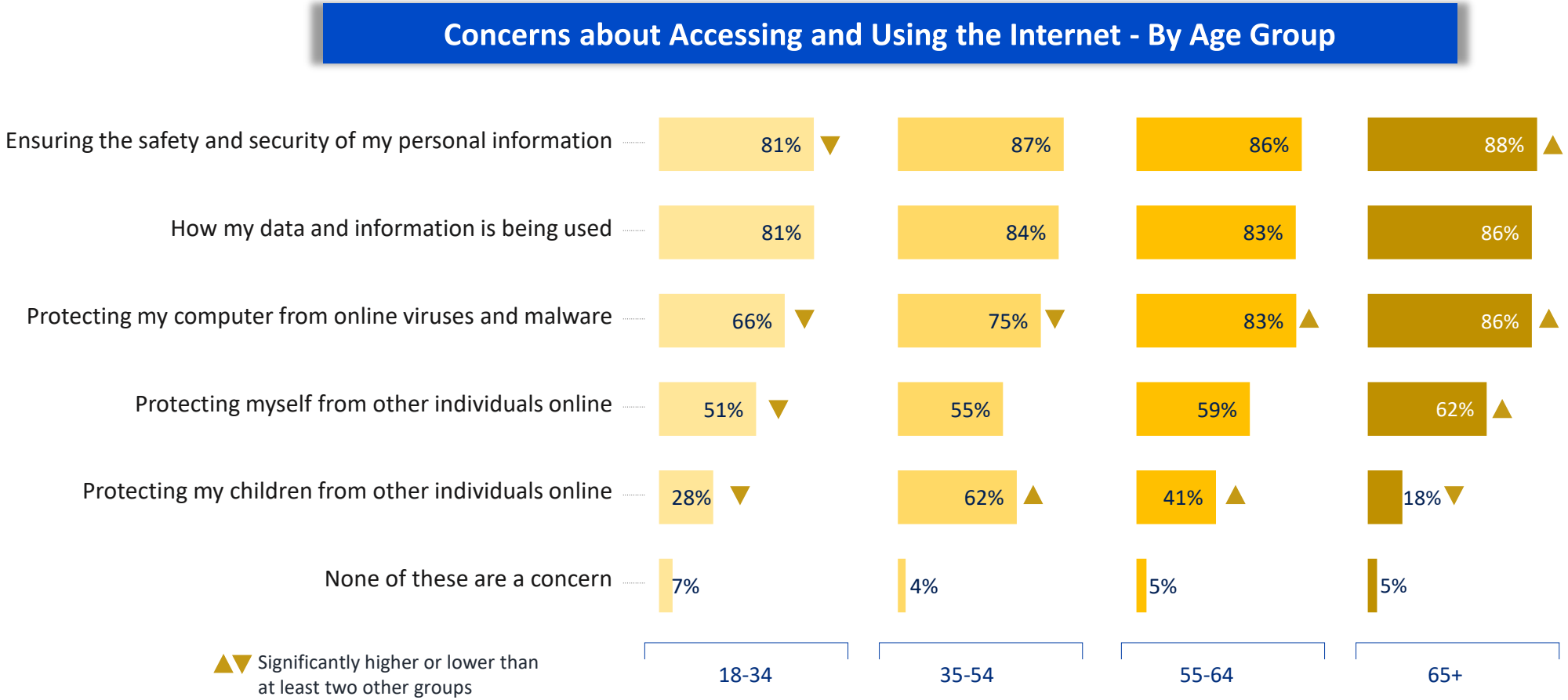


Residents living in lower income households are less likely to be concerned with how their personal information and data is being used, or with protecting their computer from viruses and malware. Residents living in higher income households are less likely to be concerned with protecting themselves from others online.



While the majority in all age groups express concerns about security of personal information, how their data is being used, and protecting themselves from online viruses, the youngest age cohort (18-34) are comparatively less concerned.

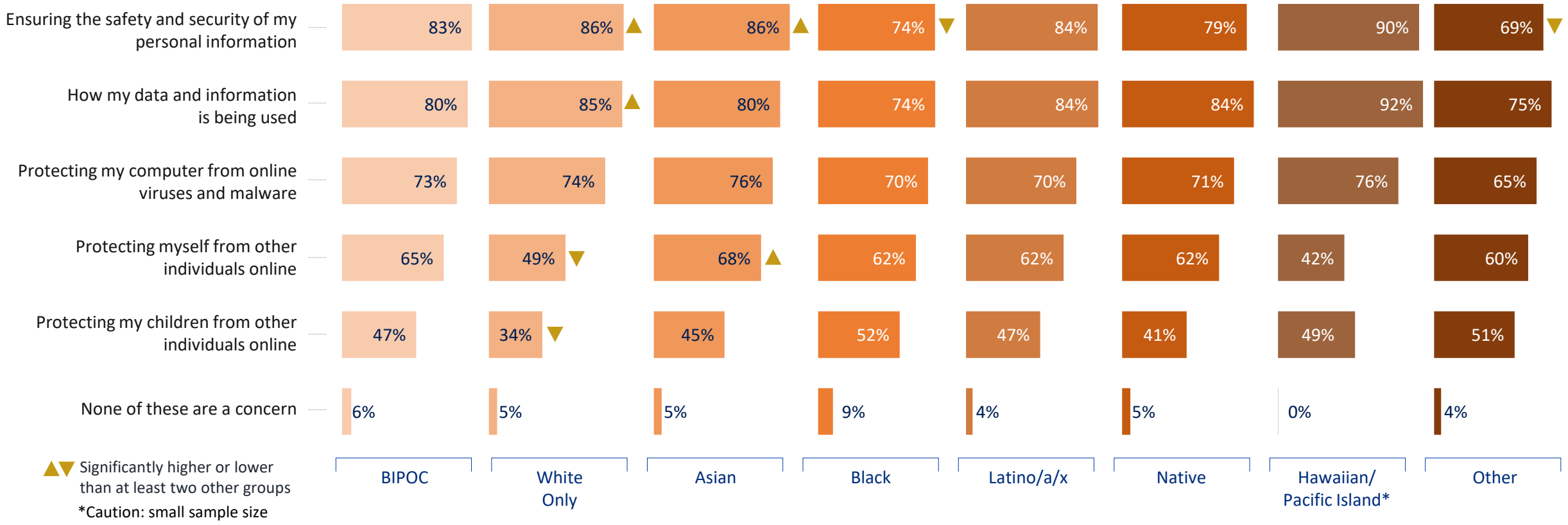
- Residents 35-54 of age are more likely than others to be concerned about protecting their children from others online.



Black residents are the least likely to have concerns about accessing and using the internet, while White and Asian residents are more likely to have concerns about data security and usage.

- Asian residents are concerned about protecting themselves from others online, while Black residents are more likely to be concerned about protecting their children from others.

Concerns about Accessing and Using the Internet - By Race/Ethnicity



▲▼ Significantly higher or lower than at least two other groups

*Caution: small sample size

Importance of Technology

Total and Impacted Group Summary	(pg. 131)
Council District Comparison	(pg. 132)
Income and Federal Poverty Level (FPL) Comparison	(pg. 133)
Age Group Comparison	(pg. 134)
Race/Ethnicity Comparison	(pg. 135)

Nine in ten (90%) residents consider technology and the internet to be extremely or very important to daily life.

Compared to the overall population, residents in households with children are significantly more likely to consider technology/internet to be extremely/very important to their daily lives:

	% Extremely or Very Important
Children in household	93% ▲
Native	92%
BIPOC	90%
Black	88%
Language other than English	84% ▼
Living with a Disability	83%
Low-Income (FPL <=150%)	79% ▼
Older Adult in Household (60+)	76% ▼

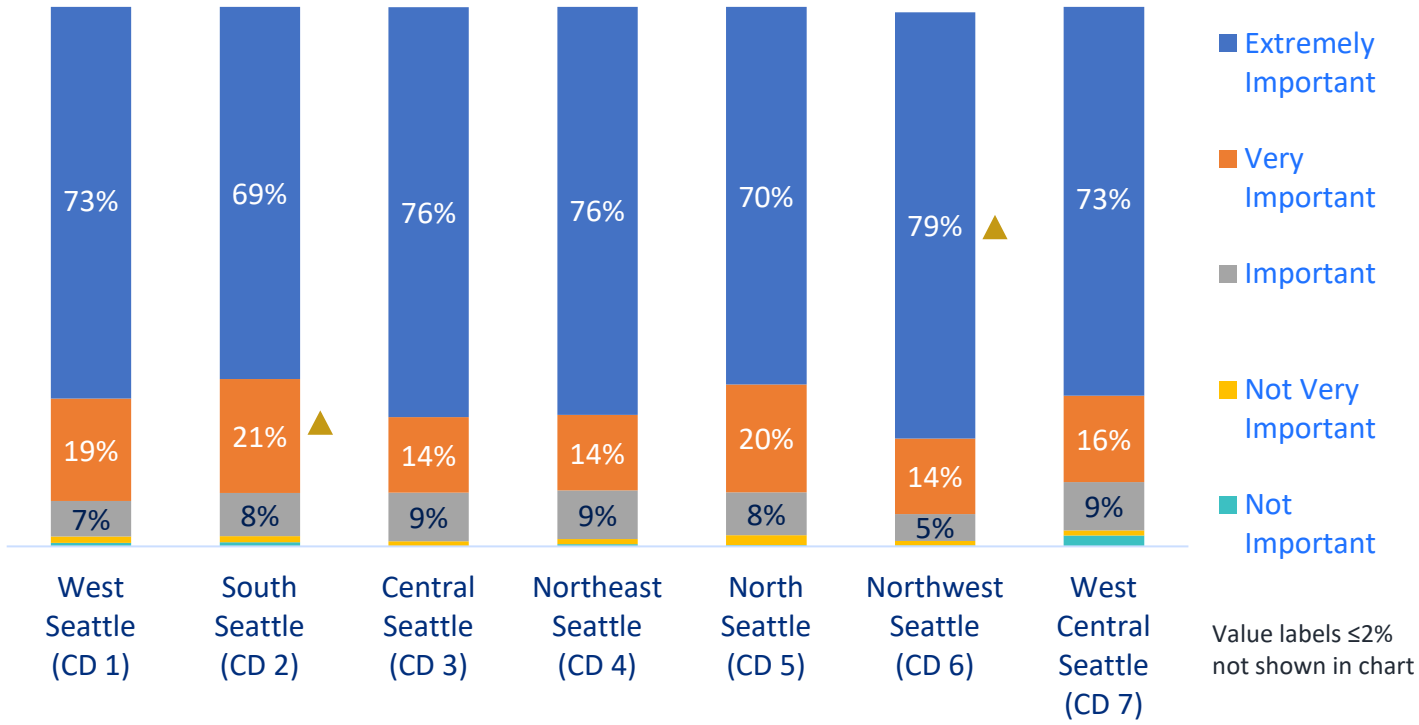
Residents living in a household at or below 150% of FPL, or speaking a language other than English, as well as older adults (60+) all lag behind the general population when it comes to the importance of technology to their daily lives.

▲▼ Significantly higher or lower than Seattle Total

Nine out of ten residents consider technology to be extremely or very important to their daily life.

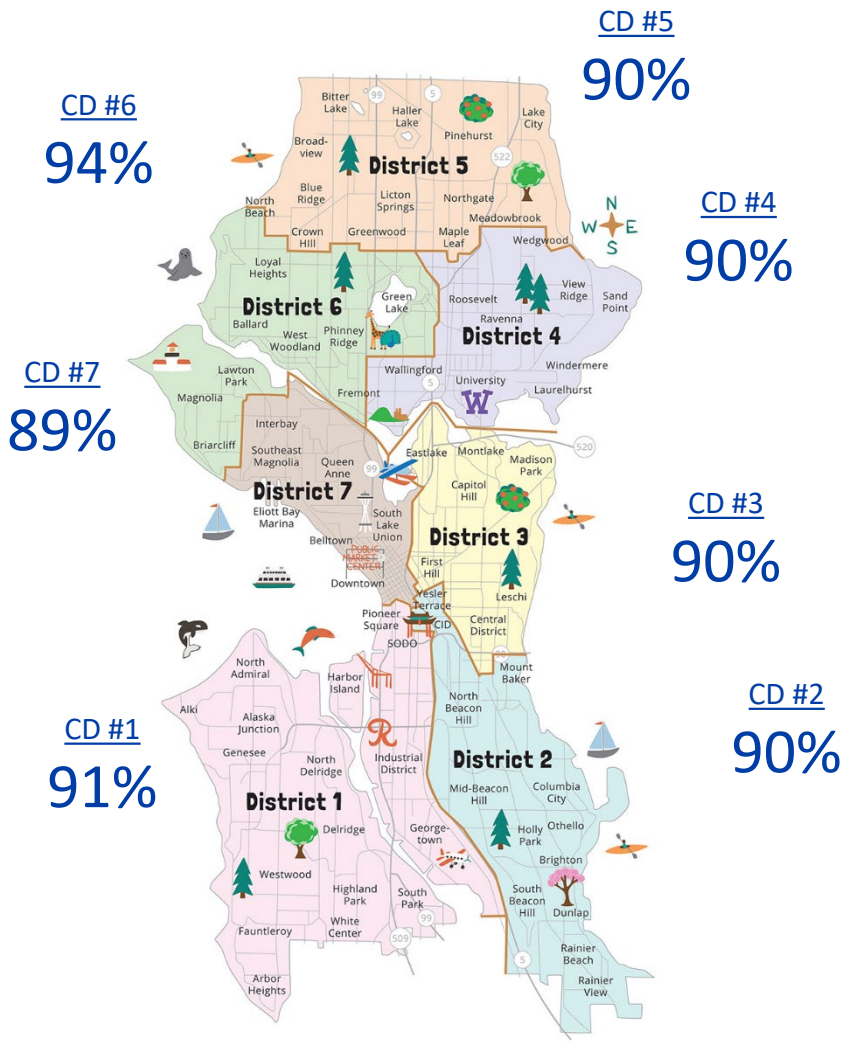
- Northwest Seattle residents (CD 6) are the most likely to consider technology extremely important to daily life. South Seattle residents (CD 2) are the least likely to consider technology extremely important to daily life.

Importance of Technology and Internet to Daily Life - By Council District (CD)



Value labels ≤2% not shown in chart

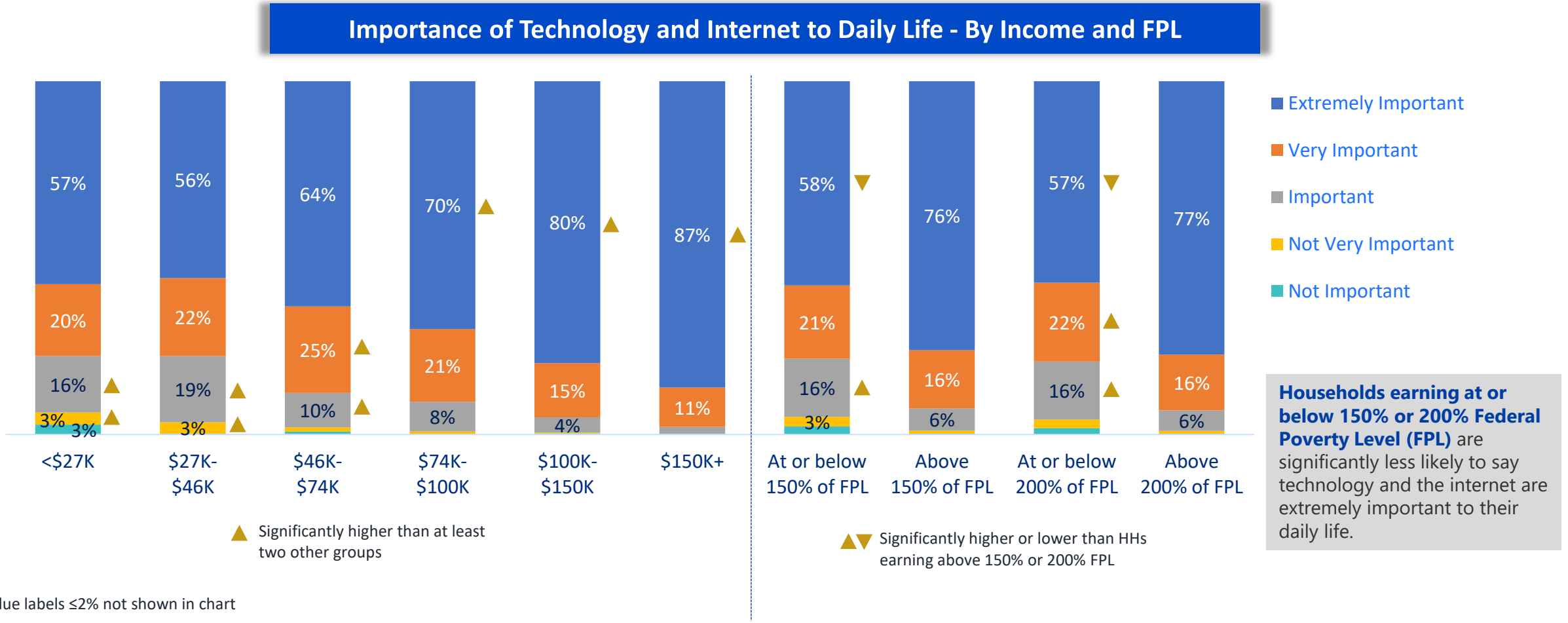
% Tech. and Internet Extremely or Very Important



▲▼ Significantly higher or lower than at least two other districts

Higher income residents are more likely to say that technology and internet are extremely important to their daily life.

- Individuals with household incomes less than $27,000 are more likely than any other group to rate technology and the internet as not important to their lives.

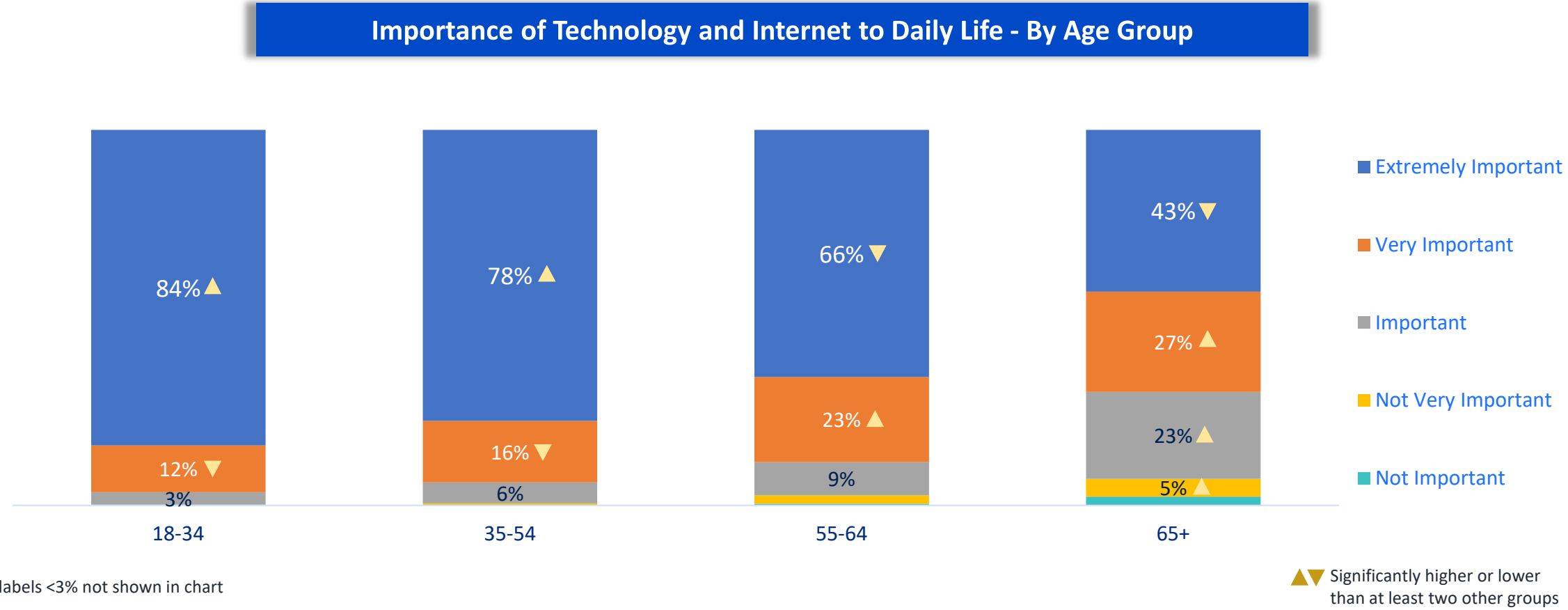


Households earning at or below 150% or 200% Federal Poverty Level (FPL) are significantly less likely to say technology and the internet are extremely important to their daily life.

Value labels ≤2% not shown in chart

Younger residents (ages 18-34) are more likely than any other age group to say that technology and the internet are extremely important to their daily life.

- Although the majority in each age range consider technology and the internet to be important, as age increases, they are less likely to consider it *extremely* important.

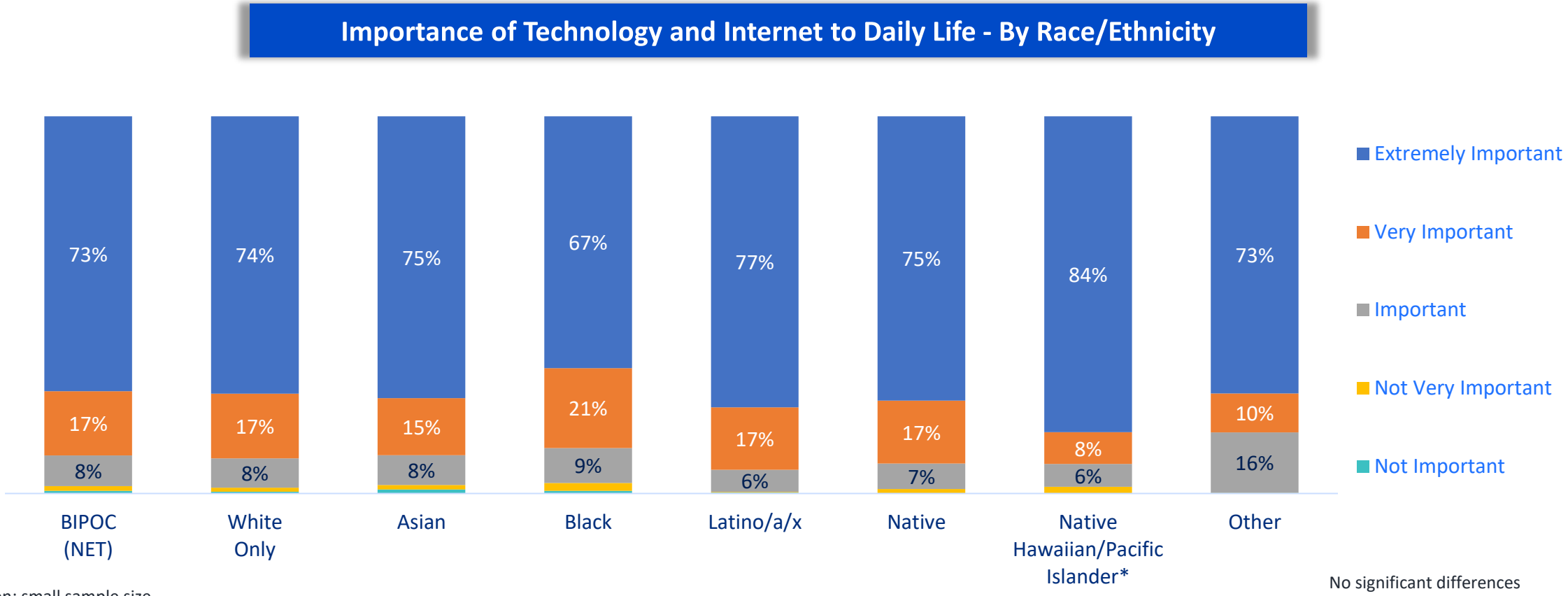


Value labels <3% not shown in chart

▲▼ Significantly higher or lower than at least two other groups

Across race/ethnic groups, Native Hawaiian/Pacific Islanders and Latino/a/x residents are the most likely to say that technology and the internet are extremely important to their daily life.

- Although most Black residents believe technology and the internet is important to their daily lives, they are less likely to rate it as *extremely* important.



*Caution: small sample size

Value labels ≤2% not shown in chart

No significant differences between groups

Impact of Technology on Society

Total and Impacted Group Summary	(pg. 137)
Council District Comparison	(pg. 138)
Income and Federal Poverty Level (FPL) Comparison	(pg. 139)
Age Group Comparison	(pg. 140)
Race/Ethnicity Comparison	(pg. 141)

Residents generally believe that internet and technology is both beneficial and harmful for society.

Among the focused population groups, those with a primary language other than English, living at or below 150% of FPL, and BIPOC exceed the general population when it comes to believing the effect of internet/ technology is totally or mostly beneficial and positive:

· Language other than English	50% ▲	**% Totally or Mostly Beneficial**
· Low-Income (FPL <=150%)	42% ▲	
· Living with a Disability	41%	
· BIPOC	40% ▲	
· Black	39%	
· Children in Household	34%	
· Older Adult in Household (60+)	32%	
· Native	30%	

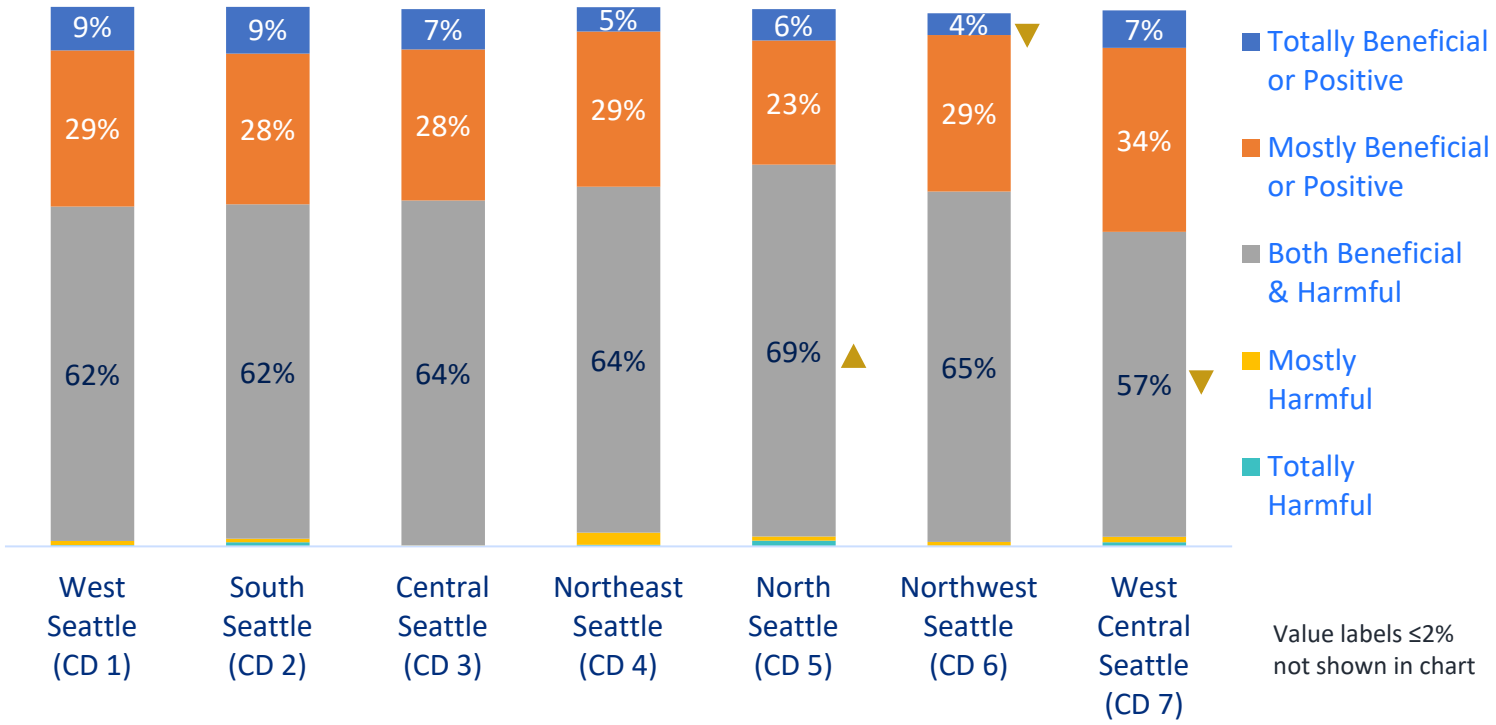
Residents with children in the household, older adults (60+), and Native Americans are on par with the general population as it pertains to the impact of the internet and technology on society.

▲▼ Significantly higher or lower than Seattle Total

Across all Council Districts, residents believe the effect of the internet and technology on society is both beneficial and harmful.

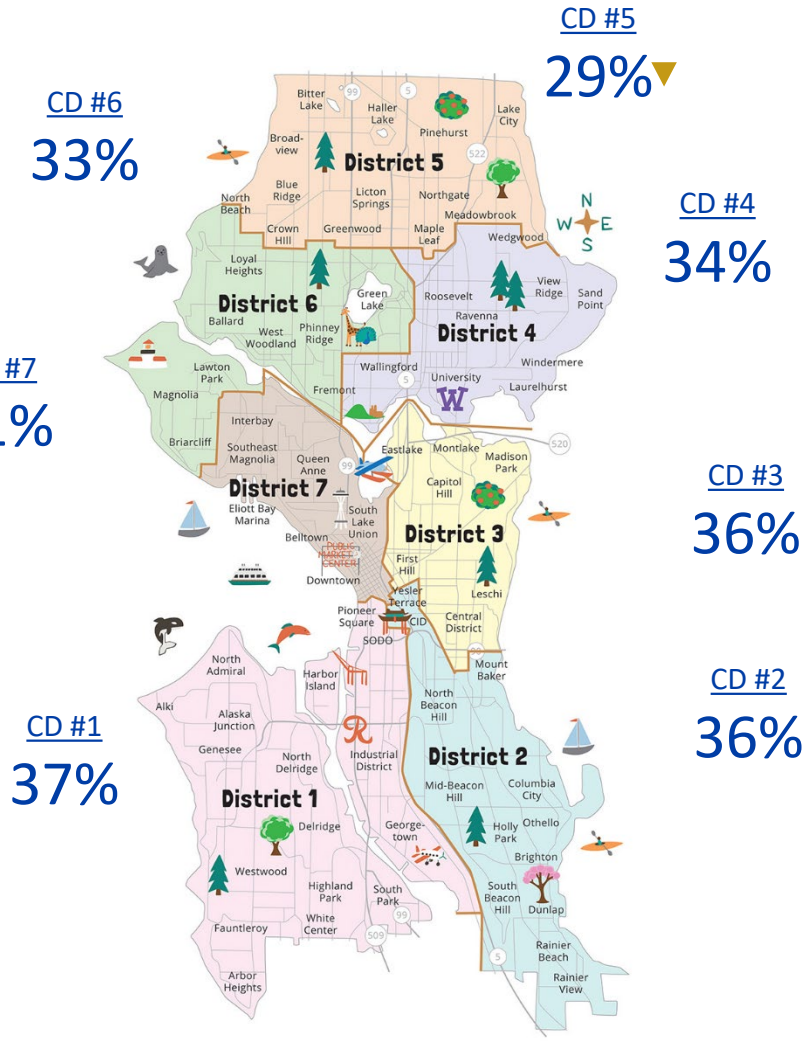
- West Central Seattle (CD 7) stands apart by having more residents who consider the effect of the internet and technology on society to be totally/mostly beneficial or positive.

Impact of Internet and Technology on Society - By Council District (CD)



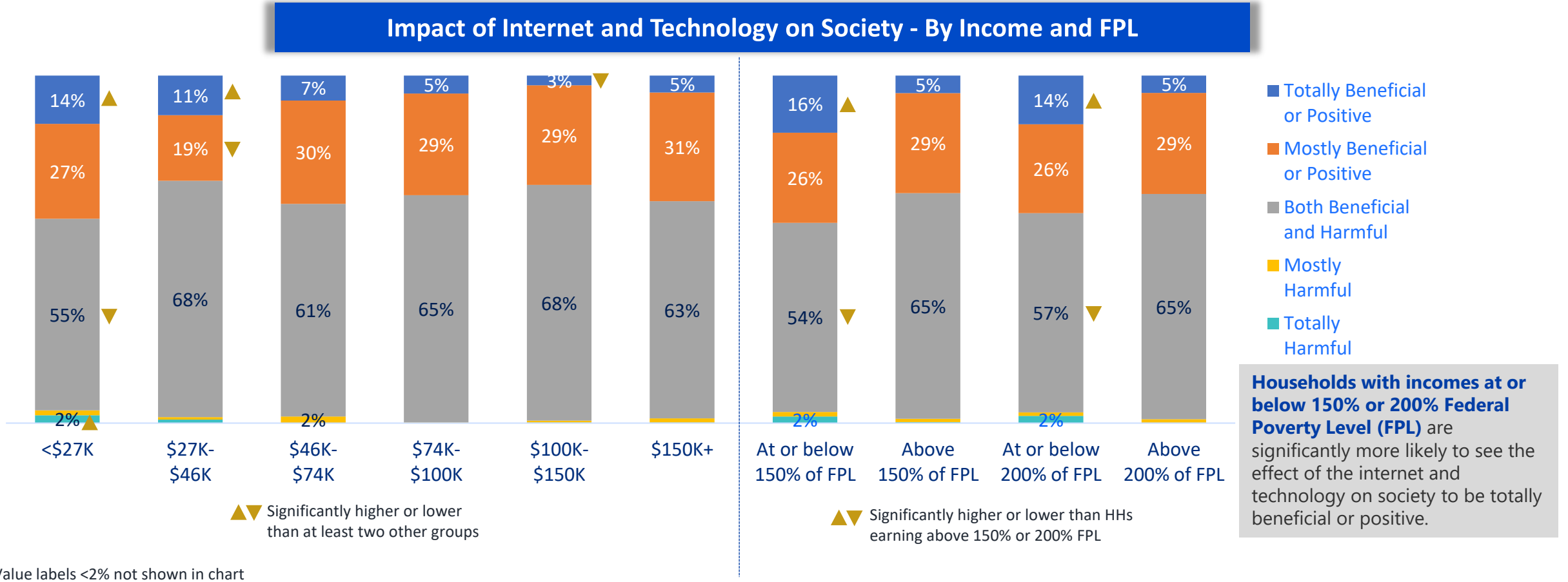
Value labels ≤2% not shown in chart

% Totally or Mostly Beneficial Impact of Tech.



▲▼ Significantly higher or lower than at least two other districts

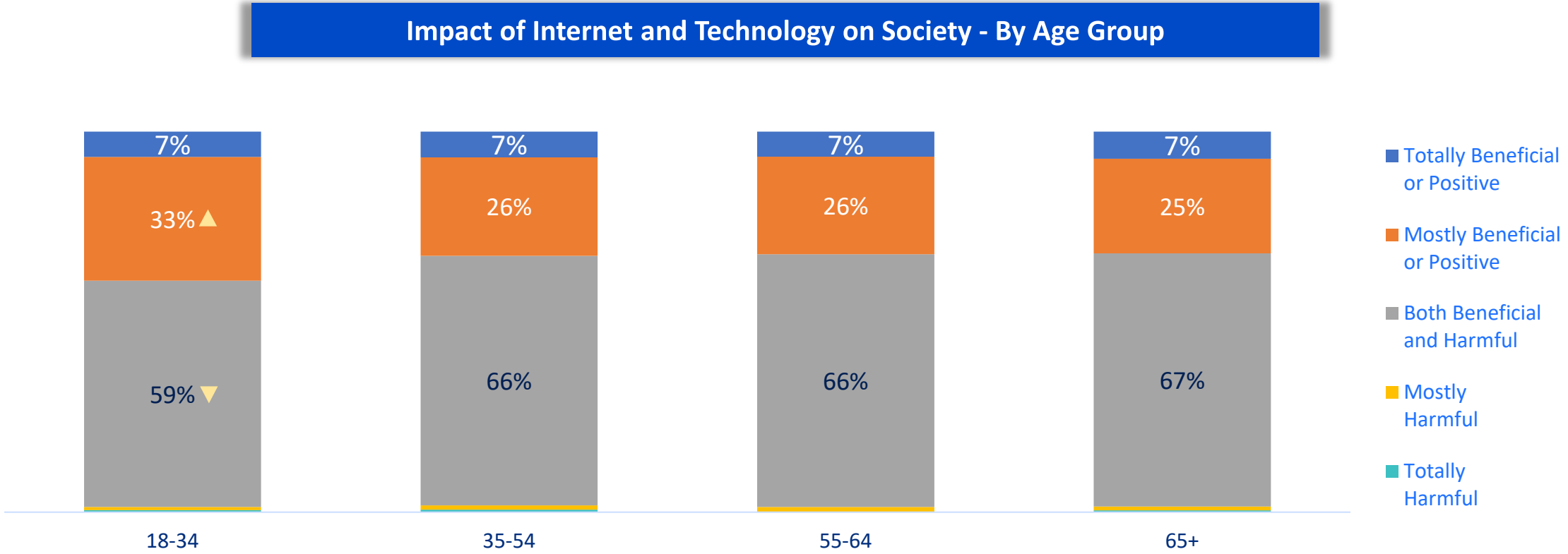
While most residents, regardless of income, see the effect of the internet and technology on society to be both beneficial and harmful, those at the lower end of the income spectrum are more likely than others to feel the impact is “totally beneficial or positive.”



Households with incomes at or below 150% or 200% Federal Poverty Level (FPL) are significantly more likely to see the effect of the internet and technology on society to be totally beneficial or positive.

Value labels <2% not shown in chart

Those 35 and older are more inclined to see the effect of the internet and technology on society as both beneficial and harmful, while younger residents are more likely to see the effect as more beneficial.

