Seattle IT Connectedness Segmentation Study

Full Technical Report

Seattle
Information Technology

PACIFIC
MARKET RESEARCH

Table of Contents

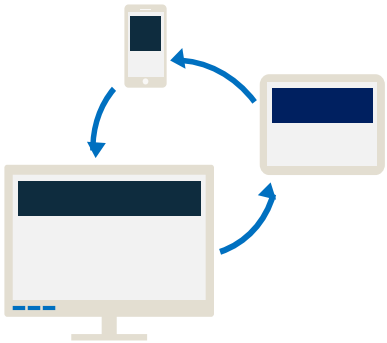
Background & Objectives

- Statement of Problem
- Research Goals
- Research Hypotheses
- Study Objectives

Statement of Problem

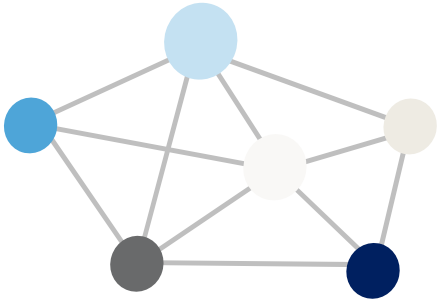
Digital connectivity among the residents of Seattle is not maximized.

- This lack of digital connectedness is a result of inequitable access to the internet, devices, and digital skills.



We accept that an increase in digital access for Seattle residents will result in a **healthier populace,** including one that has:

- More civically and socially engaged residents;
- Lowered rates of poverty;
- Higher levels of education and employment;
- And ultimately, a higher quality of life.



Research Goals

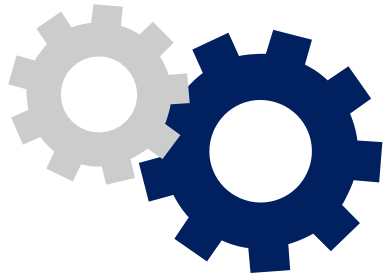
Achieve a complete understanding of the current level of the City of Seattle's digital connectedness, particularly for communities of color, non-English speakers, people with disabilities, older adults, and other communities most impacted by the digital divide.

Previous national studies have found a link between home broadband Internet adoption and educational success, greater household incomes, and improved access to government and health resources.

Recognizing this, the City of Seattle hopes to:

- Identify strategic and tactical opportunities to increase levels of digital connectedness;
- Lower the digital equity divide; and
- Ultimately ensure digital equity for all residents.

Research Hypotheses



Hypothesis #1

*City residents will **naturally adopt and use an increasing number of technology platforms** as their activities of daily living become increasingly digitized – creating regular opportunities for individuals to interact digitally. The converse of this, however, is that **an increasingly digitized environment may accelerate or widen the digital equity gap** for those who cannot (or choose to not) adopt quickly enough.*

Therefore, the City's focus should be:

1. **Increasing access to Internet connectivity and devices** to all groups, especially to those who are underserved.
2. **Installing and increasing programs for focused and targeted skill set development** in order to bring all residents to a level needed by their situation and what they need to accomplish in their daily lives.

Hypothesis #2

*City residents, in every demographic category, are **accelerating their usage of wireless smartphones and their personal wireless/cellular networking capabilities**. This phenomenon will continue to grow and overlap with broadband access.*

*Certain groups may be **more likely to rely solely on wireless/cellular networks**, and this has implications for technology planning and technology interventions intent on increasing digital engagement.*

Hypothesis #3

City residents who are not currently digitally connected, or who are under-connected, are experiencing at least one of the following:

- *Living in areas where broadband or wireless **connectivity is limited**.*
- *Paying for personal broadband or wireless **connectivity is too expensive (may be a real or perceived economic barrier)**.*
- ***Identify with groups of people who are currently underserved** by broadband providers and community partners (e.g. minorities, elderly, immigrant/refugee, non-English or Spanish speakers, insecurely housed, living at or below the poverty level, and/or living with or supporting someone with a disability).*
- ***Lack the skill set** or comfort level to fully engage digitally.*

Study Objectives

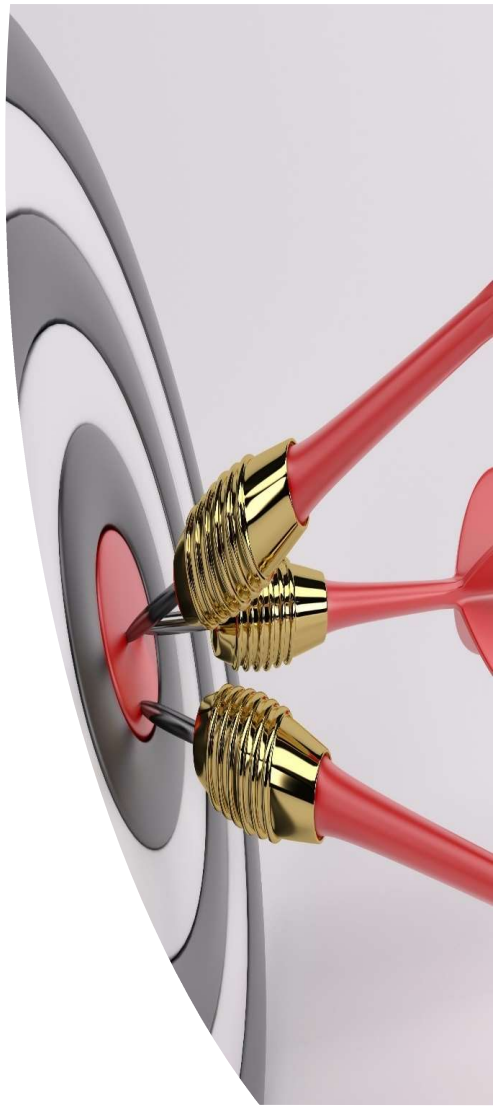
A. Quantify and describe Seattle's level of digital engagement, digital divide, and level and source of digital inequality (city-wide and by council district).

B. Explore the linkages between digital inequality and socioeconomic, demographic, and psychographic factors.

C. Discover/profile digital equity and digital connectedness segments within the City of Seattle population. Understand the interrelationships between variables and factors both from a predictive and prescriptive point of view.

D. Understand from a causal point of view the digital divide and how these contributory factors have changed. Attempt to predict how the divide will continue to evolve over the course of the next five years.

E. Identify opportunities for targeted and strategic interventions to increase digital engagement levels at a faster pace than that which would occur naturally.



Study Methodology

- Methodology and Sample Groups
- Research Caveats
- Weighting Summary
- Comparison to Census Results on Internet Subscriptions and Types of Devices in the Home

Methodology

A total of 4,315 surveys were collected from May 23rd through June 25th, 2018, representing 4,315 Seattle households and 10,358 Seattle residents.

- Conducted as a multi-mode survey: across mail, online, telephone, and in-person.
- Completed in both English (4,312 surveys) and Spanish (3 surveys).
- The overall average length of the online surveys was 34.0 minutes.
- The overall survey response was 18% (e.g. 18% of those invited to respond returned a survey).
- 15 returned surveys were excluded from the total results due to extensive incomplete data.

All eligible respondents are:

- Individuals living within Seattle city limits;
- Able to conduct the survey in either English or Spanish;
- Has the ability to complete the survey via mail with paper and pencil or pen, online via computer, tablet, or smartphone, or in-person via paper and pencil or pen; and
- Able to answer on behalf of the whole household on their use of technology and the internet (though if they needed help completing the survey, they could ask another household member or the survey helpline to assist them).

Sample Groups

A stratified sampling plan across five distinct demographic/geographic groups (and within that the seven Council Districts) was used in order to maximize representativeness and inclusivity.

General Population
Mail-in Paper: n1,979
Online: n958

Residents were selected from a stratified sampling plan, which pulled equal amounts of sample from each of the seven council districts. Addresses were identified via Address-Based Sample (ABS) and pulled randomly and proportionate to the total population number within each council district.

Targeted Low Income Population
Mail-in Paper: n258
Online: n127

Residents were selected among census tracts that are predominately lower socio-economic status (SES). Addresses were identified within these census tracts via Address-Based Sample (ABS) and pulled randomly and proportionate to the total population number within each census tract.

SHA Housing Population
Mail-in Paper: n230
Online: n44

Residents were selected among all Seattle Housing Authority (SHA) owned properties in the City of Seattle. Addresses were identified within these buildings and communities via Address-Based Sample (ABS) and pulled randomly and proportionate to the total population number of those living in SHA owned properties, with the exception of limiting the largest communities to no more than 5% of the group.

Living in City Sanctioned Tiny Home Villages
In-Person Paper: n50

The City of Seattle IT team coordinated with the Human Services Department to distribute and collect paper surveys among residents of sanctioned tiny-home villages in the city limits. The surveys were distributed to the residents of the villages with guidelines to have one survey per household, though multiple responses were possible.

Seattle Public Schools Parents/Guardians
Online: n669

An email invitation was sent to 31,554 parents or guardians of Seattle Public School students which invited them to respond online. Duplicate individuals within each household were identified and only one email address per household received the invitation and reminder emails.

Research Caveats

Surveys based on random samples are subject to sampling error, due to the fact that 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. For this report, that level of probability is 95 percent.

Data based on the total sample of 4,315 has a sampling error of ±1.5% at the 95 percent statistical significance threshold. Thus, if a result of 50 percent is attained 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	4,315	±1.5%
Low Income Census Tract Audience	385	±5.0%
(e.g.) Smaller groups of respondents	100	±9.8%

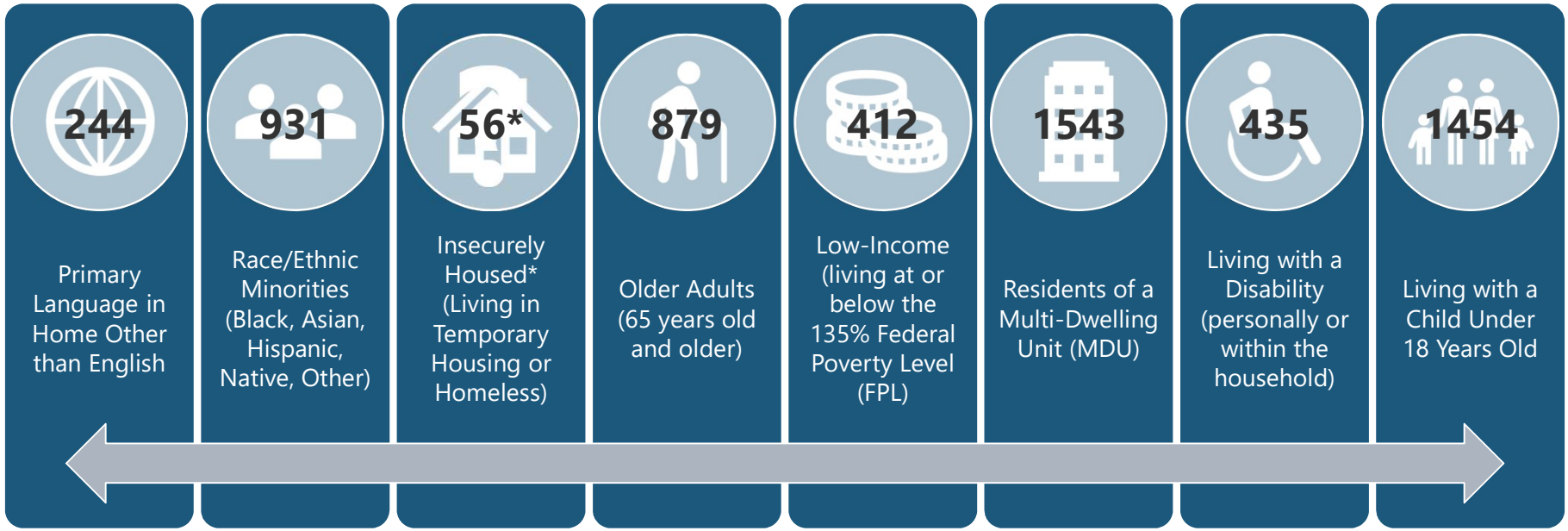
* For a result of 50% at a 95% confidence interval

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.

The researchers acknowledge some inherent differences which cannot be fully measured due to the multi-mode data collection method of mail, online, and telephone interviews.

Ensuring Inclusivity

To meet the project study mandate of representing all of Seattle, we collected responses from a wide range of residents including the following groups:



*Limited sample size. Sub-segment analysis warrants further research and/or a large sample size. Respondents that are "Insecurely Housed" are primarily composed of those living in city sanctioned tiny-home villages.