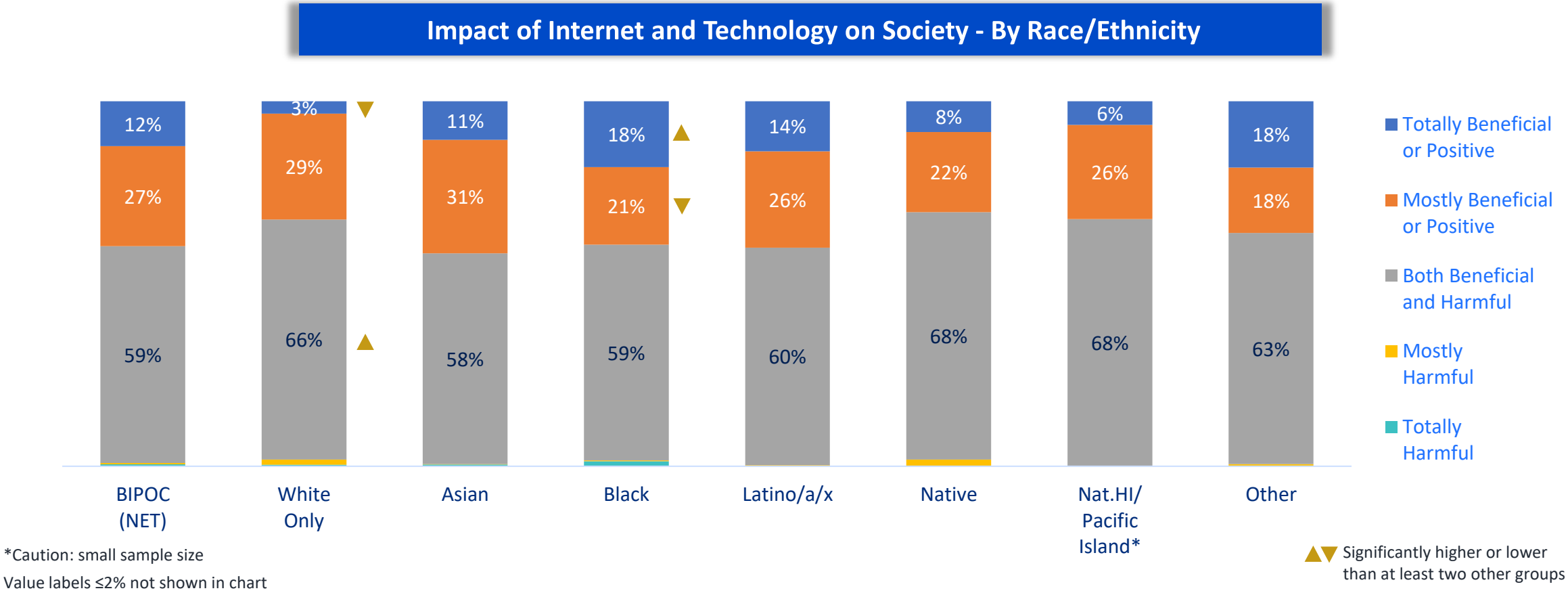


Value labels ≤2% not shown in chart

▲▼ Significantly higher or lower than at least two other groups

BIPOC residents, especially Asian and Latino/a/x residents, are more likely to see the effect of the internet and technology on society as positive, while White residents are more likely to see the effect as "both beneficial and harmful."

- Natives and Native Hawaiians/Pacific Islanders* are also more inclined to see the effect on society as mixed, while Asian residents are split between considering the effect beneficial or both beneficial and harmful.



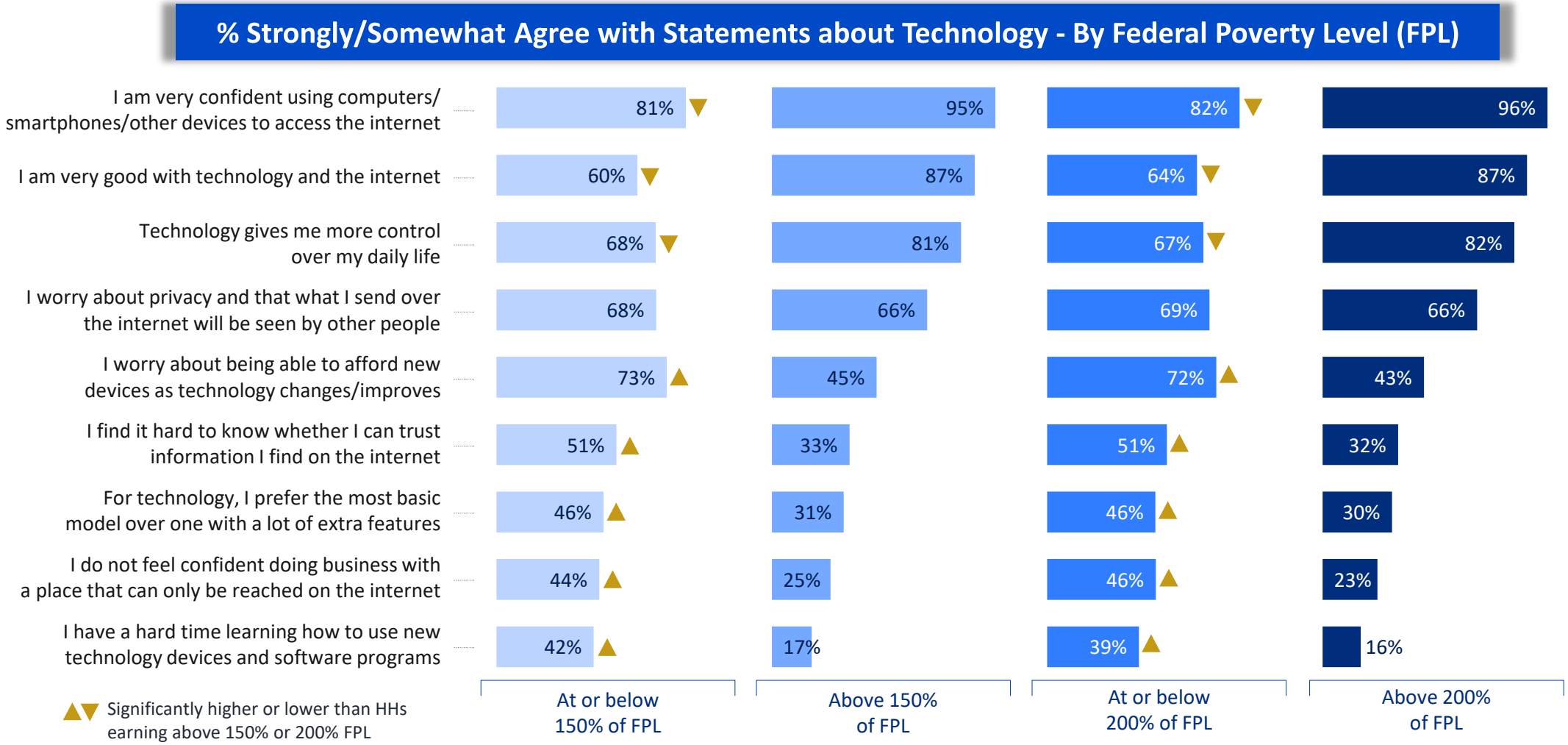
*Caution: small sample size

Value labels ≤2% not shown in chart

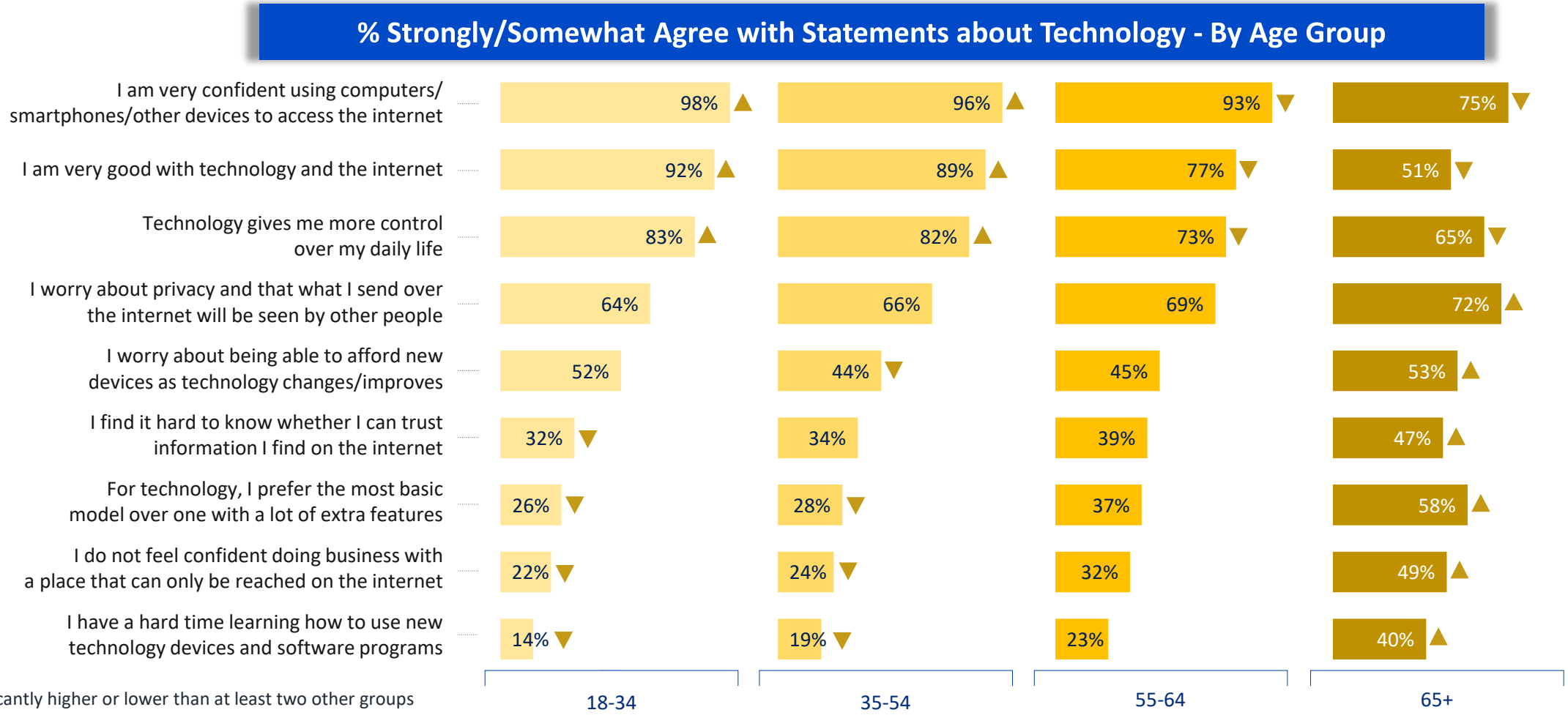
Technology Attitudes and Perceptions

Federal Poverty Level (FPL) Comparison	(pg. 143)
Age Group Comparison	(pg. 144)
Race/Ethnicity Comparison	(pg. 145)
Language Comparison	(pg. 146)
Household Composition Comparison	(pg. 147)

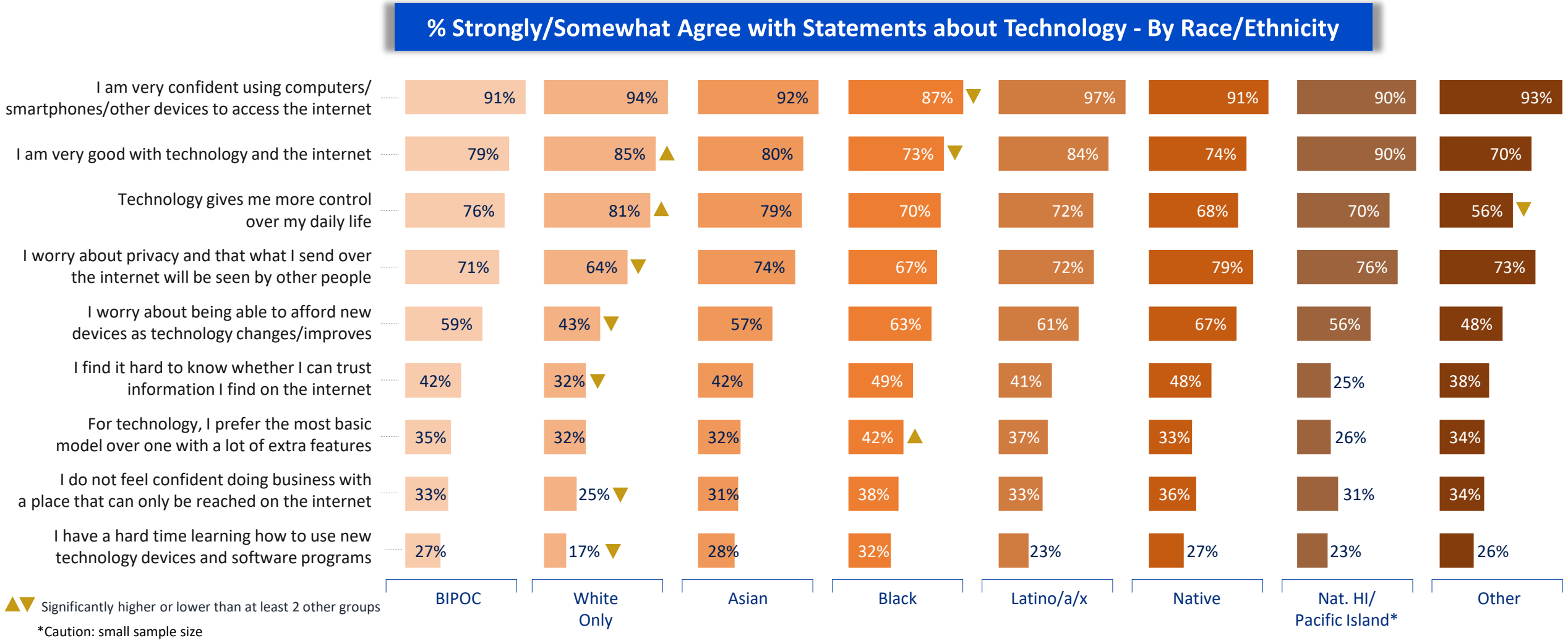
Households earning at or below 150% or 200% Federal Poverty Level (FPL) are significantly less likely to be confident in using technology devices and the internet and less likely to feel that technology gives them more control over their daily life.



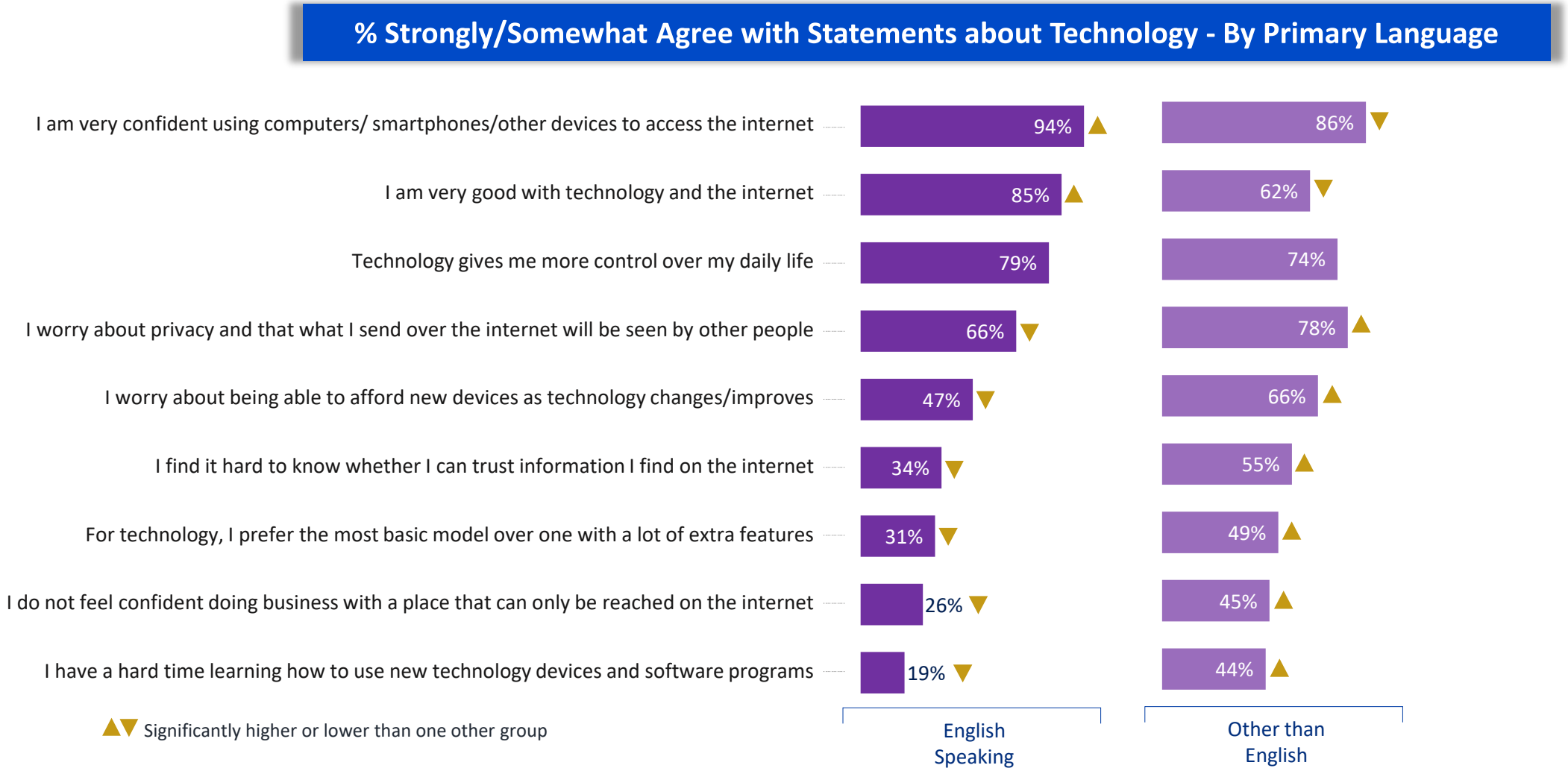
Younger residents are more likely to be confident and proficient with technology and report that it gives them more control over their daily lives. They are also less likely to worry about online privacy and trust, less likely to prefer simplicity, less likely not to feel confident about doing business online, and less likely to worry about their ability to use new technology. The opposite (except with regard to affordability) applies to older residents.



White and Asian residents are more likely to state that technology gives them more control in their daily lives, while Black residents are more likely to worry about their ability to use new technology and prefer devices with basic features.

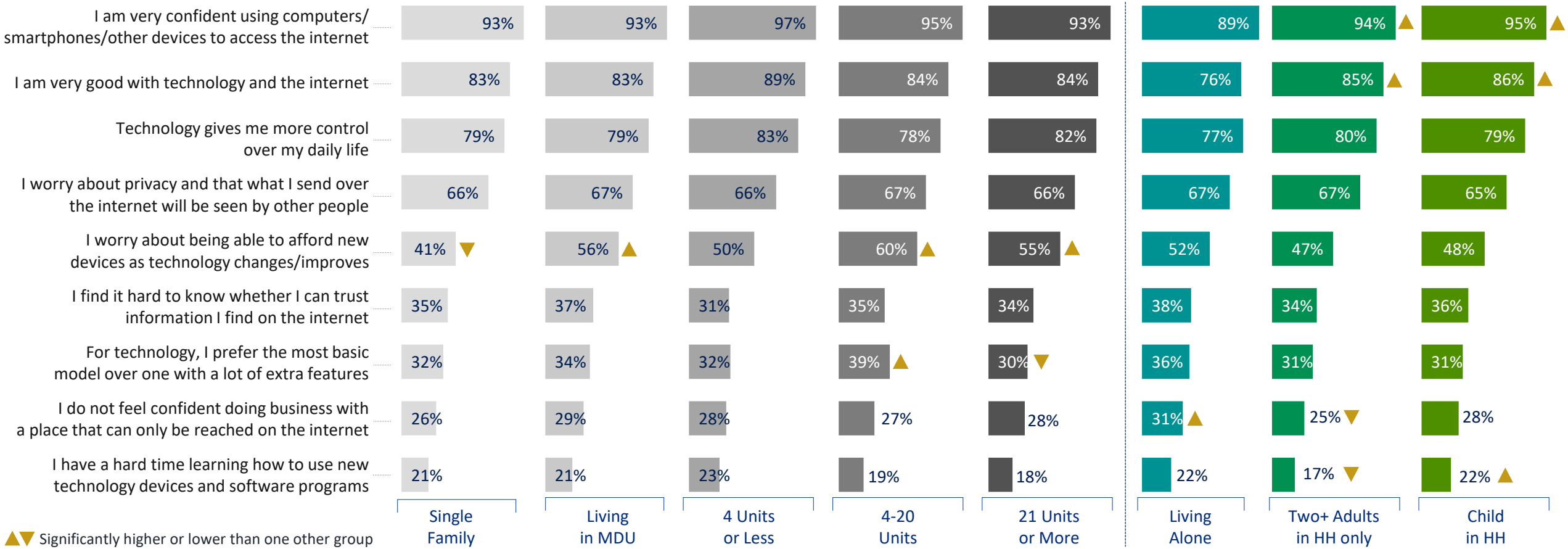


Households that speak English as their primary language are more likely to be confident with technology and more likely to state that it gives them more control over their daily lives.



The majority of residents report being very confident in using technology devices and the internet, regardless of their housing situation. Of note, households with two or more adults and households with children are significantly more likely than those living alone to feel that way.

% Strongly/Somewhat Agree with Statements about Technology - By Housing Size/Situation



Civic Engagement

Visit City of Seattle Website	(pgs. 149-154)
Community Group Participation	(pgs. 155-160)
Communication Preferences	(pgs. 161-165)

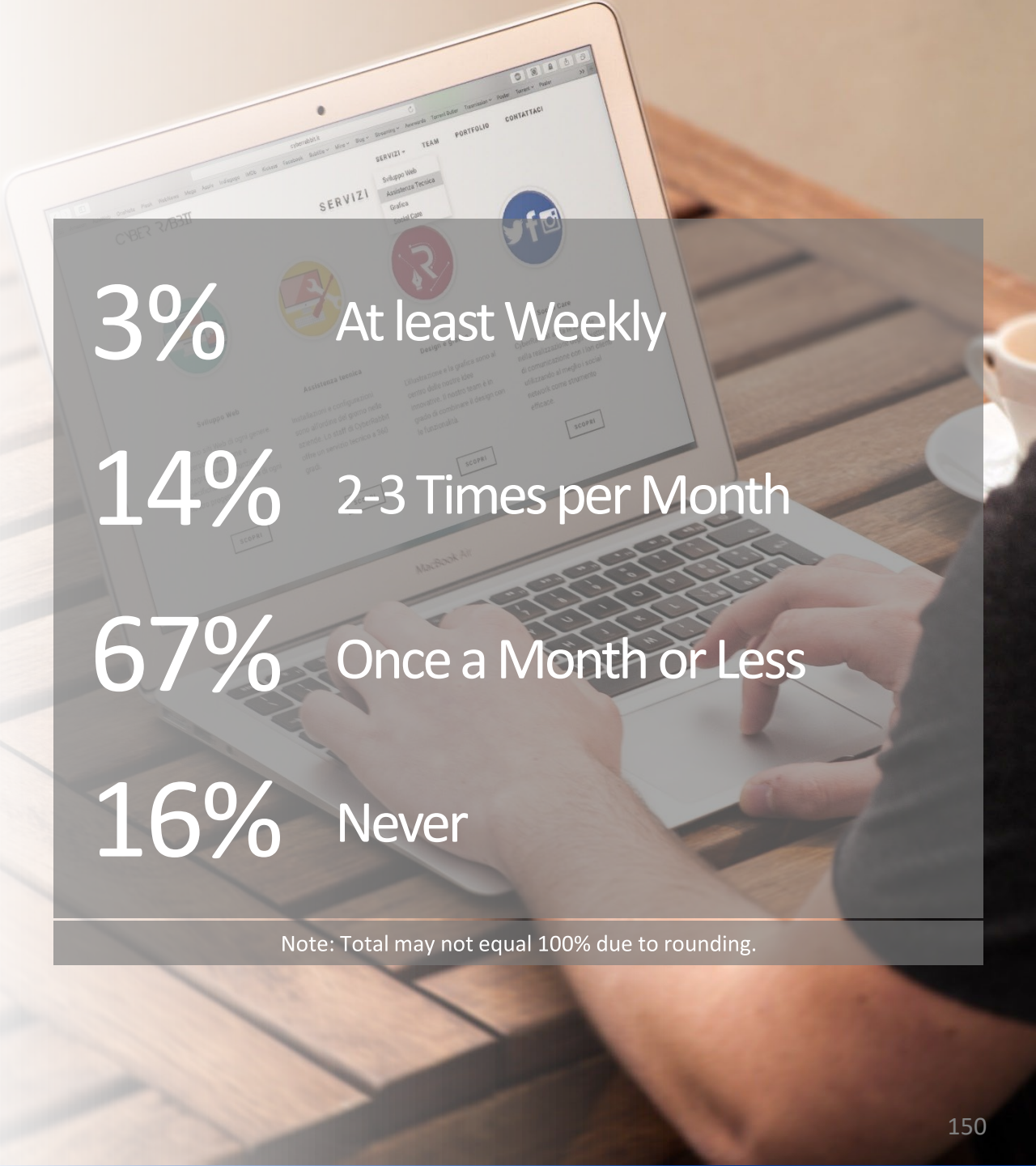
City of Seattle Website

Total and Impacted Group Summary	(pg. 150)
Council District Comparison	(pg. 151)
Income and Federal Poverty Level (FPL) Comparison	(pg. 152)
Age Group Comparison	(pg. 153)
Race/Ethnicity Comparison	(pg. 154)

84% of the population visits Seattle.gov and 17% visits multiple times per month.

Most focused population groups lag behind the overall population when it comes to visiting Seattle.gov. Most notably are those with older adults in the household, those living with a disability, speaking a language other than English, and living in a household at or below 150% FPL:

	% Ever Visit
· Children in Household	89% ▲
· Native	83%
· BIPOC	81%
· Black	78%
· Older Adult in Household (60+)	78% ▼
· Language other than English	76% ▼
· Living with a Disability	76% ▼
· Low-Income (FPL <=150%)	72% ▼



3% At least Weekly

14% 2-3 Times per Month

67% Once a Month or Less

16% Never

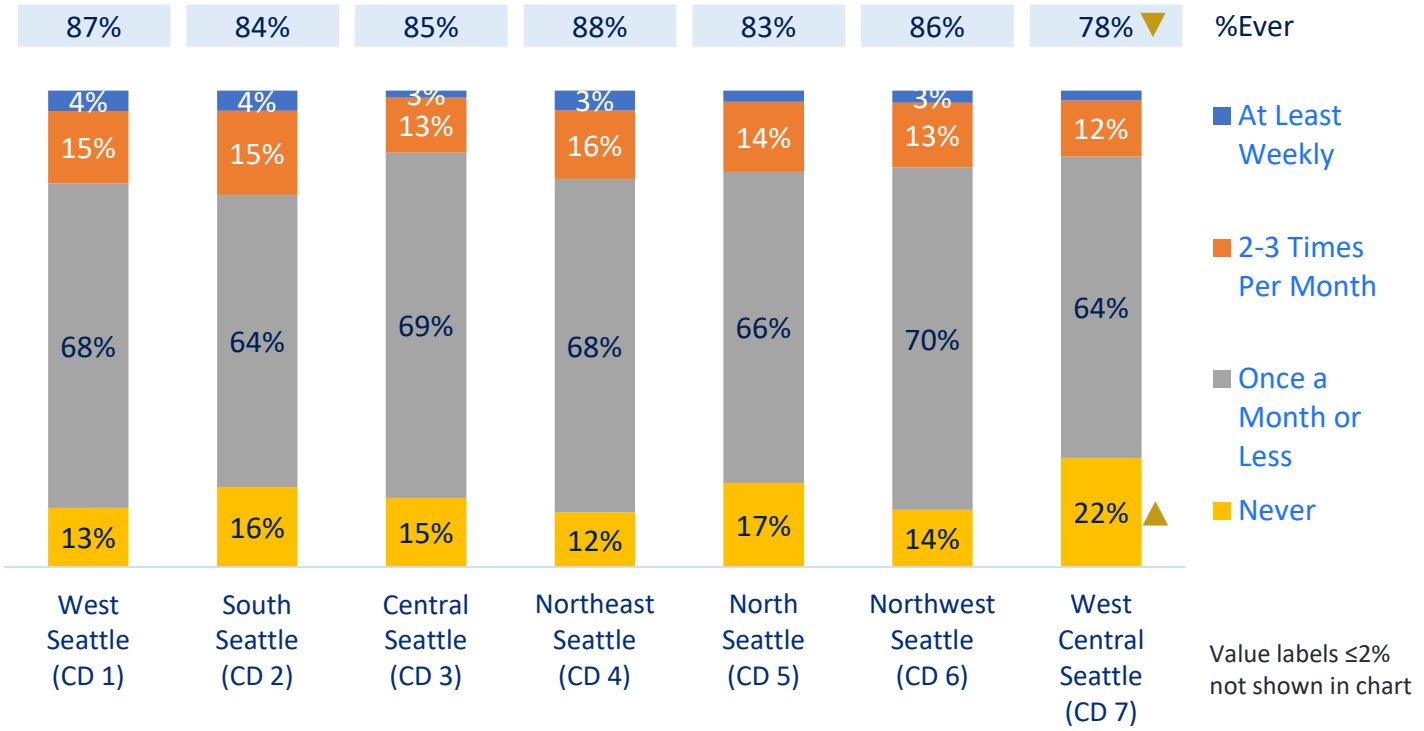
Note: Total may not equal 100% due to rounding.

▲▼ Significantly higher or lower than Seattle Total

Most (84%) residents have visited Seattle.gov; but few visit more often than once a month, if that often.

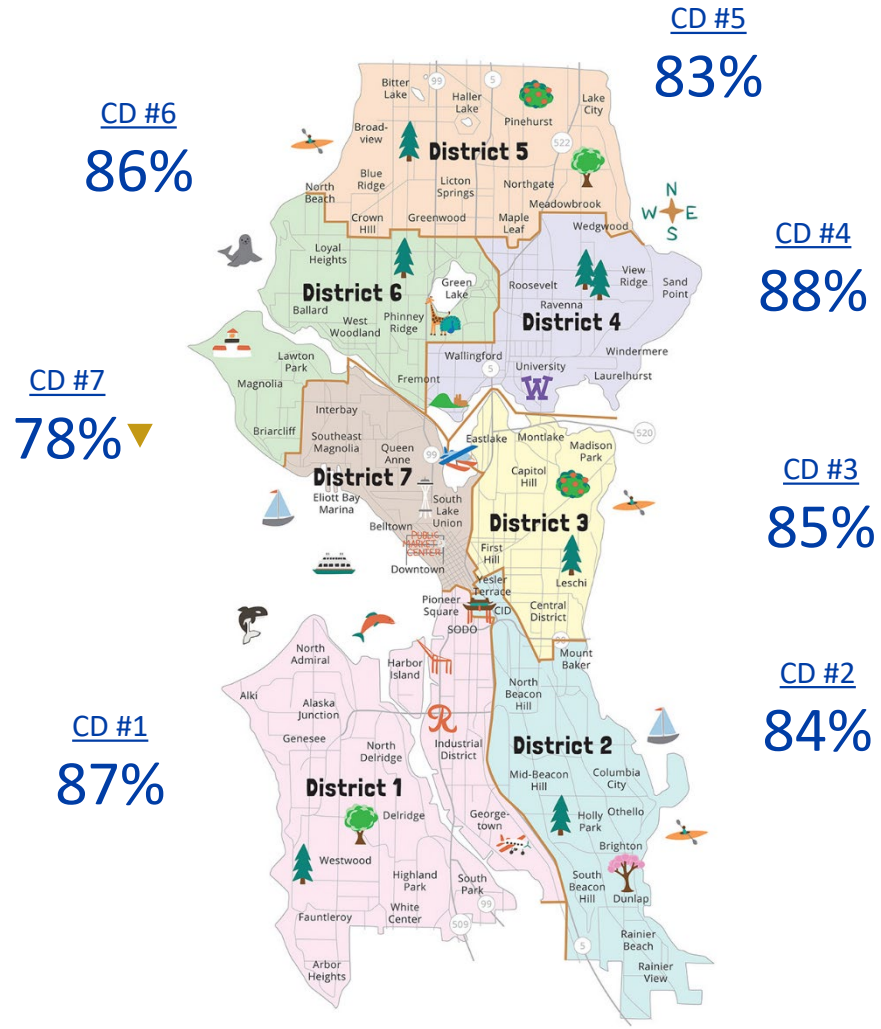
- Northeast Seattle (CD4), West Seattle (CD1), and Northwest Seattle (CD6) are the most likely residents to have visited, West Central Seattle (CD7) is the least.

Frequency of Visiting the City of Seattle website (Seattle.gov) - by Council District (CD)



Value labels ≤2% not shown in chart

% Ever Visited Seattle.gov

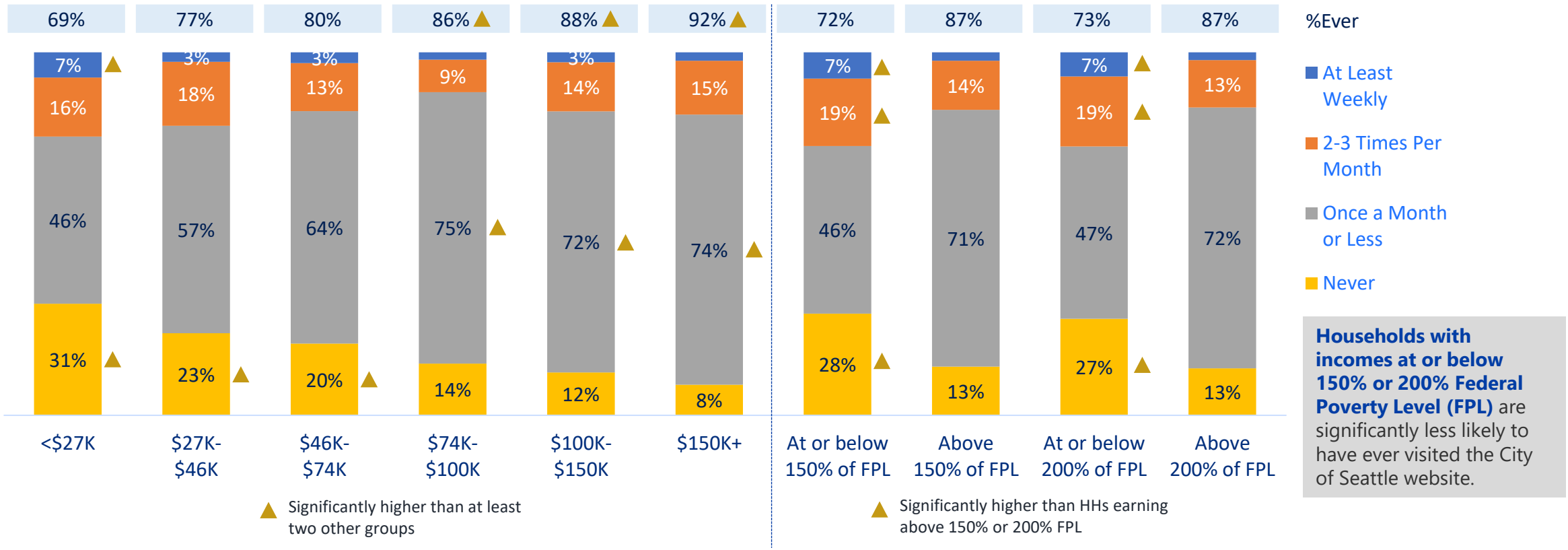


▲▼ Significantly higher or lower than at least two other districts

As income rises, residents are more likely to have visited the City of Seattle website.

- Three out of ten residents living in households with incomes under <$27K have never visited Seattle.gov. However, those that do visit, do so twice a month or more often.

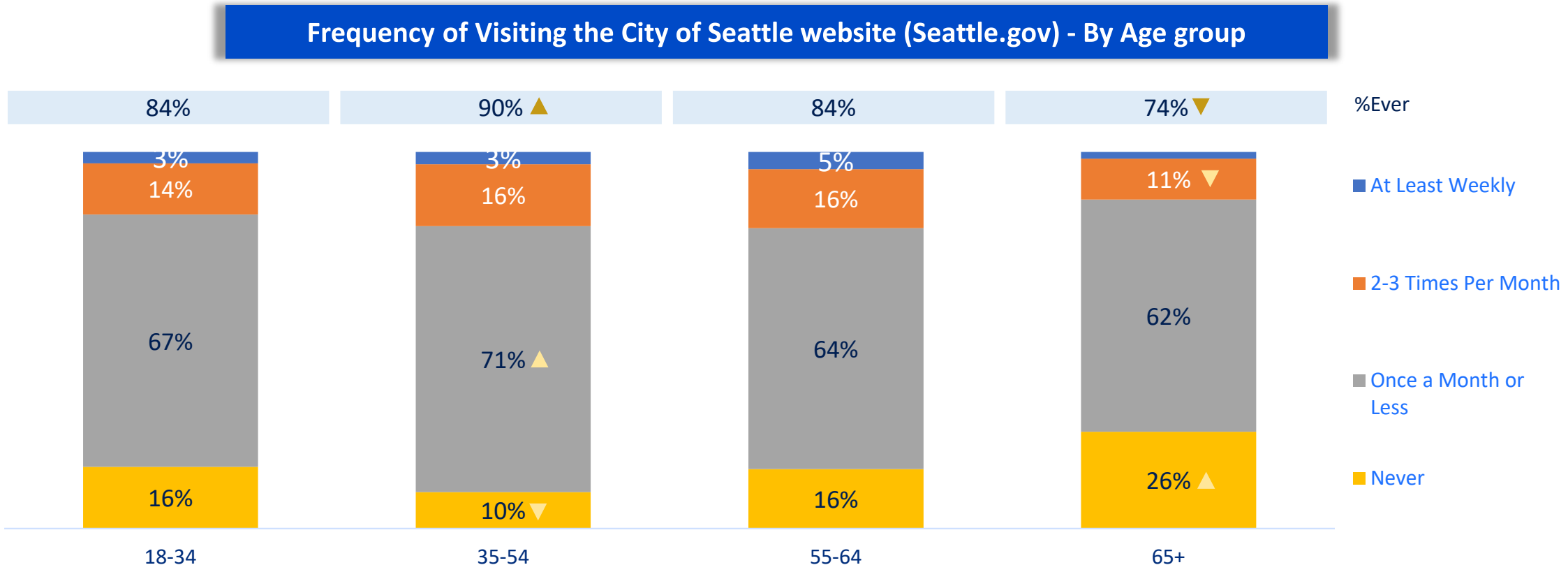
Frequency of Visiting the City of Seattle website (Seattle.gov) - By Federal Poverty Level (FPL)



Households with incomes at or below 150% or 200% Federal Poverty Level (FPL) are significantly less likely to have ever visited the City of Seattle website.

Value labels ≤2% not shown in chart

The middle age cohort (35-54 years) is more likely to have visited Seattle.gov, while those in the oldest age cohort (65 plus years) is more likely to never visit the City of Seattle website.

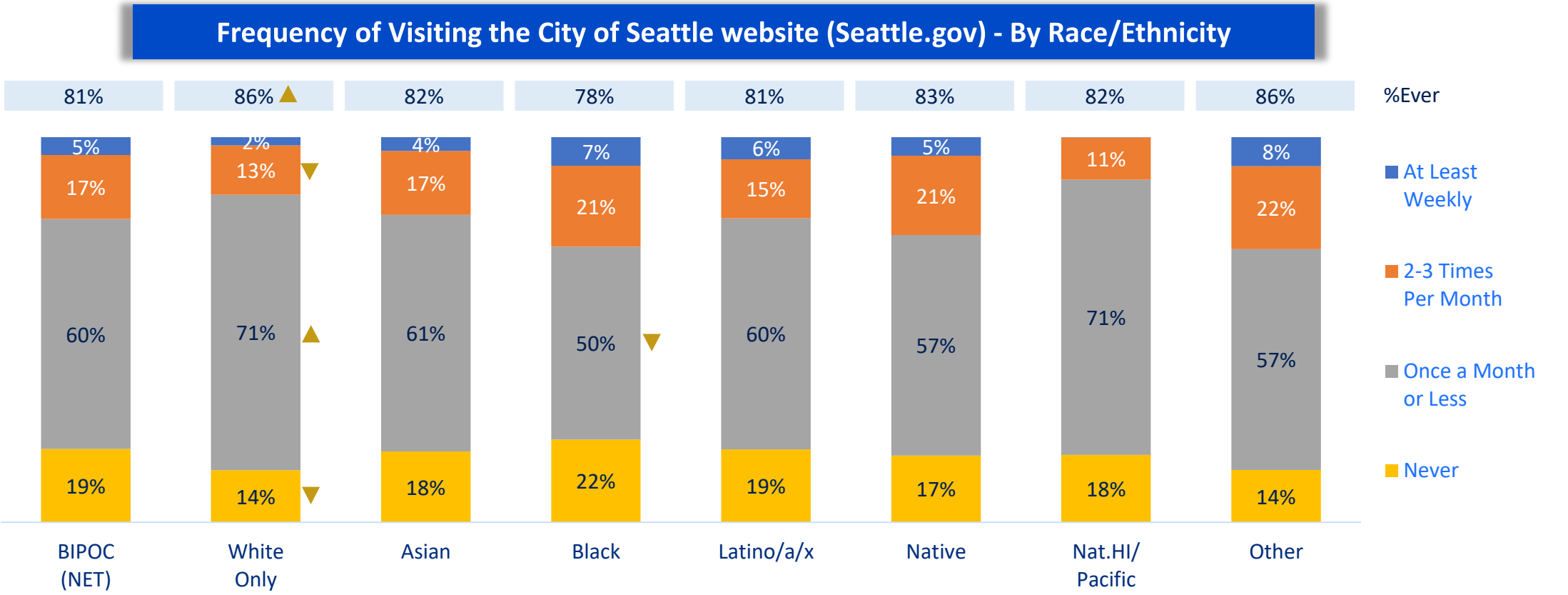


Value labels ≤2% not shown in chart

▲▼ Significantly higher or lower than at least two other groups

White and Other-race residents are the most likely to have ever visited the City of Seattle website, while Black residents are the least likely to have done so.