Weighting

- The 2018 Seattle Connectedness 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 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 ethnicity).
- Once classified, we applied either a household post-hoc weighting scheme based to the total population of Seattle households (319,125 based on the 2016 American Community Survey) or an individual post-hoc weighting scheme based to the total population of Seattle residents (657,398 based on the 2016 American Community Survey).
- 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 population of Seattle residents or as a household characteristic weighted to the total population of Seattle households.

Individual Weighting

- The individual post-hoc weighting scheme was used to balance data on individual-level characteristics to the total population of Seattle residents (not households).
- This weighting scheme includes age, gender, ethnicity, education, and council district.

AGE	Weighted Proportion	Unweighted Proportion
Ages 18-34	39%	17%
Ages 35-54	33%	41%
Ages 55-64	14%	17%
Ages 65 and older	14%	24%

ETHNICITY	Weighted Proportion	Unweighted Proportion
White	66%	77%
Black	7%	4%
Hispanic	7%	4%
Asian	14%	10%
Nat. HI/ Pacific Islander	<1%	<1%
Am. Indian/ Alaska Native	<1%	<1%
Other	<1%	<1%
Mixed	5%	4%

GENDER	Weighted Proportion	Unweighted Proportion
Male	50%	46%
Female	49%	52%
Gender non-conforming*	1%	2%

EDUCATION	Weighted Proportion	Unweighted Proportion
Less than HS Grad	6%	2%
HS Grad and Some College	33%	24%
Bachelor's Degree or Higher	61%	74%

COUNCIL DISTRICT	Weighted Proportion	Unweighted Proportion
Council District 1	13%	15%
Council District 2	14%	14%
Council District 3	14%	12%
Council District 4	14%	14%
Council District 5	15%	18%
Council District 6	14%	15%
Council District 7	15%	11%

*Gender non-conforming / genderqueer / non-binary

Household Weighting

- The household post-hoc weighting scheme was used to balance data on household-level characteristics to the total population of Seattle households (not residents/individuals).
- This weighting scheme includes council district, household income, any children in the household (HH), any children enrolled in an SPS (Seattle Public Schools) in the household, and those living in an SHA (Seattle Housing Authority) owned or managed property.

COUNCIL DISTRICT	Weighted Proportion	Unweighted Proportion
Council District 1	12%	15%
Council District 2	11%	14%
Council District 3	16%	12%
Council District 4	14%	14%
Council District 5	14%	18%
Council District 6	14%	15%
Council District 7	19%	11%

CHILDREN IN HH	Weighted Proportion	Unweighted Proportion
Children under 18 in HH	24%	39%
No Children under 18 in HH	76%	61%

CHILDREN IN SPS IN HH	Weighted Proportion	Unweighted Proportion
Children under 18 in HH	10%	23%
No Children under 18 in HH	90%	77%

HOUSEHOLD INCOME	Weighted Proportion	Unweighted Proportion
Below $25,000	17%	17%
$25,000-$49,999	18%	14%
$50,000-$74,999	15%	13%
$75,000-$99,999	12%	12%
$100,000-$149,999	17%	19%
$150,000-$199,999	9%	10%
$200,000+	12%	15%

LIVING IN SHA PROPERTY	Weighted Proportion	Unweighted Proportion
Yes	3%	6%
No	97%	94%

Responses by Council Districts

Council District	*n=	%
Council District 1 (West Seattle/ South Park)	632	15%
Council District 2 (South Seattle)	610	14%
Council District 3 (Central Seattle)	527	12%
Council District 4 (Northeast Seattle)	582	14%
Council District 5 (North Seattle)	775	18%
Council District 6 (Northwest Seattle)	649	15%
Council District 7 (Pioneer Square to Magnolia)	476	11%

n=64, Not classified

*Unweighted values

When compared to census (2017 ACS) data, the Connectedness Study shows Seattle residents are continuing a path towards ubiquitous digital adoption.

Since 2017, there has been an increase in the number of households (HHs) reporting an internet capable device (from 95% to 98%). On the other hand, there has been a significant decline in households reporting they have no paid internet subscription (from 9% to 6%).

	2017 American Community Survey (Census)	Seattle Connectedness Study 2018
Any device	95%	98% ⬆
Desktop/Laptop	89%	92% ⬆
Desktop/Laptop with no other type of computing device	3%	3%
Smartphone/Mobile phone	89%	93% ⬆

	2017 American Community Survey (Census)	Seattle Connectedness Study 2018
Smartphone with no other type of computing device	3%	3%
Tablet or other portable wireless computer in HH	70%	64% ⬇
No device	5%	2% ⬇

	2017 American Community Survey (Census)	Seattle Connectedness Study 2018
With any broadband subscription	90%	92%
With fixed broadband subscription (cable, DSL, etc.)	84%	88% ⬆
Cellular data plan with no other type of internet subscription	6%	4%
Without an internet subscription	9%	6% ⬇

*Other types of internet services (including dial-up and satellite internet services are not included in this table).

2017 American Community Survey 1-Year Estimates
Base: 9,007 Total population interviewed (B00001)
S2801 TYPES OF COMPUTERS AND INTERNET SUBSCRIPTIONS. Base: Households in City of Seattle.
Base: Total (n4315) – Household Weight.
Q2 - Please tell us about the technology devices you have in the place where you live. Does your household have one or more of?
Base: Total Answering (n4273) – Household Weight.
Q4 - What are all the ways you get internet in the place where you live?

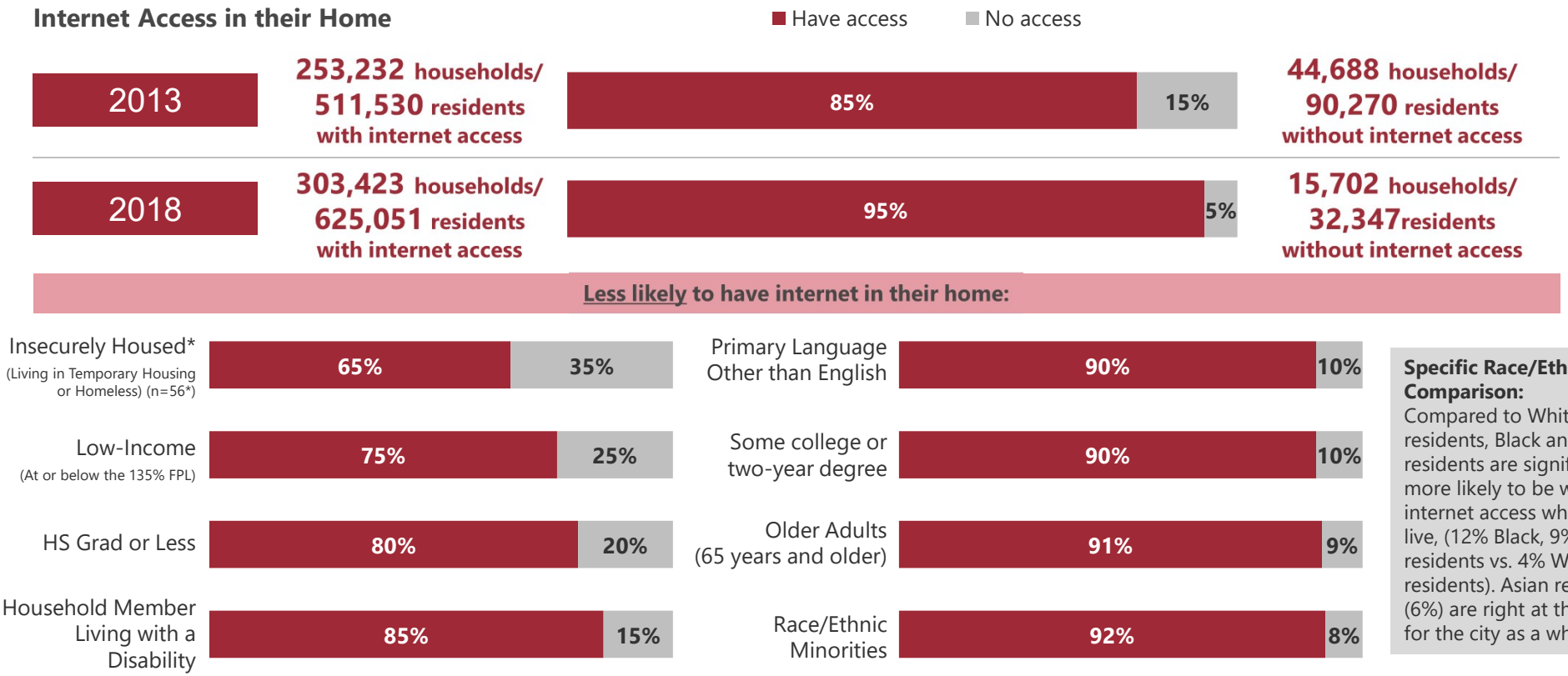
⬆ = Sig. Higher than at Least One Other Group Shown ⬇ = Sig. Lower than at Least One Other Group Shown

Digital Access and Devices

- Internet Access in Place of Residence
- Types of Devices in Household
- Typical Download Speed of Internet Connection
- Adequacy of the Internet Access

Compared to 2013, significantly more Seattle residents report internet access in their home (an increase from 85% of residents in 2013 to 95% in 2018).

Key groups, including many underserved and/or high needs segments, lag behind the general population when it comes to internet access in the home.

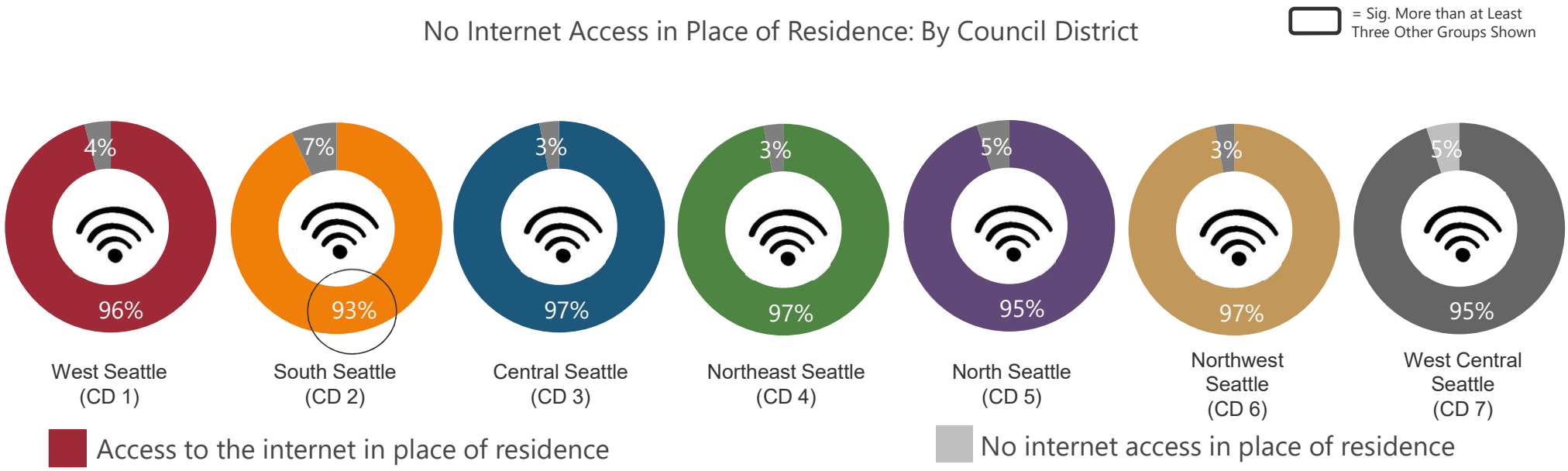


Specific Race/Ethnic Comparison: Compared to White residents, Black and Hispanic residents are significantly more likely to be without internet access where they live, (12% Black, 9% Hispanic residents vs. 4% White residents). Asian residents (6%) are right at the average for the city as a whole.

Base: Total Answering – Total Pop (n4315). Household Weight.
*Limited sample size. Sub-segment analysis warrants further research and/or a large sample size.
Q1 - Does your household have a way to access the internet in the place where you currently live?

South Seattle (CD 2) reports a significantly lower rate of internet access (93% with internet) than most other Council Districts.

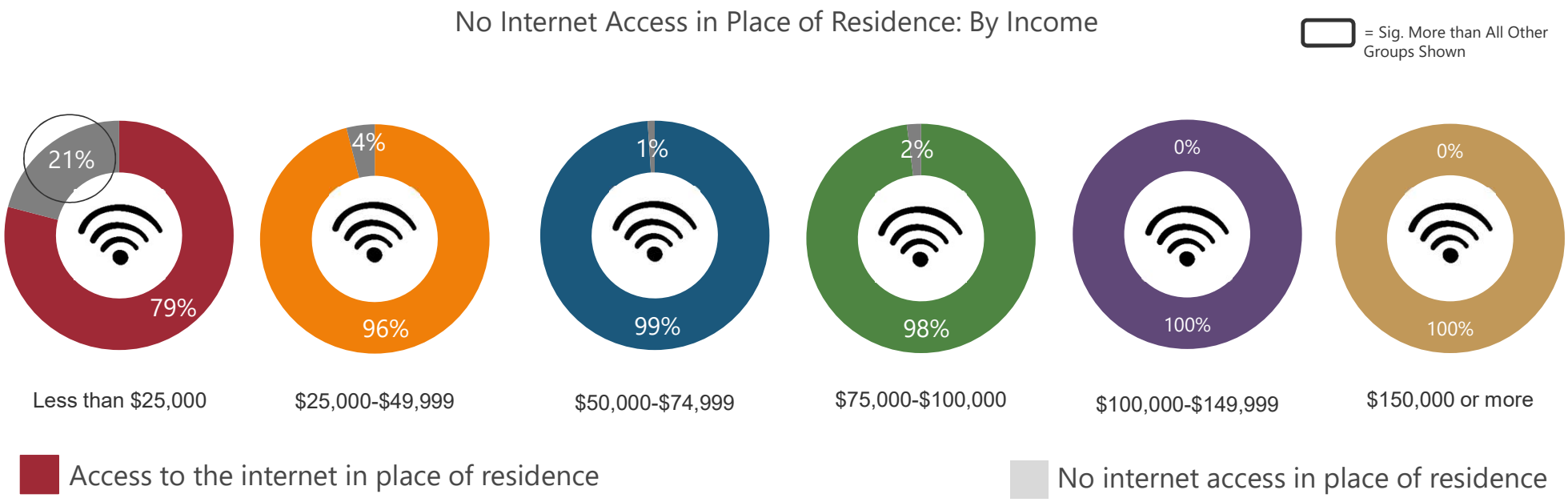
Central, NE and NW Seattle (CDs 3, 4, and 6) have the highest rates, with 97 percent of the population reporting an in-home way to access the internet.



Base: Total Answering – Council District 1 (n632), Council District 2 (n610), Council District 3 (n527), Council District 4 (n582), Council District 5 (n775), Council District 6 (n649), Council District 7 (n476). Household Weight.
Q1 - Does your household have a way to access the internet in the place where you currently live?

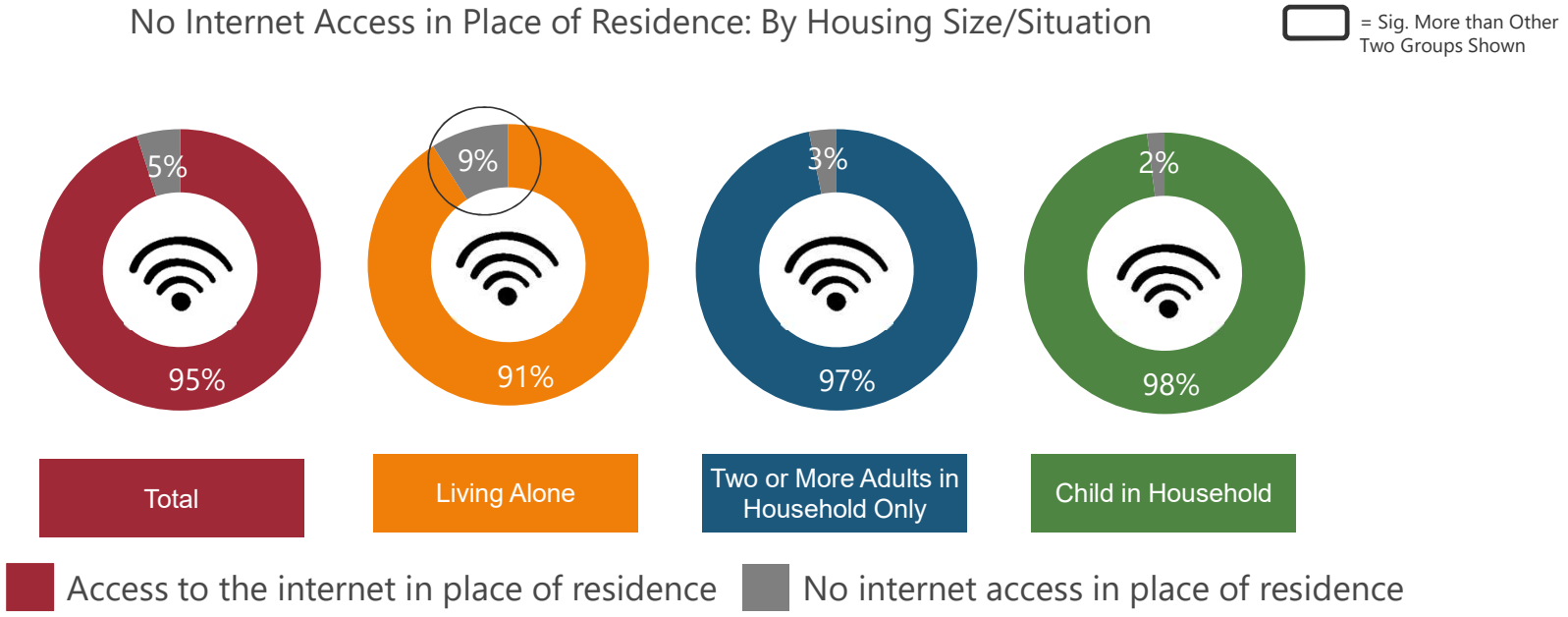
More than one out of five households with incomes under $25,000 do not have internet access where they live.

Nearly all households with incomes over $50,000 have internet access.



Base: Total Answering – <$25K (n611), $25K-$50K (n502), $50K-$75K (n472), $75K-$100K (n434), $100K-$150K (n694), $150K+ (n903). Household Weight.
Q1 - Does your household have a way to access the internet in the place where you currently live?

Households with only one adult are significantly less likely to have internet at home than larger households.

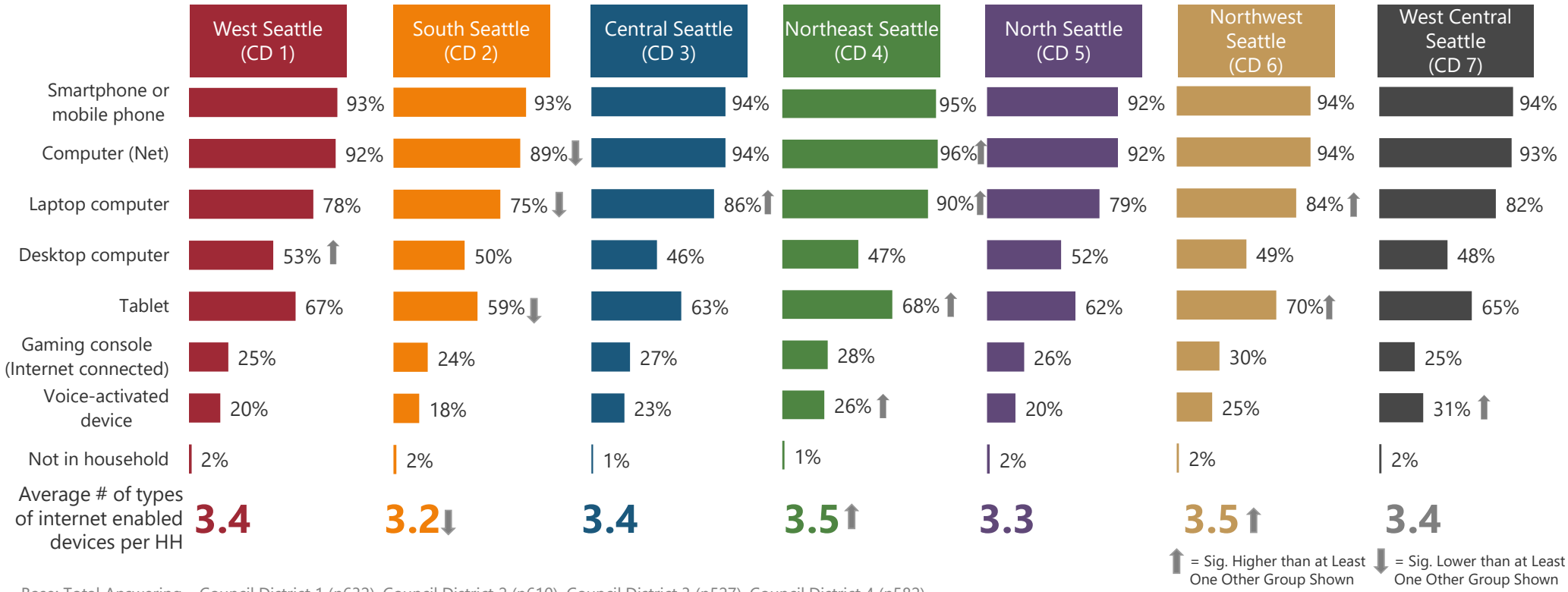


Base: Total Answering – Total Pop (n4315), Living Alone (n1122), Two or More Adults in Household Only (n1194), Child in Household (n1454). Household Weight.
Q1 - Does your household have a way to access the internet in the place where you currently live?

While smart/mobile phone penetration does not vary across Council Districts, ownership rates of other devices varies significantly.

South Seattle (CD 2) reports access to fewer types of devices, with lower rates of laptops, desktop computers, and tablets. Voice-activated devices are significantly more prevalent in Central/Pioneer Square to Magnolia (CD 7).

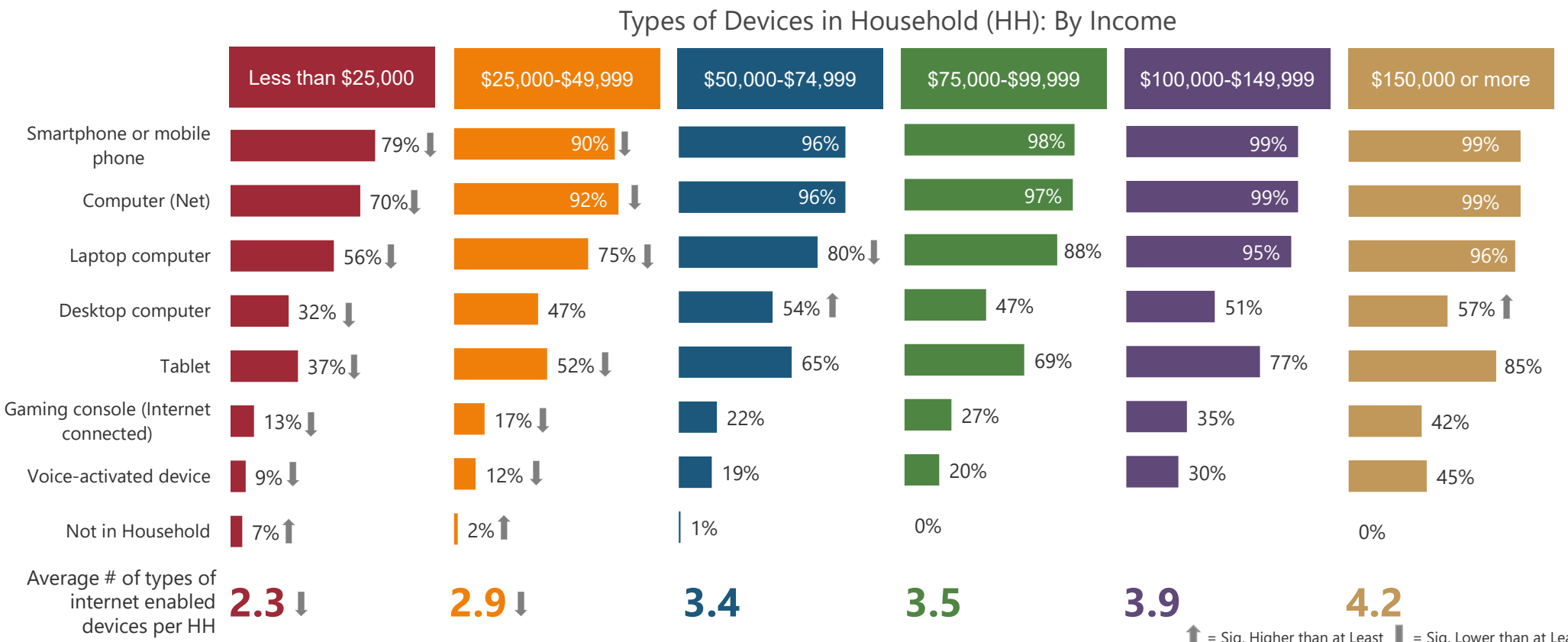
Types of Devices in Household (HH): By Council District



Base: Total Answering – Council District 1 (n632), Council District 2 (n610), Council District 3 (n527), Council District 4 (n582), Council District 5 (n775), Council District 6 (n649), Council District 7 (n476). Household Weight.
Q2 - Please tell us about the technology devices you have in the place where you live...