- On the other hand, Black residents who do visit the City of Seattle website are more likely to do so frequently (multiple times per month).



*Caution: small sample size

Value labels <2% not shown in chart

▲▼ Significantly higher or lower than at least two other groups

Community Group Participation

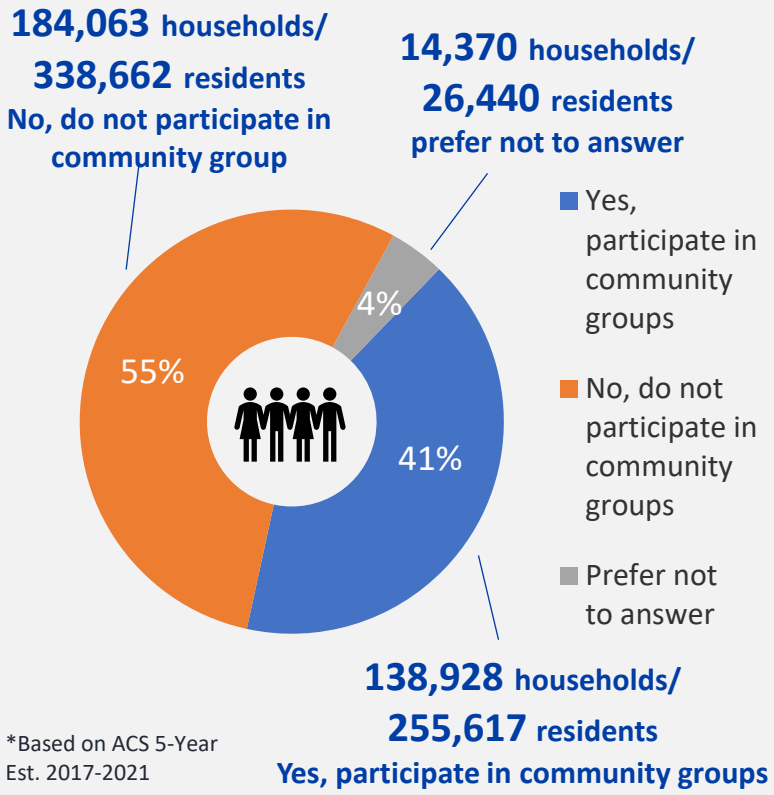
Total and Impacted Group Comparison	(pg. 156)
Council District Comparison	(pg. 157)
Income and Federal Poverty Level (FPL) Comparison	(pg. 158)
Age Group Comparison	(pg. 159)
Race/Ethnicity Comparison	(pg. 160)

Two in five (41%) Seattle residents participate in any type of community groups.

- Households with children are more likely than <u>all</u> other groups to participate in community groups. Conversely, BIPOC residents are less likely than <u>all</u> others to do so.

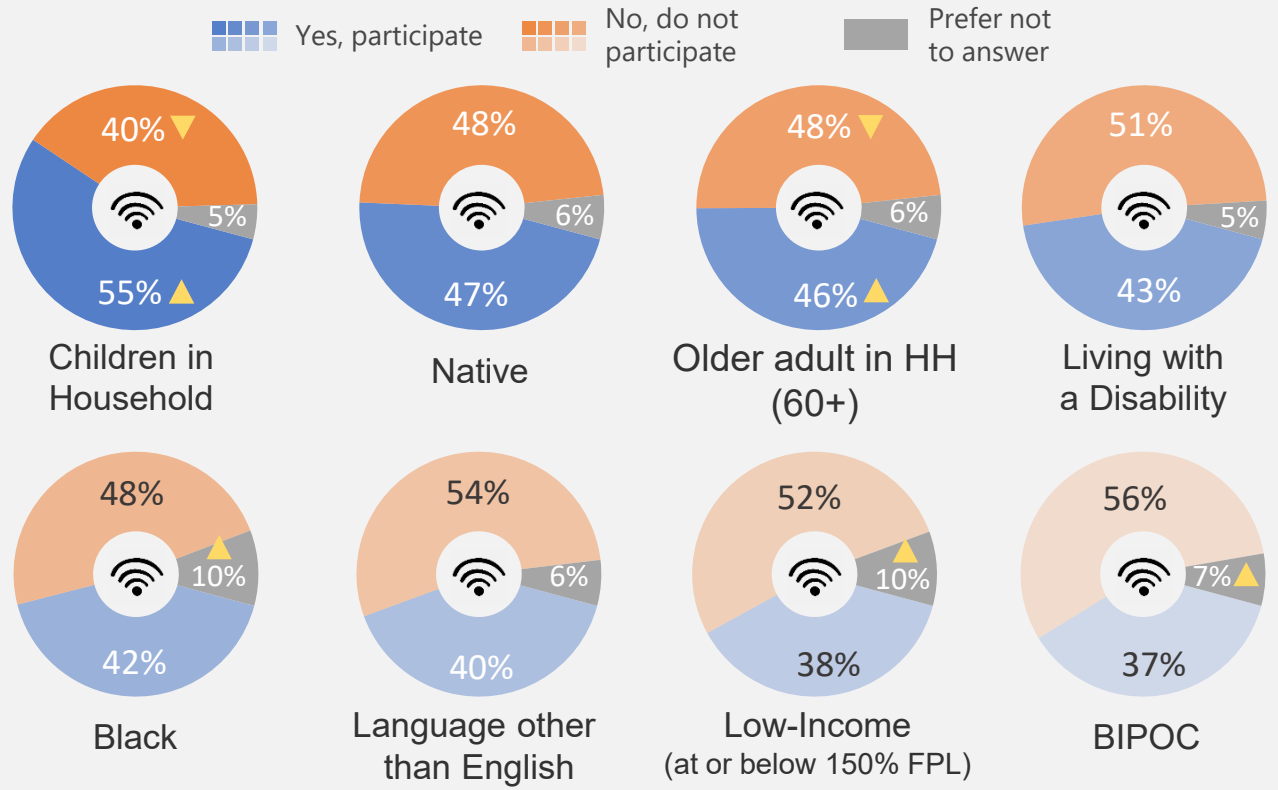
Participation in Community Groups

Seattle General Population*



*Based on ACS 5-Year Est. 2017-2021

Community Group Participation- By Impacted Groups

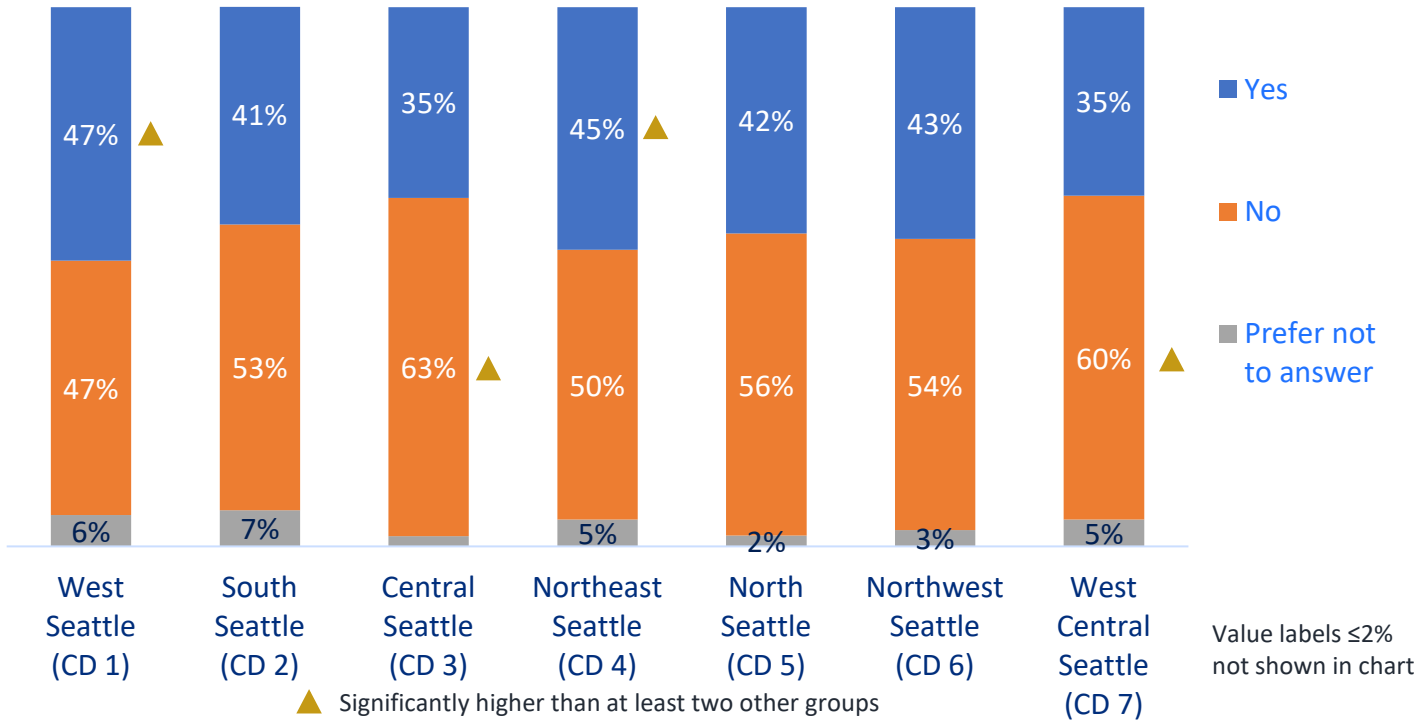


▲▼ Significantly higher or lower than Seattle Total

At least one third of residents across all Council Districts participate in a community group, such as a neighborhood association, block watch, school, religious group, or other.

- West Seattle (CD1) residents are significantly more likely to participate in community groups, while Central Seattle (CD3) and West Central Seattle residents (CD7) are the least likely to do so.

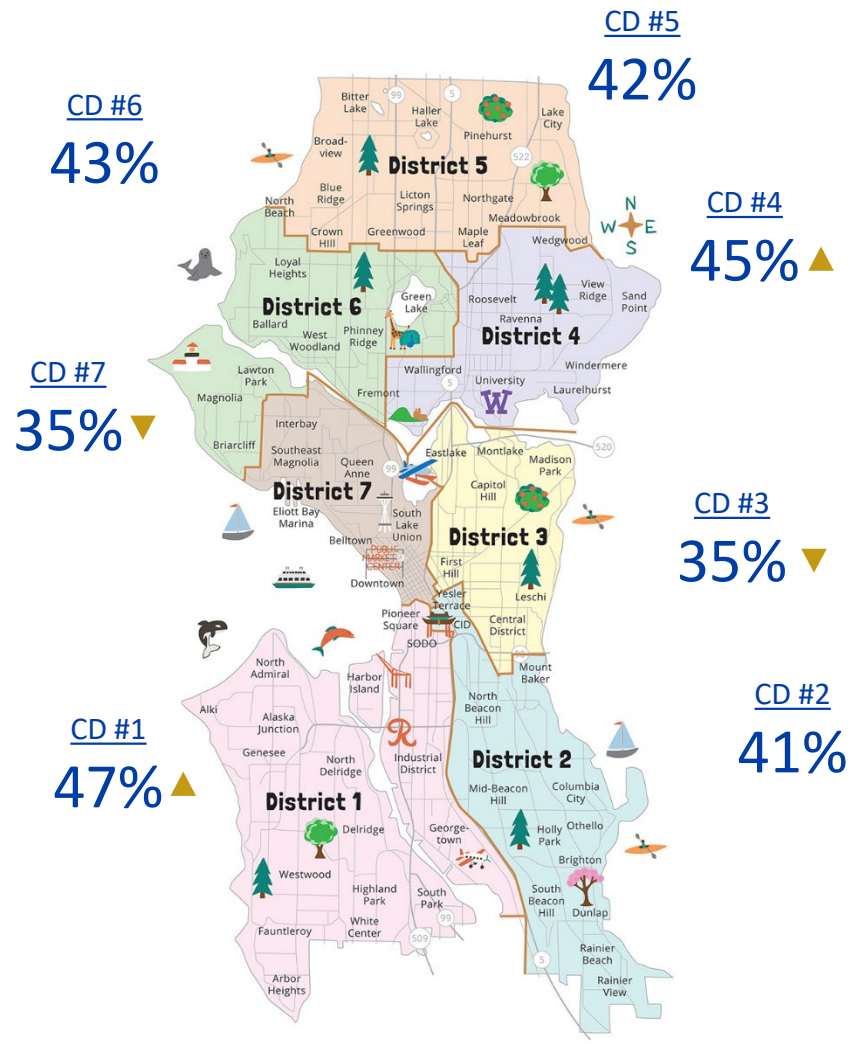
Participation in Community Groups - By Council District (CD)



▲ Significantly higher than at least two other groups

Value labels ≤2% not shown in chart

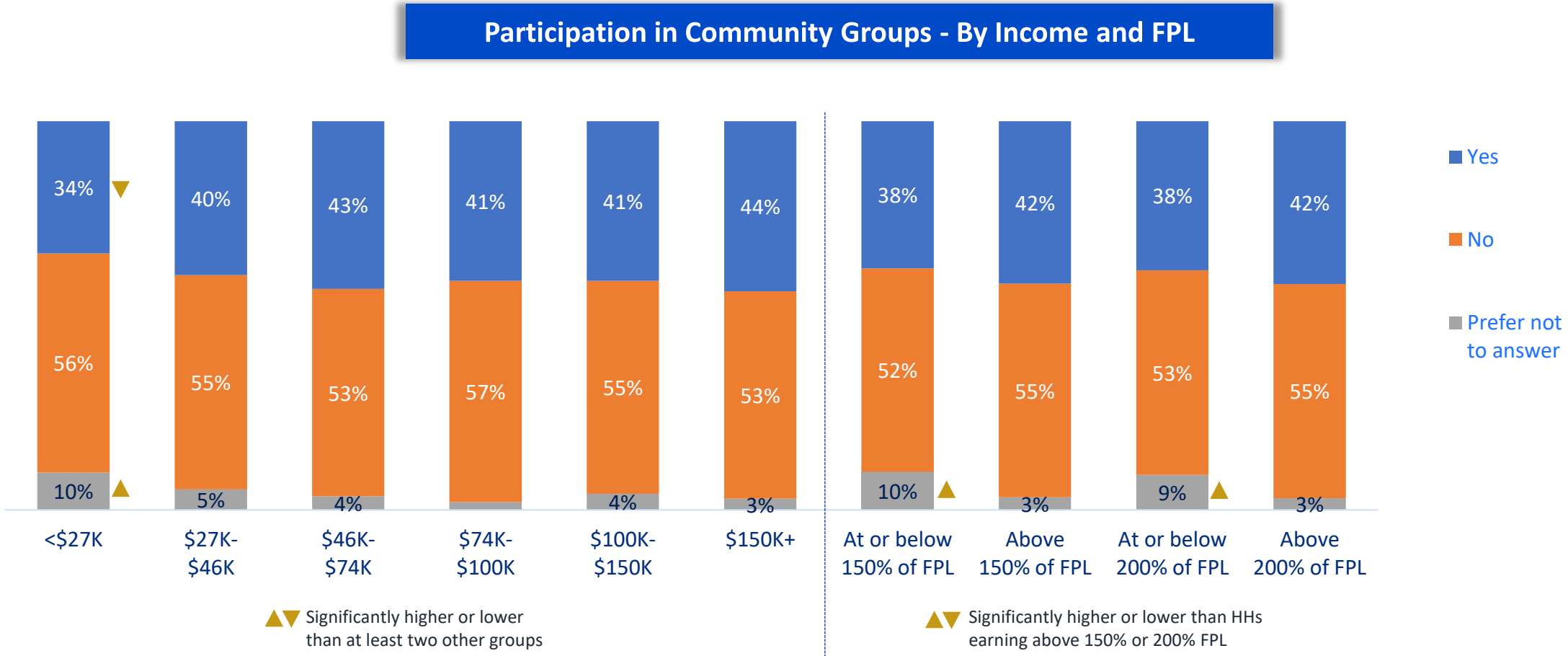
% Yes, Participate in Community Group



▲▼ Significantly higher or lower than at least two other districts

The majority of residents across all income groups do not participate in any type of community or neighborhood groups.

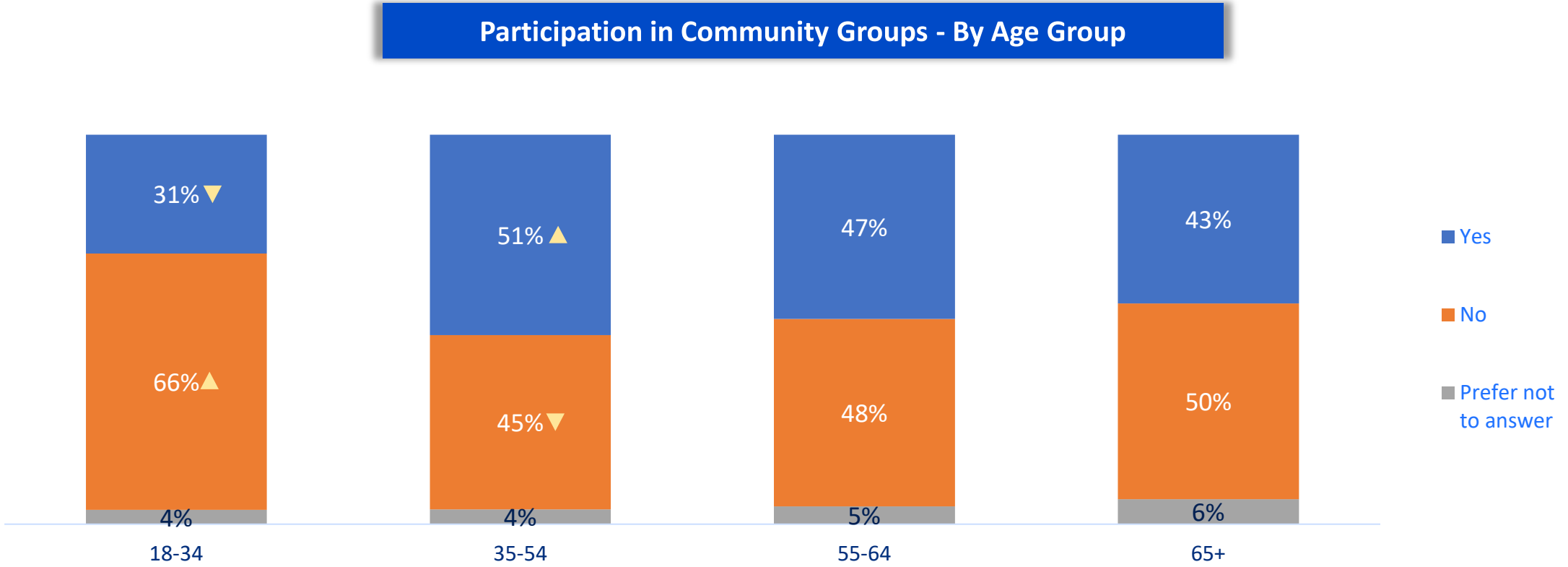
- Residents with an income under $27,000 are significantly less likely to say they have participated in any type of community group.



Value labels ≤2% not shown in chart

The youngest age group is the least likely to participate in community groups.

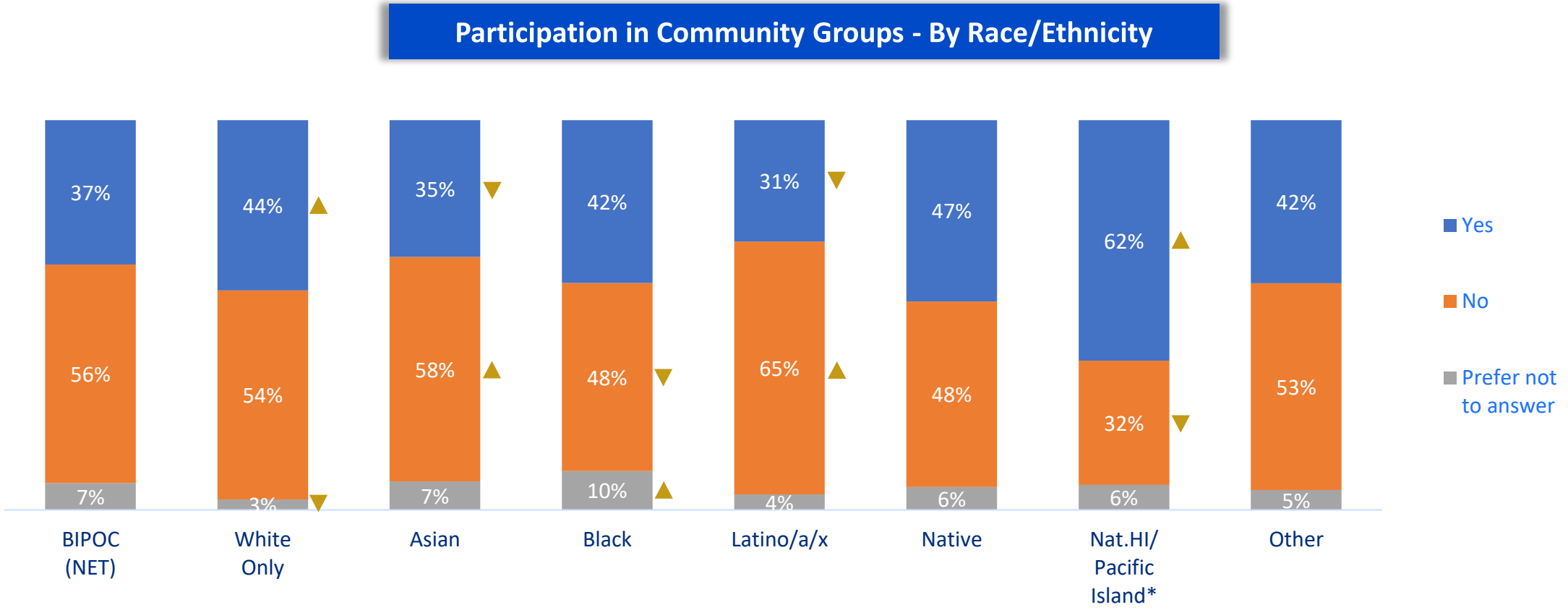
- Residents in the 35-54 age cohort are significantly more likely to participate vs. those in the 18-24 and 65+ groups.



▲▼ Significantly higher or lower than at least two other groups

Community group participation is lowest among Asian and Latino/a/x residents.

- It is highest among White and Native Hawaiian/Pacific Islander residents.



*Caution: small sample size

▲▼ Significantly higher or lower than at least two other groups

Communication Preferences

Total Summary	(pg. 162)
Council District Comparison	(pg. 163)
Income and Federal Poverty Level (FPL) Comparison	(pg. 164)
Age Group and Race/Ethnicity Comparison	(pg. 165)

Overall, electronic communication is preferred over physical communication, with three quarters selecting email as the way they want to receive information or give an opinion to a community group or to the City of Seattle.

When it comes to electronically receiving information or giving an opinion to a community group or to the City of Seattle:

- Around one third prefer doing so through the City of Seattle website/app or through a text message.
- Nearly one quarter favor communicating using social media like Facebook or Twitter.
- Ten (10%) percent like doing so through a personal or community blog.

While physical communication is less preferred, one third still prefer physical letters through the mail. In addition:

- Fifteen (15%) percent like attending community meetings.
- Thirteen (13%) percent prefer speaking to someone on the phone.
- Eight (8%) percent like going to city offices in-person.

76%	An email
34%	City of Seattle website / app
34%	Physical letter / Mail
32%	A text message
23%	Social media (Facebook, Twitter, etc.)
15%	In a community meeting
13%	A telephone call
10%	A personal or community blog
8%	In-person at city offices
1%	Other
3%	None / do not want to communicate

Note: Some residents have more than preferred method of communication. Total methods will add up to more than 100%.

When it comes to communicating with a group or the local government, email stands apart as the preferred method across all Council Districts.

- The City of Seattle website has more appeal as a communication vehicle to residents in Central Seattle (CD 3), and Northwest Seattle (CD 6). West Seattle (CD 1) shows a higher preference than all other districts for using a personal/community blog for communication.

Communication Preference with City/Community Groups - By Council District (CD)

	Total	West Seattle (CD 1)	South Seattle (CD 2)	Central Seattle (CD 3)	Northeast Seattle (CD 4)	North Seattle (CD 5)	Northwest Seattle (CD 6)	West Central Seattle (CD 7)
An email	76%	73%	72%	81%	75%	74%	80%	77%
City of Seattle website	34%	36%	31%	40%	34%	35%	39%	28%
Physical letter	34%	32%	35%	39%	31%	38%	31%	34%
A text message	32%	32%	35%	36%	30%	32%	23%	34%
Social media	23%	25%	23%	22%	22%	21%	21%	26%
Community meeting	15%	15%	15%	20%	13%	13%	15%	12%
Telephone call	13%	11%	13%	11%	10%	17%	10%	14%
Personal/community blog	10%	19%	9%	11%	8%	10%	8%	6%
In-person at city offices	8%	6%	7%	9%	6%	8%	10%	10%
Other	1%	1%	3%	2%	1%	1%	2%	1%
None / do not want to communicate	3%	1%	4%	1%	4%	5%	4%	4%

Green/Red - Significantly higher or lower than at least two other groups

Email communication is preferred less by those whose household income is under $46K and more by those with a household income of $100K+.

- Those in the <$27K income group are more inclined than some others to prefer communicating via text messages, telephone calls, or in-person at city offices.

Communication Preference with City/Community Groups - By Income and FPL

	<$27K	$27K-$46K	$46K-$74K	$74K-$100K	$100K-$150K	$150K+	At or below 150% of FPL	Above 150% of FPL	At or below 200% of FPL	Above 200% of FPL
An email	64%	69%	74%	76%	80%	81%	64%	78%	66%	78%
City of Seattle website	23%	29%	31%	37%	33%	42%	24%	36%	25%	37%
Physical letter	40%	40%	38%	34%	35%	29%	39%	33%	40%	33%
A text message	38%	35%	33%	34%	28%	29%	40%	30%	38%	30%
Social media	20%	18%	22%	28%	21%	25%	19%	24%	19%	24%
Community meeting	16%	18%	17%	13%	16%	12%	16%	15%	16%	14%
Telephone call	23%	21%	16%	12%	8%	7%	23%	11%	22%	10%
Personal/community blog	7%	7%	8%	12%	10%	12%	6%	11%	7%	11%
In-person at city offices	13%	10%	9%	6%	6%	6%	12%	7%	13%	7%
Other	2%	2%	1%	1%	2%	1%	2%	1%	2%	1%
None / do not want to communicate	6%	5%	3%	2%	3%	2%	6%	3%	5%	3%

Green/Red - Significantly higher or lower than at least two other income groups

Green/Red - Significantly higher or lower than HHs earning above 150% or 200% FPL

Email stands apart as the preferred communication method across all age cohorts and all race/ethnic groups.

- Beyond email, middle-aged residents prefer the City of Seattle website, and the oldest age group is more comfortable with physical mail, while those in the youngest cohort prefer using social media for communicating.
- Those who identify as White show the strongest preference for email, while Native HI/Pacific Islanders stand out for their preference of a physical letter or the City's website. Black and Latino/a/x residents are less likely to prefer the City website for communication, and more likely to prefer using text messages, as are those who identify as Other-race.

Communication Preference with City/Community Groups - By Age Group and Race/Ethnicity

	18-34	35-54	55-64	65+	BIPOC (NET)	White Only	Asian	Black	Latino/a/x	Native	Nat.HI/ Pacific Island*	Other
An email	73%	80%	76%	73%	70%	79%	72%	69%	68%	62%	75%	61%
City of Seattle website	32%	37%	41%	31%	29%	38%	32%	27%	22%	34%	49%	26%
Physical letter	36%	27%	34%	44%	36%	33%	36%	44%	33%	30%	55%	34%
A text message	34%	31%	28%	29%	35%	30%	29%	46%	39%	32%	36%	44%
Social media	27%	24%	21%	10%	23%	22%	22%	22%	24%	37%	25%	25%
Community meeting	11%	15%	20%	20%	15%	15%	11%	18%	20%	21%	16%	26%
Telephone call	8%	8%	20%	28%	15%	11%	9%	26%	15%	17%	16%	26%
Personal/community blog	9%	12%	14%	7%	8%	12%	7%	12%	5%	7%	28%	5%
In-person at city offices	7%	7%	11%	11%	9%	7%	5%	13%	6%	22%	9%	13%
Other	1%	2%	3%	1%	1%	2%	1%	3%	2%	2%		2%
None / do not want to communicate	3%	3%	2%	5%	5%	2%	6%	4%	2%	5%	2%	1%

*Caution: small sample size

Green/Red - Significantly higher or lower than at least two other groups

Summary Profiles of Focused Population Groups

Population with HH Income at or Below 200% FPL	(pgs. 167-168)	Household Member Living with a Disability	(pgs. 175-176)
BIPOC Population	(pgs. 169-170)	Native Population	(pgs. 177-178)
Black/African American/African Descent Population	(pgs. 171-172)	Population with Elder 60+ in the Household	(pgs. 179-180)
Population with Children in the Household	(pgs. 173-174)	Primary Language is Other than English	(pgs. 181-182)

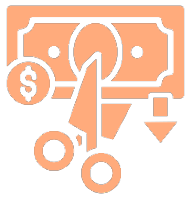
Overview: Population with HH Income at or Below 200% FPL

Internet Access

Compared to the overall population, this segment has more limited internet access (especially on the go), pays about 30% less on average, is more likely to find their internet inadequate or to experience interruptions, and more likely to be at the low end for download speed. Many are unaware or do not use lower cost internet services for qualified low-income HHs.

- 91% have a way to access the internet where they live (v 98% overall).
- 78% can access the internet at home and on the go (v 92% overall).
- 83% have internet on the go (v 94% overall); more with limited data (33% v 27% overall); fewer with unlimited data (45% v 67% overall).
- Pay about a 30% less, on average, for their internet (Mean: $105 v $147 overall; Median: $72 v $115 overall).

- Three times more likely to have gone without home internet for a month or longer (15% v 5% overall).
- More than twice as likely to find their home internet connection and speed is less than adequate (24% v 11% overall).
- Less likely to know their download speed (54% don't know v 37% overall); twice as likely to say it is 50 Mbps or less (17% v 9% overall).
- One in three experience service interruptions/slow internet at least weekly, compared to one in four overall (36% v 24%).

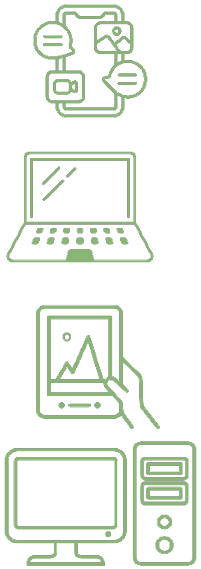


- Although all would qualify, many are unaware or do not use ACP and other low-income assistance programs.
  - Affordable Connectivity Program: half aware (49%), slightly more than a quarter use (28%).
  - Comcast Int. Essentials: half aware (49%), a quarter use (24%).
  - Simply Internet-Astound: quarter aware (24%), about one in ten use (9%).
  - Lifeline Program: slightly more than a quarter aware (28%), about one in ten use (11%).
  - Less than one in five aware of Connect All (17%) or PCs for People (13%); low usage of each (4% and 2%, respectively).

Overview: Population with HH Income at or Below 200% FPL

Device Access

Significantly fewer devices of all types in the HH v overall population, more than 3 x as likely to have to share devices.

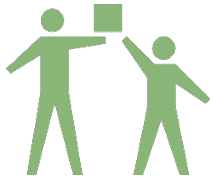


- Significantly less likely to have a smartphone, laptop, tablet, or desktop PC in HH v the overall population.

  Have at least one in the HH (owned+borrowed):
  - Smartphone: 86% v 95% overall
  - Laptop: 64% v 86% overall
  - Tablet: 44% v 67% overall
  - Desktop PC: 34% v 45% overall

  OWN at least one of these in the HH:
  - Smartphone: 87% v 95% overall
  - Laptop: 61% v 82% overall
  - Tablet: 42% v 65% overall
  - Desktop PC: 33% v 42% overall

- They have or own significantly fewer devices in the household, on average, than the overall population.
  - *HAVE* 3.6 devices v 5.8 overall
  - *OWN* 3.3 devices v 4.9 overall



- Three and a half times as likely to *have to share devices* – 18% own fewer devices than there are household members v 5% of the overall population.

Activities & Skills

Significantly lower digital activity and skill levels v overall population; significantly more reliance on others.

- Significantly lower range of digital activity compared to overall population – twice as likely to fall into the Low digital activity level (30% v 15% overall); significantly less likely to be in the Medium High/High activity categories (46% net v 62% overall).
- Those in this population are half as likely to have the ability to complete *all digital skills* compared to the overall population (32% v 61% overall).
- Significantly fewer have the ability to *fully perform* (without help) across the array of skill sets.
  - Basic Skills Set: 47% can (v 78% overall)
  - Setup Skills Set: 53% can (v 78% overall)
  - Security Skills Set: 52% can (v 74% overall)
  - Collaboration Skills Set: 46% can (v 71% overall)
- More than twice as likely to rely on others to help them access and/or navigate the internet (30% v 13% overall).

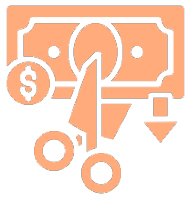
Overview: BIPOC Population

Internet Access

Compared to the overall population, this segment has slightly more limited internet access, pays 12% less on average, has a similar profile for download speed, but more likely to find their internet inadequate or to experience interruptions. Many are unaware or do not use lower cost internet services for qualified low-income HHs.

- 95% have a way to access the internet where they live (v 98% overall).
- 89% can access the internet at home and on the go (v 92% overall).
- 92% have internet on the go (v 94% overall); more with limited data (32% v 27% overall); fewer with unlimited (61% v 67% overall).
- Pay about 12% less, on average, for their internet (Mean: $130 v $147 overall; Median: $98 v $115 overall).

- One and a half times more likely to have gone without home internet for a month or longer (8% v 5% overall).
- One and a half times as likely to find their home internet connection and speed is less than adequate (17% v 11% overall).
- Similar proportions know their download speed (37% don't know); similar proportions say it is 50 Mbps or less (11% v 9% overall).
- Nearly 3 in 10 experience service interruptions/slow internet at least weekly, slightly higher v overall population (28% v 24%).

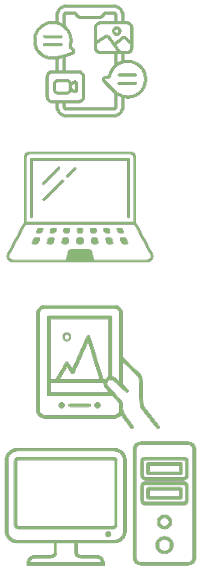


- Many are unaware or do not use ACP and other low-income assistance programs, with Comcast Internet Essentials most used.
  - Affordable Connectivity Program: Three in ten aware (29%), about one in ten use (9%).
  - Comcast Int. Essentials: One third aware (32%), one in ten use (10%).
  - Simply Internet-Astound: One in six aware (17%), one in twenty use (5%).
  - Lifeline Program: One in eight aware (13%), very limited use (3%).
  - Lower awareness of Connect All (9%) or PCs for People (7%); similar low usage of each (1% and 1%, respectively).

Overview: BIPOC Population

Device Access

Fewer devices in HH v overall population, with exception of smartphones; more likely to have to share devices.

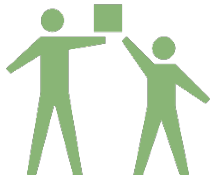


- Significantly less likely to have a laptop, tablet or PC in HH compared to the overall population.

  Have at least one in the HH (owned+borrowed):
  - Smartphone: 93% v 95% overall
  - Laptop: 81% v 86% overall
  - Tablet: 62% v 67% overall
  - Desktop PC: 40% v 45% overall

  OWN at least one of these in the HH:
  - Smartphone: 94% v 95% overall
  - Laptop: 76% v 82% overall
  - Tablet: 60% v 65% overall
  - Desktop PC: 37% v 42% overall

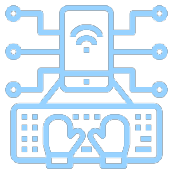
- They have or own significantly fewer devices in the household, on average, than the overall population.
  - *HAVE* 5.4 devices v 5.8 overall
  - *OWN* 4.6 devices v 4.9 overall



- Twice as likely *to have to share devices* – 10% own fewer devices than there are household members v 5% of the overall population.

Activities & Skills

Generally similar for digital activity levels v the overall population, but skill set measures lag somewhat.



- Fairly in line with overall population for range of digital activity – similar proportions in the Low/Medium Low (37% net v 38% overall) and Medium High categories (31% v 33% overall); but more fall into High activity category (32% v 28% overall).
- Somewhat fewer in this population have the ability to complete *all digital skills* compared to the overall population (55% v 61% overall).
- Significantly fewer have the ability to *fully perform* (without help) across skill sets (except collaboration).
  - Basic Skills Set: 69% can (v 78% overall)
  - Setup Skills Set: 71% can (v 78% overall)
  - Security Skills Set: 68% can (v 74% overall)
  - Collaboration Skills Set: 67% can (v 71% overall)
- One and a half times as likely to rely on others to help them access and/or navigate the internet (19% v 13% overall).

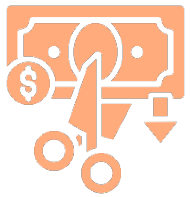
Overview: Black/African American/African Descent Population

Internet Access

Compared to overall population, this segment has slightly more limited internet access, pays 7% less on average, is more likely to find their internet inadequate or to experience interruptions, and less likely to be at the high end for download speed. Many are unaware or do not use lower cost internet services for qualified low-income HHs.

- 94% have a way to access the internet where they live (v 98% overall).
- 88% can access the internet at home and on the go (v 92% overall).
- 92% have internet on the go (v 94% overall); less likely to have unlimited data (58% v 67% overall).
- Pay 7% less, on average, for their internet (Mean: $137 v $147 overall; Median: $100 v $115 overall).

- Three and a half times more likely to have gone without home internet for a month or longer (18% v 5% overall).
- Twice as likely to find their home internet connection and speed is less than adequate (22% v 11% overall).
- Half do NOT know their download speed (50% don't know v 37% overall); fewer say it is 1000 Mbps or higher (16% v 29% overall).
- Almost twice as likely to experience service interruptions/slow internet DAILY (15% v 9%).

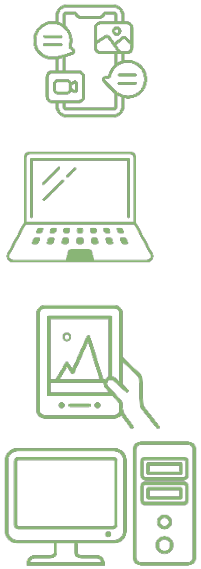


- Many are unaware or do not use ACP and other low-income assistance programs, with Comcast Internet Essentials most used.
  - Affordable Connectivity Program: Two in five aware (43%), one in five use (20%).
  - Comcast Int. Essentials: Nearly half aware (46%), one in five (21%).
  - Simply Internet-Astound: One in five aware (22%), limited use (4%).
  - Lifeline Program: One in five aware (19%), limited use (4%).
  - Somewhat limited awareness of Connect All (15%) or PCs for People (11%); similar low usage of each (1% and 2%, respectively).

Overview: Black/African American/African Descent Population

Device Access

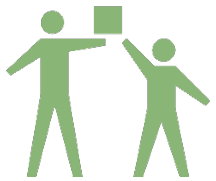
Fewer devices in HH v overall population (especially laptops/PCs), four times as likely to have to share devices.



- Fewer HHs own these devices in the HH compared to the overall population, especially laptops and PCs.

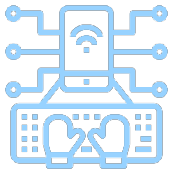
  Have at least one in the HH (owned+borrowed):
  - Smartphone: 91% v 95% overall
  - Laptop: 72% v 86% overall
  - Tablet: 60% v 67% overall
  - Desktop PC: 29% v 45% overall

  OWN at least one of these in the HH:
  - Smartphone: 90% v 95% overall
  - Laptop: 66% v 82% overall
  - Tablet: 57% v 65% overall
  - Desktop PC: 27% v 42% overall
- Have/own fewer devices in the HH, on average, than the overall population; not statistically significant.
  - *HAVE* 4.5 devices v 5.8 overall
  - *OWN* 3.8 devices v 4.9 overall
- Four times as likely *to have to share devices* – 19% own fewer devices than there are household members v 5% of the overall population.



Activities & Sills

Generally similar digital activity, but lower skill set v overall population and more likely to rely on others.



- In line with the overall population for range of digital activity. Similar proportions fall into the Low/Medium Low categories (42% net v 38% overall) and into the Medium High/High categories (58% net v 62% overall).
- Significantly fewer in this population have the ability to complete *all digital skills* compared to the overall population (42% v 61% overall).
- Significantly fewer have the ability to *fully perform* (without help) across skill sets, especially security.
  - Basic Skills Set: 64% can (v 78% overall)
  - Setup Skills Set: 66% can (v 78% overall)
  - Security Skills Set: 56% can (v 74% overall)
  - Collaboration Skills Set: 59% can (v 71% overall)
- Twice as likely to rely on others to help them access and/or navigate the internet (29% v 13% overall).

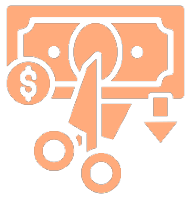
Overview: Population with Children in the Household

Internet Access

Compared to the overall population, this segment has better internet access, pays 15% more on average, has higher portion with faster download speed, similar experience with interruptions. Many are unaware or do not use lower cost internet services for qualified low-income HHs.

- 99% have a way to access the internet where they live (v 98% overall).
- 97% can access the internet at home and on the go (v 92% overall).
- 98% have internet on the go (v 94% overall); more likely to have it with unlimited data (71% v 67% overall).
- Pay about 15% more, on average, for their internet (Mean: $168 v $147 overall; Median: $145 v $115 overall).

- Similar proportion have gone without home internet for a month or longer in this group v general population (6% v 5% overall).
- Similar proportion find their home internet connection and speed is less than adequate as in general population (13% v 11% overall).
- Similar don't know their speed (34% don't know v 37% overall); significantly more say it up to 1000 Mbps+ (34% v 29% overall).
- One in four experience service interruptions/slow internet at least weekly, in line with overall population (26% v 24%).

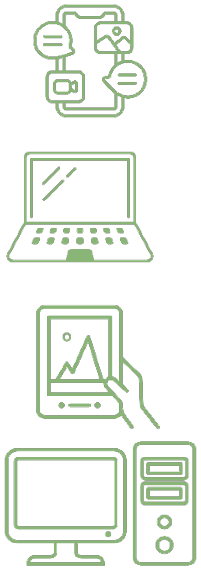


- Many are unaware or do not use ACP and other low-income assistance programs.
  - Affordable Connectivity Program: One in five aware (22%) and one in twenty use (6%).
  - Comcast Int. Essentials: Three in ten aware (31%), one in twenty use (6%).
  - Simply Internet-Astound: One in eight aware (12%) and very limited use (2%).
  - Lifeline Program: One in ten aware (11%), and very limited use (2%).
  - Somewhat low awareness of Connect All (8%) or PCs for People (6%); lower usage of each (1% and 0%, respectively).

Overview: Population with Children in the Household

Device Access

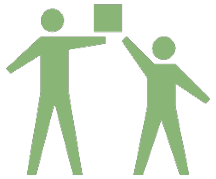
Average more devices in the HH v overall population, however due to larger average HH size, they are more likely to have to share devices.



- *More likely* to have each type of device in their household compared to the overall population.

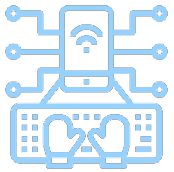
  Have at least one in the HH (owned+borrowed):
  - Smartphone: 99% v 95% overall
  - Laptop: 96% v 86% overall
  - Tablet: 81% v 67% overall
  - Desktop PC: 49% v 45% overall

  OWN at least one of these in the HH:
  - Smartphone: 98% v 95% overall
  - Laptop: 87% v 82% overall
  - Tablet: 77% v 65% overall
  - Desktop PC: 45% v 42% overall
- They have or own significantly *more devices* in the household, on average, than the overall population.
  - *HAVE* 8.6 devices v 5.8 overall
  - *OWN* 6.9 devices v 4.9 overall
- Twice as likely *to have to share devices* – 10% own fewer devices than there are household members v 5% of the overall population.



Activities & Skills

More digitally active v the overall population, but skill set measures are very similar.



- More likely to fall into the Medium High/High activity categories (70% net v 62% overall); half as likely to be in the Low digital activity range (8% v 15% overall).
- Around three fifths in this population have the ability to complete *all digital skills*, similar to the overall population (63% v 61% overall).
- In line with the overall population for the ability to *fully perform* (without help) across the spectrum of skills.
  - Basic Skills Set: 79% can (v 78% overall)
  - Setup Skills Set: 81% can (v 78% overall)
  - Security Skills Set: 77% can (v 74% overall)
  - Collaboration Skills Set: 74% can (v 71% overall)
- About one in eight rely on others to help them access and/or navigate the internet, similar to the overall population (13% v 13% overall).

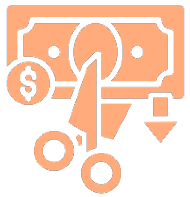
Overview: Household Member Living with a Disability

Internet Access

Compared to overall population, this segment has more limited internet access (on the go), pays 6% less on average, is more likely to find their internet inadequate or to experience interruptions, and less likely to be at the high end for download speed. Although about half are aware of the most common lower cost internet service programs, a limited proportion use these services.

- 94% have a way to access the internet where they live (v 98% overall).
- 82% can access the internet at home and on the go (v 92% overall).
- 87% have internet on the go (v 94% overall); fewer have unlimited data (54% v 67% overall); more have pay as you go (8% v 3% overall).
- Pay 6% less, on average, for their internet (Mean: $138 v $147 overall; Median: $90 v $115 overall).

- Three times more likely to have gone without home internet for a month or longer (16% v 5% overall).
- More than twice as likely to find their home internet connection and speed is less than adequate (26% v 11% overall).
- Half do NOT know their download speed (52% don't know v 37% overall); fewer say it is 1000 Mbps or higher (14% v 29% overall).
- Two times more likely to experience service interruptions/slow internet DAILY (20% v 9%); one third at least weekly (34% v 24%).

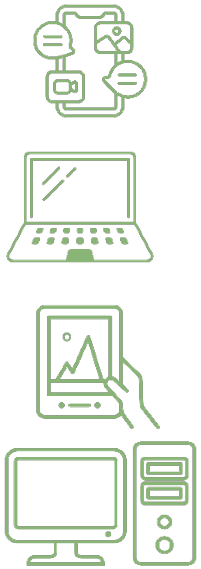


- Although about half are aware of the leading programs (ACP and Comcast), many do not use these lower cost programs.
  - Affordable Connectivity Program: Two in five aware (41%), one in five use (19%).
  - Comcast Int. Essentials: Less than half aware (45%), about one in five use (18%).
  - Simply Internet-Astound: About one in five aware (22%), one in twenty use (5%).
  - Lifeline Program: More than a quarter aware (28%), less than one in ten use (8%).
  - Less than one in five aware of Connect All (19%) or PCs for People (14%); lower usage of each (7% and 3%, respectively).

Overview: Household Member Living with a Disability

Device Access

Fewer devices in HH v overall population (except for desktop PC); nearly three times as likely to have to share devices.

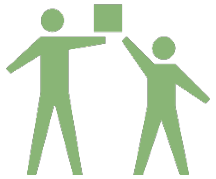


- Significantly less likely to have a smartphone, laptop, or tablet in HH compared to the overall population.

  Have at least one in the HH (owned+borrowed):
  - Smartphone: 86% v 95% overall
  - Laptop: 68% v 86% overall
  - Tablet: 53% v 67% overall
  - Desktop PC: 40% v 45% overall

  OWN at least one of these in the HH:
  - Smartphone: 87% v 95% overall
  - Laptop: 67% v 82% overall
  - Tablet: 53% v 65% overall
  - Desktop PC: 40% v 42% overall

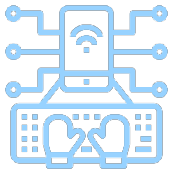
- They have or own significantly fewer devices in the household, on average, than the overall population.
  - *HAVE* 4.3 devices v 5.8 overall
  - *OWN* 3.8 devices v 4.9 overall



- Nearly three times as likely to *have to share devices* – 14% own fewer devices than there are household members v 5% of the overall population.

Activity & Skills

Significantly lower range of activity and skill levels v overall population; significantly more likely to rely on others.



- Less digitally active compared to overall population. More fall into the Low category (25% v 15% overall); fewer fall into the Medium High/High categories (47% net v 62% overall).
- Those in this population are half as likely to have the ability to complete *all digital skills* compared to the overall population (33% v 61% overall).
- Significantly fewer have the ability to *fully perform* (without help) across the array of skill sets).
  - Basic Skills Set: 54% can (v 78% overall)
  - Setup Skills Set: 51% can (v 78% overall)
  - Security Skills Set: 50% can (v 74% overall)
  - Collaboration Skills Set: 46% can (v 71% overall)
- More than twice as likely to rely on others to help them access and/or navigate the internet (29% v 13% overall).

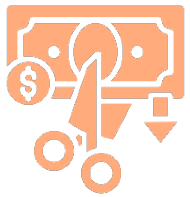
Overview: Native Population

Internet Access

Compared to the overall population, this segment has similar internet access, and pays slightly more, on average. They are less likely to find their internet completely adequate or to be at the high end for download speed, and are more likely to experience interruptions. Many are unaware or do not use lower cost internet services for qualified low-income HHs.

- 95% have a way to access the internet where they live (v 98% overall).
- 88% can access the internet at home and on the go (v 92% overall).
- 92% have internet on the go (v 94% overall); slightly fewer have unlimited data (60% v 67% overall).
- Pay 6% more, on average, for their internet (Mean: $156 v $147 overall; Median: $80 v $115 overall).

- Three times more likely to have gone without home internet for a month or longer (16% v 5% overall).
- Less likely to find their home internet connection and speed COMPLETELY adequate (30% v 42% overall); slightly more say inadequate.
- Half do NOT know their download speed (49% don't know v 37% overall); fewer say it is 1000 Mbps or higher (18% v 29% overall).
- Two times more likely to experience service interruptions/slow internet DAILY (18% v 9%).

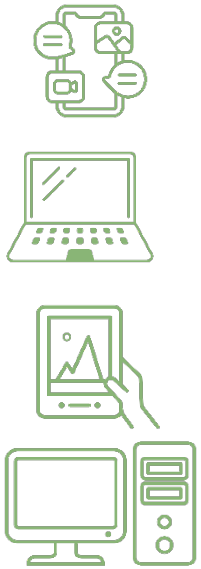


- Many are unaware or do not use ACP and other low-income assistance programs, with the ACP most used.
  - Affordable Connectivity Program: Nearly two in five aware (38%), one in eight use (13%).
  - Comcast Int. Essentials: More than one third aware (36%), less than one in ten use (7%).
  - Simply Internet-Astound: More than one in five aware (23%), limited use (3%).
  - Lifeline Program: One quarter aware (25%), about one in ten (11%).
  - Less than one in five aware of Connect All (16%) or PCs for People (13%); limited usage of each (4% and 4%, respectively).

Overview: Native Population

Device Access

Slightly fewer devices in HH v overall population (especially tablets), three times as likely to have to share devices, possibly driven by larger average HH size.

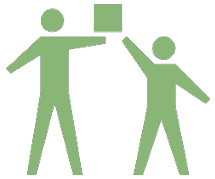


- Mostly in line v the overall population for devices in the HH except significantly fewer have tablets.

  Have at least one in the HH (owned+borrowed):
  - Smartphone: 91% v 95% overall
  - Laptop: 78% v 86% overall
  - Tablet: 49% v 67% overall
  - Desktop PC: 43% v 45% overall

  OWN at least one of these in the HH:
  - Smartphone: 93% v 95% overall
  - Laptop: 74% v 82% overall
  - Tablet: 48% v 65% overall
  - Desktop PC: 40% v 42% overall

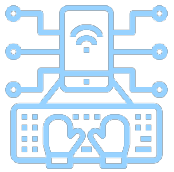
- Have/own fewer devices in the HH, on average, than the overall population; not statistically significant.
  - *HAVE* 4.9 devices v 5.8 overall
  - *OWN* 4.3 devices v 4.9 overall



- Three times as likely *to have to share devices* – 15% own fewer devices than there are household members v 5% of the overall population.

Activity & Skills

Fairly similar digital activity v overall population; skill set measures lag somewhat; a bit more likely to rely on others.



- Generally in line with the overall populations for digital activity range. Slightly more fall into the Low/Medium Low categories (46% net v 38% overall); slightly fewer fall into the Medium High/High categories (54% net v 62% overall).
- Somewhat fewer in this population have the ability to complete *all digital skills* compared to the overall population (49% v 61% overall).
- Somewhat fewer have the ability to *fully perform* (without help) across skill sets, especially set-up.
  - Basic Skills Set: 66% can (v 78% overall)
  - Setup Skills Set: 61% can (v 78% overall)
  - Security Skills Set: 64% can (v 74% overall)
  - Collaboration Skills Set: 65% can (v 71% overall)
- One in five Natives rely on others to help them access and/or navigate the internet compared to one in eight in the overall population (20% v 13% overall).

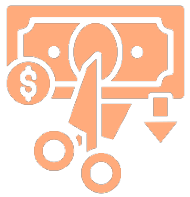
Overview: Population with Elder 60+ in the Household

Internet Access

Compared to the overall population, this segment has somewhat more limited internet access, pays 10% more on average, is similar for connection adequacy and interruptions; but less likely to be at the high end for download speed. Many are unaware or do not use lower cost internet services for qualified low-income HHs.

- 95% have a way to access the internet where they live (v 98% overall).
- 84% can access the internet at home *and* on the go (v 92% overall).
- 87% have internet on the go (v 94% overall); less likely with unlimited data (57% v 67% overall).
- Pay about 10% more, on average, for their internet (Mean: $161 v $147 overall; Median: $130 v $115 overall).

- Similar to overall population, only 1 in 20 have gone without home internet for a month or longer (5% v 5% overall).
- Similar to overall population, around 1 in 8 find their home internet connection and speed is less than adequate (12% v 11% overall).
- More don't know their speed (50% don't know v 37% overall); significantly fewer say it is 1000 Mbps plus (20% v 29% overall).
- Similar proportions experience service interruptions/slow internet at least weekly (22% v 24% overall); more say 'never' (16% v 12%).

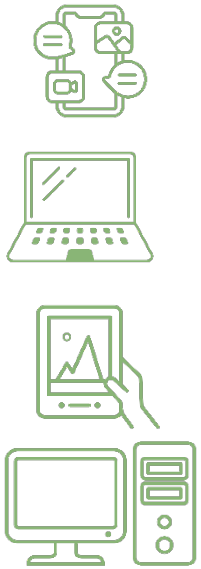


- Many are unaware or do not use ACP and other low-income assistance programs, with the ACP most used.
  - Affordable Connectivity Program: About three in ten aware (28%), less than one in ten use (8%).
  - Comcast Int. Essentials: Three in ten aware (30%), less than one in ten use (7%).
  - Simply Internet-Astound: One in seven aware (14%), very limited use (3%).
  - Lifeline Program: One in eight aware (13%), very limited use (3%).
  - About one in ten aware of Connect All (10%) or PCs for People (8%); very limited use of each (2% and 1%, respectively).

Overview: Population with Elder 60+ in the Household

Device Access

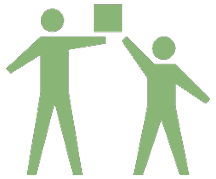
Fewer devices in HH v overall population, with exception of desktop PC; similar proportions share devices likely due to smaller average HH size of this segment.



- Significantly less likely to have a smartphone, laptop, or tablet in HH compared to the overall population.

  Have at least one in the HH (owned+borrowed):
  - Smartphone: 89% v 95% overall
  - Laptop: 74% v 86% overall
  - Tablet: 62% v 67% overall
  - Desktop PC: 44% v 45% overall

  OWN at least one of these in the HH:
  - Smartphone: 90% v 95% overall
  - Laptop: 72% v 82% overall
  - Tablet: 61% v 65% overall
  - Desktop PC: 43% v 42% overall
- They have or own significantly fewer devices in the household, on average, than the overall population.
  - *HAVE* 4.5 devices v 5.8 overall
  - *OWN* 4.2 devices v 4.9 overall
- Similar small numbers *have to share devices* – 7% own fewer devices than there are household members v 5% of the overall population.



Activity & Skills

Significantly lower digital activity and skill levels v overall population; significantly more likely to rely on others.

- Significantly lower range of digital activity compared to overall population – nearly twice as many fall into the Low/Medium Low categories (71% net v 38% overall).
- Those in this population are half as likely to have the ability to complete *all digital skills* compared to the overall population (29% v 61% overall).
- Significantly fewer have the ability to *fully perform* (without help) across the array of skill sets, especially collaboration.
  - Basic Skills Set: 49% can (v 78% overall)
  - Setup Skills Set: 52% can (v 78% overall)
  - Security Skills Set: 53% can (v 74% overall)
  - Collaboration Skills Set: 38% can (v 71% overall)
- Two and a half times as likely to rely on others to help them access and/or navigate the internet (32% v 13% overall).

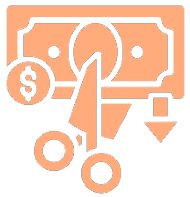
Overview: Primary Language is Other than English

Internet Access

Compared to the overall population, this segment has more limited internet access, pays about 25% less on average, is more likely to find their internet inadequate and to experience interruptions, and less likely to be at the high end for download speed. Many are unaware or do not use lower cost internet services for qualified low-income HHs.

- 91% have a way to access the internet where they live (v 98% overall).
- 75% can access the internet at home and on the go (v 92% overall).
- 84% have internet on the go (v 94% overall); more with limited data (40% v 27% overall); fewer with unlimited data (46% v 67% overall).
- Pay about 25% less, on average, for their internet (Mean: $109 v $147 overall; Median: $87 v $115 overall).

- Two and a half times more likely to have gone without home internet for a month or longer (12% v 5% overall).
- More than twice as likely to find their home internet connection and speed is less than adequate (25% v 11% overall).
- 2 in 5 don't know their speed (41% don't know v 37% overall); significantly fewer say it is 1000 Mbps or higher (19% v 29% overall).
- One in three experience service interruptions/slow internet at least weekly, compared to one in four overall (32% v 24%).

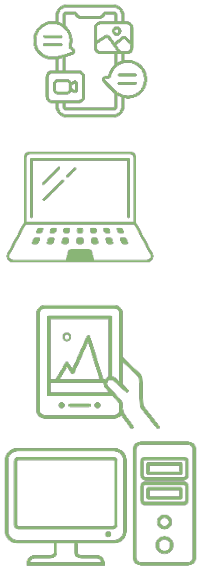


- Higher awareness/usage of most lower cost internet services for qualified low-income HHs.
  - Affordable Connectivity Program: One third aware (33%), one in seven use (14%).
  - Comcast Int. Essentials: Two in five aware (41%), one in five use (19%).
  - Simply Internet-Astound: Three in ten aware (31%), one in eight use (13%).
  - Lifeline Program: About one in six aware (16%), low usage (6%).
  - Low awareness of Connect All (12%) or PCs for People (7%); very limited use of each (1% and 0%, respectively).

Overview: Primary Language is Other than English

Device Access

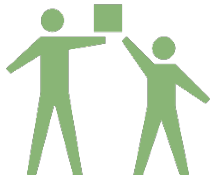
Significantly fewer devices of all types in the HH v overall population, more than 4 x as likely to have to share devices.



- Significantly less likely to have a smartphone, laptop, tablet, or desktop PC in HH v the overall population.

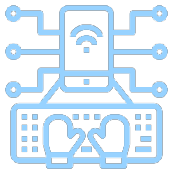
  Have at least one in the HH (owned+borrowed):
  - Smartphone: 89% v 95% overall
  - Laptop: 67% v 86% overall
  - Tablet: 55% v 67% overall
  - Desktop PC: 33% v 45% overall

  OWN at least one of these in the HH:
  - Smartphone: 90% v 95% overall
  - Laptop: 59% v 82% overall
  - Tablet: 50% v 65% overall
  - Desktop PC: 30% v 42% overall
- They have or own significantly fewer devices in the household, on average, than the overall population.
  - *HAVE* 4.9 devices v 5.8 overall
  - *OWN* 4.1 devices v 4.9 overall
- Four and a half times as likely to *have to share devices* – 22% own fewer devices than there are household members v 5% of the overall population.



Activities & Skills

Significantly lower digital activity and skill levels v overall population; significantly more reliance on others.



- Significantly lower range of digital activity compared to overall population – twice as many fall into the Low category (29% v 15% overall); significantly fewer fall into the Medium High/High categories (48% net v 62% overall).
- Those in this population are half as likely to have the ability to complete *all digital skills* compared to the overall population (30% v 61% overall).
- Significantly fewer have the ability to *fully perform* (without help) across the array of skill sets.
  - Basic Skills Set: 42% can (v 78% overall)
  - Setup Skills Set: 48% can (v 78% overall)
  - Security Skills Set: 45% can (v 74% overall)
  - Collaboration Skills Set: 45% can (v 71% overall)
- Two and a half times as likely to rely on others to help them access and/or navigate the internet (34% v 13% overall).

Summary Overviews of Focused Populations

Access/Skills: Summary Overview Among Focused Population Groups

		Have Internet Access at Home	Have Internet Access at Home AND On the Go	Able to Complete All Digital Skills	Devices in HH are Equal to or Greater Than Number of HH Members
	Total	98%	92%	61%	97%
	Below 150% of FPL	89% ▼	74% ▼	30% ▼	85% ▼
	Primary Language Not English	91% ▼	75% ▼	30% ▼	85% ▼
	Households with disabilities	94%	82% ▼	33% ▼	89% ▼
	Households with elder adults	95% ▼	84% ▼	29% ▼	94% ▼
	Households with children	99% ▲	97% ▲	63%	95%
	Asian	96%	88% ▼	59%	94%
	Black	94% ▼	88%	42% ▼	88% ▼
	Latino/a/x	96%	92%	55%	95%
	Native	95%	88%	49%	87% ▼
	BIPOC Net	95% ▼	89% ▼	55% ▼	93% ▼

Internet Access

Q1-Q2: Do you or does anyone in your household have a way to access the internet on the go?	Total	FPL 150% and Below	Non-English Speaker (Primary Lang)	Living with Disability	Elder Adult (60+)in HH	Children in HH	BIPOC (NET)	BIPOC Elder Adult (60+) in HH	Asian	Black	Latino/a/x	Native	White Only	Female	Male	Other/ Non-Binary
Unweighted Total	4197	754	434	351	1539	1652	1467	508	657	331	328	205	2466	2138	1834	88
Have access at home and on the go	92%	74%	75%	82%	84%	97%	89%	76%	88%	88%	92%	88%	94%	91%	93%	99%
Have access at home only	5%	15%	15%	12%	11%	2%	6%	15%	8%	5%	4%	7%	5%	7%	4%	
Have access on the go only	1%	4%	7%	2%	2%	0%	3%	3%	2%	3%	3%	4%	0%	1%	1%	1%
Have no access at home or on the go	1%	7%	3%	3%	3%	0%	2%	6%	2%	4%	1%	1%	1%	1%	2%	

Q3-TOTAL: At any point in the past year, has the place where you live been without internet for a month+?	Total	FPL 150% and Below	Non-English Speaker (Primary Lang)	Living with Disability	Elder Adult (60+)in HH	Children in HH	BIPOC (NET)	BIPOC Elder Adult (60+) in HH	Asian	Black	Latino/a/x	Native	White Only	Female	Male	Other/ Non-Binary
Unweighted Total	4168	741	431	342	1521	1646	1449	495	652	325	324	201	2459	2126	1821	88
Yes, went without internet for one month or longer	5%	20%	13%	18%	6%	6%	10%	13%	5%	19%	10%	17%	3%	6%	5%	9%
No, had continuous internet	91%	66%	72%	77%	88%	92%	82%	74%	88%	70%	82%	78%	95%	91%	92%	85%
Don't know/Not Sure	4%	13%	15%	5%	5%	2%	8%	13%	8%	11%	7%	4%	2%	4%	4%	5%

Q5/Q5A. What are all the ways you get internet where you live?	Total	FPL 150% and Below	Non-English Speaker (Primary Lang)	Living with Disability	Elder Adult (60+)in HH	Children in HH	BIPOC (NET)	BIPOC Elder Adult (60+) in HH	Asian	Black	Latino/a/x	Native	White Only	Female	Male	Other/ Non-Binary
Unweighted Total	4197	754	434	351	1539	1652	1467	508	657	331	328	205	2466	2138	1834	88
Both fixed broadband & cell data plan	50%	30%	32%	41%	42%	58%	46%	38%	50%	41%	47%	42%	52%	47%	52%	57%
Only fixed broadband subscription	37%	41%	44%	40%	41%	37%	36%	39%	37%	35%	39%	31%	38%	41%	35%	31%
Only data cell plan (no fixed bb)	7%	11%	10%	8%	7%	3%	8%	9%	5%	12%	7%	19%	6%	6%	7%	9%
Other (Net)	4%	8%	5%	5%	5%	1%	5%	6%	4%	7%	3%	2%	3%	4%	4%	3%
No internet access at home	2%	11%	9%	6%	5%	1%	5%	9%	4%	6%	4%	5%	1%	2%	3%	1%

Green/Red - Significantly higher or lower than Total

Average Cost of Internet, Internet Adequacy

Q5B-MEAN: Please tell us approximately how much each internet service costs per month to your household.	Total	FPL 150% and Below	Non-English Speaker (Primary Lang)	Living with Disability	Elder Adult (60+)in HH	Children in HH	BIPOC (NET)	BIPOC Elder Adult (60+) in HH	Asian	Black	Latino/a/x	Native	White Only	Female	Male	Other/ Non-Binary
CenturyLink (Lumen)	76.29	68.98	72.34	85.97	82.23	77.89	71.70	74.80	70.19	68.06	67.35	85.06	78.03	78.75	74.64	70.40
Xfinity (Comcast)	112.59	86.38	71.95	119.15	138.76	107.36	94.60	105.18	89.26	91.74	84.74	134.23	120.55	114.46	110.85	73.12
Astound (formerly Wave)	73.42	53.47	45.83	72.02	67.99	83.07	65.80	51.58	59.08	86.29	65.62	75.69	79.77	73.76	74.25	63.33
Cellular/Wireless Service	105.16	86.31	93.88	99.36	103.61	133.03	101.28	108.36	90.22	112.91	97.27	123.79	105.73	108.55	101.38	119.82
Other Service	56.65	35.63	63.29	48.51	57.05	94.44	55.93	50.98	58.06	52.90	65.49	71.00	58.45	48.39	62.22	64.58

Q6-Total: How adequate is the internet connection and speed where you live when it comes to your ability to do the tasks you want and need to do on the internet?	Total	FPL 150% and Below	Non-English Speaker (Primary Lang)	Living with Disability	Elder Adult (60+)in HH	Children in HH	BIPOC (NET)	BIPOC Elder Adult (60+) in HH	Asian	Black	Latino/a/x	Native	White Only	Female	Male	Other/ Non-Binary
Unweighted Total	4154	742	426	344	1514	1647	1449	495	649	327	324	201	2446	2116	1820	86
Top 2 (Completely/Mostly) Net	87%	66%	68%	71%	84%	87%	79%	74%	82%	74%	80%	81%	90%	85%	89%	79%
Completely Adequate [5]	41%	24%	26%	31%	40%	40%	31%	27%	31%	29%	34%	29%	46%	35%	48%	25%
Mostly Adequate [4]	46%	43%	42%	40%	44%	47%	48%	47%	51%	44%	46%	52%	45%	50%	41%	54%
Sometimes Adequate [3]	9%	17%	15%	17%	9%	10%	12%	11%	10%	14%	13%	12%	7%	10%	7%	17%
Bottom 2 (Rarely/Not Adequate) Net	2%	8%	8%	8%	2%	3%	5%	6%	3%	7%	5%	4%	1%	3%	2%	3%
Not Applicable	1%	2%	2%	1%	1%	0%	1%	2%	1%	1%	0%	0%	0%	1%	0%	0%
Don't access the internet where I live	2%	8%	7%	4%	4%	1%	3%	7%	3%	5%	3%	3%	1%	2%	2%	1%
MEAN	4.27	3.87	3.90	3.94	4.27	4.24	4.08	4.02	4.13	3.97	4.11	4.09	4.36	4.18	4.38	4.00

Green/Red - Significantly higher or lower than Total

Download Speed, Service Interruptions

Q7-Total: What is the download speed of the internet service in the place where you live?	Total	FPL 150% and Below	Non-English Speaker (Primary Lang)	Living with Disability	Elder Adult (60+)in HH	Children in HH	BIPOC (NET)	BIPOC Elder Adult (60+) in HH	Asian	Black	Latino/a/x	Native	White Only	Female	Male	Other/ Non-Binary
Unweighted Total	4111	738	422	337	1480	1641	1440	489	646	325	324	198	2416	2086	1808	86
Up to 50 Mbps	9%	17%	15%	14%	10%	8%	11%	12%	9%	12%	14%	5%	8%	8%	9%	7%
Up to 75 Mbps	8%	9%	10%	7%	6%	8%	10%	8%	11%	9%	10%	8%	7%	7%	9%	15%
Up to 200 Mbps	17%	8%	11%	12%	13%	16%	16%	13%	19%	11%	16%	18%	17%	15%	19%	21%
Up to 1000 Mbps (1 Gigabit)	23%	6%	15%	9%	13%	28%	20%	10%	24%	7%	23%	15%	25%	15%	31%	21%
More than 1000 Mbps (1 Gigabit)	5%	1%	3%	5%	5%	5%	3%	3%	3%	8%	3%	2%	6%	5%	5%	2%
I do not have internet	2%	9%	7%	5%	4%	1%	4%	8%	4%	6%	3%	5%	1%	2%	2%	1%
Don't know	36%	49%	38%	50%	48%	33%	36%	46%	30%	47%	32%	47%	37%	48%	24%	34%

Q8-Total: How often is your internet service interrupted or too slow?	Total	FPL 150% and Below	Non-English Speaker (Primary Lang)	Living with Disability	Elder Adult (60+)in HH	Children in HH	BIPOC (NET)	BIPOC Elder Adult (60+) in HH	Asian	Black	Latino/a/x	Native	White Only	Female	Male	Other/ Non-Binary
Unweighted Total	4142	738	424	342	1498	1648	1445	490	647	324	325	202	2439	2109	1815	87
Interrupted/Slow WEEKLY (Net)	24%	35%	29%	32%	21%	26%	26%	23%	26%	29%	24%	30%	22%	28%	19%	37%
Daily	9%	20%	13%	19%	9%	9%	12%	12%	11%	14%	8%	17%	7%	10%	7%	13%
Weekly	15%	15%	16%	13%	12%	17%	15%	11%	15%	15%	15%	13%	15%	18%	12%	24%
Monthly	16%	12%	16%	12%	13%	19%	17%	13%	17%	12%	15%	18%	15%	16%	16%	18%
Less often than once a month	45%	29%	31%	35%	45%	45%	40%	37%	41%	39%	44%	35%	48%	43%	48%	34%
Never	12%	12%	13%	14%	15%	9%	12%	15%	11%	13%	13%	9%	13%	11%	14%	11%
I do not use the internet	3%	11%	10%	7%	6%	1%	5%	11%	5%	8%	5%	8%	2%	3%	3%	1%

Green/Red - Significantly higher or lower than Total

Desired Internet Improvements, Number of Devices in Household

Q9-Total: What one thing would improve your internet service in the place where you live?	Total	FPL 150% and Below	Non-English Speaker (Primary Lang)	Living with Disability	Elder Adult (60+)in HH	Children in HH	BIPOC (NET)	BIPOC Elder Adult (60+) in HH	Asian	Black	Latino/a/x	Native	White Only	Female	Male	Other/ Non-Binary
Unweighted Total	4137	741	425	342	1499	1646	1449	496	649	326	324	202	2429	2105	1816	86
Lower price	52%	32%	39%	43%	52%	50%	48%	47%	51%	41%	50%	41%	54%	52%	51%	51%
Faster speeds	16%	29%	30%	22%	14%	19%	22%	20%	20%	26%	21%	25%	14%	16%	16%	13%
Better reliability / reduced downtime	11%	10%	10%	7%	8%	12%	12%	8%	14%	7%	10%	14%	10%	12%	10%	23%
Better provider customer service	6%	6%	6%	9%	6%	6%	4%	5%	4%	6%	4%	5%	6%	6%	6%	1%
More provider options/choice	1%	1%	2%	1%	0%	1%	1%	0%	1%		1%		1%	1%	1%	3%
Other	2%	3%	3%	4%	2%	2%	2%	3%	2%	2%	2%	2%	1%	1%	2%	5%
Nothing	10%	10%	5%	9%	13%	9%	8%	9%	6%	12%	8%	9%	12%	10%	12%	3%
I do not have internet where I live	2%	10%	7%	5%	4%	1%	4%	8%	4%	5%	4%	4%	1%	2%	2%	1%

Q4 Have Device: How many devices do you have in your household (owned or borrowed)?	Total	FPL 150% and Below	Non-English Speaker (Primary Lang)	Living with Disability	Elder Adult (60+)in HH	Children in HH	BIPOC (NET)	BIPOC Elder Adult (60+) in HH	Asian	Black	Latino/a/x	Native	White Only	Female	Male	Other/ Non-Binary
Unweighted Total	4164	737	422	339	1515	1649	1440	490	641	329	322	201	2461	2123	1820	88
MEAN (0+)	5.77	3.43	4.91	4.29	4.50	8.63	5.44	4.05	5.86	4.50	5.56	4.91	5.93	5.37	6.20	5.01
MEAN (1+)	5.82	3.57	5.01	4.36	4.58	8.64	5.51	4.16	5.91	4.66	5.59	4.94	5.96	5.40	6.25	5.05

Q4DeviceOwnHH: Number of devices owned is less than number of HH members	Total	FPL 150% and Below	Non-English Speaker (Primary Lang)	Living with Disability	Elder Adult (60+)in HH	Children in HH	BIPOC (NET)	BIPOC Elder Adult (60+) in HH	Asian	Black	Latino/a/x	Native	White Only	Female	Male	Other/ Non-Binary
Unweighted Total	4197	754	434	351	1539	1652	1467	508	657	331	328	205	2466	2138	1834	88
Number of devices owned is less than number of HH members	5%	20%	22%	14%	7%	10%	10%	14%	7%	19%	8%	15%	3%	6%	4%	5%

Green/Red - Significantly higher or lower than Total

Adequate Screen Size, Locations Where Internet is Used

Q16: Do you have access to a device with a screen large enough to do all the tasks you need to do?	Total	FPL 150% and Below	Non-English Speaker (Primary Lang)	Living with Disability	Elder Adult (60+)in HH	Children in HH	BIPOC (NET)	BIPOC Elder Adult (60+) in HH	Asian	Black	Latino/a/x	Native	White Only	Female	Male	Other/ Non-Binary
Unweighted Total	4090	721	408	334	1458	1635	1408	467	627	315	322	196	2421	2085	1788	87
Yes	91%	63%	67%	75%	86%	88%	84%	70%	88%	73%	85%	83%	96%	90%	93%	94%
No	9%	37%	33%	25%	14%	12%	16%	30%	12%	27%	15%	17%	4%	10%	7%	6%

Q10: Please tell us where you have used the internet in the past three months.	Total	FPL 150% and Below	Non-English Speaker (Primary Lang)	Living with Disability	Elder Adult (60+)in HH	Children in HH	BIPOC (NET)	BIPOC Elder Adult (60+) in HH	Asian	Black	Latino/a/x	Native	White Only	Female	Male	Other/ Non-Binary
Unweighted Total	4175	747	427	347	1526	1649	1455	501	648	329	328	204	2458	2129	1826	87
Home	97%	88%	89%	92%	94%	96%	95%	88%	95%	92%	96%	95%	99%	97%	97%	98%
Work	66%	31%	51%	42%	38%	70%	64%	42%	68%	50%	70%	66%	68%	64%	68%	81%
Friend's or relative's home	57%	34%	33%	43%	42%	52%	50%	33%	55%	38%	52%	54%	61%	58%	56%	71%
At a local business	53%	23%	28%	37%	33%	51%	45%	24%	47%	32%	48%	53%	59%	52%	55%	57%
Public or free internet area	51%	25%	29%	34%	34%	46%	46%	26%	52%	29%	46%	50%	54%	50%	52%	51%
School/college/university	21%	27%	26%	25%	14%	35%	26%	21%	26%	24%	27%	24%	19%	22%	21%	28%
Library	19%	26%	23%	20%	13%	22%	25%	21%	23%	26%	26%	29%	15%	20%	16%	34%
Community or recreation center	9%	11%	10%	10%	7%	11%	11%	9%	12%	10%	12%	16%	8%	9%	9%	18%
Apartment/condo building computer center/room	8%	14%	11%	15%	8%	5%	12%	13%	13%	14%	5%	13%	6%	7%	9%	8%
Non-profit/religious/cultural center	6%	8%	10%	8%	7%	6%	8%	8%	9%	8%	5%	7%	5%	6%	6%	8%
Other places	15%	13%	9%	18%	16%	14%	12%	11%	12%	13%	8%	27%	17%	12%	17%	26%
Do not use the internet	1%	4%	2%	3%	2%	0%	2%	5%	2%	2%	1%	1%	0%	1%	1%	0%