The number of types of internet enabled devices in the household increases in step with household income.

The average number of devices in the highest income households is almost double that of those living at the lowest income level.

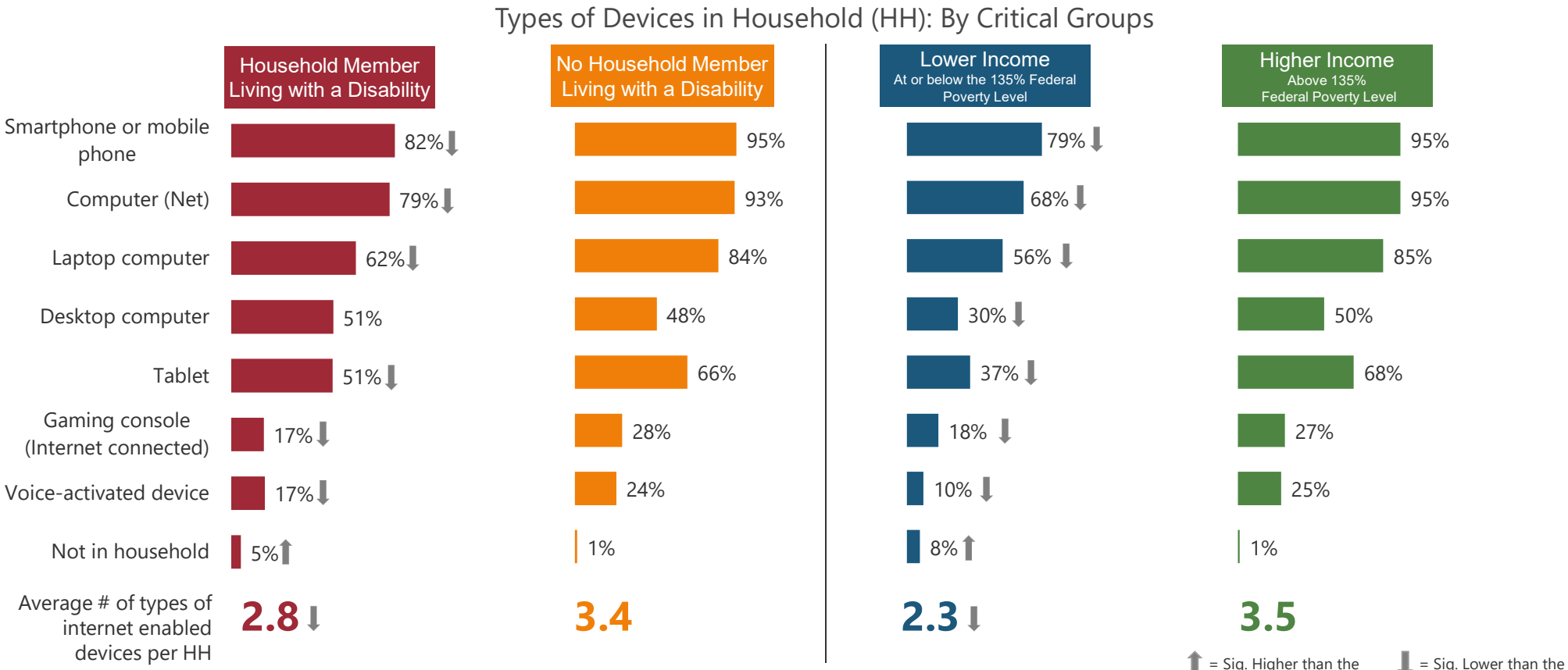


= Sig. Higher than at Least One Other Group Shown

= Sig. Lower than at Least One Other Group Shown

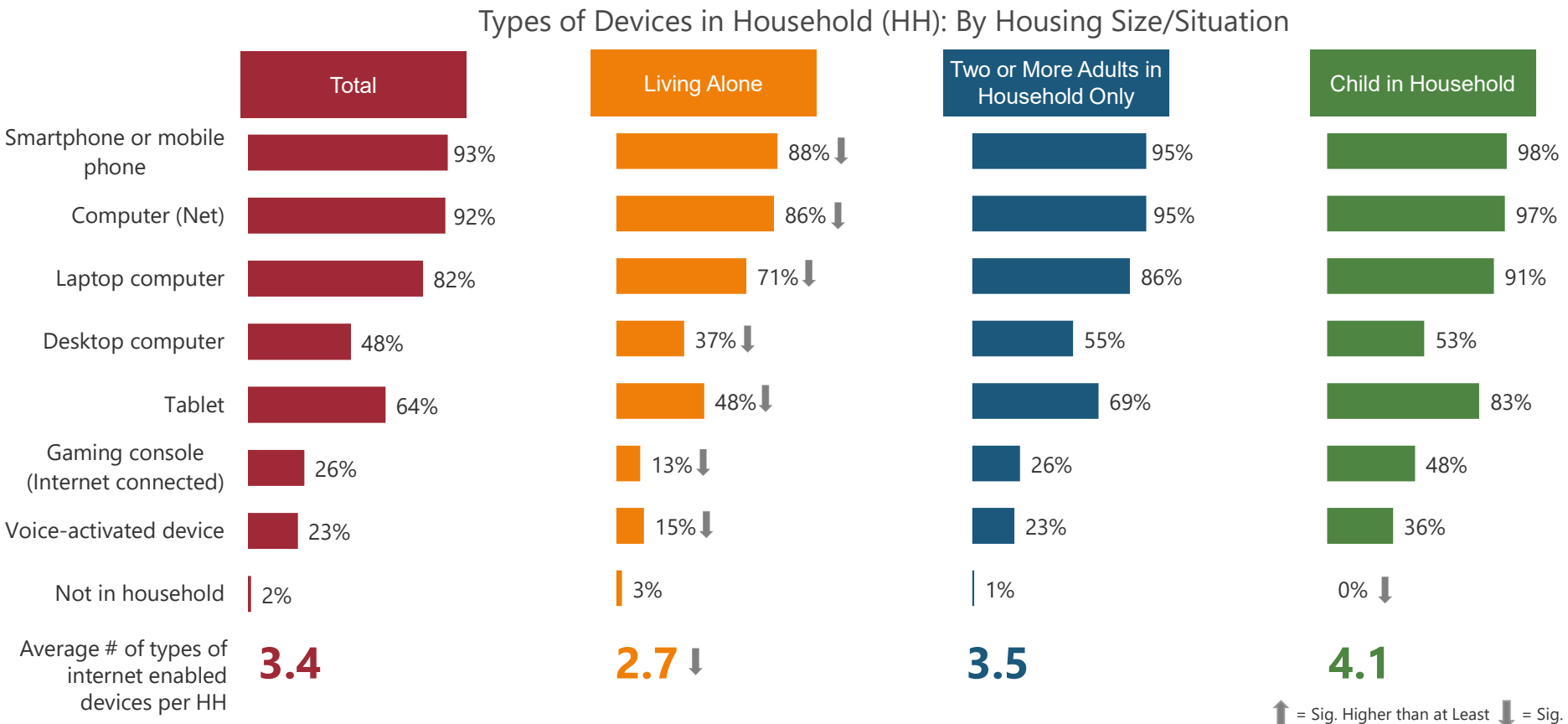
Base: Total Answering – <$25K (n611), $25K-$50K (n502), $50K-$75K (n472), $75K-$100K (n434), $100K-$150K (n694), $150K+ (n903). Household Weight.
Q2 - Please tell us about the technology devices you have in the place where you live...

Households with a member living with a disability and low income households (at or below 135% of the federal poverty level) are less likely to have a range of devices where they live.



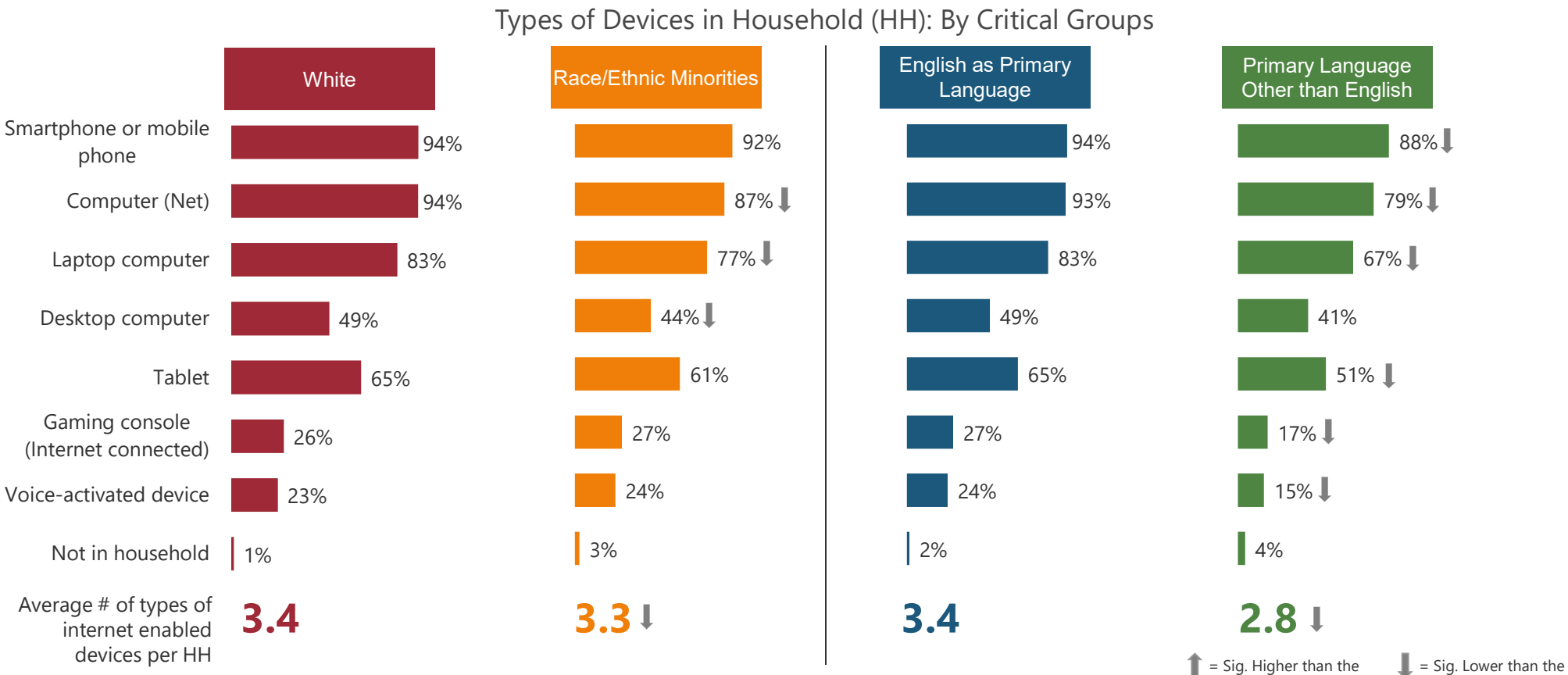
Base: Total Answering – Household Member Living with a Disability (n435), No Household Member Living with a Disability (n3861), Lower Income (n412), Higher Income (n3903). Household Weight.
Q2 - Please tell us about the technology devices you have in the place where you live…

Households with a single adult living alone are the least likely to have a number of types of internet enabled devices in the household.



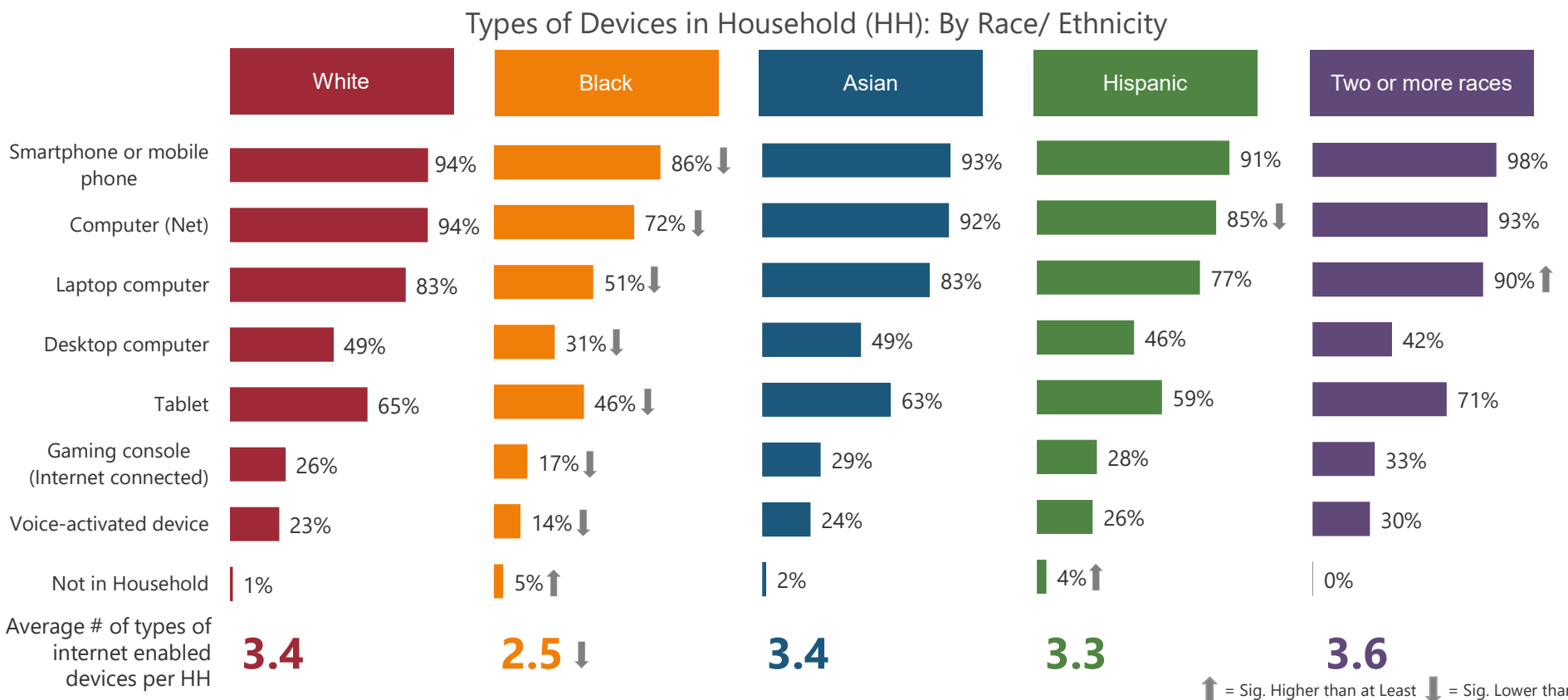
Base: Total Answering – Total Pop (n4315), Living Alone (n1122), Two or More Adults in Household Only (n1194), Child in Household (n1454). Household Weight.
Q2 - Please tell us about the technology devices you have in the place where you live…

Residents that do not primarily speak English or those that are part of a race or ethnic minority are less likely to have a range of internet enabled devices in their household – particularly computers.



Base: Total Answering – White (n3077), Race/Ethnic Minorities (n931), English as Primary Language (n3981), Primary Language Other than English (n244). Household Weight.
Q2 - Please tell us about the technology devices you have in the place where you live...

Black residents are the least likely to have technology devices in their household, though a majority have a smart/mobile phone and either a desktop or laptop.

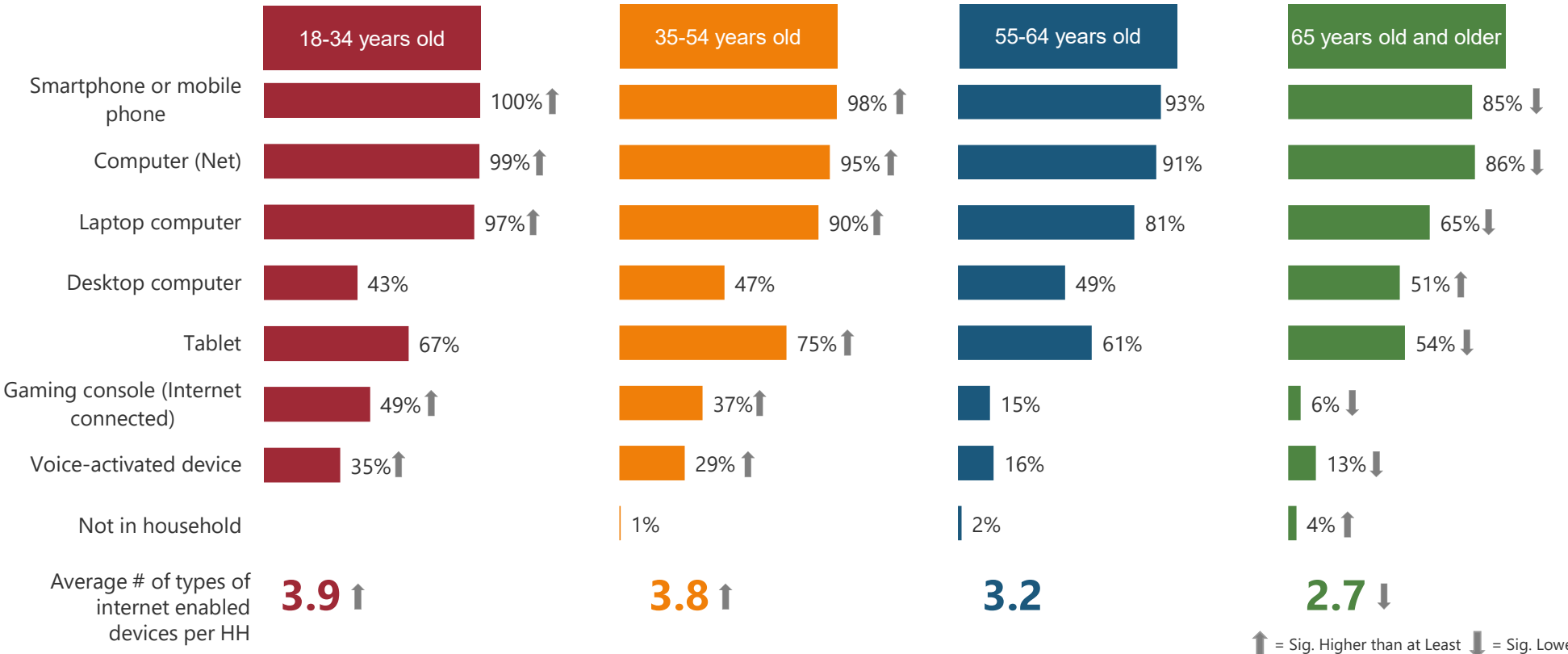


Base: Total Answering – White (n3077), Black (n165), Asian (n416), Hispanic (n169), Two or more races (n148).
Note: Native Hawaiian/ Pacific Islander, American India/Alaska Native, Other Races are not shown due to small base sizes. Household Weight.
Q2 - Please tell us about the technology devices you have in the place where you live...

The number of types of internet enabled devices in the household decreases among older residents.

Residents under 55 years old are the most likely to have a wide variety of devices, with nearly all having a smart/mobile phone and a laptop or desktop computer.

Types of Devices in Household (HH): By Age

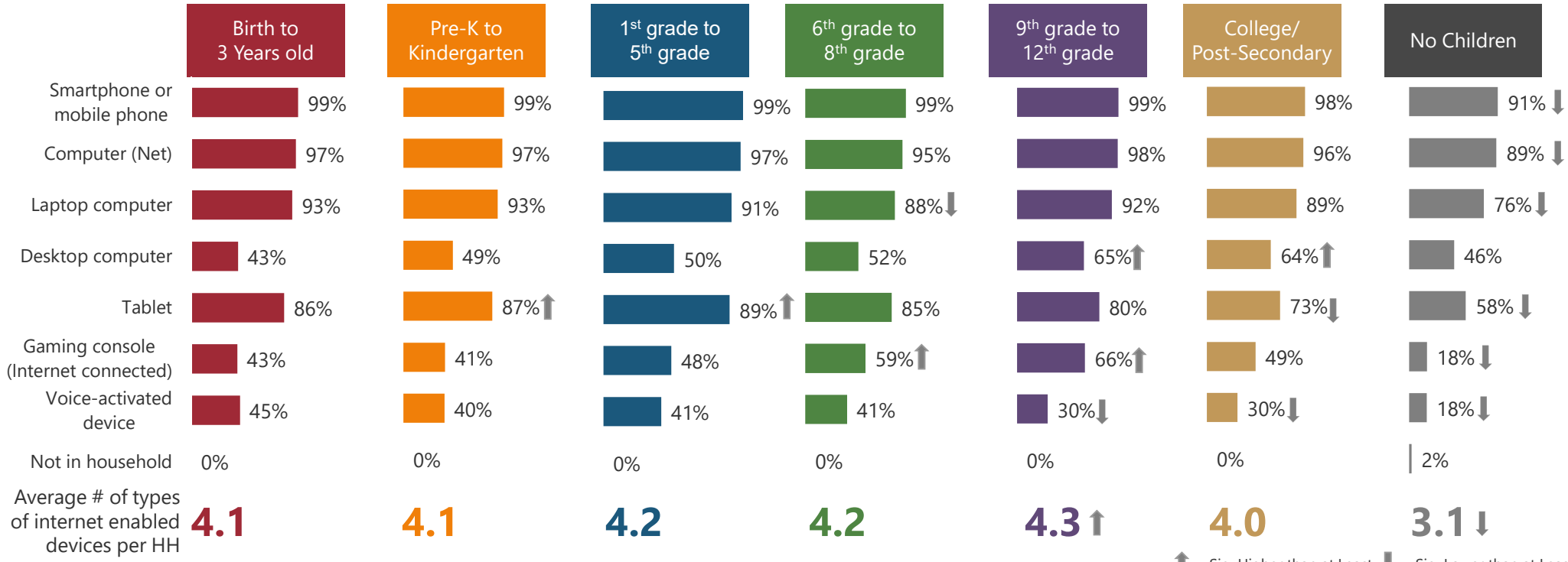


Base: Total Answering – 18-34 years old (n628), 35-54 years old (n1,509), 54-64 years old (n637), 65 years old and older (n883). Household Weight.
Q2 - Please tell us about the technology devices you have in the place where you live...

Households with children are more likely to have a variety of devices, especially smart/mobile phones and laptop computers.

Households with younger children are more likely to have tablets, while those with older children are most likely to have desktop computers and gaming consoles.

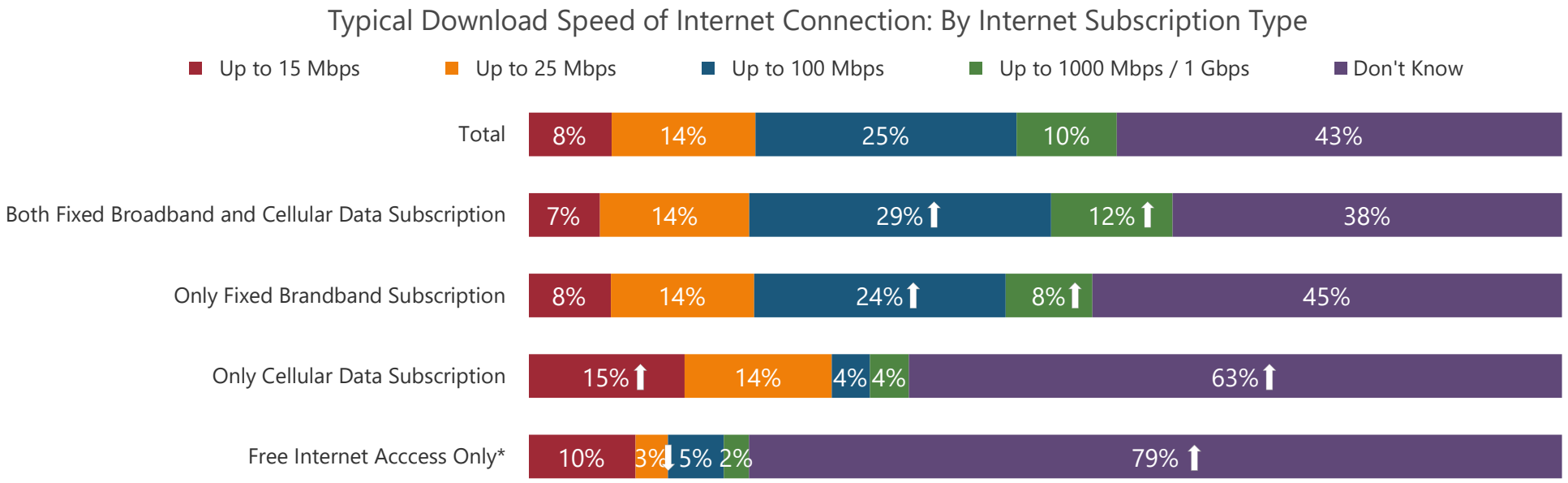
Types of Devices in Household (HH): Age of Children in the Household



Base: Total Answering – Birth to 3 Years old (n246), Pre-K to Kindergarten (n288), 1st grade to 5th grade (n529), 6th grade to 8th grade (n339), 9th grade to 12th grade (n403), College/Post-Secondary (n173), No Children in Household (n2291). Household Weight.
Q2 - Please tell us about the technology devices you have in the place where you live…

Although two out of five residents do not know their household internet speed, most of those who do know believe their speed to be at least up to 100 Mbps.