Green/Red - Significantly higher or lower than Total

Barriers to Using the Internet More

Q13: Why do you not use the internet more?	Total	FPL 150% and Below	Non-English Speaker (Primary Lang)	Living with Disability	Elder Adult (60+)in HH	Children in HH	BIPOC (NET)	BIPOC Elder Adult (60+) in HH	Asian	Black	Latino/a/x	Native	White Only	Female	Male	Other/ Non-Binary
Unweighted Total	4115	728	409	340	1491	1631	1422	481	632	325	317	197	2434	2093	1808	87
Any barriers to using more (Net)	20%	48%	49%	44%	27%	23%	28%	39%	23%	34%	37%	29%	14%	21%	17%	19%
Internet service is too expensive	7%	19%	24%	15%	7%	10%	12%	15%	9%	12%	20%	8%	4%	8%	6%	13%
It's too slow / frustrating / internet doesn't work well	5%	15%	11%	11%	5%	7%	8%	9%	6%	11%	10%	8%	3%	6%	4%	7%
Not interested or don't need or want to use it	5%	4%	5%	7%	7%	4%	4%	4%	4%	2%	5%	11%	5%	4%	5%	2%
Providers service plans are confusing	3%	7%	6%	12%	5%	3%	4%	6%	2%	6%	7%	7%	3%	3%	3%	3%
I don't know how to use the internet	2%	7%	5%	5%	4%	2%	3%	7%	4%	5%	1%	1%	1%	2%	2%	0%
I don't have a device to access it	1%	6%	4%	6%	3%	1%	2%	4%	1%	6%	2%	4%	1%	1%	1%	5%
I have no time to learn about it	1%	3%	4%	5%	2%	2%	2%	2%	1%	3%	3%	6%	1%	2%	1%	4%
Don't like what I would see/read on it	1%	2%	3%	6%	2%	1%	1%	3%	1%	2%	0%	2%	1%	1%	1%	0%
Other	2%	6%	6%	7%	5%	2%	3%	6%	2%	5%	3%	4%	2%	2%	2%	3%
No reason – I already use the internet to a great extent	80%	52%	51%	56%	73%	77%	72%	61%	77%	66%	63%	71%	86%	79%	83%	81%

Green/Red - Significantly higher or lower than Total

Why Some Do Not Have Internet Where They Live

Q14-Total: If you do not have internet in the place where you live, please tell us why.	Total	FPL 150% and Below	Non-English Speaker (Primary Lang)	Living with Disability	Elder Adult (60+)in HH	Children in HH	BIPOC (NET)	BIPOC Elder Adult (60+) in HH	Asian	Black	Latino/a/x	Native	White Only	Female	Male	Other/ Non-Binary
Unweighted Total	4150	738	420	345	1510	1644	1441	494	646	325	322	198	2449	2119	1812	88
Any barriers to using internet at all (Net)	2%	10%	9%	6%	6%	2%	5%	11%	3%	9%	4%	8%	1%	2%	3%	3%
Internet costs too much	1%	5%	6%	2%	3%	1%	2%	6%	1%	4%	2%	5%	0%	1%	1%	0%
I don't know how to get internet service where I live	1%	2%	1%	1%	1%	0%	1%	3%	1%	3%	1%	1%	0%	0%	1%	
I don't have a device to access it	0%	2%	1%	1%	2%	0%	1%	3%	1%	2%	0%	0%	0%	0%	1%	0%
I don't have the credit or deposit requirements are too high	0%	3%	2%	1%	0%	1%	1%	1%	0%	2%	2%	2%	0%	1%	0%	0%
I don't need or want it where I live	0%	1%	0%	1%	1%		0%	2%	1%	1%		0%	0%	0%	0%	
I don't trust technology/internet cos.	0%	1%	0%	1%	0%		0%	1%	0%	1%	0%	2%	0%	0%	0%	3%
Internet service is too slow / unreliable	0%	1%	0%	2%	1%	0%	1%	2%	0%	1%	0%	2%	0%	0%	0%	
Other	0%	0%	1%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%
I have internet where I live	98%	90%	91%	94%	95%	98%	96%	89%	97%	92%	97%	93%	99%	98%	97%	97%

Green/Red - Significantly higher or lower than Total

Online Activity Levels, Digital Skills Summary

Q15Activity: Online activity levels	Total	FPL 150% and Below	Non-English Speaker (Primary Lang)	Living with Disability	Elder Adult (60+)in HH	Children in HH	BIPOC (NET)	BIPOC Elder Adult (60+) in HH	Asian	Black	Latino/a/x	Native	White Only	Female	Male	Other/ Non-Binary
Unweighted Total	4197	754	434	351	1539	1652	1467	508	657	331	328	205	2466	2138	1834	88
Low	15%	32%	29%	25%	39%	8%	17%	40%	16%	19%	15%	16%	14%	16%	15%	1%
Medium Low	23%	22%	23%	27%	32%	22%	20%	25%	19%	23%	21%	30%	25%	23%	24%	18%
Medium High	33%	25%	24%	23%	19%	36%	31%	19%	31%	32%	33%	20%	35%	35%	31%	30%
High	28%	21%	24%	24%	10%	34%	32%	16%	34%	26%	32%	34%	26%	26%	30%	51%

Summary - Full ability to perform skills without help	Total	FPL 150% and Below	Non-English Speaker (Primary Lang)	Living with Disability	Elder Adult (60+)in HH	Children in HH	BIPOC (NET)	BIPOC Elder Adult (60+) in HH	Asian	Black	Latino/a/x	Native	White Only	Female	Male	Other/ Non-Binary
Unweighted Total	4197	754	434	351	1539	1652	1467	508	657	331	328	205	2466	2138	1834	88
Basic skills without help	78%	42%	42%	54%	49%	79%	69%	38%	73%	64%	68%	66%	83%	74%	81%	92%
Setup skills without help	78%	50%	48%	51%	52%	81%	71%	43%	74%	66%	73%	61%	82%	73%	84%	78%
Security skills without help	74%	49%	45%	50%	53%	77%	68%	44%	69%	56%	75%	64%	79%	69%	80%	86%
Collaboration skills without help	71%	43%	45%	46%	38%	74%	67%	37%	70%	59%	68%	65%	74%	66%	77%	83%
Able to complete all digital skills	61%	30%	30%	33%	29%	63%	55%	27%	59%	42%	55%	49%	64%	52%	70%	72%
Not able to complete all skills tested	39%	70%	70%	67%	71%	37%	45%	73%	41%	58%	45%	51%	36%	48%	30%	28%

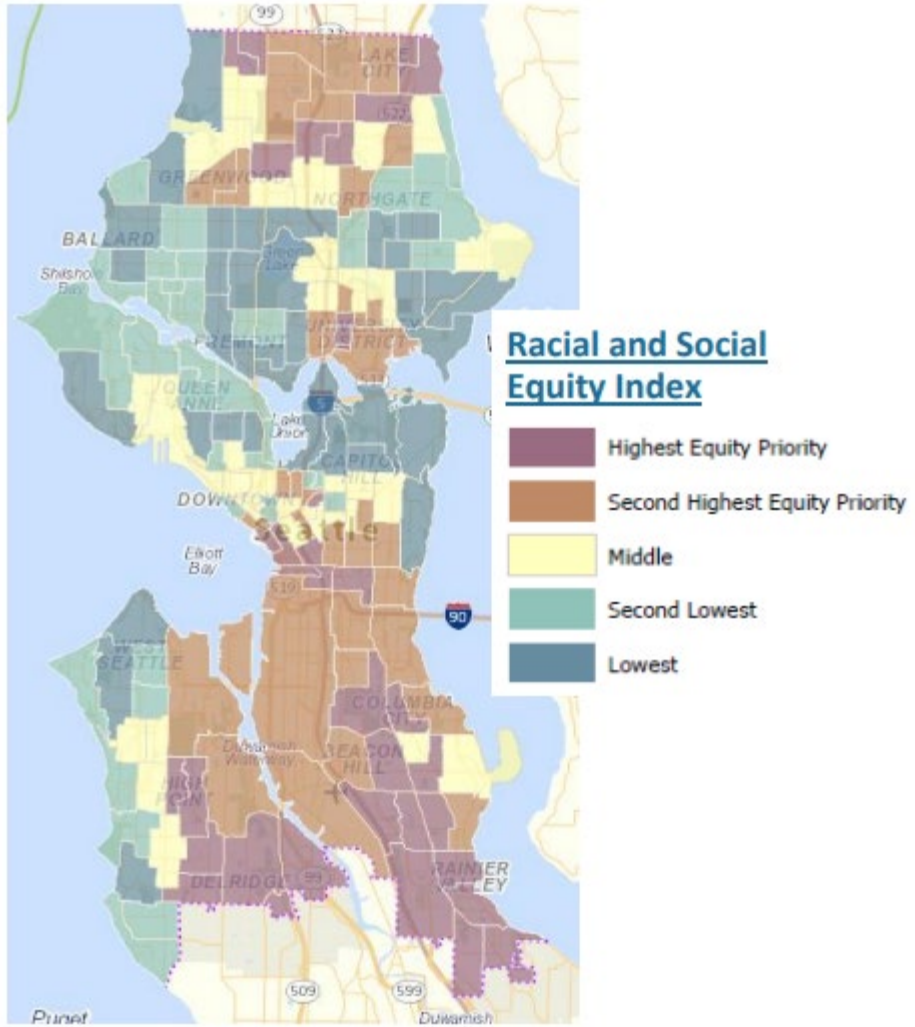
Green/Red - Significantly higher or lower than Total

Analysis by Racial and Social Equity (RSE) Priority Areas

Background on Racial and Social Equity Areas	(pg. 194)
Internet Access in Home	(pg. 195)
Internet Access On-the-Go and At Home	(pg. 196)
Method of Accessing Internet On-The-Go	(pg. 197)
Experienced Prolonged Internet Access Interruptions	(pg. 198)
Household Cost of Internet Service per Month	(pg. 199)
Adequacy of Internet Connection and Speed	(pg. 200)
Barriers for Not Using the Internet More	(pg. 201)
Reliance on Others to Navigate the Internet	(pg. 202)
Interested in Technology Training	(pg. 202)

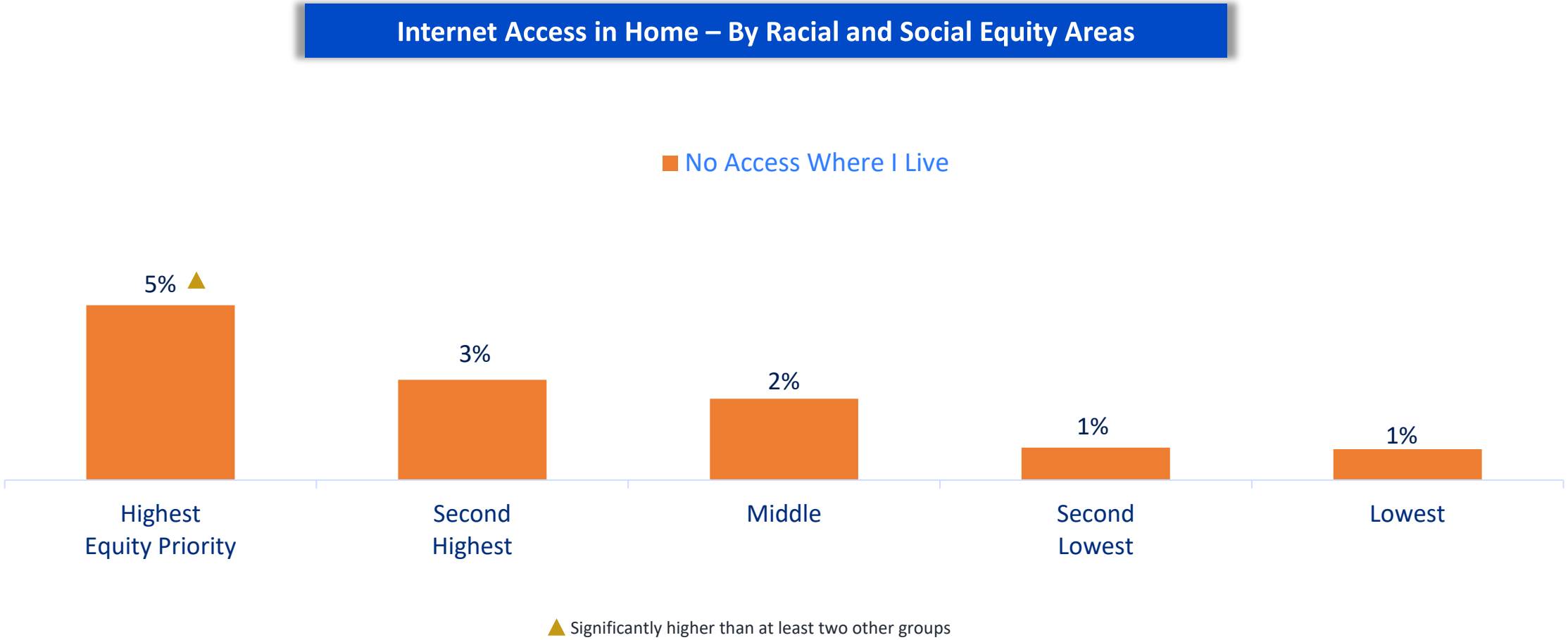
Background on Racial and Social Equity Areas

- The City's Racial and Social Equity Index (RSE) was developed by the Office of Planning and Community Development. The index is a tool to aid in the identification of neighborhoods for City planning, program, and investment priorities.
- The RSE index combines data on race, ethnicity, and related demographics with data on socioeconomic disadvantage and health disadvantage to identify neighborhoods where persons of color and other equity priority populations are large proportions of residents.*
- These factors are used to classify census tracts into five categories ranging from "highest equity priority" indicating higher disadvantage and priority to "lowest equity priority" indicating less disadvantage and priority.
- The analysis by RSE Priority Area that follows is based on the RSE Index priority level of the census tract where each survey respondent lives.



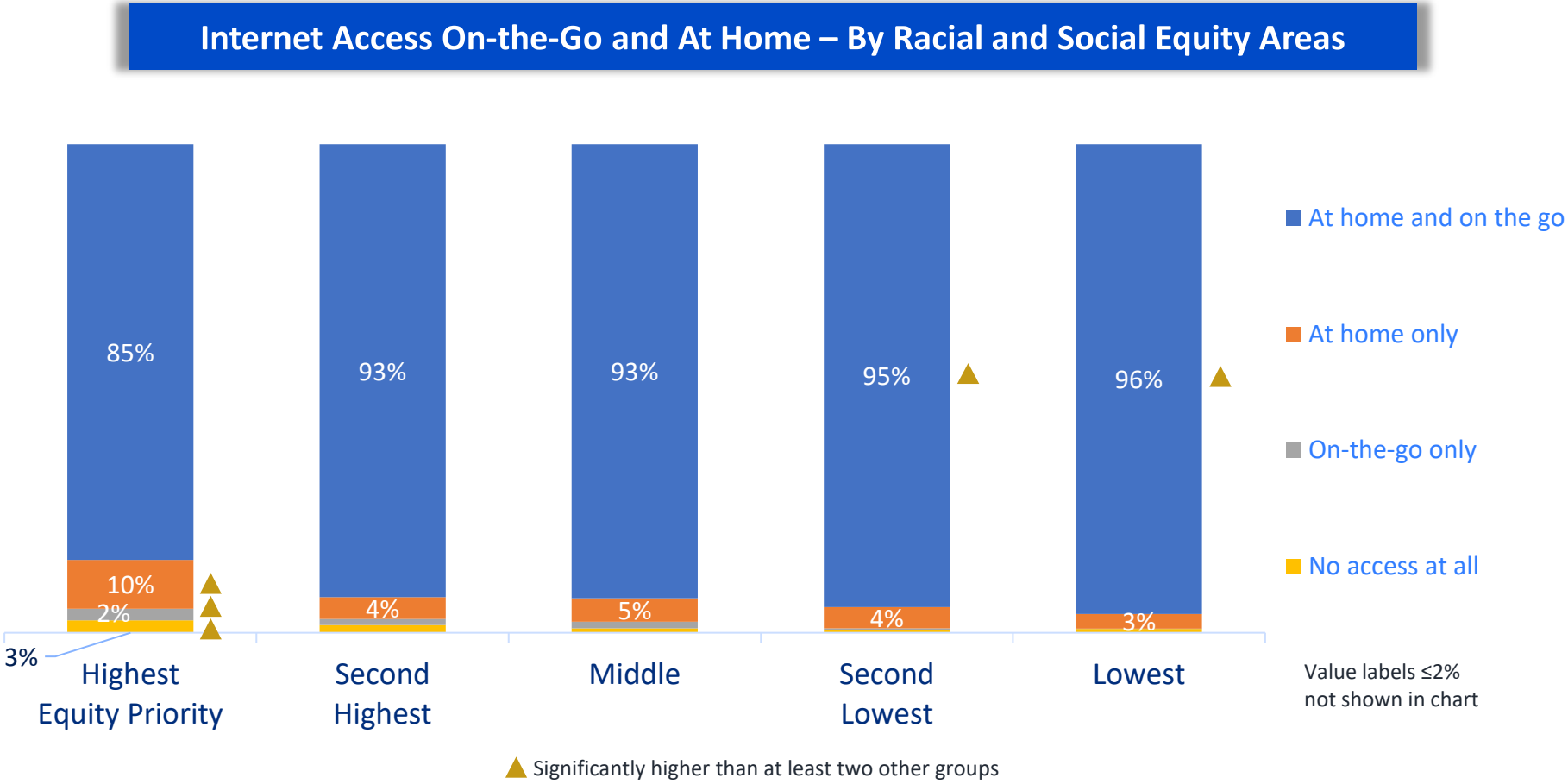
*See link in footer below to get explore the RSE Index and get more information.

Households in the highest racial and social equity priority areas are more likely not to have internet access where they live.



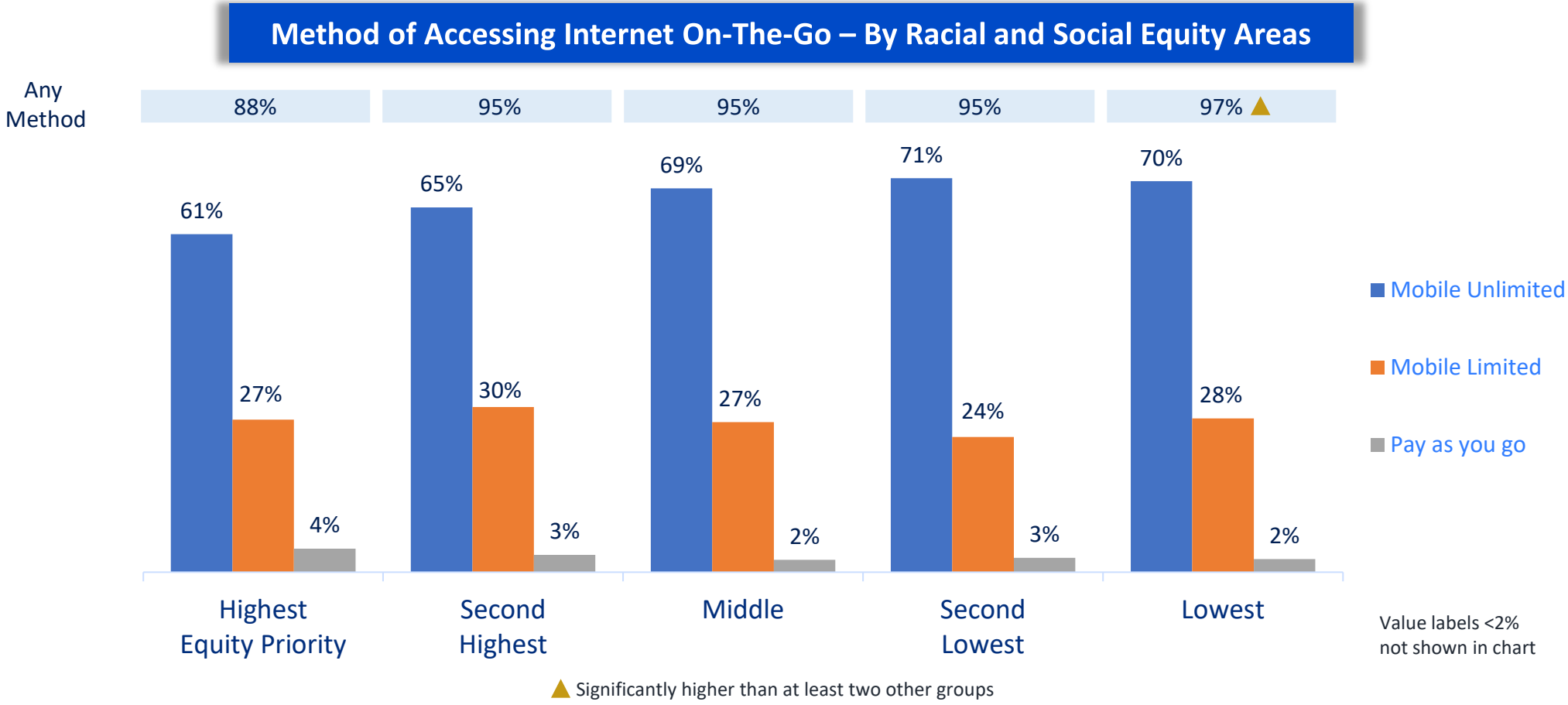
Households in the highest priority racial and social equity areas are significantly less likely to have a way to access the internet both at home and when on-the-go.

- Only 85% of those in the highest priority area has internet both at home and on-the-go.



Households in the highest racial and social equity priority area are less likely to have a way to access the internet on-the-go.

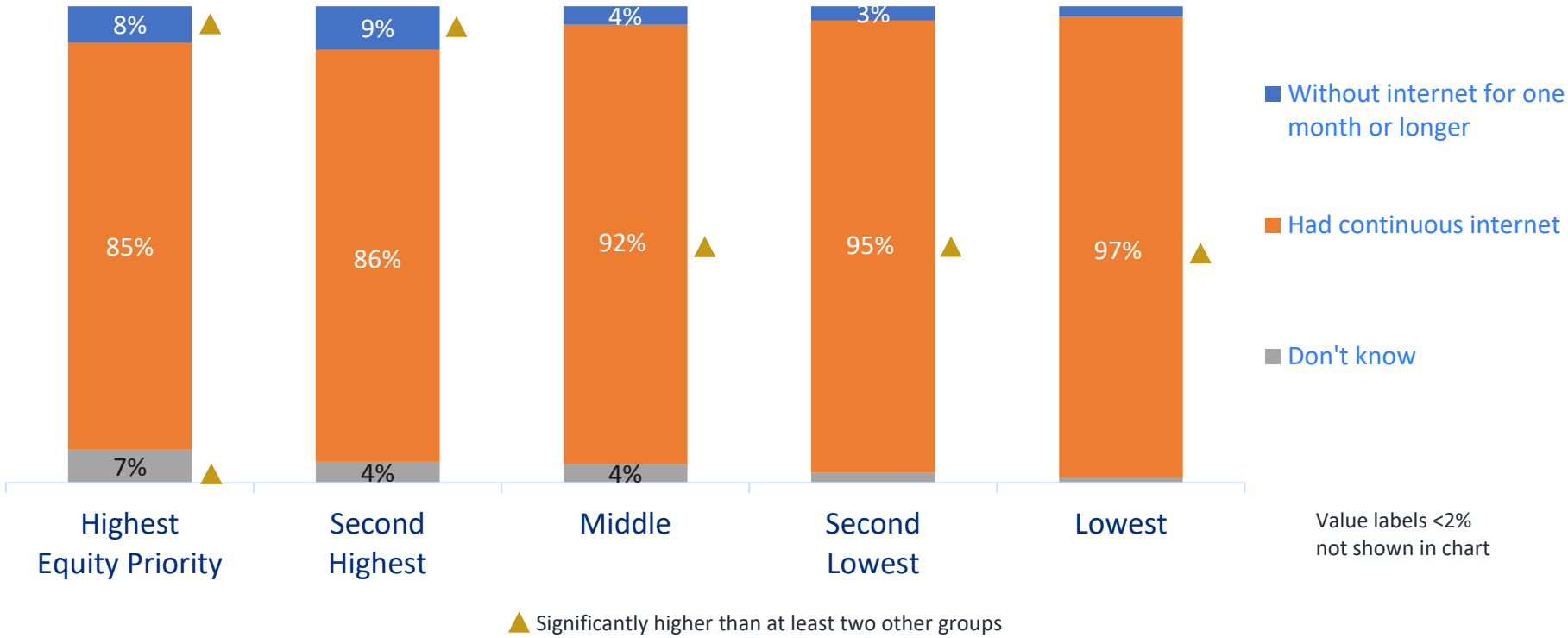
- There is no significant difference by equity priority area in *type* of mobile access that residents have to access the internet on-the-go.



Households in the highest and second highest equity priority areas are more likely to report prolonged internet interruptions in their home in the past 12 months.

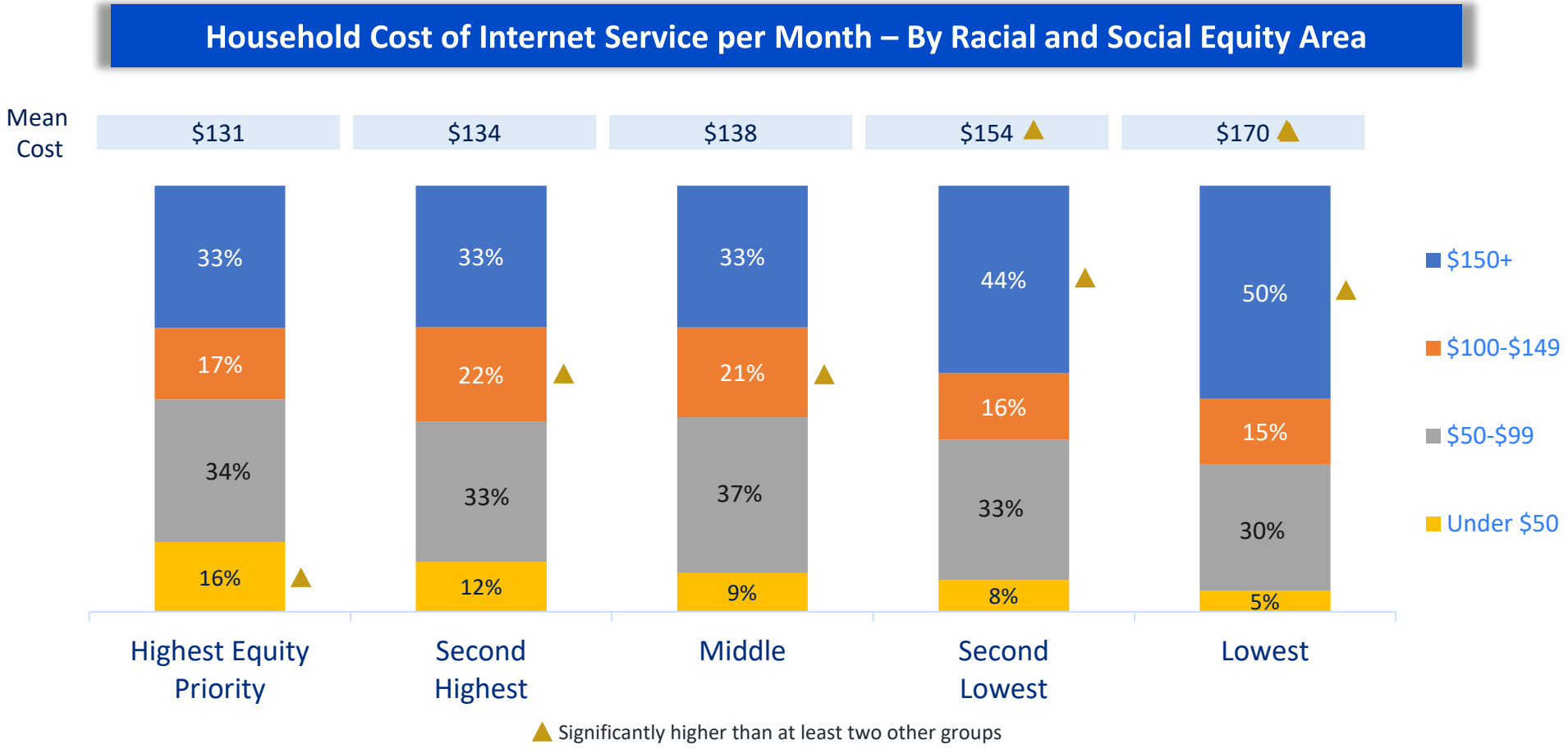
- Residents in households in the middle, second lowest, and lowest priority racial and social equity areas are significantly more likely to have had continuous internet access over the past year.

Experienced Prolonged Internet Access Interruptions – By Racial and Social Equity Areas



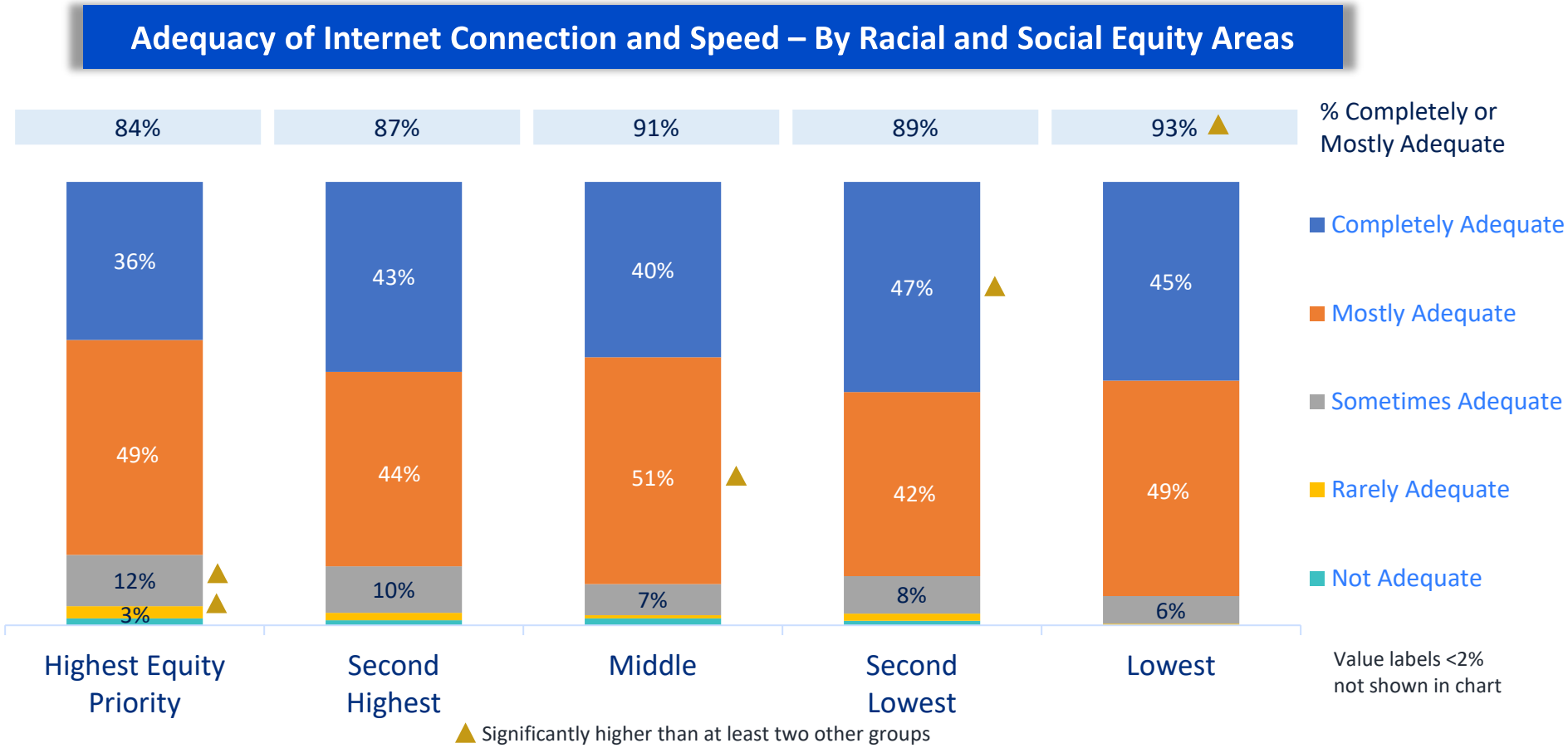
Residents in higher priority racial and social equity areas pay less per month for internet service.

- Households in the highest, second highest, and middle racial and social equity areas pay on average $131 per month for internet. This can be compared to $154 for the second lowest and $170 for the lowest.



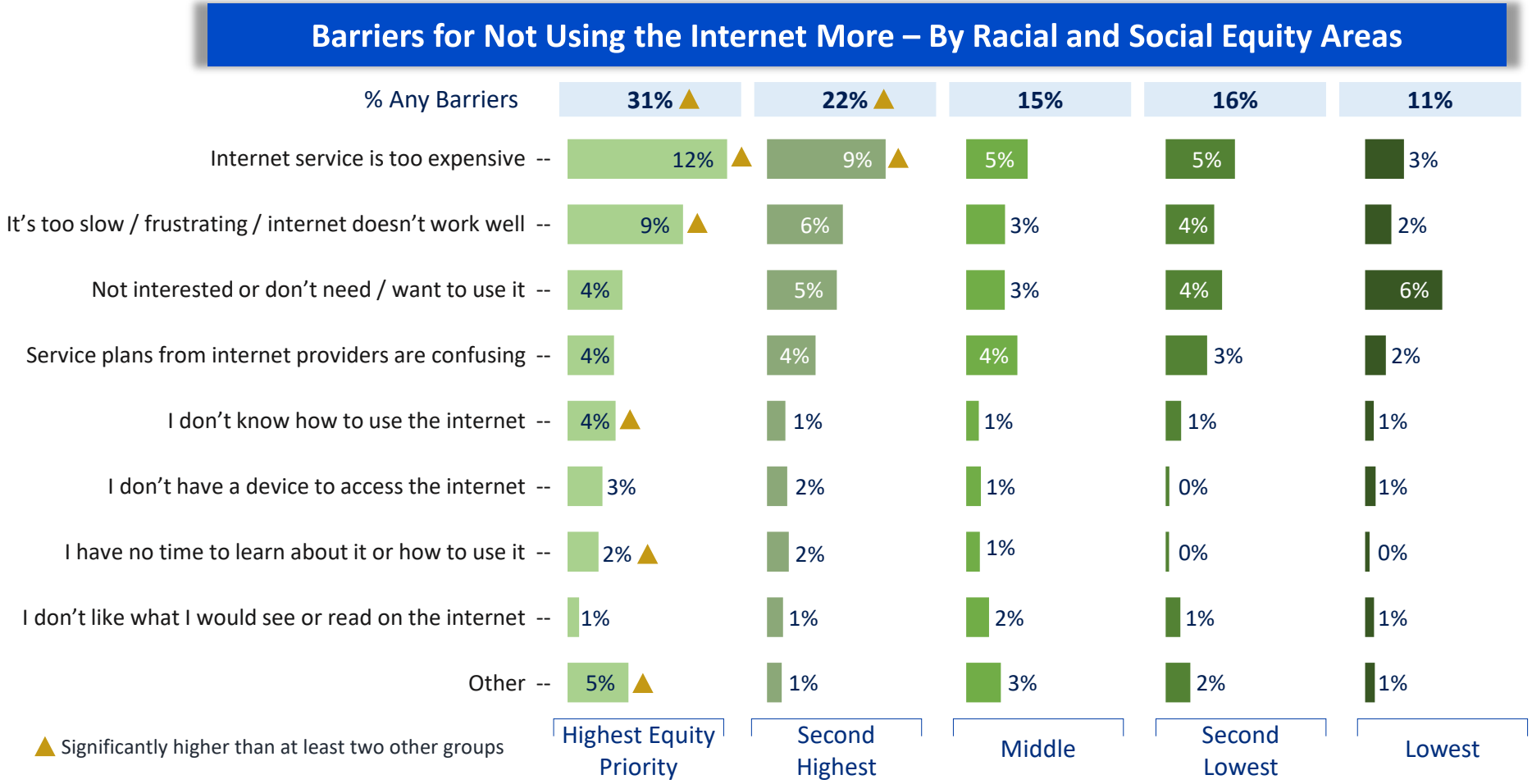
Households in the highest equity priority areas report far lower levels of adequate internet connection and speed.

- Around one in six (16%) households in the highest equity priority area say their internet is sometimes, rarely, or not adequate for their needs.



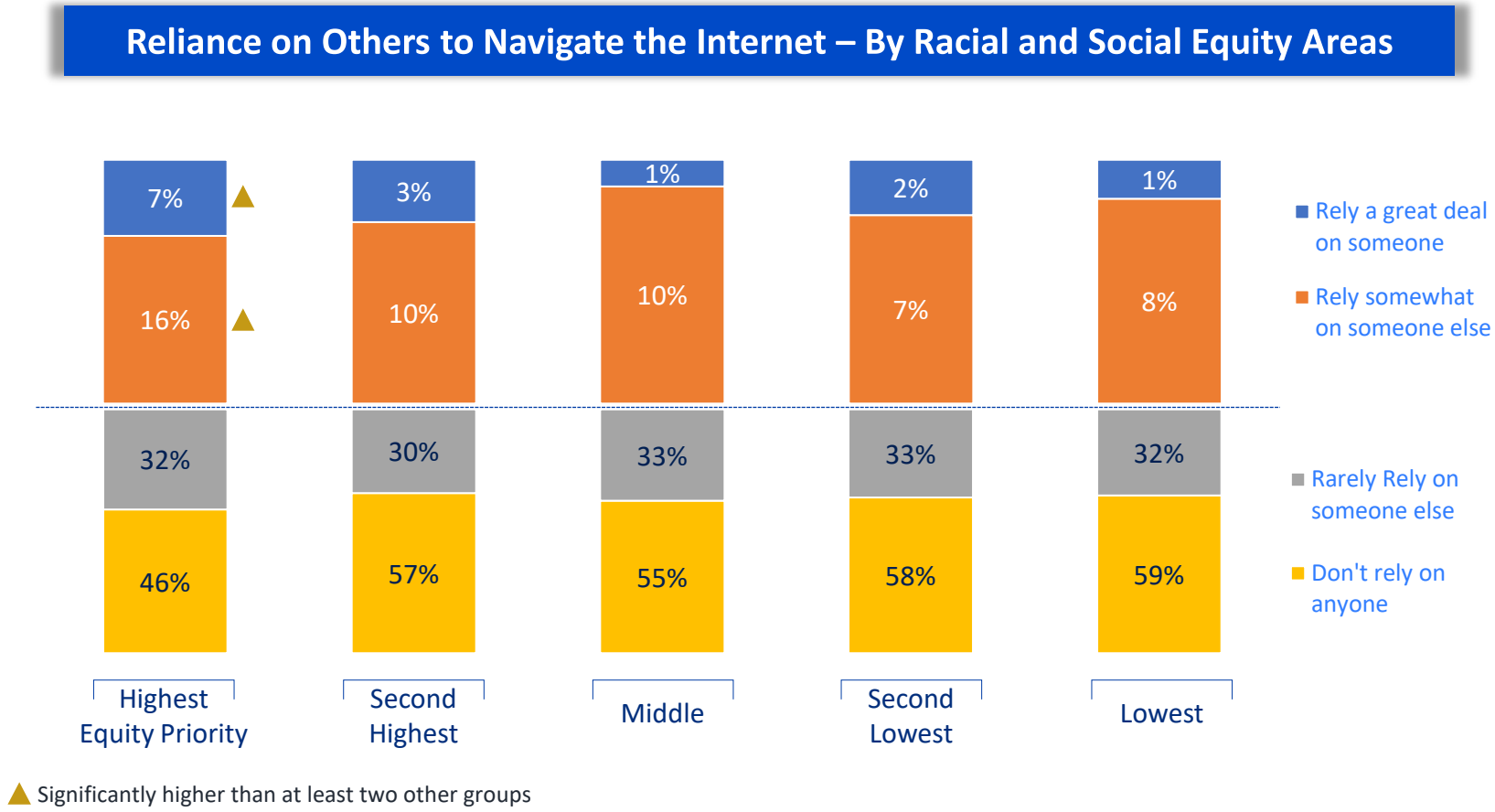
As household equity priority rises, so do the barriers for accessing the internet.