Households with a fixed broadband internet subscription are significantly more likely to have faster download speed. On the other hand, most of those who rely on cellular data or free/public access do not know their speed or believe it to be slower than up to 15 Mbps.



Base: Total Answering – Total (n3940), Both Fixed Broadband and Cellular Data Subscription (n1829), Only Fixed Broadband Subscription (n1868), Only Cellular Data Subscription (n143), Free Internet Access Only (n47*).
Household Weight. *Limited sample size. Sub-segment analysis warrants further research and/or a large sample size.
Q7 - What is the download speed of the internet connection in the place where you live?

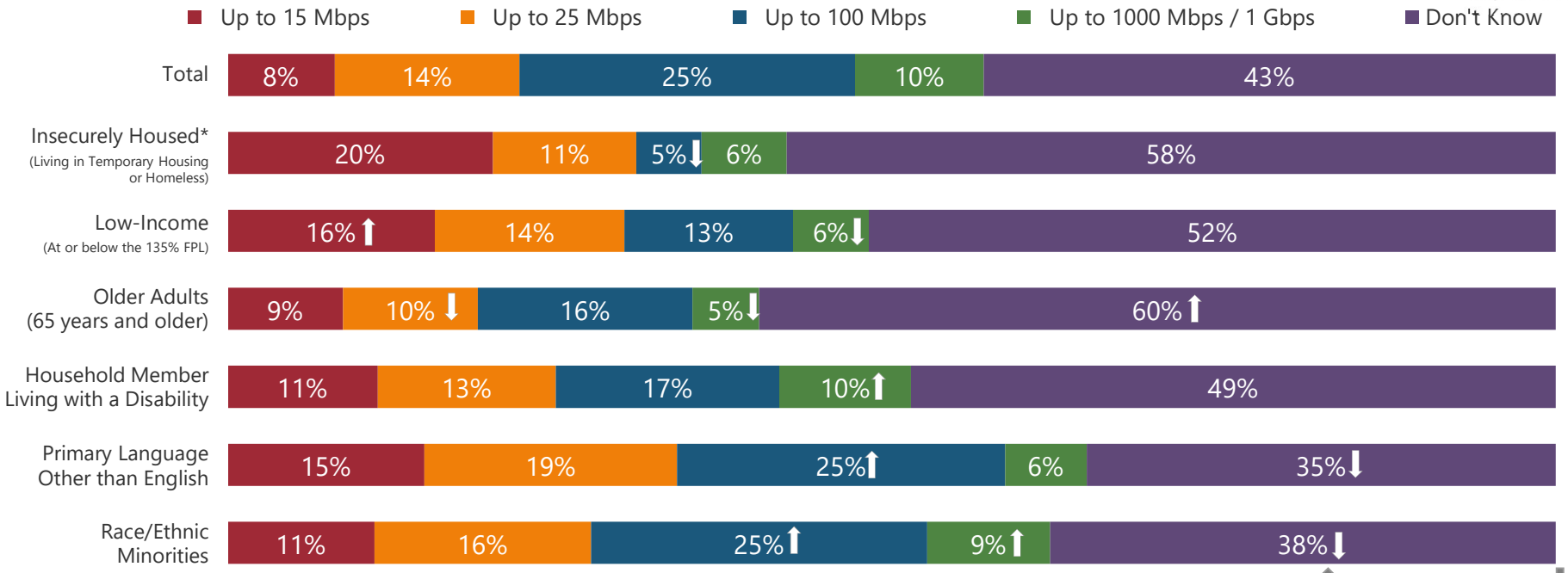
⬆ = Sig. Higher than at Least One Other Group Shown ⬇ = Sig. Lower than at Least One Other Group Shown

Over half of residents in the most digitally impacted groups (older adults, insecurely housed, low income, and those with a household member living with a disability) do not know the speed of their internet connection.

One out of three (35%) of those in households where English is not the primary language and three out of ten (30%) of low income households report very slow internet speeds (up to 25 Mbps).

Sorted by Lack of Higher Speed Internet Connections (up to 100 Mbps or faster).

Typical Download Speed of Internet Connection: By Impacted Groups



Race/Ethnic Comparison: Black (15%) and Asian residents (13%) are more likely to have slow internet speeds (up to 15 Mbps), compared to White (7%), Hispanic (9%), and Mixed race residents (5%). Asian residents are significantly more likely to know the speed of their internet connection (74%), compared to all other groups.

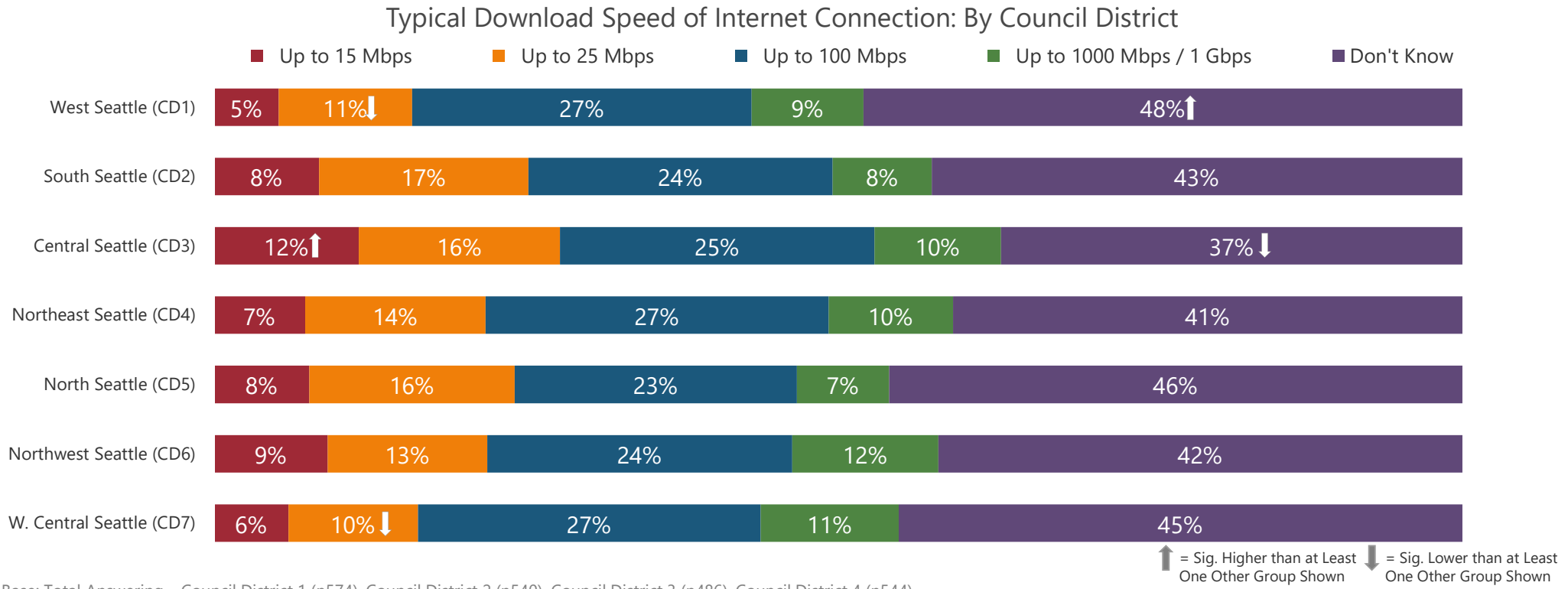
= Sig. Higher than at Least One Other Group Shown

= Sig. Lower than at Least One Other Group Shown

Base: Total Answering, Total (n3940), By Impacted Group – Insecurely Housed (n34*), Low Income (n297), Age 65+ (n755), Living with a Disability (n341), Language Other than English (n198), Race or Ethnic Minority (n817).
Household Weight. *Limited sample size. Sub-segment analysis warrants further research and/or a large sample size.
Q7 - What is the download speed of the internet connection in the place where you live?

Internet connection speed varies throughout the city, though at least half of the households in each Council District report speeds over 25 Mbps (among those aware of their download speed).

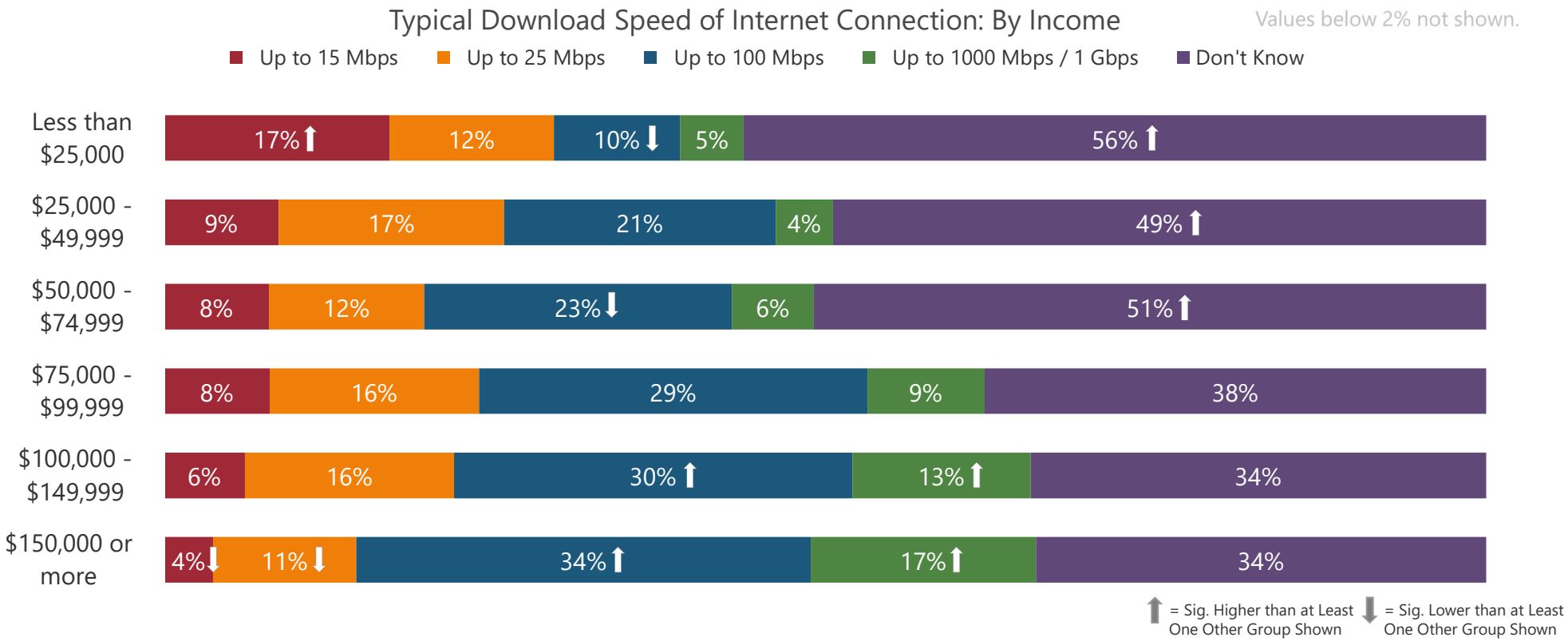
Those in Central Seattle (Council District 3) are the most likely to report having the slowest broadband speeds (up to 25 Mbps).



Base: Total Answering – Council District 1 (n574), Council District 2 (n540), Council District 3 (n486), Council District 4 (n544), Council District 5 (n715), Council District 6 (n602), Council District 7 (n433). Household Weight.
Q7 - What is the download speed of the internet connection in the place where you live?

Internet download speed correlates with household income.

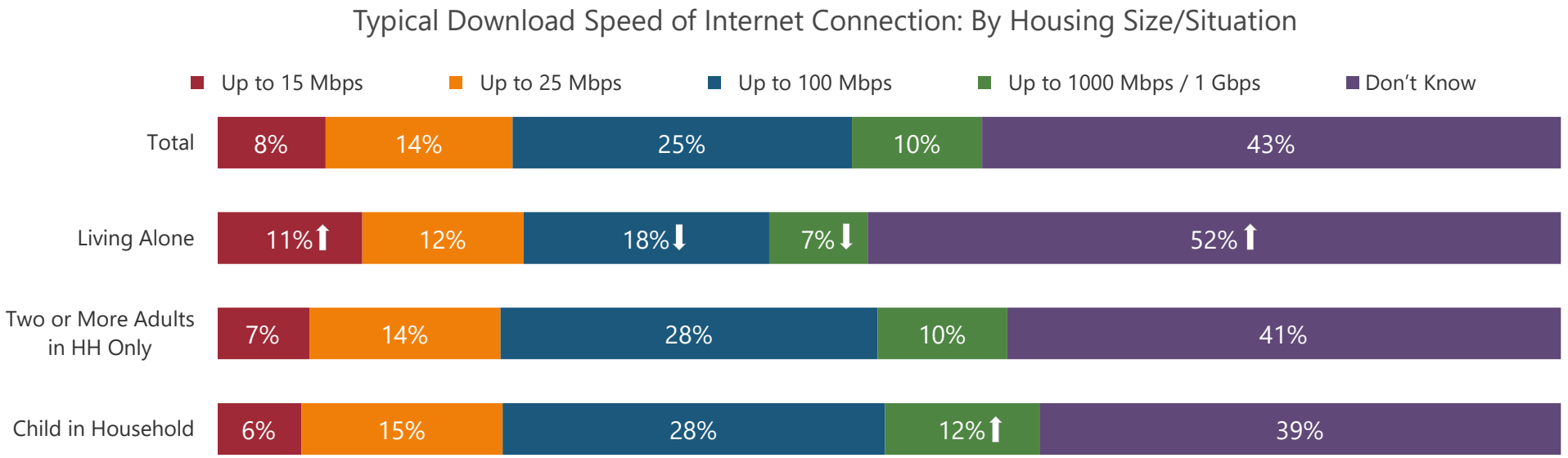
Households with lower incomes are more likely to not know their internet speed. Among those that know the speed of their connection, those with household income below $25,000 are most likely to state they have slow speeds.



Base: Total Answering – <$25K (n453), $25K-$50K (n457), $50K-$75K (n451), $75K-$100K (n414), $100K-$150K (n674), $150K+ (n879). Household Weight.
Q7 - What is the download speed of the internet connection in the place where you live?

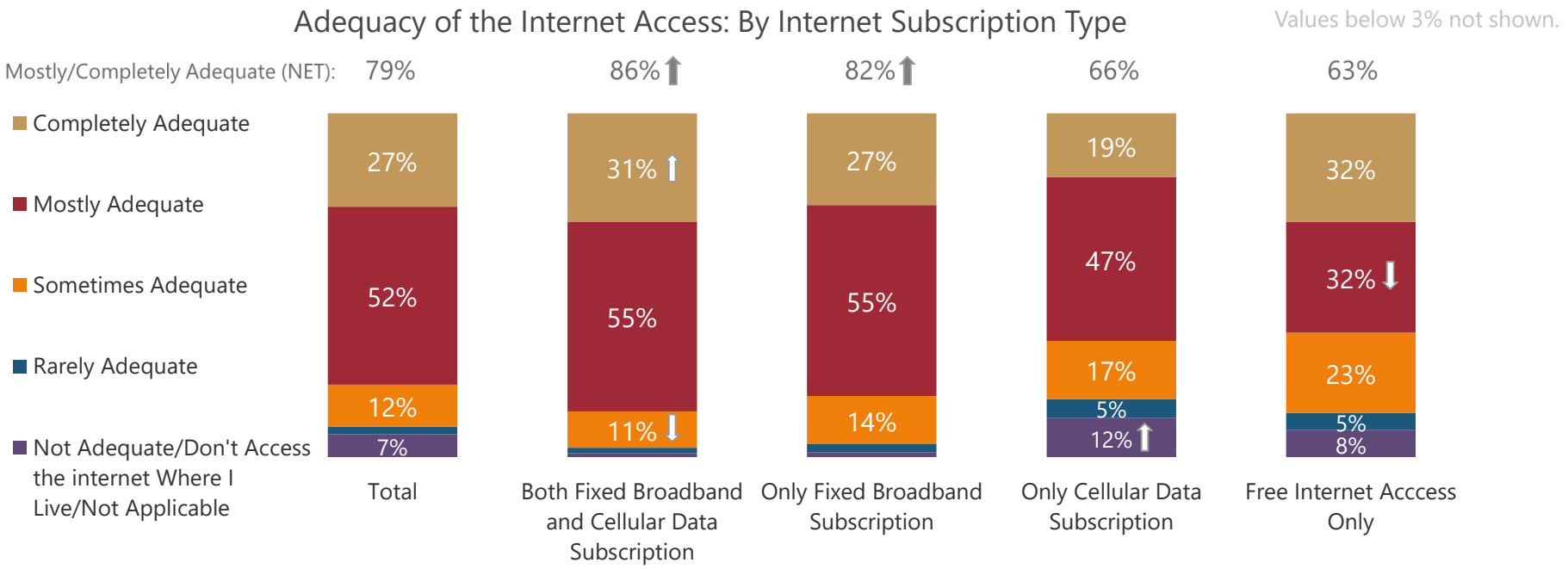
Households with multiple adults or households with children are more likely to have faster internet connections than single occupant households.

Single occupant households are more likely than their counterparts to have speeds up to 15 Mbps and to not know the download speed of their connection.



Base: Total Answering – Total (n3940), Living Alone (n960), Two or More Adults in Household Only (n1094), Child in Household (n1403). Household Weight.
Q7 - What is the download speed of the internet connection in the place where you live?

Households with a fixed broadband internet connection are more likely to report adequate connections. On the other hand, those who rely on cellular data only or free internet are less likely to feel they have adequate connections.

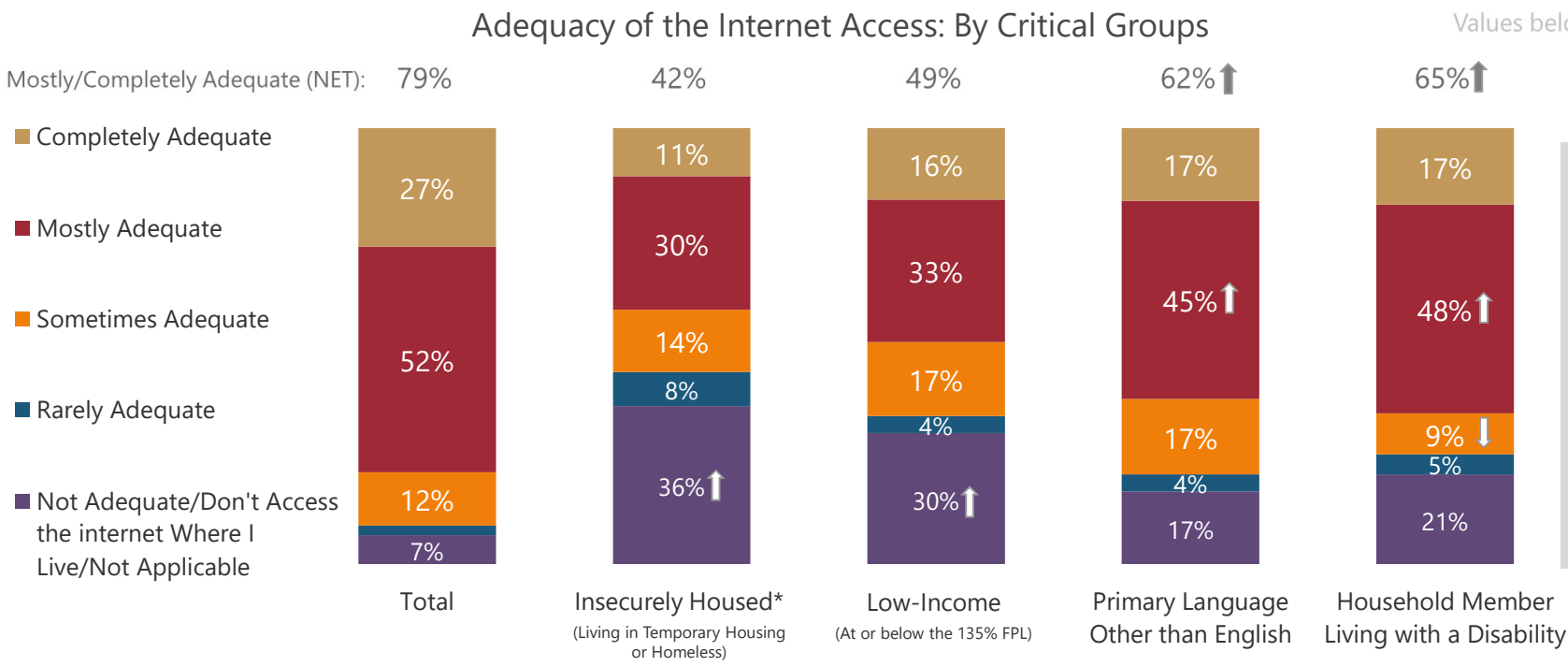


Base: Total Answering – Total (n4237), Both Fixed Broadband and Cellular Data Subscription (n1870), Only Fixed Broadband Subscription (n1900), Only Cellular Data Subscription (n145), Free Internet Access Only (n50). Household Weight.
Q6 - How would you rate the adequacy of the internet connection and speeds in the place where you live when it comes to your ability to do the tasks you want and need to do on the internet?

= Sig. Higher than at Least One Other Group Shown
= Sig. Lower than at Least One Other Group Shown

Residents that are insecurely housed or living at or below the poverty level are most likely to have inadequate access or no access at all where they live.

Those who primarily speak a language other than English or have a household member living with a disability are also less likely than the general population to assess their internet as adequate for their needs.



Race/Ethnic Comparison: White residents (81%) are more likely to believe their home internet connection is adequate compared to most other groups, followed by Asian residents (75%). Black (65%) and Hispanic (70%) residents as the least likely to believe their home internet connection is adequate.

↑ = Sig. Higher than at Least One Other Group Shown ↓ = Sig. Lower than at Least One Other Group Shown

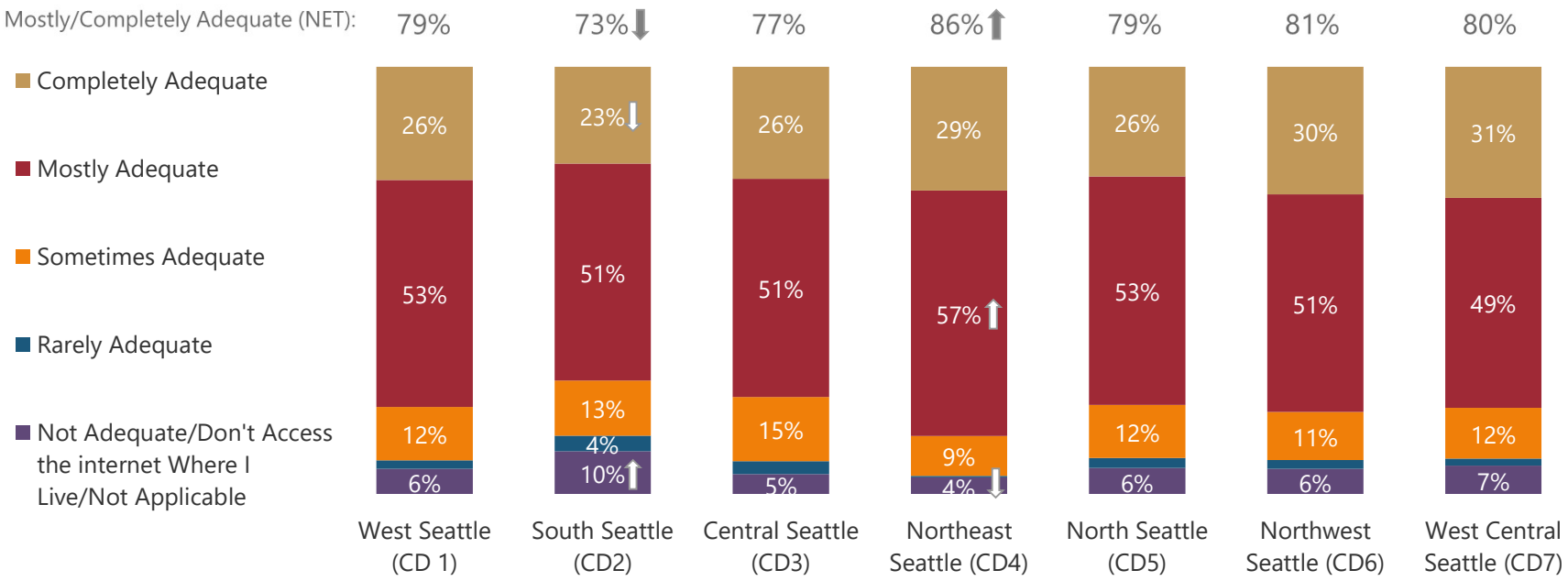
Base: Total Answering – Total (n4237), Insecurely Housed (n52*), Low Income (n393), Primary Language Other than English (n228), Household Member with a Disability (n413). Household Weight. *Limited sample size. Sub-segment analysis warrants further research and/or a large sample size.
Q6 - How would you rate the adequacy of the internet connection and speeds in the place where you live when it comes to your ability to do the tasks you want and need to do on the internet?