- Residents in the higher equity priority areas are significantly more likely to have barriers to using the internet more – particularly barriers related to the expense of internet.



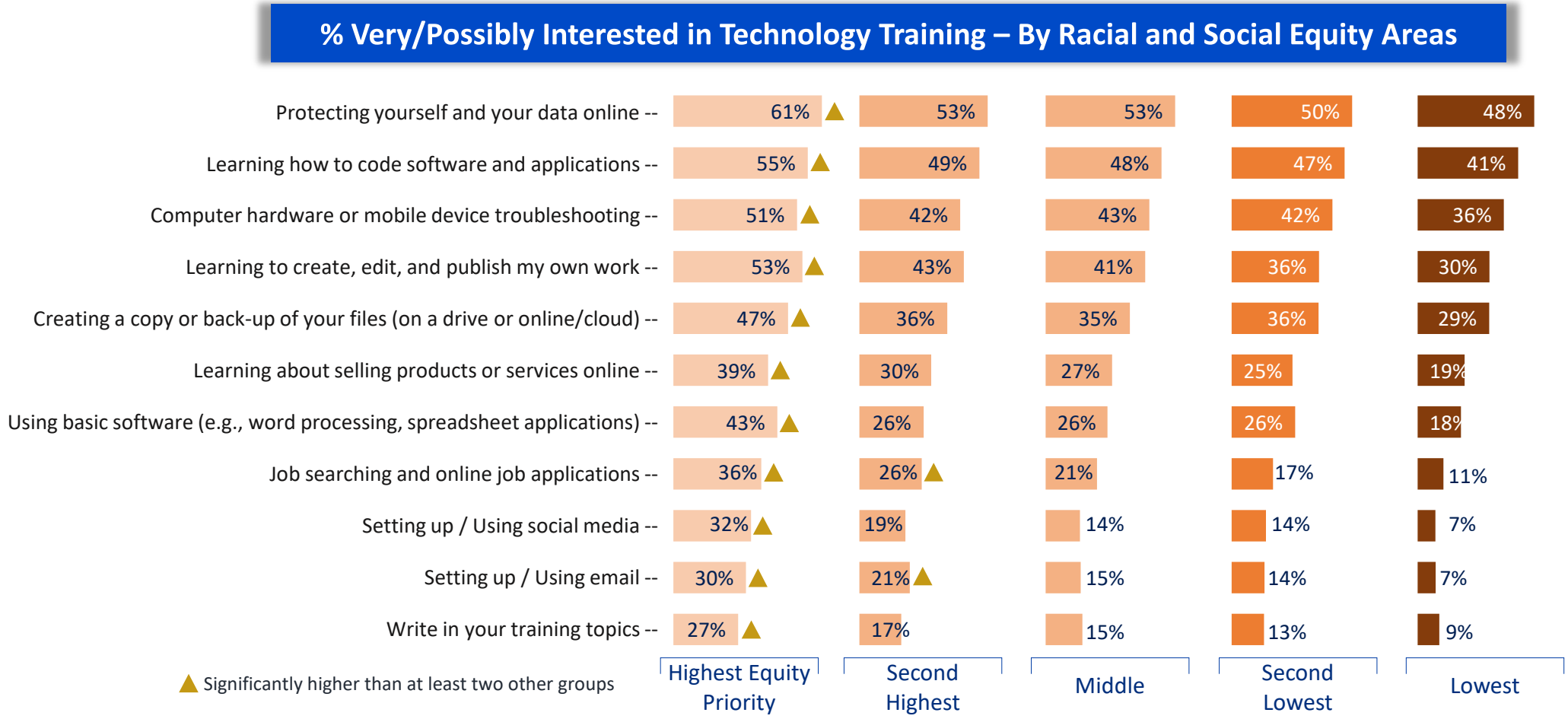
Residents in the higher equity priority areas are more likely to rely on others to navigate the internet.

- Less than half of residents in the highest equity priority areas are able to access and navigate the internet independently. Those in the middle to lowest equity priority areas are less likely to need a “great deal’ of help from others.



The higher the equity priority area, the more interest is reported in technology training topics.

- Residents in the highest equity priority areas are significantly more interested in attending nearly all technology training courses.



Digital Connectedness Score

Understanding Digital Connectedness	(pg. 205)
Digital Connectedness Segments Overview	(pg. 206)
Assessing Overall Digital Connectedness (Index Score) and Impacted Group Comparison	(pg. 207)
Digital Skills Critical Group Comparisons	(pg. 208)
Council District Comparison	(pg. 209)
Income and Federal Poverty Level (FPL) Comparison	(pg. 210)
Age Group Comparison	(pg. 211)
Highest Need (Lowest Connectedness) Profile	(pgs. 212-217)
Significant Need (Low Connectedness) Profile	(pgs. 218-223)
Some Need (Moderate Connectedness) Profile	(pgs. 224-229)
No Need (High Connectedness) Profile	(pgs. 230-235)

Understanding Digital Connectedness

The goal is to determine the level of connection the household (HH) has on three aspects of technology access and adoption: *internet access, devices*, and *digital skills*. These three category scores are combined into an overall **Household Digital Connectedness Score** which ranges from 0 (no need / fully connected), up to 9 (highest level of need). Note that the higher the score, the more need/lower level of connectedness.

INTERNET ACCESS (score of 0, which is no impact up to 5 which is highly impacted)

- Household does not have a way to access the internet (Q1) – responds as "no" (automatic score of "4" for Internet Access Impact)
- Household does not have a way to access the internet on the go (Q2) – responds as "no"
- Household experienced a month or longer in the past year with no internet/interrupted service (Q3) equal "yes" (*automatically include anyone who has no way to access the internet in Q1)
- Download speed of home internet is <50 Mbps (Q7) (*automatically include anyone how has no way to access the internet in Q1)
- Internet service is interrupted weekly or more often (Q8) OR Internet service is sometimes, rarely or never adequate for needs (Q6) (*automatically include anyone who has no way to access the internet in Q1)

DEVICE (score of 0/no impact up to 3 which is highly impacted)

- Total number of devices owned or borrowed in the HH is less than total number of people in HH (DEVICETOTHH)
- Device too small to do all they need to do on it (Q16) – Q16 is no access to device large enough.
- HH does not have at least one smartphone (owned or borrowed)

SKILLS (score of 0/no impact up to 2 which is highly impacted)

- Not able to do one or more of skills tested – FullSkills = no.
- Completely reliant on others to get online (Q18) = completely reliant

Total HH Connectedness Score = sum of internet + device + skills (range from 0 to 9, where 9 is the most impacted)

There are four segments: ***Highest Need*** (Total HH Connectedness Score of 5+), ***Significant Need*** (Total HH Connectedness Score of 3-4), ***Some Need*** (Total HH Connectedness Score of 1-2), and ***No Need*** (Total HH Connectedness Score of 0).

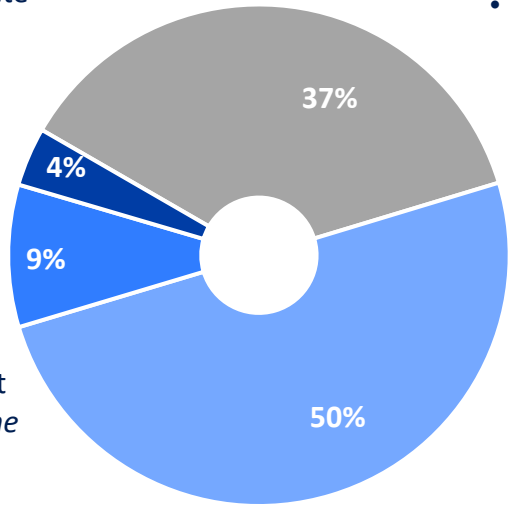
Digital Connectedness Segments Overview

"Highest Need" Segment – 4%

- Significantly limited internet access – 1 in 3 HH have **no access**, either at home or on the go. Cost is the #1 barrier, and most are *not aware* of lower cost services. Those with internet tend to find it inadequate and slow. Devices are limited and are likely shared – fewer than half have a smartphone, fewer than a third have a laptop.
- Most engage in a low level of online activity, virtually all are unable to complete all digital skills; 3 in 5 rely on others to navigate the internet. Lack of skills, affordability, or no device are main barriers to using the internet more.
- Demographically, they tend to be Baby Boomers, retired, and less educated. They average the lowest HH income and two thirds are renters. More than half live alone. Highest portion of HHs with primary language other than English (1 in 3) and members with a disability (1 in 4). 3 in 5 are BIPOC.

"Significant Need" Segment – 9%

- Limited internet access – 2 in 3 can access the internet at home and on the go, but a third have access *at home only*. A third find their internet inadequate and want faster speed; 3 in 5 have interruptions at least weekly. Devices are somewhat limited; 1 in 5 households must share, 2 in 5 lack adequate screen size.
- Limited online activity and skills – half engage in a low level of online activity. 9 in 10 are unable to complete all digital skills; half rely on others to navigate the internet. Half mention barriers to using the internet more, with affordability and performance issues the top mentions.
- Demographically, they tend to be older and female, and are less likely to be college graduates. They average a lower HH income and two thirds are renters living in an MDU. Notable portions of HHs with primary language other than English (1 in 5) and members with a disability (1 in 5). Half are BIPOC.



"No Need" Segment – 37%

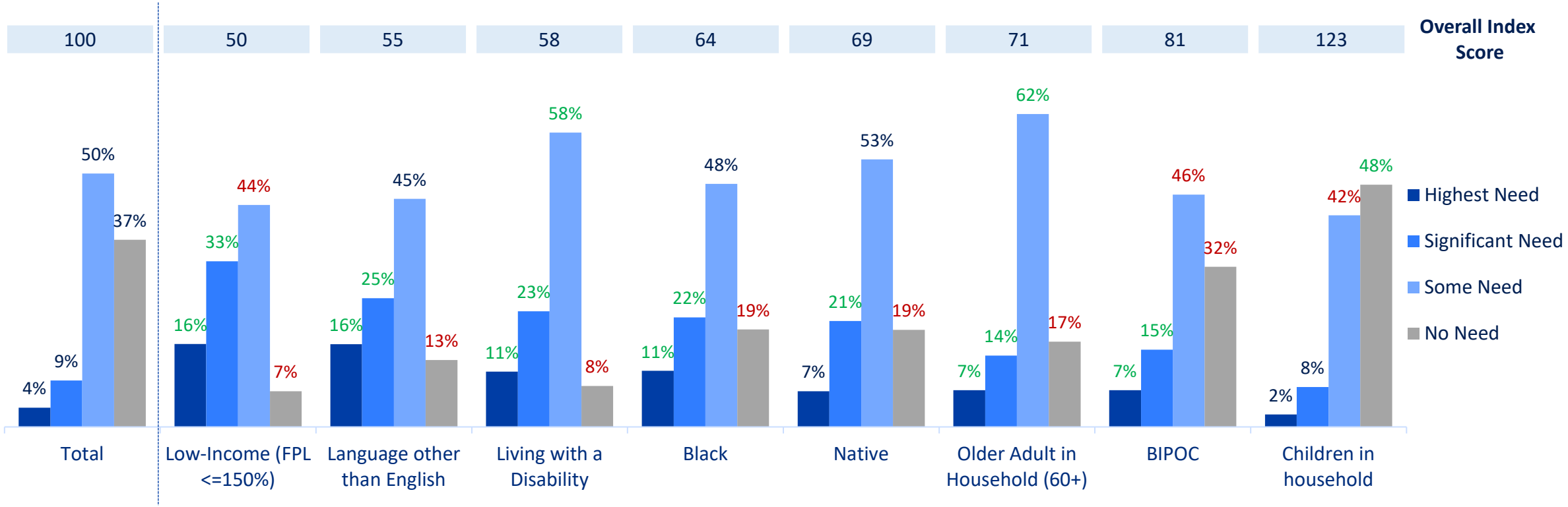
- All have internet access at home and on the go; majority have both broadband and a cell plan. Adequate internet connection and speed, with little to no interruption. Devices in the HH are plentiful.
- Engage in medium high to high level of online activity, completely comfortable over a range of digital skills and tasks.
- Demographically, more likely to be Millennials or Gen X and male. Most are employed full time and college graduates; average the highest HH income, and more likely to be homeowners. Most likely to have children in the HH. Lowest percentage BIPOC (1 in 4).

"Some Need" Segment – 50%

- All have internet access at home and most on the go; majority have both broadband and a cell plan. Adequate internet connection, but 2 in 5 have some interruption at least weekly. Devices in the HH are widely available.
- Average level of online activity and skills – they engage in a wide variety of activities online, although to a lesser degree than the "No Need" segment. Two thirds are unable to complete all digital skills and tasks; one fifth rely on others to navigate the internet. More likely than all others to be concerned about security of personal information and online viruses/malware.
- Demographically, they tend to be middle aged or older, one third are retired. Three quarters are college graduates. HH income for the segment covers a wide range; just over half are homeowners. About 1 in 5 have children in the HH. 3 in 10 are BIPOC.

Assessing Overall Digital Connectedness (Index Score)

Further utilizing the digital connectedness measures of need, an index score was established to evaluate City residents' overall level of household connection. This score is based to 100 – which represents the current level of the City of Seattle connectedness and is parity. Scores which are below 100 are below average and suffering from disparities and those which are above 100 are those with greater than average connectedness.



Green/Red - Significantly higher or lower than Total

Groups which are above or below average (score of 100) are listed below.

These index scores are based on the City score set to 100, with scores below 100 having 'higher need' and those above 100 having 'less need'.

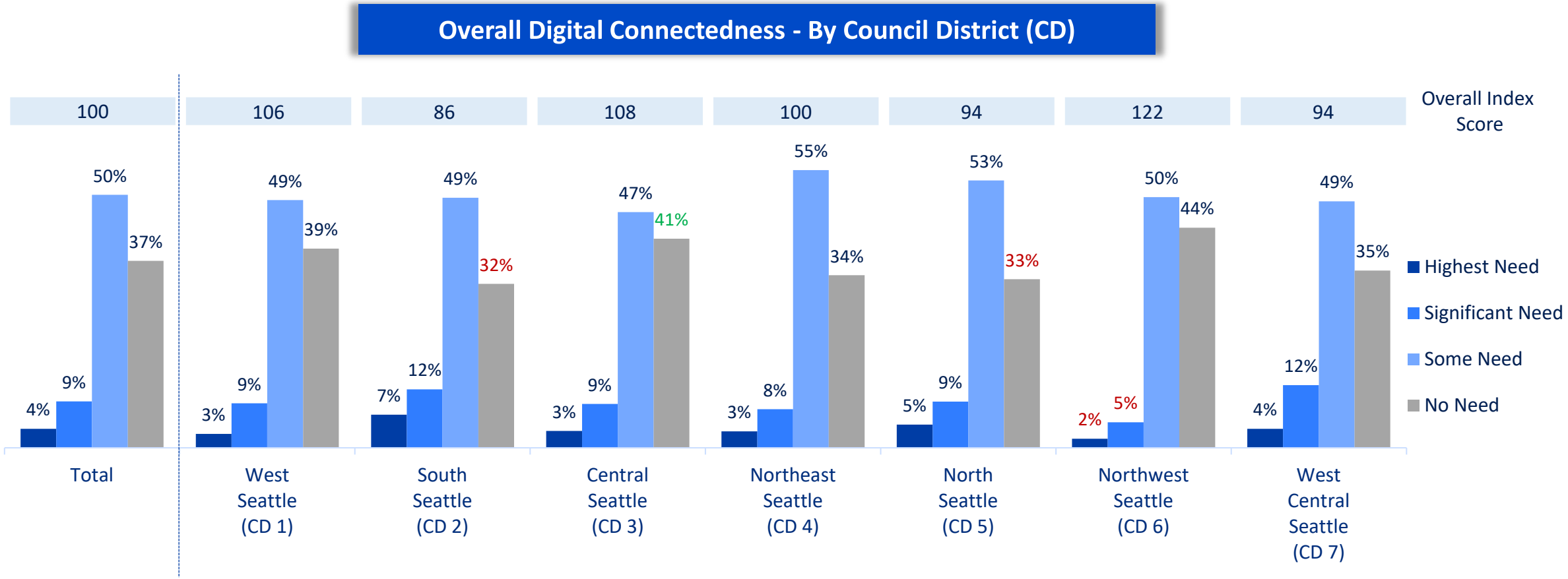
		Overall Index Score
Education	Less than HS Grad	44
Housing	Insecure/Group Housing/ Homeless	48
FPL150	At or below 150% FPL	50
Income	<$27K	52
FPL200	At or below 200% FPL	55
Other	Non-English Primary	55
Other	BIPOC Older Adult in HH	58
Other	Living with Disability	58
Race/Ethnicity	Black	64
Income	$27K-$46K	65
Age	65+	69
Race/Ethnicity	Native	69
Race/Ethnicity	Native HI/Pacific Islander	71
Other	Older Adult in HH	71
Education	HS Grad/ Some College	75

		Overall Index Score
Race/Ethnicity	Other Race/Ethnicity	78
Race/Ethnicity	BIPOC NET	81
Housing	Rent/Other	85
CD	Council District 2	86
Income	$46K-$74K	88
Age	55-64	88
Gender	Female	89
Race/Ethnicity	Latino/a/x	90
Race/Ethnicity	Asian	90
CD	Council District 5	94
CD	Council District 7	94
Children in HH	No Kids in Household	96
CD	Council District 4	100
Total	Total	100
Income	$74K-$100K	103

		Overall Index Score
CD	Council District 1	106
CD	Council District 3	108
Race/Ethnicity	White Only	114
Gender	Male	115
Gender	Other/Non-Binary	118
FPL150	Above 150% FPL	119
Education	College Grad +	122
Housing	Own	122
CD	Council District 6	122
Children in HH	Yes Kids in Household	123
FPL200	Above 200% FPL	124
Income	$100K-$150K	128
Age	35-54	134
Age	18-34	142
Income	$150K+	195

Those living in South Seattle (CD 2), North Seattle (CD 5), and West Central Seattle (CD 7) have the lowest levels of digital connectedness, all falling below the City average.

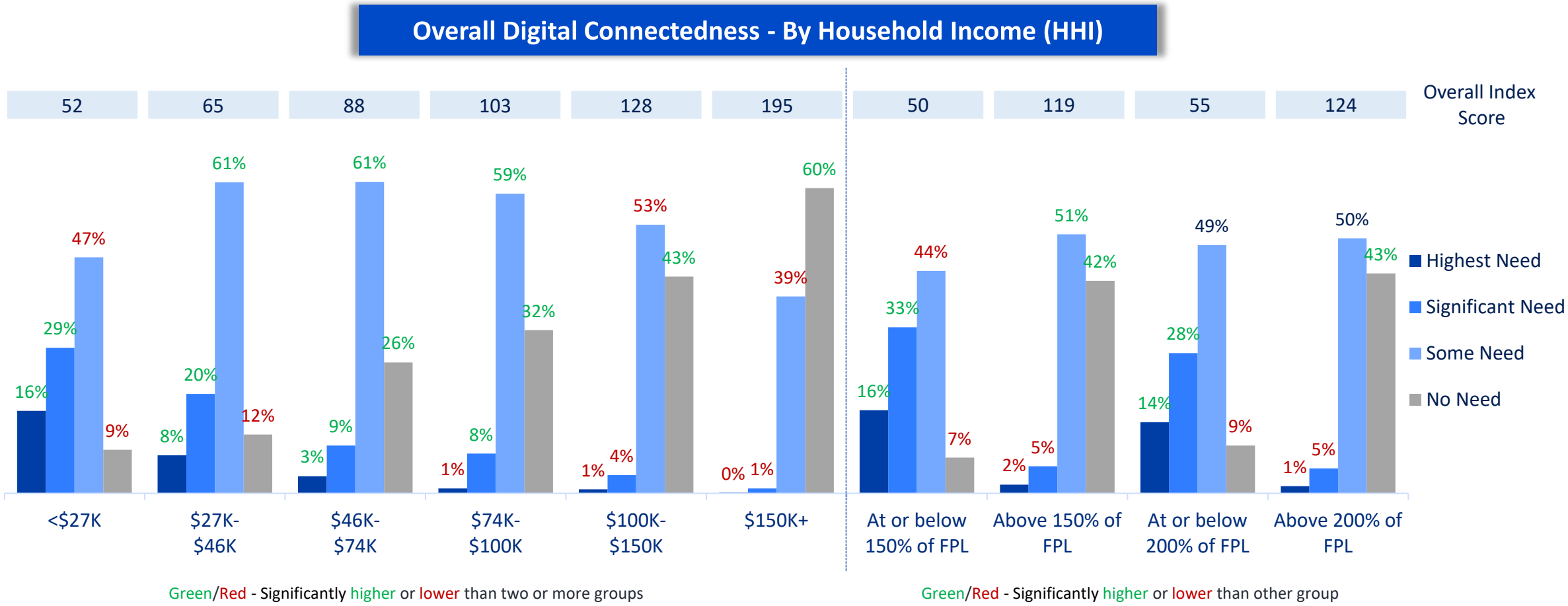
- Northwest Seattle (CD6) is the most connected, with limited residents with highest or significant need.



Green/Red - Significantly higher or lower than two or more groups

Lower income households are less likely to be digitally connected.

- Those living in households at or below 150% of the Federal Poverty Level or with incomes under $27K have about half the digital connectedness of the City average.

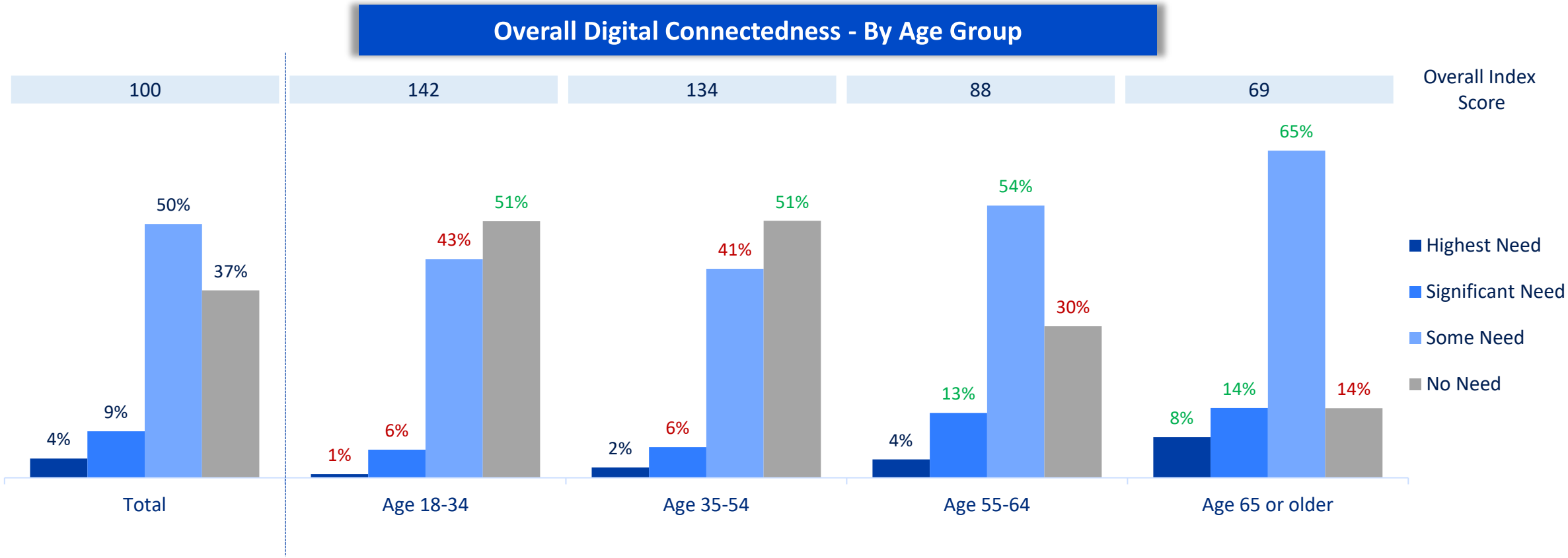


Green/Red - Significantly higher or lower than two or more groups

Green/Red - Significantly higher or lower than other group

Older residents have lower digital connectedness compared to the City average.

- Those under the age of 55 are significantly less likely to be experiencing high or significant need.



Green/Red - Significantly higher or lower than two or more groups

Highest Need (Lowest Connectedness)

Segment Profile: Highest Need (4% of Seattle Households)

Internet access is significantly limited in this segment – just 2 in 5 have a way to access the internet where they live, 1 in 6 can access the internet at home and on the go, but one third of households have no access – either at home or on the go. Home access is most commonly through fixed broadband subscriptions, with Xfinity the most popular provider. Half or fewer have their internet bundled. Cost is the #1 barrier among those without internet where they live, but around 3 in 10 mention lack of a device to access it, or not knowing how to get it. The majority are NOT aware of lower cost internet services for qualified low-income households.

Significant numbers find the internet they DO have to be inadequate - just 2 in 5 feel their connection allows them to do what they want or need to do. Most do not know their speed, but 1 in 3 say it is 50 Mbps or less. Nearly 3 in 5 say their internet service is either interrupted or too slow on a daily or weekly basis. Nearly half of households with internet went without it for a month or longer in the past year.

Devices are limited in these households as well – fewer than half have a smartphone, fewer than a third have a laptop, and just 1 in 5 have a tablet and/or desktop PC. If they have a device type, they usually just have one, but most own the devices they are using. In half of these households devices must be shared. This segment is more likely to rely on the library to access the internet and are less likely to access it from home, work, or a range of other places.

Four in five households in this segment fall into the "low online activity" category – they mostly go online to email, watch/listen to videos/music/etc., and to text/message. Only a third or fewer engage in other activities. Virtually all in this segment are unable to complete a majority of the digital skills tested. They are most comfortable browsing websites, searching for information, sending emails and/or sharing document attachments, and shopping online. Three in five rely on someone else to help them access or navigate the internet. Lack of knowledge/skills, affordability, or no device to access it are the top reasons this segment does not use the internet more.

Seven in ten feel technology and the internet have at least some importance in their lives. They are more likely than most others to worry about affordability, to not feel confident about doing business with places only reachable online, to have a hard time learning how to use new technology, and to prefer a basic model device. Three quarters are concerned about security of their personal information, and an equal amount would be interested in learning how to protect themselves and their data online.

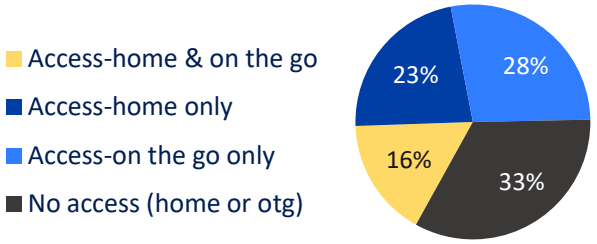
Demographic highlights

- Respondents for this segment are more likely to be Baby Boomers or older and retired. Least likely to be a high school or college graduate. 3 in 5 are BIPOC.
- More than half (53%) are single person HHs.
- Lowest HH income: 58% <$27K; 24% 27K-$45.9K.
- 2 in 3 are renters; 2 in 3 live in an MDU.
- 1 in 3 say the primary language spoken in the HH is other than English.
- 1 in 4 have a HH member with a condition or disability that makes it difficult to use tech or internet without assistance or adaptation.

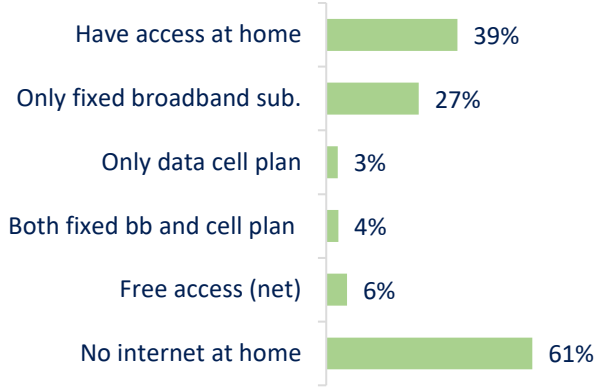
Highest Need – Internet / Device Access

39% ***Have a way to access the internet <u>where they live</u>.***

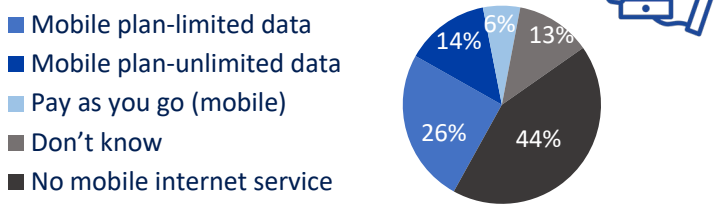
1 in 6 HHs (16%) can access the internet at home <u>and</u> on the go, 1 in 3 HHs have <u>no access,</u> either at home or on the go.



Home internet access is most commonly through fixed broadband subscriptions.



44% ***Can access the internet "<u>on the go</u>"***

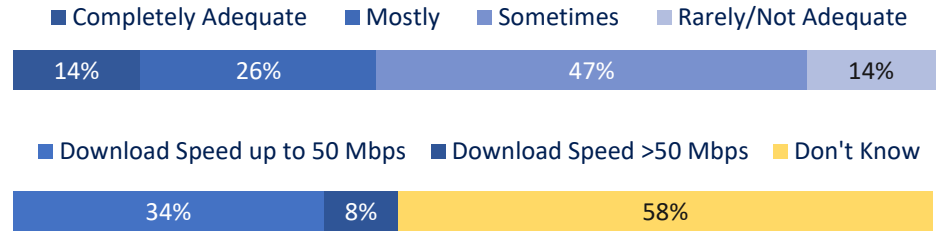


47% ***Nearly half of HHs <u>with</u> internet went <u>without it</u> for a month or longer in the past year.***

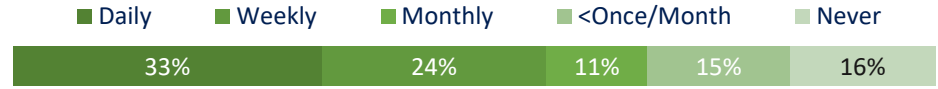
Xfinity is the most popular provider with the highest average monthly cost. Half or fewer have their internet bundled.

Internet Provider	% Using	Mean Cost/Mo.	% Bundled
Xfinity (Comcast)	55%	$95	51%
Cellular/Wireless Provider	25%	$52	49%
CenturyLink (Lumen)	11%	$73	38%
Astound (Wave)	10%	$26	20%
Other type	3%	$24	0%
Provided by building	7%	-	-
Other free	6%	-	-
Don't know	7%	-	-

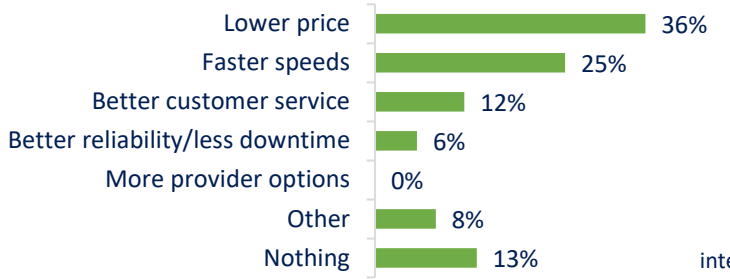
Just 2 in 5 feel the internet connection in the place they live is adequate to do the things they want or need to do. Most do not know their internet speed, but 1 in 3 say it is <u>50 Mbps or less</u>.



Nearly 3 in 5 say their internet service is either interrupted or too slow on a daily or weekly basis.



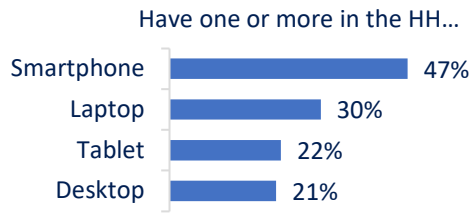
Regarding the ONE thing that would improve their internet service, 1 in 3 cite lower price, 1 in 4 cite faster speed.



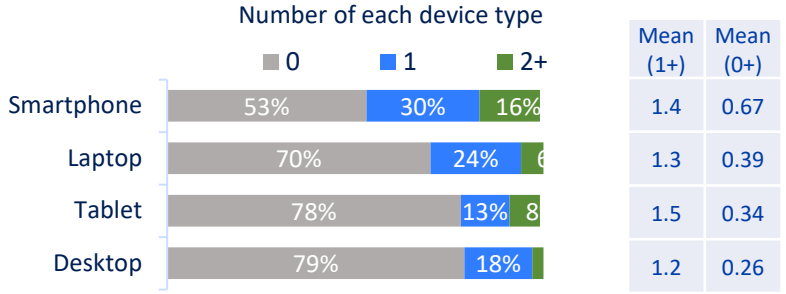
Among those with internet where they live

Highest Need – Internet / Device Access (continued)

Under half (47%) have a smartphone in the HH, by far the most common type of device. Under 1 in 3 have a laptop and around 1 in 5 have a tablet and/or desktop PC.

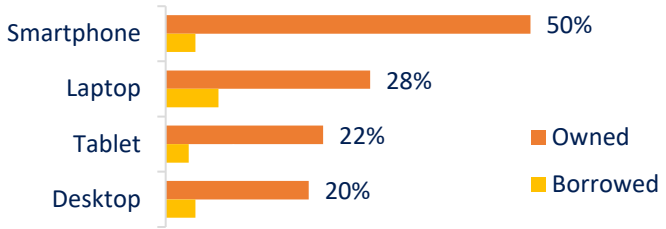


If they have the device type, they usually have just one.

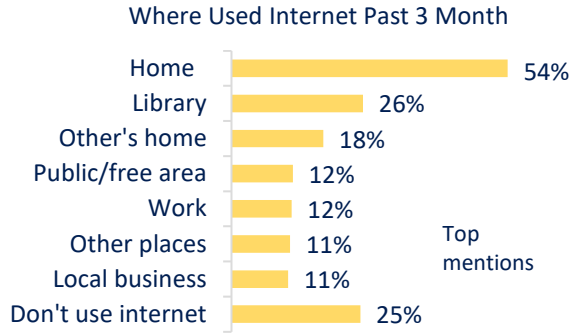


	Mean (1+)	Mean (0+)
Smartphone	1.4	0.67
Laptop	1.3	0.39
Tablet	1.5	0.34
Desktop	1.2	0.26

Most own the HH devices they are using.



More likely to rely on the library to access the internet, less likely to access it from home, work, or a range of places.



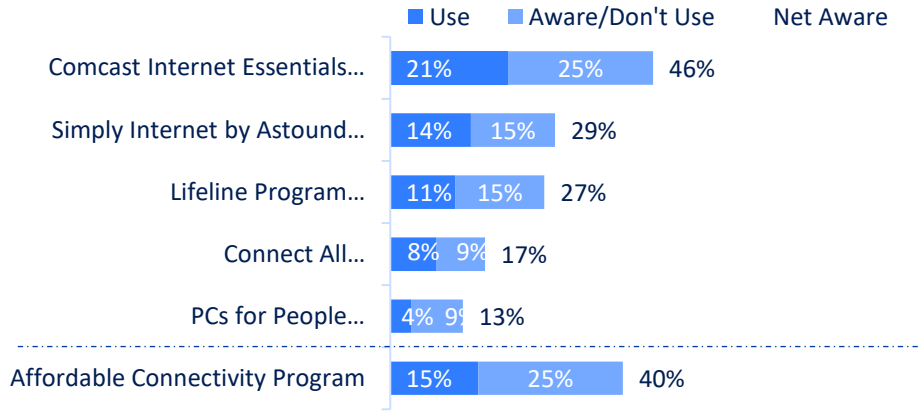
4 in 5 HH (79%) do NOT have access to a device with a screen large enough to do all the tasks they need to do.

In half of these households, devices must be shared.

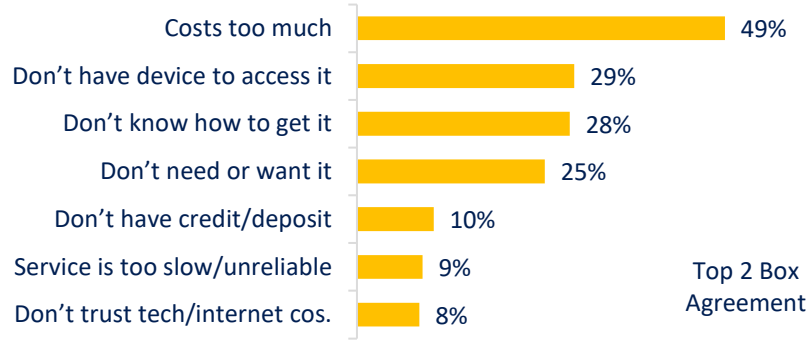
47% ***Number of devices OWNED is less than the number of HH members.***

42% ***Number of devices OWNED or BORROWED is less than the number of HH members.***

The majority of households with HH income below 200% FPL are NOT aware of lower cost internet services for qualified low-income HHs (even fewer are aware if based to total respondents).

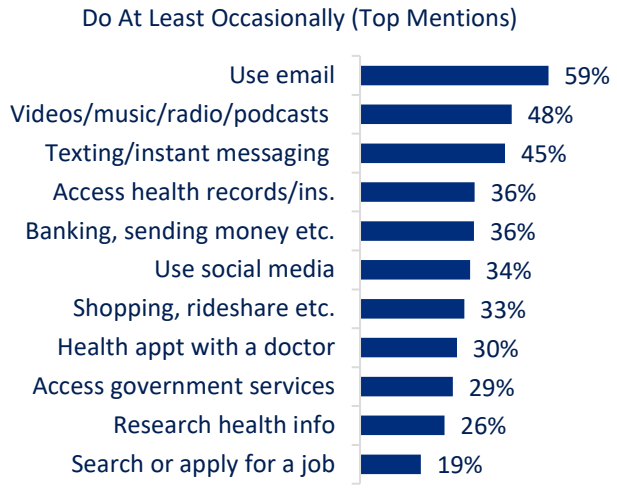


Cost is the #1 barrier among those without internet where they live, but around 3 in 10 mention lack of a device to access it, or not knowing how to get it. One in four say they do not want it.

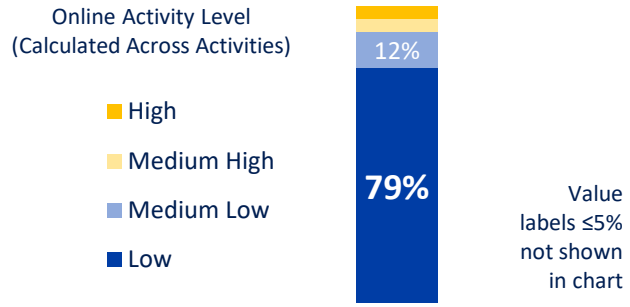


Highest Need – Use of Internet / Ability / Skills

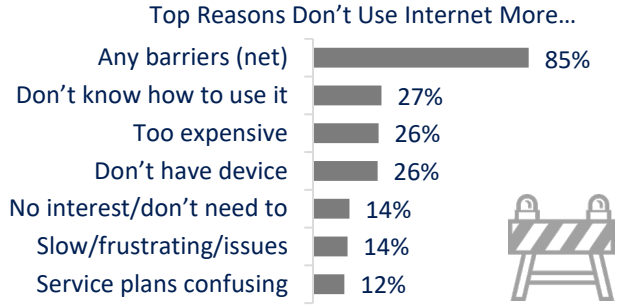
Mostly go online to email, watch/listen to videos/music/etc., and to text/message. Only a third or fewer engage in other activities.



4 out of 5 in this segment fall into the "low" online activity category.

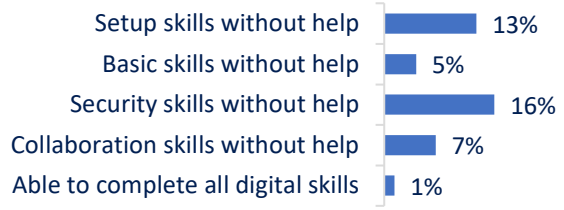


Lack of knowledge/skills, affordability, or no device to access it are the top reasons this segment does not use the internet more.

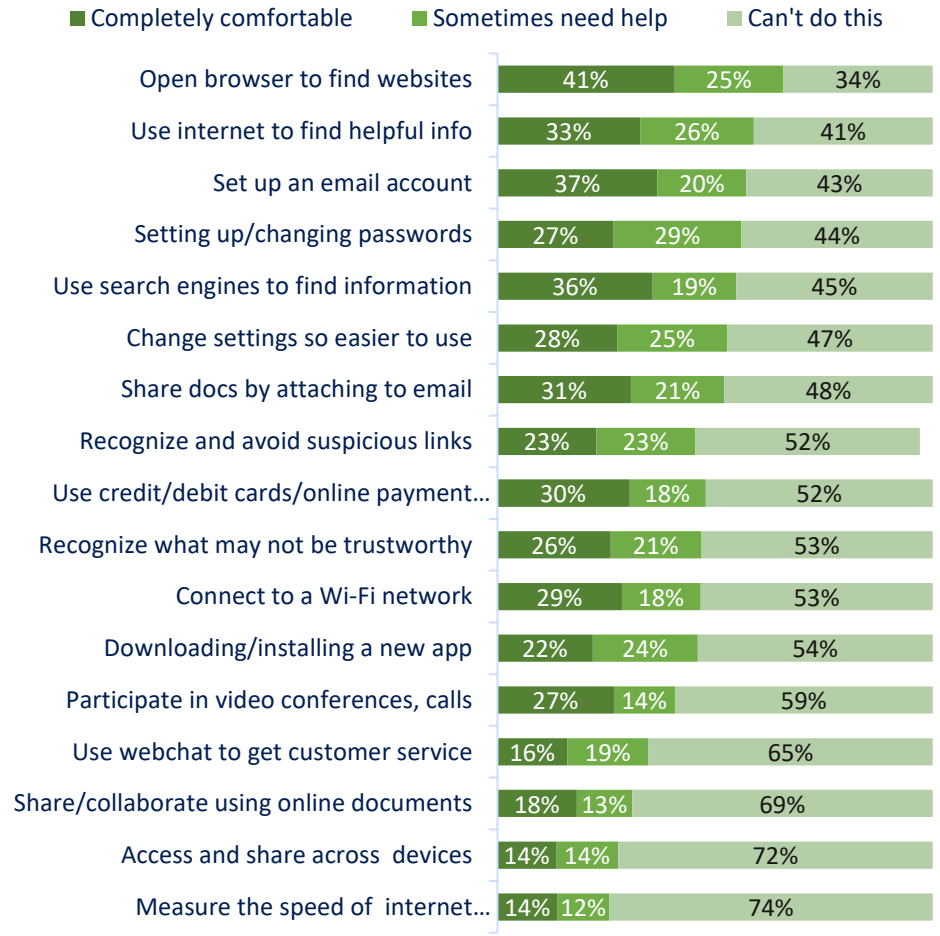


3 in 5 (62%) rely on someone else to help them access or navigate the internet.

Overall Skills Summary: 99% in this segment are unable to complete all of the digital skills tested.

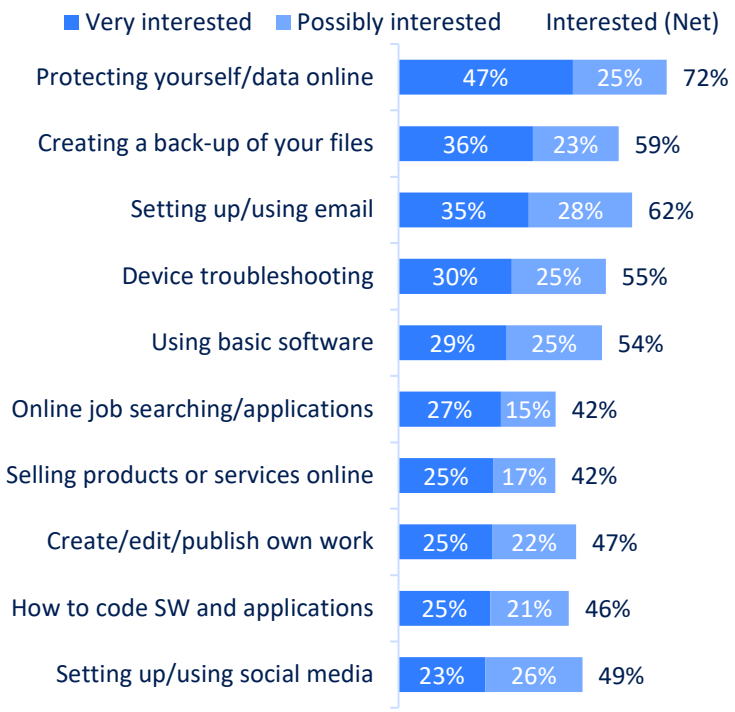


Most comfortable browsing websites, searching for information online, sending emails and/or sharing document attachments, and shopping online. Significantly less comfortable with collaboration activities.

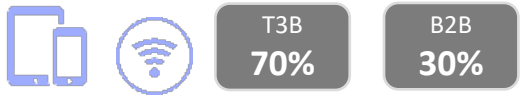


Highest Need – Interest in Training, Attitudes and Beliefs

3 in 4 would be interested in learning how to protect themselves and their data; with half "very interested."

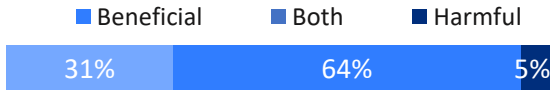


7 in 10 feel technology and the internet have at least some importance in their lives.



5=Extremely Important; 1=Not Important

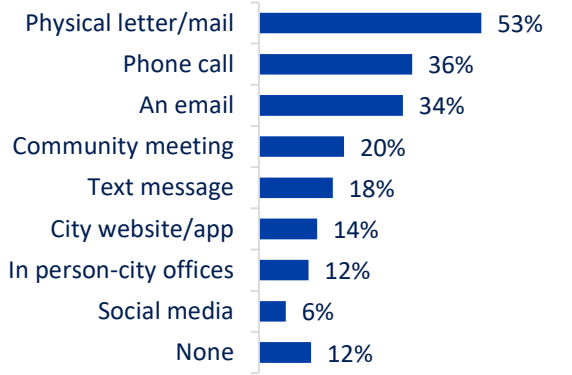
A third feel the internet and technology have had a beneficial effect on society, but most feel the effect has been mixed.



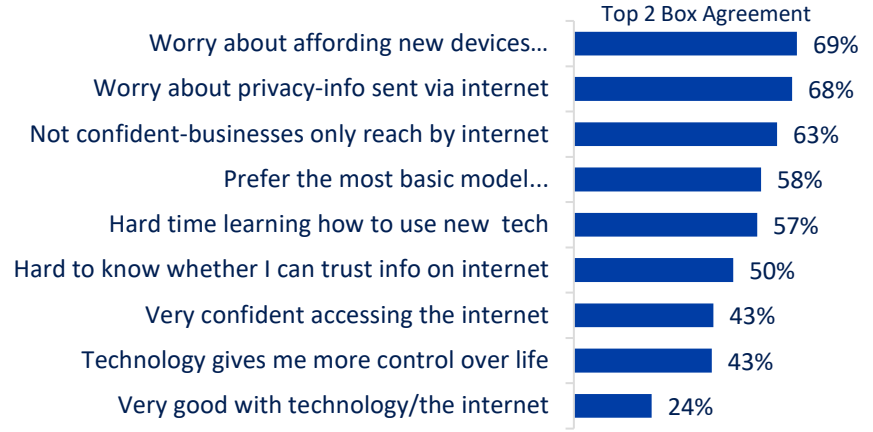
Less likely than all others to have visited the City of Seattle website (45%).

Less likely than others to participate in a community group (24%).

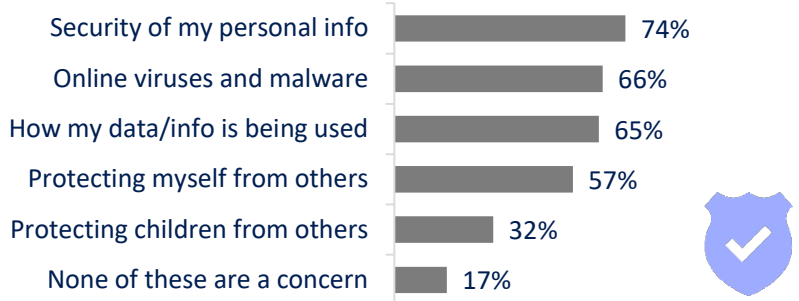
More likely to prefer a letter or phone call if communicating with the City or a community group.



More likely than most others to worry about affordability, to not feel confident about places only reachable online, to have a hard time learning how to use new technology, and to prefer a basic model device.



Top concerns about using the internet include security of their personal information, how their data may be used, and online viruses and malware. (But more likely than others to say 'none' are a concern.)



Significant Need (Low Connectedness)

Segment Profile: Significant Need (9% of Seattle Households)

Virtually all in this segment can access the internet where they live – 2 in 3 can access it at home and on the go, but a third have access at home only. Home access is most commonly through fixed broadband subscriptions, and a third have both broadband and a cell plan. Xfinity and cellular/wireless are the most popular providers. Half or fewer have their internet bundled. Regarding the ONE thing that would improve their internet service, 2 in 5 cite a lower price but nearly a third would like faster speeds. About half of households in this segment with income below 200% FLP are aware of Comcast Internet Essentials or the Affordable Connectivity Program, and around 1 in 4 are using them. Notably fewer are aware of or using other lower cost services for qualified households.

About a third find the internet they DO have to be inadequate to do what they want or need to do. Half do not know their speed, but 1 in 3 say it is 50 Mbps or less. Nearly 3 in 5 say their internet service is either interrupted or too slow on a daily or weekly basis. A fifth of households went without their internet for a month or longer in the past year.

Devices are somewhat limited in these households – 3 in 4 have a smartphone, 3 in 5 have a laptop, 2 in 5 have a tablet, and under 1 in 3 have a desktop PC. If they have a device type, they typically have just one, but a quarter to a third have more than one laptop or smartphone. In 1 of 5 households devices must be shared. More than 2 in 5 households (44%) do NOT have access to a device with a screen large enough to do all the tasks they need to do.

Half of households in this segment fall into the "low online activity" category. Half or more engage in a variety of activities online, although to a lesser degree than the 'No' or 'Some' Need segments. Most (93%) in this segment are unable to complete all of the digital skills tested. The majority can browse websites, search for information, send emails and attachments, and shop online, but only a minority can perform collaboration activities without help. Half mention barriers to using the internet more, with affordability, performance issues, and confusing service plans the top mentions. Nearly half (46%) rely on someone else to help them access or navigate the internet.

Nine in ten feel technology and the internet have at least some importance in their lives. They are more likely than the 'No' or 'Some' Need segments to worry about device affordability, to not trust places only reachable online or the information they find online, to have a hard time learning how to use new technology, and to prefer a basic model device. They are also more likely than others to worry about protecting themselves from other individuals online. They are more likely than the 'No' or 'Some' Need segments to be interested in training across a range of topics.

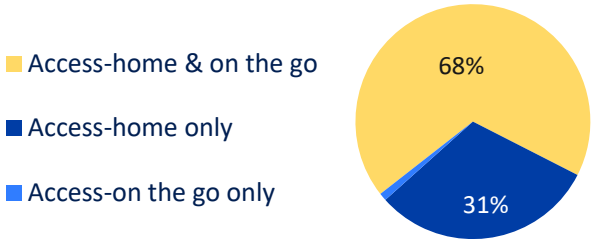
Demographic highlights

- Respondents for this segment are more likely to be older (63% are 55+) and female (64%). Less likely to be a college graduate. Half are BIPOC.
- Half (48%) are single person HHs. 1 in 5 have children in the HH.
- Lower HH income: 42% <$27K; 26% 27K-$45.9K.
- 2 in 3 are renters; 2 in 3 live in an MDU.
- 1 in 5 say the primary language spoken in the HH is other than English.
- 1 in 5 have a HH member with a condition or disability that makes it difficult to use tech or internet without assistance or adaptation.

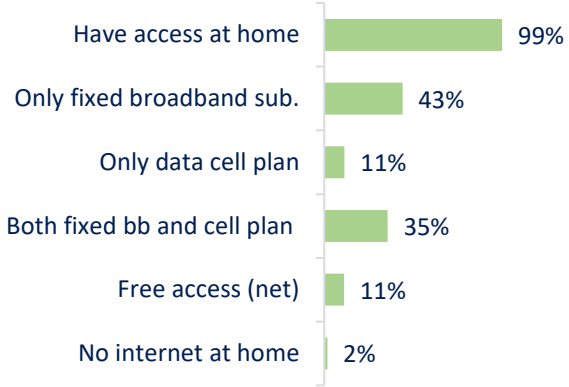
Significant Need – Internet / Device Access

99% ***Have a way to access the internet <u>where they live</u>.***

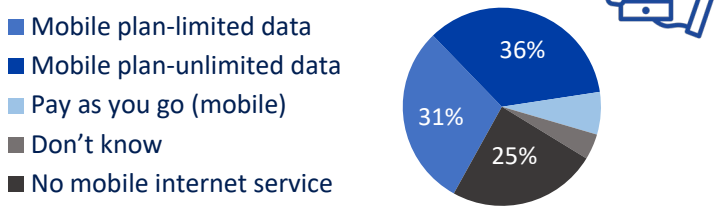
2 in 3 HHs (68%) can access the internet at home <u>and</u> on the go, 1 in 3 (31%) HHs have access at home only.



Home internet access is most commonly through fixed broadband subscriptions; 1 in 3 have both broadband and a cell plan.



70% ***Can access the internet "<u>on the go</u>"***

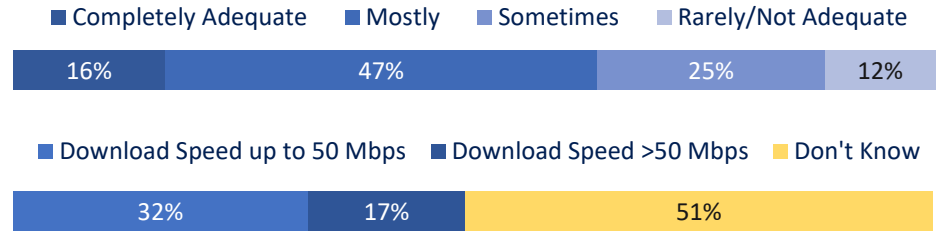


21% ***A fifth of HHs <u>with</u> internet went <u>without it</u> for a month or longer in the past year.***

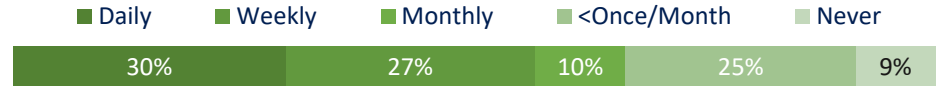
Xfinity and cellular/wireless are the most popular providers with the highest average monthly cost. Half or fewer have their internet bundled.

Internet Provider	% Using	Mean Cost/Mo.	% Bundled
Xfinity (Comcast)	50%	$96	43%
Cellular/Wireless Provider	49%	$93	50%
CenturyLink (Lumen)	25%	$73	42%
Astound (Wave)	11%	$82	34%
Other type	4%	$45	14%
Provided by building	6%	-	-
Other free	7%	-	-
Don't know	4%	-	-

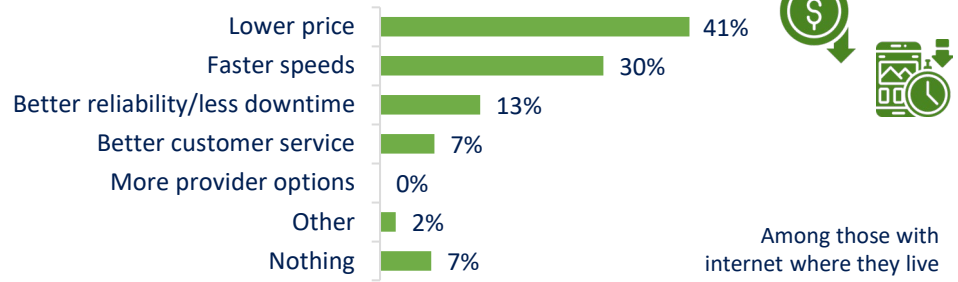
About two thirds feel the internet connection in the place they live is adequate to do the things they want or need to do. Half do not know their internet speed, but 1 in 3 say it is <u>50 Mbps or less</u>.



Nearly 3 in 5 say their internet service is either interrupted or too slow on a daily or weekly basis.

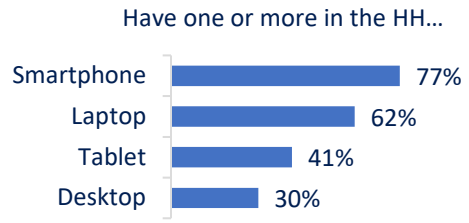


Regarding the ONE thing that would improve their internet service, 2 in 5 cite lower price, nearly 1 in 3 cite faster speed.

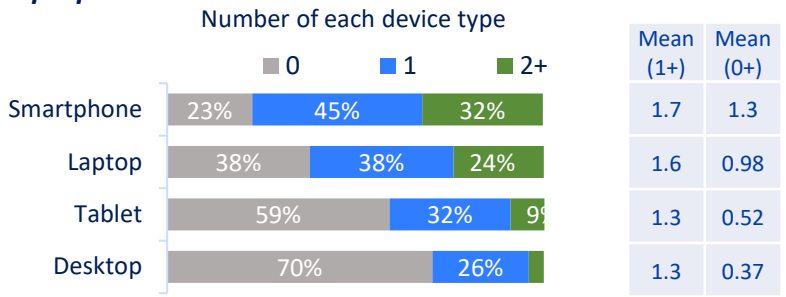


Significant Need – Internet / Device Access (continued)

3 in 4 have a smartphone in the HH, 3 in 5 have a laptop, 2 in 5 have a tablet, and under 1 in 3 have a desktop PC.

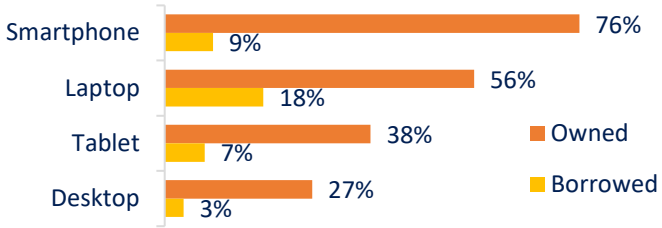


If they have the device type, they typically have just one, but notable numbers have more than one smartphone or laptop.

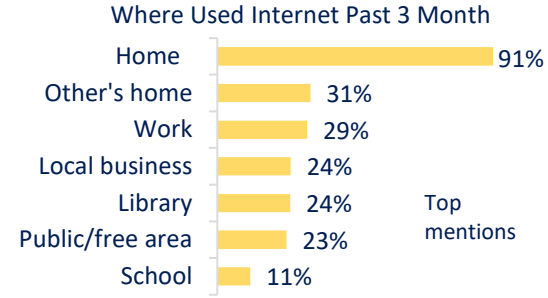


	Mean (1+)	Mean (0+)
Smartphone	1.7	1.3
Laptop	1.6	0.98
Tablet	1.3	0.52
Desktop	1.3	0.37

Most own the HH devices they are using.



More likely than 'No' or 'Some' Need segments to rely on the library to access the internet, less likely to access it from other places.



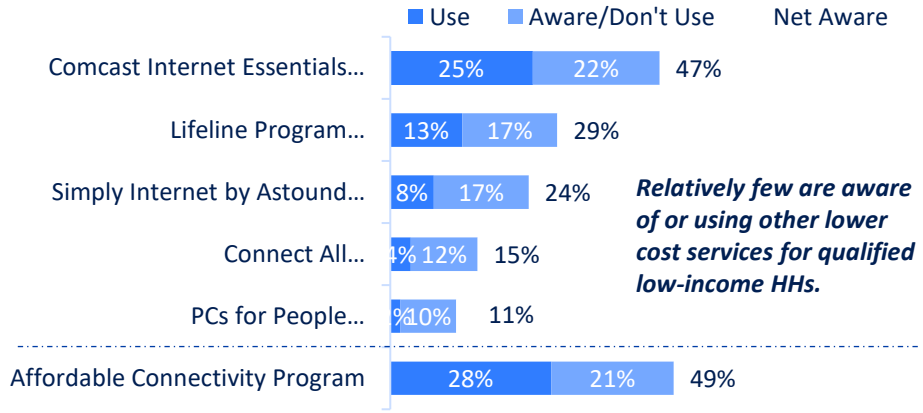
More than 2 in 5 HH (44%) do NOT have access to a device with a screen large enough to do all the tasks they need to do.

In 1 in 5 households, devices must be <u>shared</u>.

20% ***Number of devices OWNED is less than the number of HH members.***

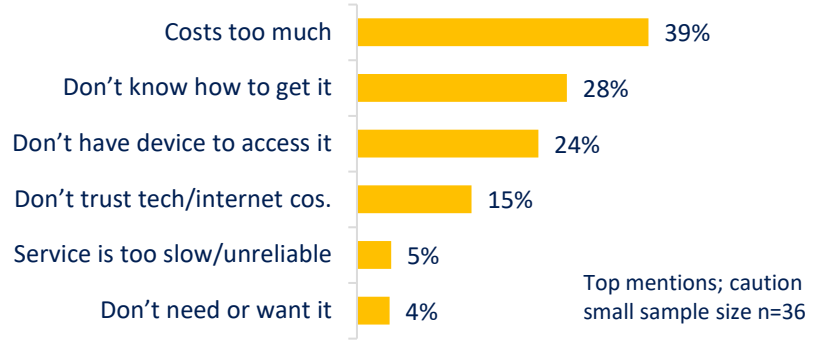
15% ***Number of devices OWNED or BORROWED is less than the number of HH members.***

About half of HH in this segment with income below 200% FLP are aware of Comcast Internet Essentials or the Affordable Connectivity Program, and around 1 in 4 are using them.



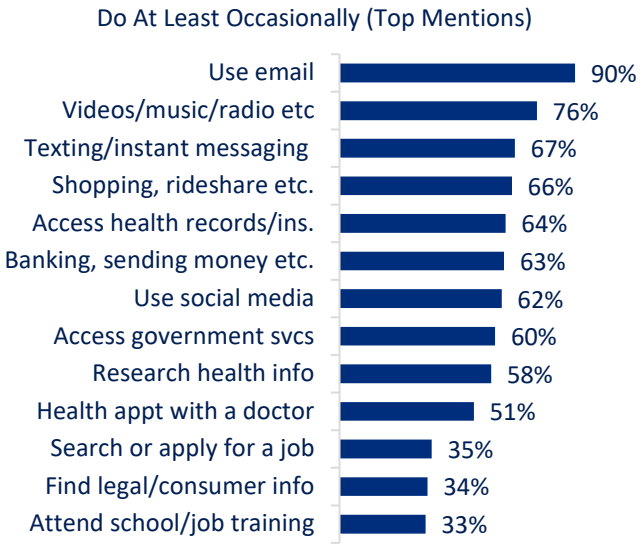
Relatively few are aware of or using other lower cost services for qualified low-income HHs.

Cost is the #1 barrier among the small number of HHs in this segment <u>without</u> internet where they live (n=36), but around 1 in 4 mention lack of a device to access it or not knowing how to get it.

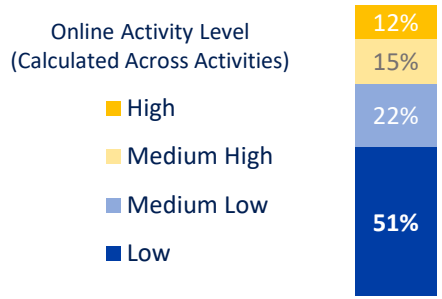


Significant Need – Use of Internet / Ability / Skills

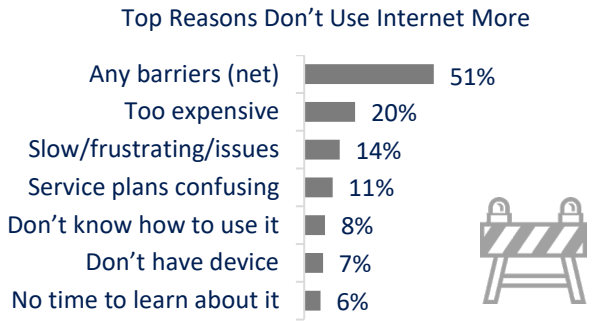
Half or more engage in a wide variety of activities online, although to a lesser degree than 'No' or 'Some' Need segments.



Half fall into the "low" online activity category.



Half mention barriers to using the internet more, with affordability, performance issues, and confusing service plans the top mentions.



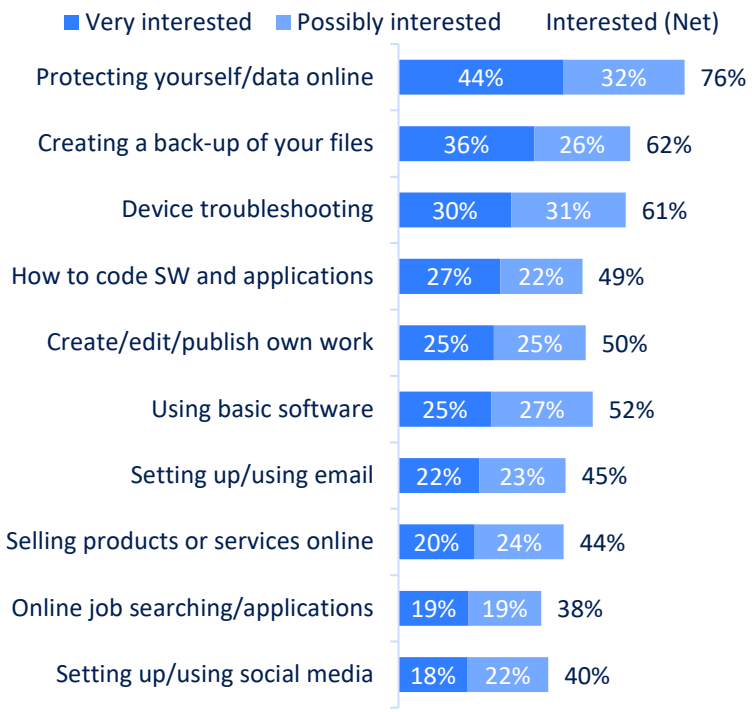
Nearly half (46%) rely on someone else to help them access or navigate the internet.

Overall Skills Summary: 93% in this segment are unable to complete all of the digital skills tested.

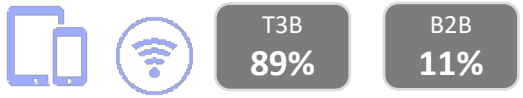
The majority can browse websites, search for information, send emails and attachments, and shop online, but only a minority can perform collaboration activities without help.

Significant Need – Interest in Training, Attitudes and Beliefs

More likely than 'No' or 'Some' Need segments to be interested in training across a range of topics.

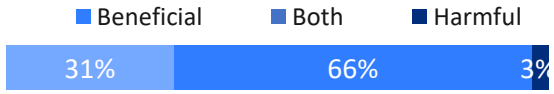


9 in 10 feel technology and the internet have at least some importance in their lives.



5=Extremely Important; 1=Not Important

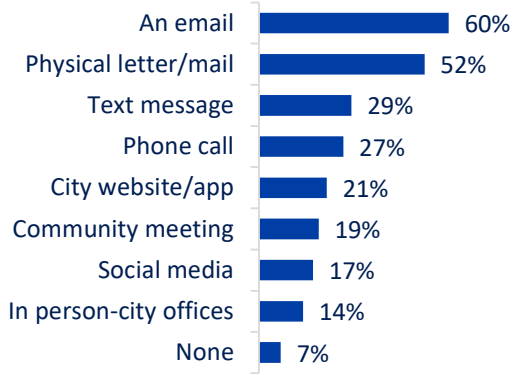
A third feel the internet and technology have had a beneficial effect on society, but most feel the effect has been mixed.



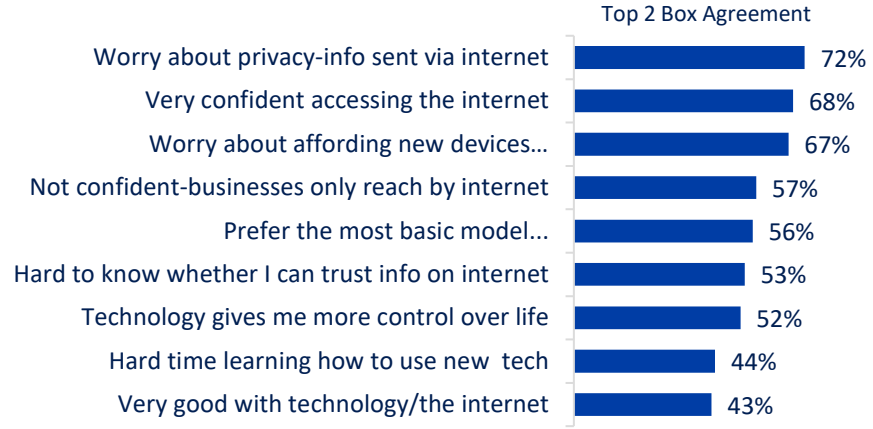
2 in 3 have visited the City of Seattle website (v. >4 in 5 in 'No' or 'Some' Need segments).

2 in 5 participate in a community group (40%).

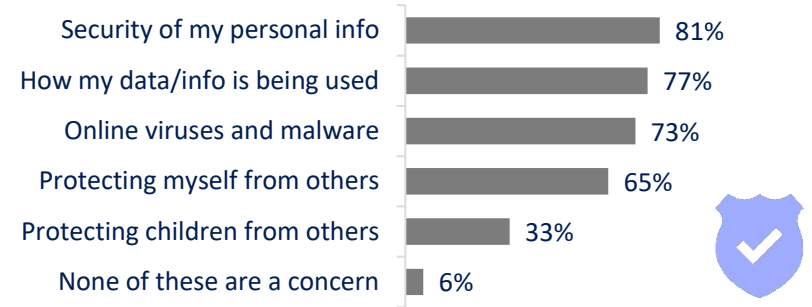
More likely to prefer a letter or phone call if communicating with the City or a community group.



More likely than 'No' or 'Some' Need segments to worry about being able to afford devices, to not trust places only reachable online or information they find online, to have a hard time learning how to use new technology, and to prefer a basic model device.



Top concerns include security of their personal information, use of their data, and online viruses; more likely than others to worry about protecting themselves from other individuals online.



Some Need (Moderate Connectedness)

Segment Profile: Some Need (50% of Seattle Households)

All in this segment can access the internet where they live, and nearly all can access it at home and on the go. Home access is most commonly through both broadband and a cell plan; 2 in 3 have an unlimited data mobile plan. Xfinity and cellular/wireless are the most popular providers. Half or fewer have their internet bundled. Regarding the ONE thing that would improve their internet service, half cite a lower price. About half of households in this segment with income below 200% FLP are aware of Comcast Internet Essentials or the Affordable Connectivity Program, and around 1 in 4 are using them. Notably fewer are aware of or using other lower cost services for qualified households.

About 9 in 10 feel the internet connection in the place they live is adequate to do the things they want or need to do. Nearly half do not know their internet speed, but only 1 in 10 say it is 50 Mbps or less. Just under 2 in 5 (37%) say their internet service is either interrupted or too slow on a daily or weekly basis.

Devices are widely available in these households – nearly all have a smartphone in the household, 9 in 10 have a laptop, 2 in 3 have a tablet, and close to half have a desktop PC. If they have the device type, it is common to have more than one – especially smartphones and laptops. There are equal or more devices in these households as there are HH members.

Members of these households are more likely than other segments to fall into the "medium low" online activity category. Three quarters or more engage in a wide variety of activities online, although to a lesser degree than the 'No' Need segment. Around two thirds in this segment are unable to complete all of the digital skills tested; 1 in 5 rely on someone else to help them access or navigate the internet.

Nearly all feel technology and the internet have at least some importance in their lives. This segment is more likely than the 'Significant' and 'Highest' Need segments to be confident using the internet and in their technology skills, but also more likely than those in the 'No' Need segment to express a variety of worries or concerns. They are more likely than all other segments to express concerns about the security of their personal information and protecting their computer from online viruses/malware. Two thirds express interest in training on protecting themselves and their data online.

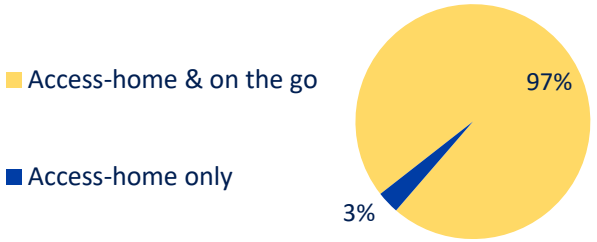
Demographic highlights

- Respondents for this segment tend to be middle age or older - a third are 35-54, half are 55+. Under half (45%) are employed full time; one third are retired. 3 in 4 are college graduates. 3 in 10 are BIPOC.
- 3 in 5 (62%) have multiple HH members, less than 1 in 5 (18%) have children in the HH.
- HH income covers a range: 27% <$46K; 28% 46K-$99.9K; 45% $100K or more.
- Just over half (55%) are homeowners; evenly split between single family housing and MDU.
- 94% primary language spoken in the HH is English.
- 1 in 11 have a HH member with a condition or disability that makes it difficult to use tech or internet without assistance or adaptation.

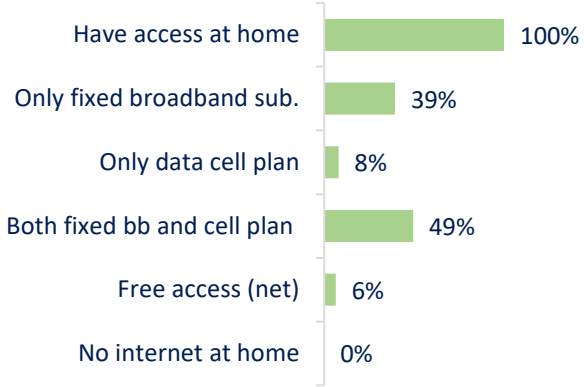
Some Need – Internet / Device Access

100% ***All can access the internet <u>where they live</u>.***

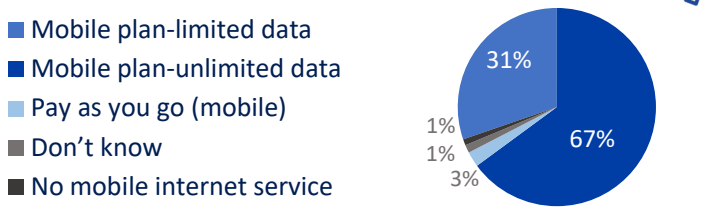
Nearly all can access the internet at home <u>and</u> on the go. Just 3% of HHs in this segment have access at home only.



Home internet access is most commonly through both broadband and a cell plan.



98% ***Can access the internet "<u>on the go</u>"; 2 in 3 with unlimited data plans.***

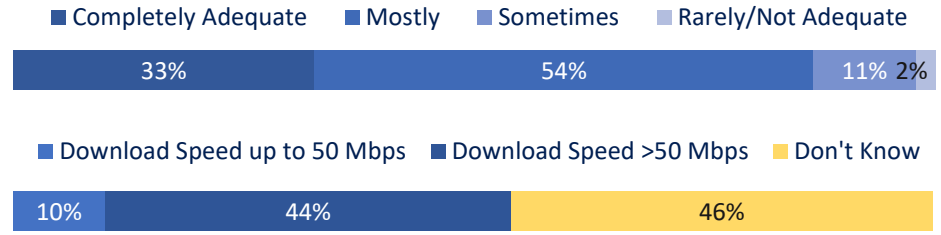


4% ***Just 1 in 25 HHs <u>with</u> internet went <u>without it</u> for a month or longer in the past year.***

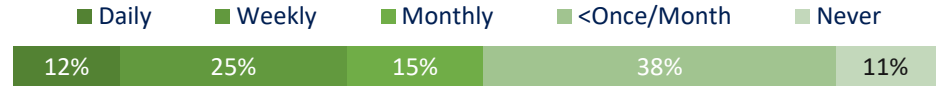
Xfinity and cellular/wireless are the most popular providers with the highest average monthly cost. Around half or fewer have their internet bundled.

Internet Provider	% Using	Mean Cost/Mo.	% Bundled
Xfinity (Comcast)	59%	$117	45%
Cellular/Wireless Provider	58%	$103	56%
CenturyLink (Lumen)	26%	$80	23%
Astound (Wave)	7%	$65	16%
Other type	3%	$57	9%
Provided by building	4%	-	-
Other free	2%	-	-
Don't know	1%	-	-

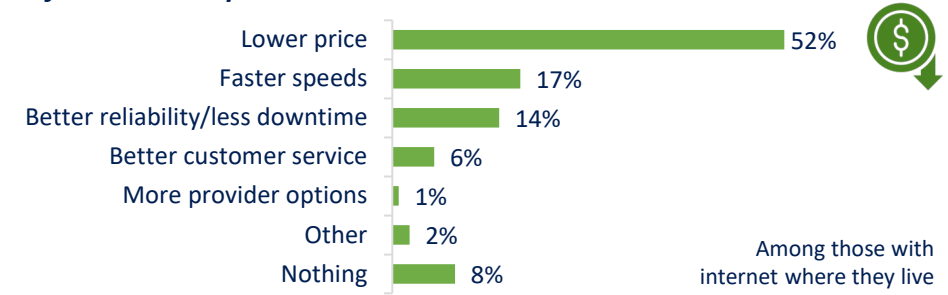
About 9 in 10 feel the internet connection in the place they live is adequate to do the things they want or need to do. Nearly half do not know their internet speed, but only 1 in 10 say it is <u>50 Mbps or less</u>.



Just under 2 in 5 (37%) say their internet service is either interrupted or too slow on a daily or weekly basis.

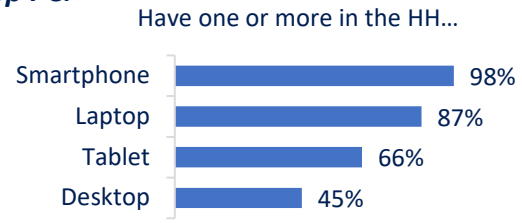


Regarding the ONE thing that would improve their internet service, half cite a lower price.

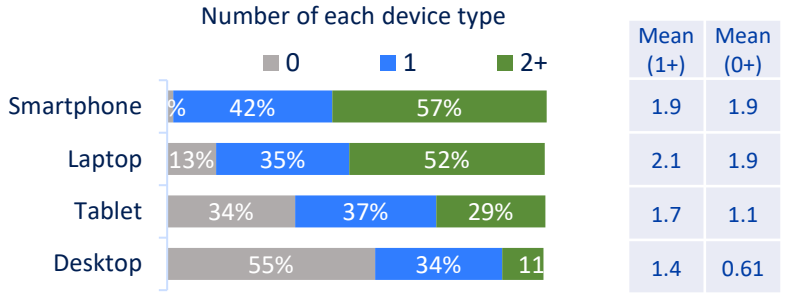


Some Need – Internet / Device Access (continued)

Nearly all have a smartphone in the household, 9 in 10 have a laptop, 2 in 3 have a tablet, and close to half have a desktop PC.

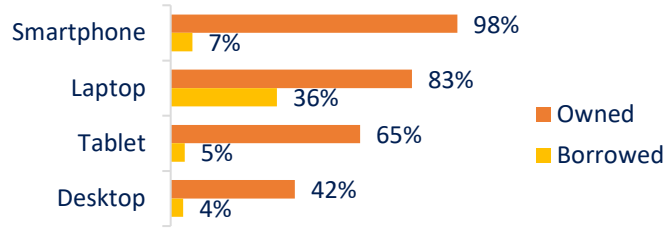


If they have the device type, it is common to have more than one – especially smartphones and laptops.

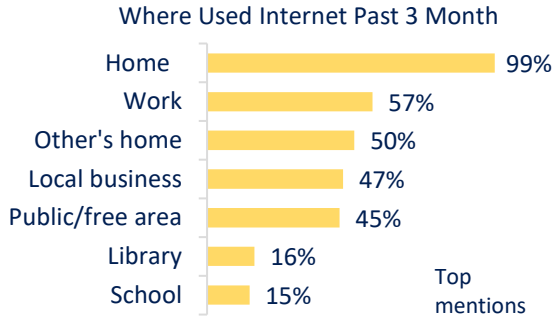


	Mean (1+)	Mean (0+)
Smartphone	1.9	1.9
Laptop	2.1	1.9
Tablet	1.7	1.1
Desktop	1.4	0.61

Most own the HH devices they are using.



Virtually all have used the internet from home, and half or more have accessed it from a range of other places.



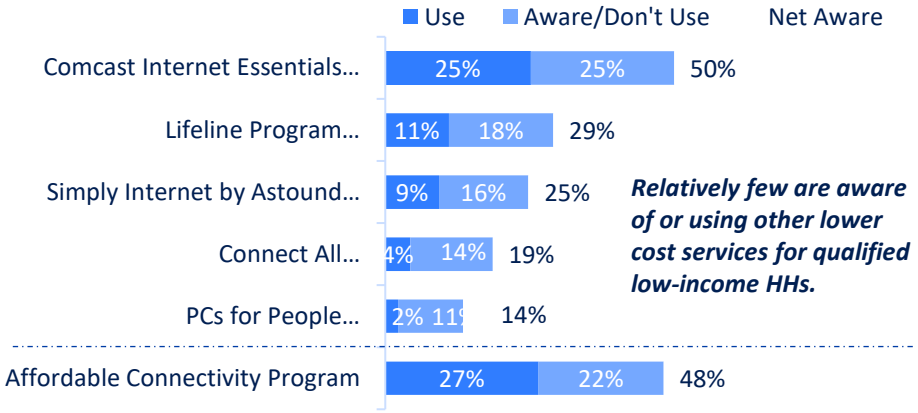
Only 1 in 25 households (4%) do NOT have access to a device with a screen large enough to do all the tasks they need to do.

There are equal or more devices in these households as there are HH members.

2% ***Number of devices OWNED is less than the number of HH members.***

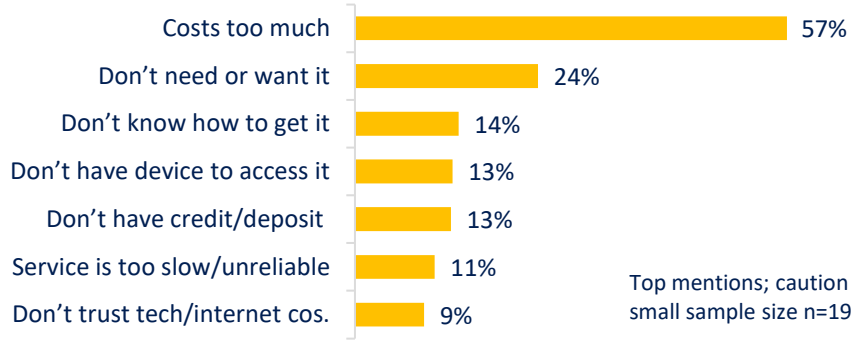
1% ***Number of devices OWNED or BORROWED is less than the number of HH members.***

About half of households in this segment with income below 200% FLP are aware of Comcast Internet Essentials or the Affordable Connectivity Program, and around 1 in 4 are using them.



Relatively few are aware of or using other lower cost services for qualified low-income HHs.

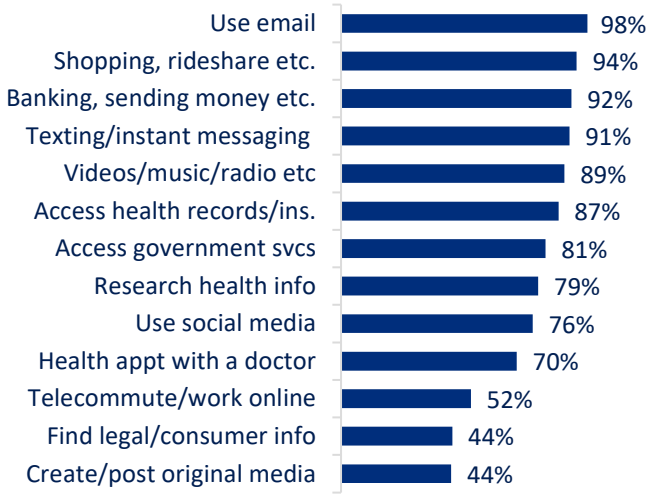
Cost is the #1 barrier among the small number of HHs in this segment <u>without</u> internet where they live (n=19), but around 1 in 4 mention they do not need or want it.



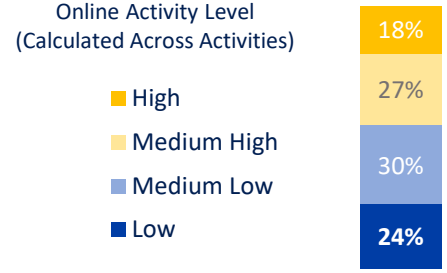
Some Need – Use of Internet / Ability / Skills

Three quarters or more engage in a wide variety of activities online, although to a lesser degree than the 'No' Need segment.

Do At Least Occasionally (Top Mentions)

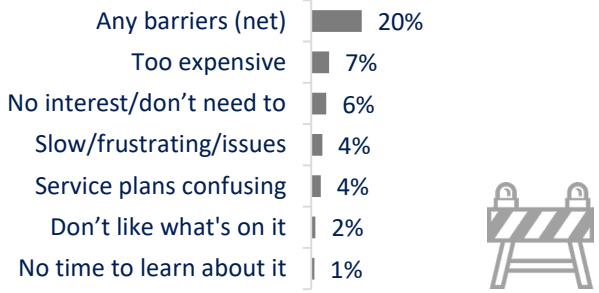


More likely than other segments to fall into the "medium low" online activity category.



Just 1 in 5 mention barriers to using the internet more, with no single reason standing out.

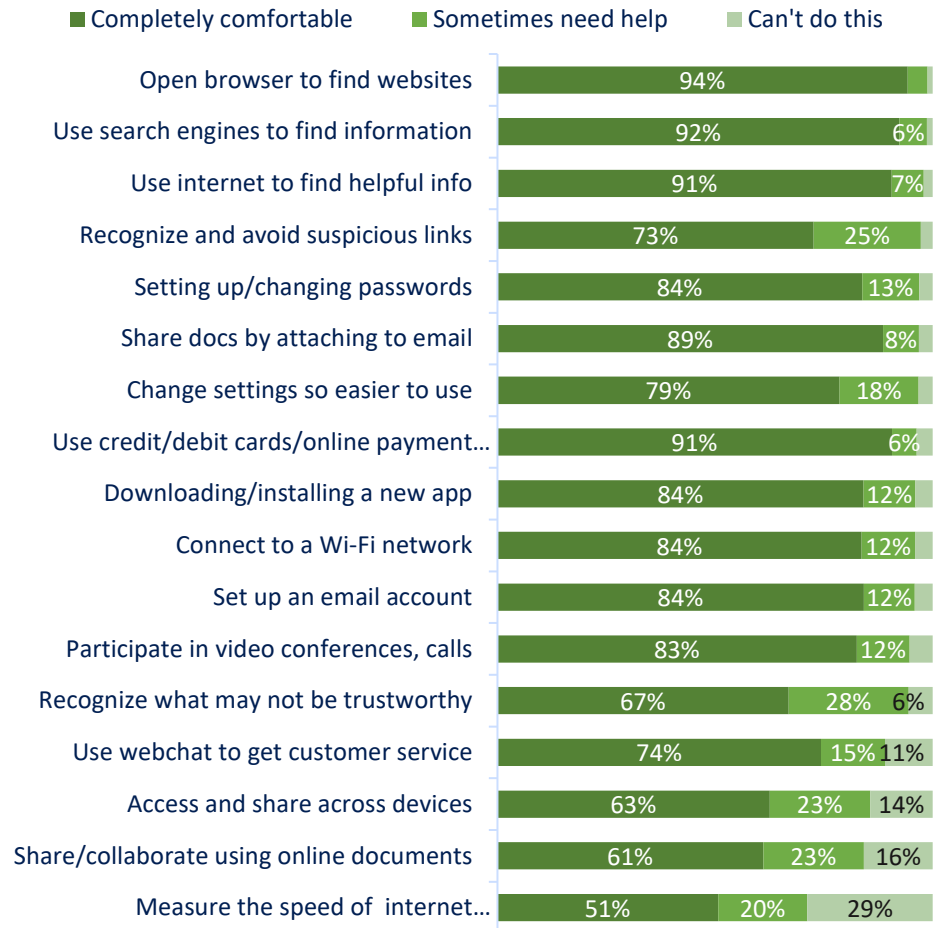
Top Reasons Don't Use Internet More



1 in 5 rely on someone else to help them access or navigate the internet.

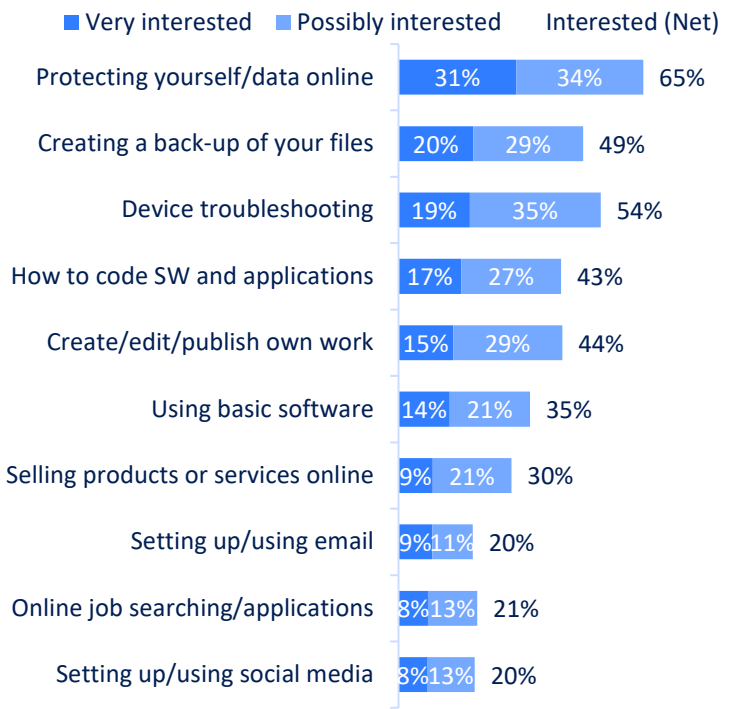
Overall Skills Summary: 68% in this segment are unable to complete all of the digital skills tested.

The majority are completely comfortable across a range of tasks, with collaboration activities and security skills where they are more likely to need help.

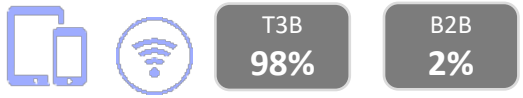


Some Need – Interest in Training, Attitudes and Beliefs

More likely than the 'No' Need segment to be interested in training across a range of topics.

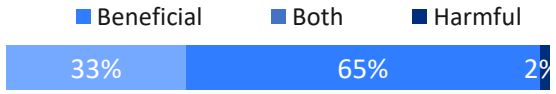


Nearly all feel technology and the internet have at least some importance in their lives.



5=Extremely Important; 1=Not Important

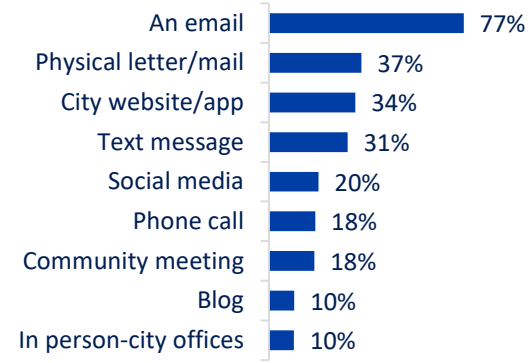
A third feel the internet and technology have had a beneficial effect on society, but most feel the effect has been mixed.



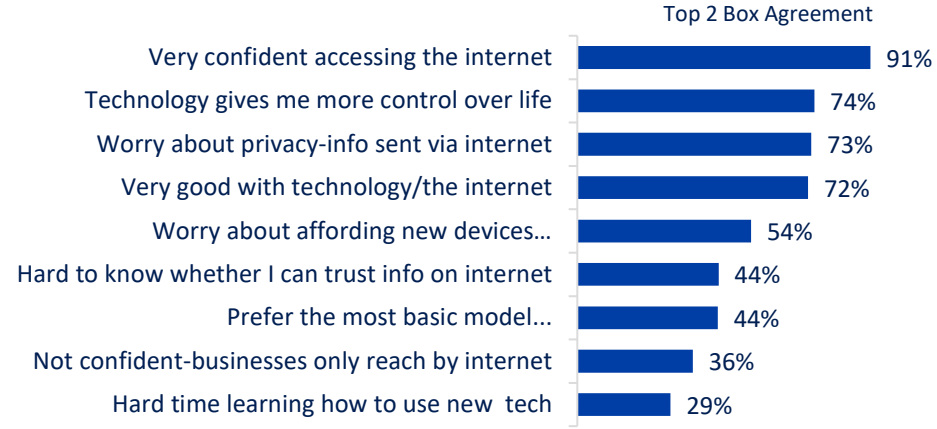
4 in 5 (83%) have visited the City of Seattle website, most (66%) just once a month or less often.

Just under half participate in a community group (45%).

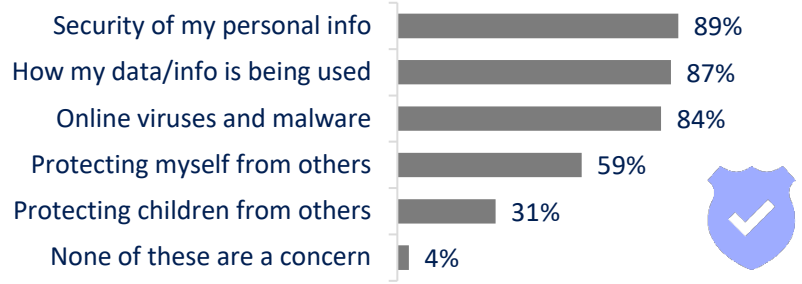
More likely than the 'Significant' and 'Highest' Need segments to prefer email or a website for City or group communications, but also open to receiving a letter.



This segment is more likely than the 'Significant' and 'Highest' Need segments to be confident using the internet and in their technology skills, but also more likely than 'No' Need segment to express a variety of worries or concerns.



More likely than all other segments to express concerns about the security of their personal information and protecting their computer from online viruses/malware. More likely than the 'Significant' and 'Highest' Need segments to worry about how their data is being used.



No Need (High Connectedness)

Segment Profile: No Need (37% of Households)

All households in this segment can access the internet where they live and on the go, 4 in 5 have an unlimited data mobile plan, 3 in 5 have home internet through both broadband and a cell plan. These households are the highest users of cellular/wireless providers and Century/Link. Regarding the ONE thing that would improve their internet service, this segment more than all others cite a lower price; they are less likely to complain about speed or reliability.

All in this segment feel their home internet connection is adequate to do the things they want or need to do. None have internet speed of 50 Mbps or less and half say it is up to 1000 Mbps or more. None say their internet service is either interrupted or too slow on a daily or weekly basis; two thirds say it happens less than once a month.

Devices are plentiful in these households – all have a smartphone, nearly all have a laptop, 4 in 5 have a tablet, and half have a desktop PC. It is common to have two or more smartphones and laptops in the household. There are equal or more devices in these households as there are HH members.

Households in this segment are more likely than all others to engage in a very wide variety of activities online; 7 in 10 fall into the "medium high" or "high" online activity categories. These households are completely comfortable across the range of digital skills and tasks, except for a minority who need help measuring the speed of their internet connection. They do not rely on others to help them access or navigate the internet. Due to their high skill levels, they are less likely than all other segments to be interested in most training topics, except for learning how to code.

All feel technology and the internet have at least some importance in their lives. Households in this segment are more likely than other segments to be confident in their use of technology and to feel it gives them more control over their daily life. They are less likely to express concerns or doubts about their skills or abilities when it comes to technology or the internet. They are in line with others in that their top concerns with using the internet are about the security of their personal information and how their data is used, and protecting their computer from online viruses/malware.

Demographic highlights

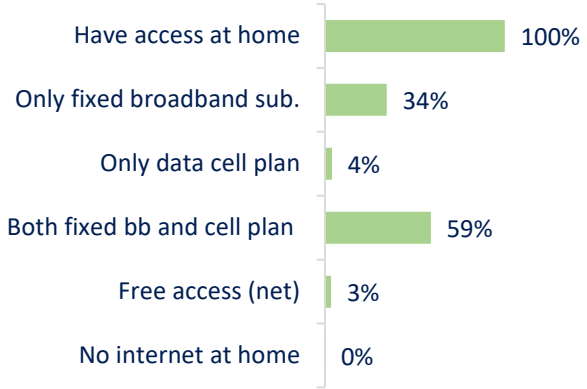
- Respondents for this segment are more likely to Millennials (48%) or Gen X (32%) and male (58%). Most likely to be employed full time (73%) and a college graduate (83%). Lowest percentage BIPOC (27%).
- Most likely to have children in the HH (27%); largest avg HH size – 2.3; least likely a single person HH (28%).
- Highest HH income: 75% at $100K+.
- Majority (63%) own homes; 56% single family housing.
- 98% primary language spoken in the HH is English.
- Just 2% have a HH member with a condition or disability that makes it difficult to use tech or internet without assistance or adaptation.

No Need – Internet / Device Access

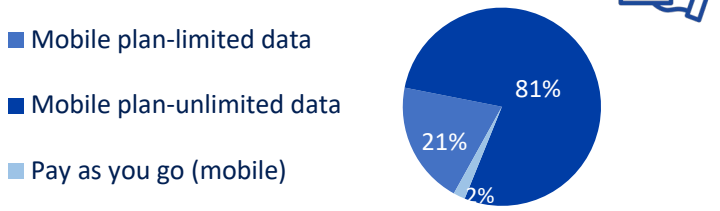
100% ***All can access the internet where they live.***

All households in this segment can access the internet at home and on the go.

Home internet access is most commonly through both broadband and a cell plan.



4 in 5 have an unlimited data mobile plan (higher than all other segments).

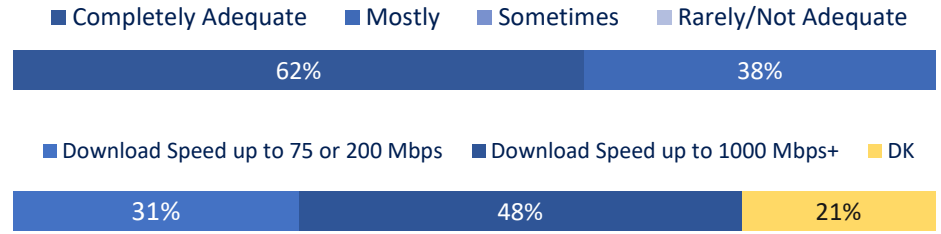


0% ***No households in this segment went without internet for a month or longer in the past year.***

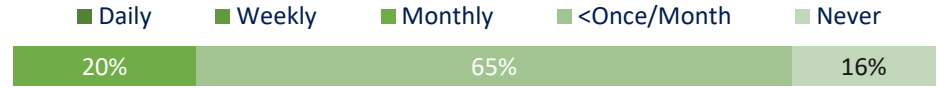
Highest users of cellular/wireless providers and Century/Link. Less likely to have their Xfinity or CenturyLink internet bundled.

Internet Provider	% Using	Mean Cost/Mo.	% Bun-dled
Xfinity (Comcast)	53%	$110	35%
Cellular/Wireless Provider	63%	$110	54%
CenturyLink (Lumen)	34%	$74	9%
Astound (Wave)	9%	$81	7%
Other type	4%	$58	16%
Provided by building	2%	-	-
Other free	1%	-	-

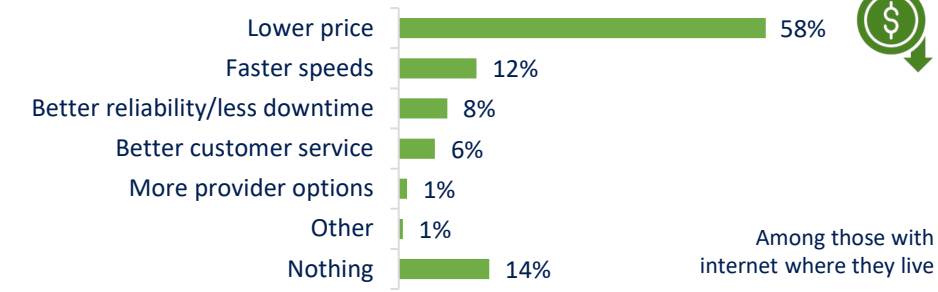
All in this segment feel their home internet connection is adequate to do the things they want or need to do. None have internet speed of 50 Mbps or less (half say it is up to 1000 Mbps or more).



None say their internet service is either interrupted or too slow on a daily or weekly basis; two thirds say it happens less than once a month.

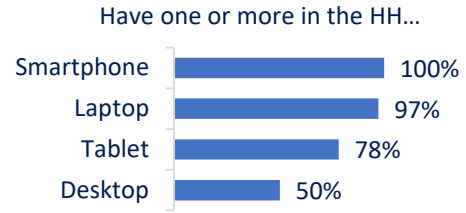


Regarding the ONE thing that would improve their internet service, about 3 in 5 cite a lower price (higher vs. all other segments).

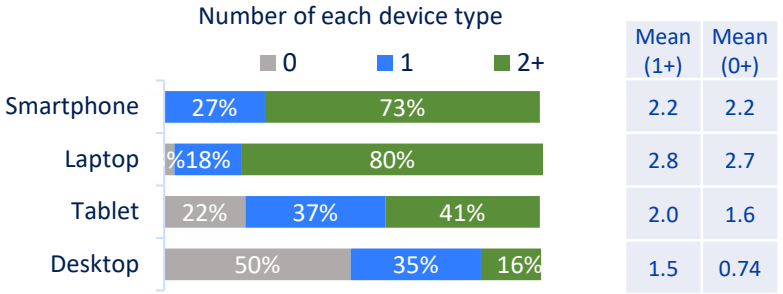


No Need – Internet / Device Access (continued)

All have a smartphone and nearly all have a laptop, 4 in 5 have a tablet, and half have a desktop PC.

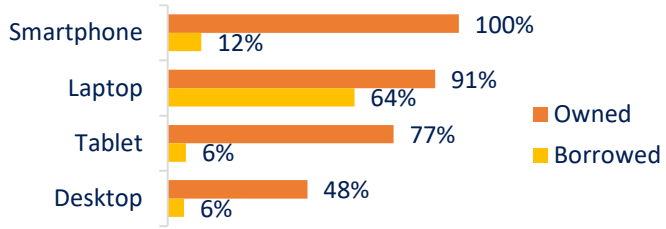


It is common to have two or more smartphones and laptops in the household.

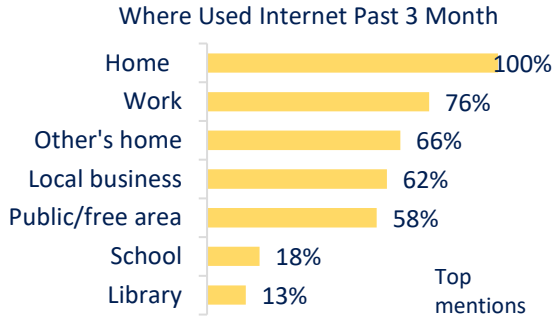


	Mean (1+)	Mean (0+)
Smartphone	2.2	2.2
Laptop	2.8	2.7
Tablet	2.0	1.6
Desktop	1.5	0.74

Most own the HH devices they are using but a fair portion are also using borrowed laptops.



More likely than all other segments to have used the internet from home and from a range of other places.



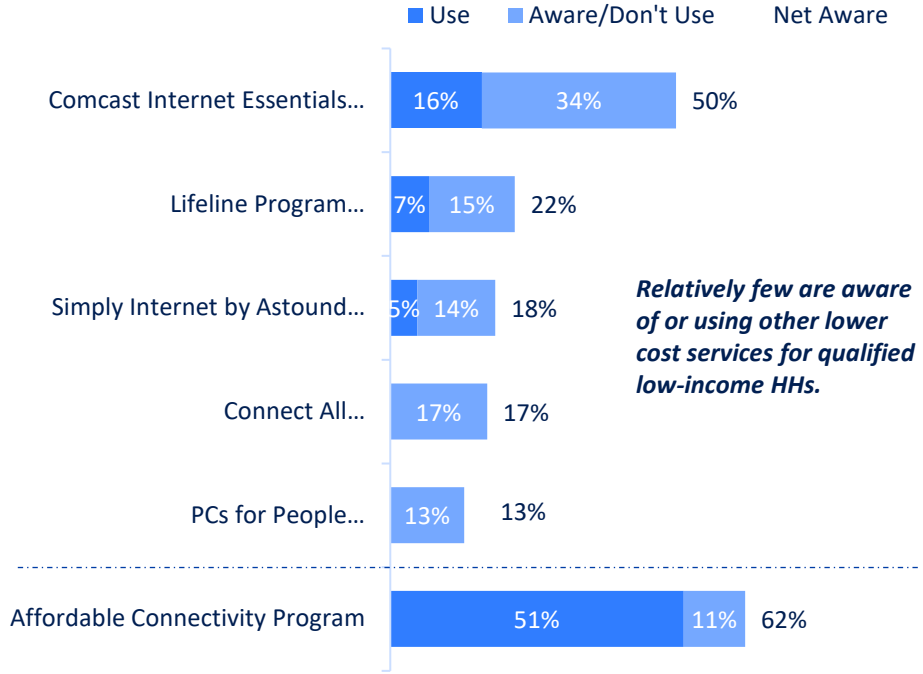
ALL households have access to a device with a screen large enough to do all the tasks they need to do.

There are equal or more devices in these households as there are HH members.

1% ***Number of devices OWNED is less than the number of HH members.***

0% ***Number of devices OWNED or BORROWED is less than the number of HH members.***

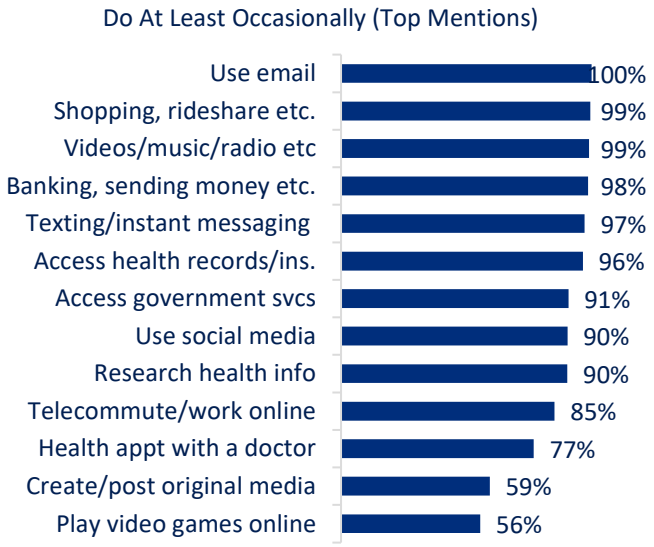
At least half of households in this segment with income below 200% FLP are aware of Comcast Internet Essentials or the Affordable Connectivity Program, and half are using the Affordable Connectivity Program – higher than all other segments.



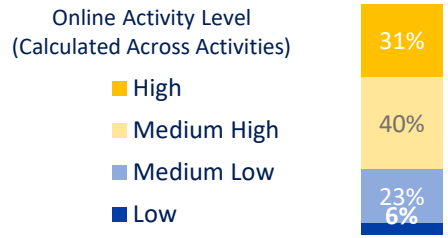
Relatively few are aware of or using other lower cost services for qualified low-income HHs.

No Need – Use of Internet / Ability / Skills

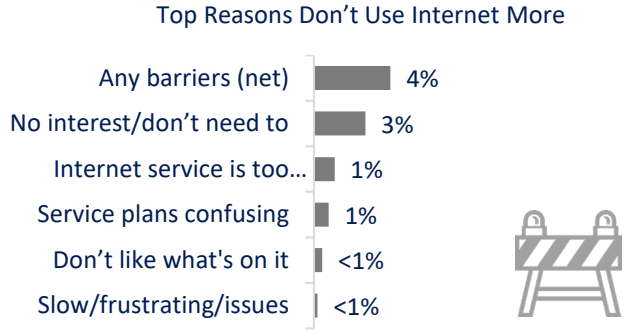
Households in this segment are more likely than all others to engage in a very wide variety of activities online.



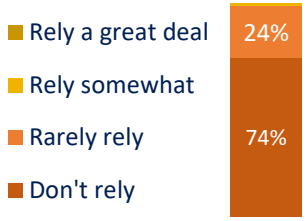
More likely than all other segments to fall into the "medium high" and "high" online activity categories.



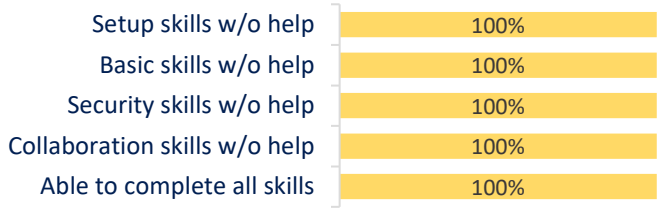
Just 1 in 25 mention reasons for not using the internet more, with a lack of desire/need the most common mention.



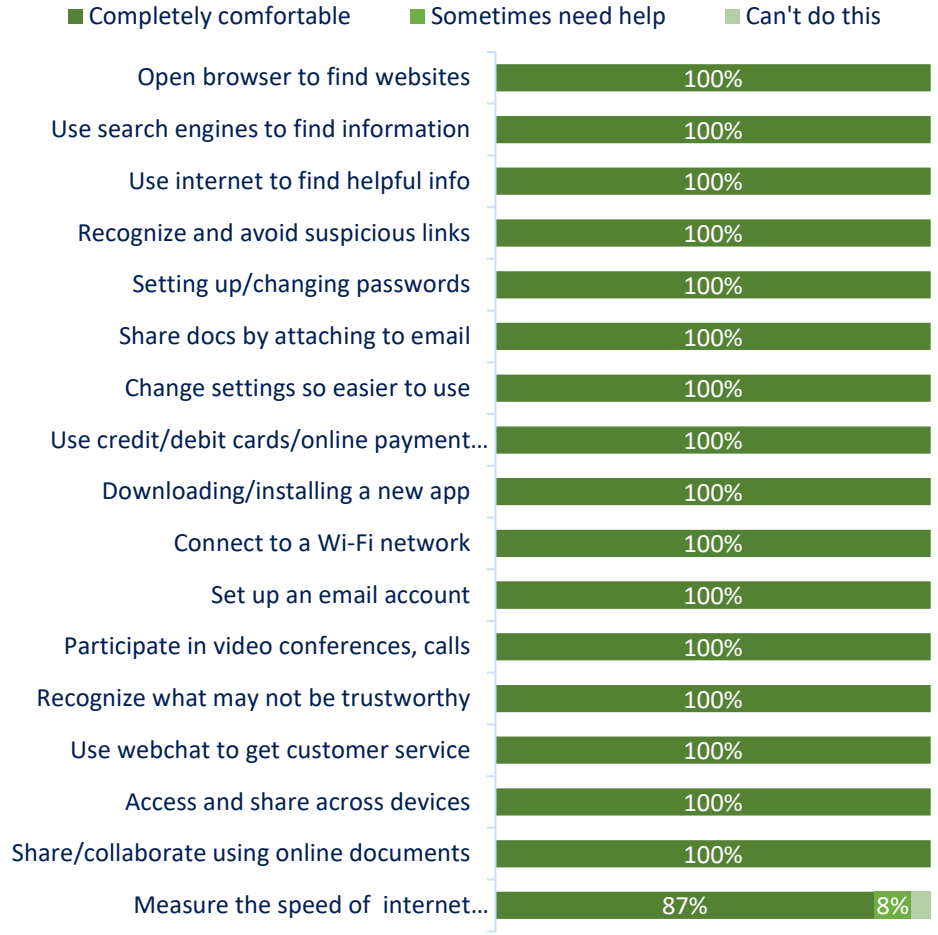
Segment members do not rely on others to help them access or navigate the internet.



Overall Skills Summary: HHs in this segment can complete all of the digital skills tested.

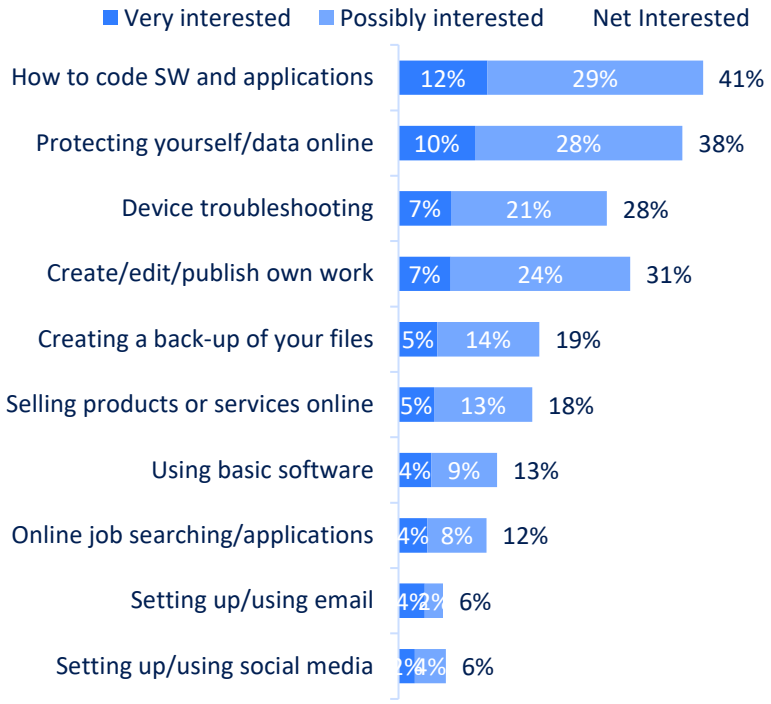


These households are completely comfortable across the range of digital skills or tasks, except for a minority who need help measuring the speed of their internet connection.



No Need – Interest in Training, Attitudes and Beliefs

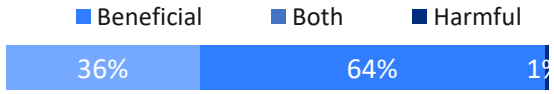
Due to their high skill levels, they are less likely than all other segments to be interested in most training topics, except for learning how to code.



All feel technology and the internet have at least some importance in their lives.

5=Extremely Important; 1=Not Important

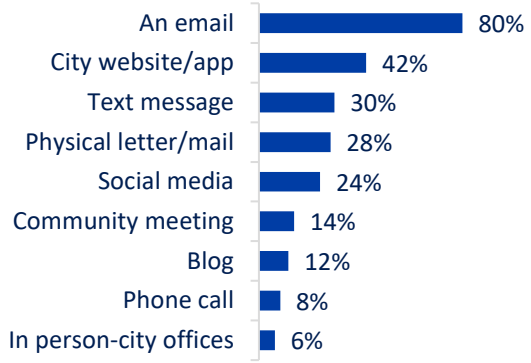
A third feel the internet and technology have had a beneficial effect on society, but most feel the effect has been mixed.



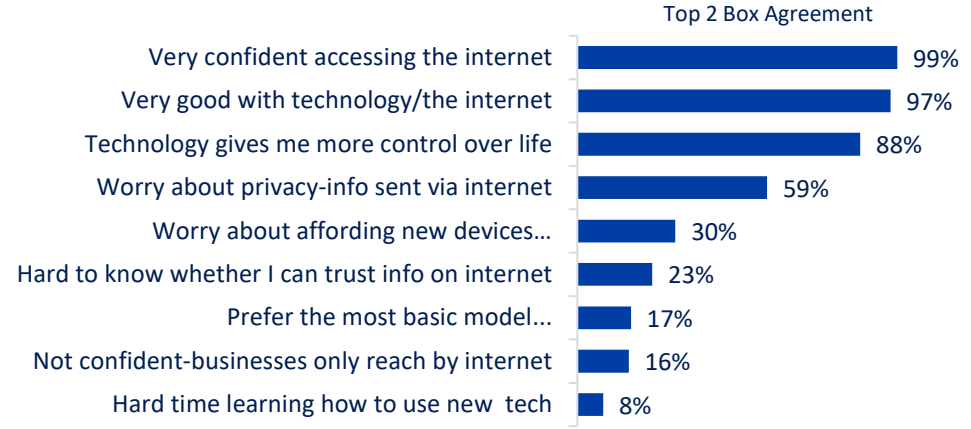
9 in 10 have visited the City of Seattle website (higher v. other segments). 3 in 4 visit just once a month or less often.

2 in 5 (41%) participate in a community group.

More likely than all others to prefer email, a website, or social media for City or group communications.



More likely than all others to be confident in their use of technology and to feel it gives them more control over their daily life. They are less likely to express concerns or doubts about their skills or abilities when it comes to technology or the internet.



In line with others in that their top concerns are about the security of their personal information and how their data is used, and protecting their computer from online viruses/malware.