With the exception of those in South Seattle (CD 2), approximately four out of five residents feel their internet access is at least mostly adequate.

One in four (27%) of those living in South Seattle (CD 2) do not feel that the internet in their home is mostly or completely adequate for their needs.

Adequacy of the Internet Access: By Council District

Values below 3% not shown.



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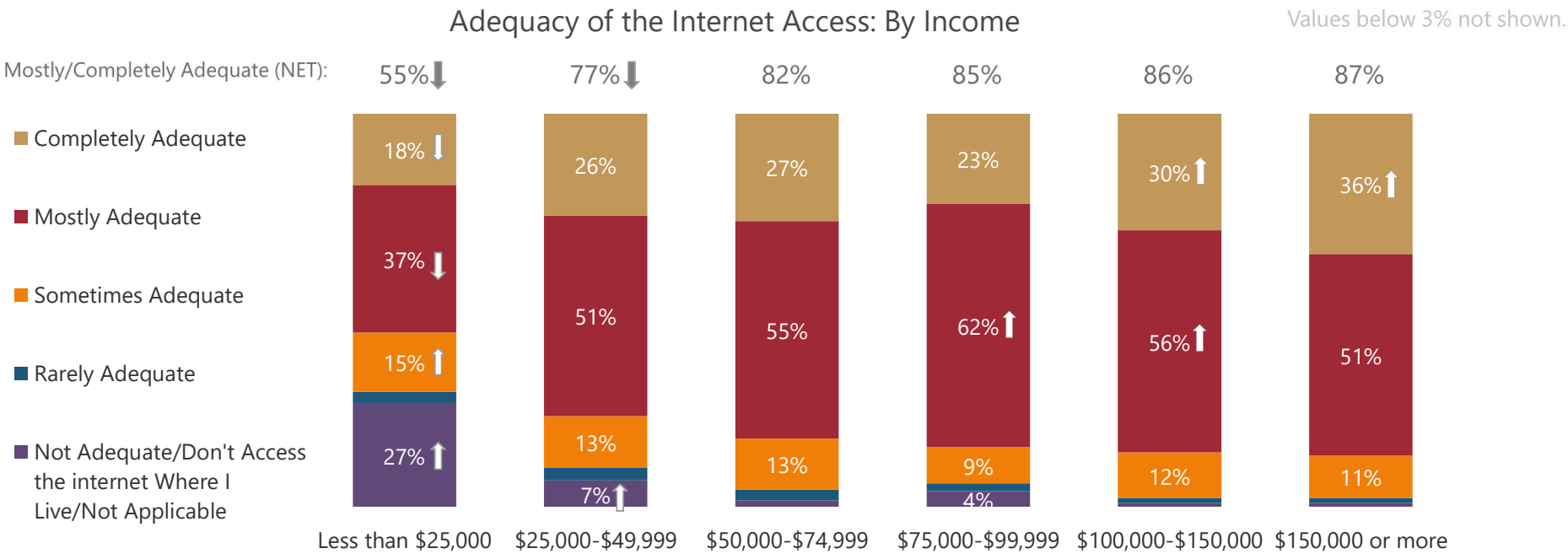
Base: Total Answering – Council District 1 (n622), Council District 2 (n592), Council District 3 (n517), Council District 4 (n574), Council District 5 (n766), Council District 6 (n641), Council District 7 (n464). Household Weight.
Q6 - How would you rate the adequacy of the internet connection and speeds in the place where you live when it comes to your ability to do the tasks you want and need to do on the internet?

Those with higher incomes are more likely to endorse the adequacy of their internet.

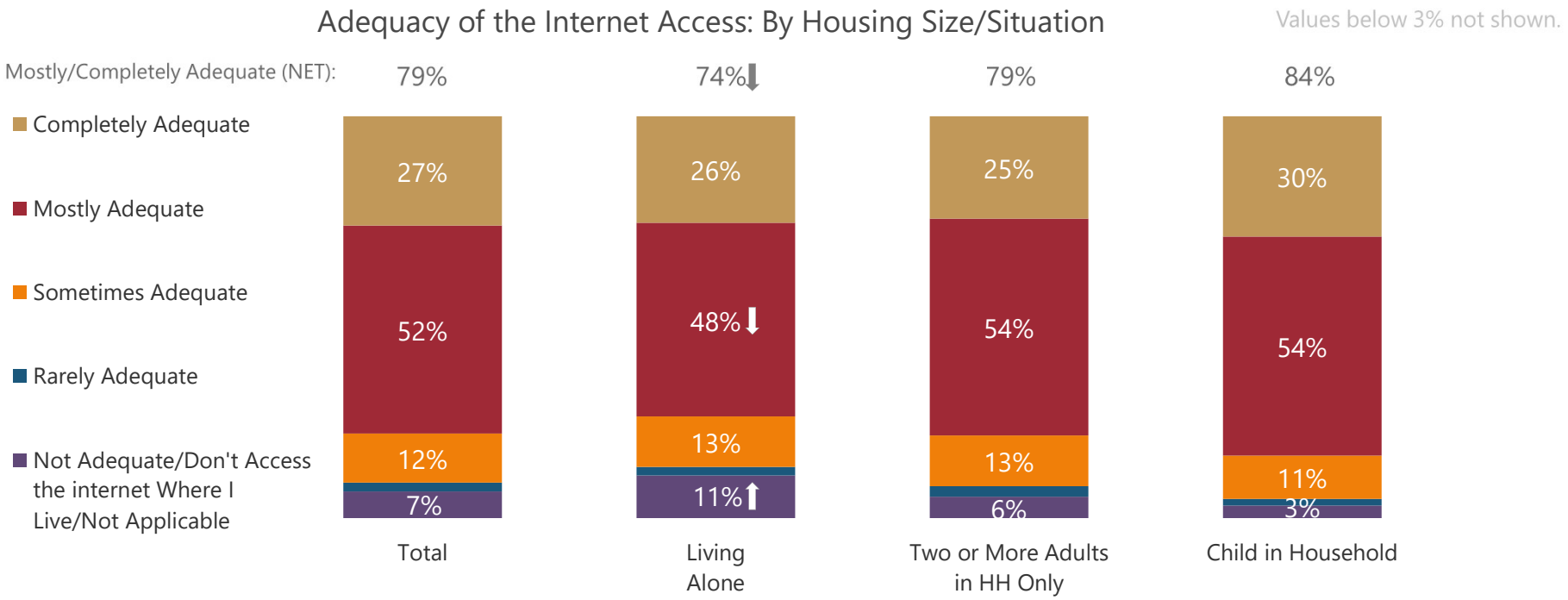
Only just over half (55%) of very low income households (under $25K) feel that their internet is adequate for their needs.



Base: Total Answering – <$25K (n583), $25K-$50K (n487), $50K-$75K (n466), $75K-$100K (n430), $100K-$150K (n689), $150K+ (n898). Household Weight.
Q6 - How would you rate the adequacy of the internet connection and speeds in the place where you live when it comes to your ability to do the tasks you want and need to do on the internet?

↑ = Sig. Higher than at Least One Other Group Shown ↓ = Sig. Lower than at Least One Other Group Shown

Households with two adults only or those with children are significantly more likely than single occupant households to believe their internet access is at least mostly adequate for their needs.



Base: Total Answering – Total (n4237), Living Alone (n1093), Two or More Adults in Household Only (n1167), Child in Household (n1446). Household Weight.
Q6 - How would you rate the adequacy of the internet connection and speeds in the place where you live when it comes to your ability to do the tasks you want and need to do on the internet?

Obtaining Access

- Type of Internet Services and Providers Where they Live
- Total Approx. Monthly Cost of Internet Services
- Primary Device Used to Access the Internet at Residence
- Top reasons why residents do not use the internet more
- Top reasons why residents do not have internet where they live
- Low Income Household Internet Access Summary

A vast majority of Seattle households have a broadband subscription for internet access in their home.

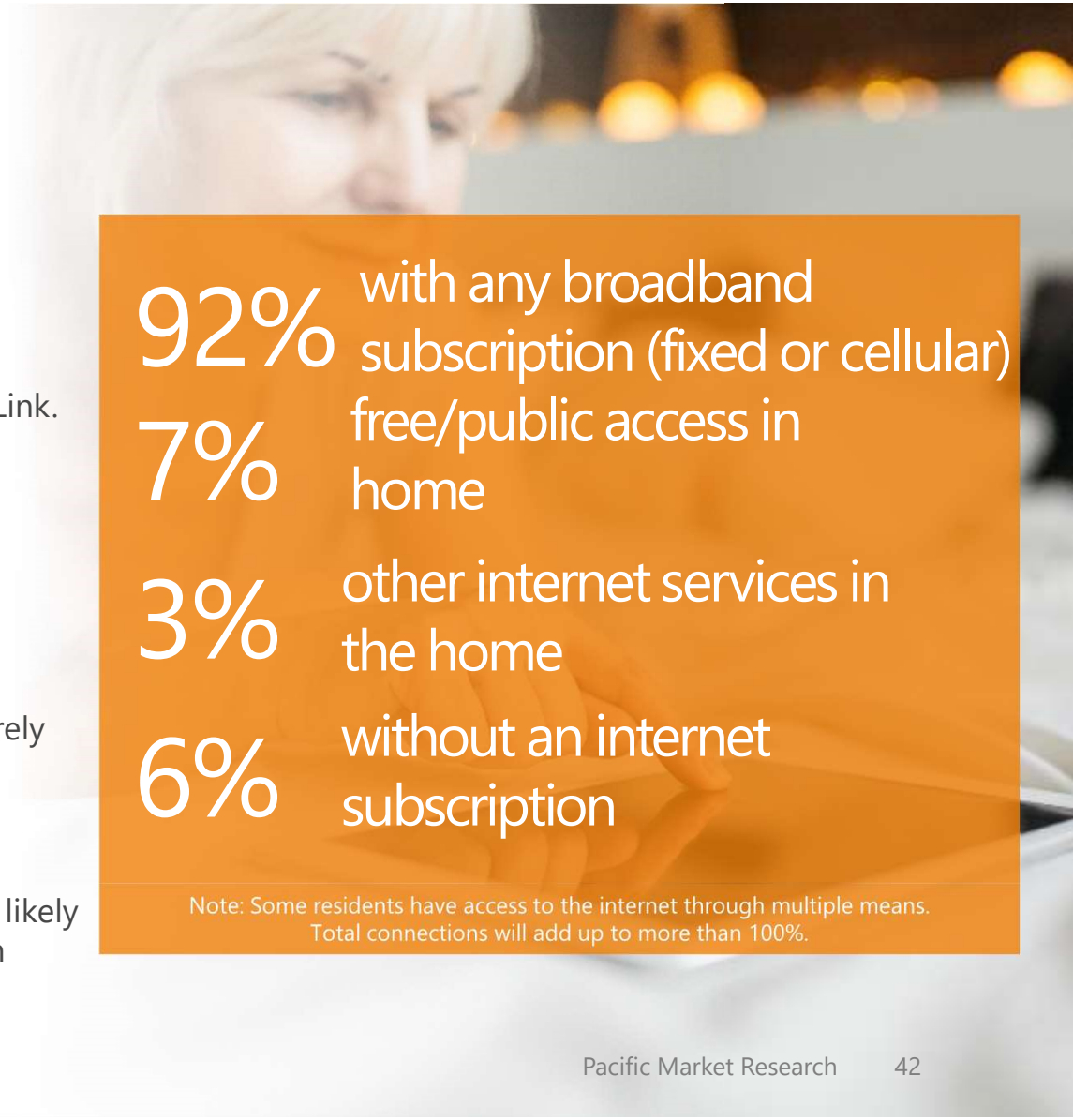
Most of those with broadband are connected with a fixed broadband subscription (88%) such as Comcast or Century Link.

Among Total:	
Comcast cable internet	57%
Century Link DSL or fiber internet	25%
Wave cable internet	9%

Some residents have access to the internet through multiple subscriptions. Total connections will add up to more than 88%.

Four (4%) percent rely on cellular data plans alone and few rely on public or free access in their home, or have no internet subscription at all.

Those in lower socio-economic status geographic areas and those with a lower household income are significantly more likely to have no fixed broadband subscription and instead rely on other means to get access in their homes.

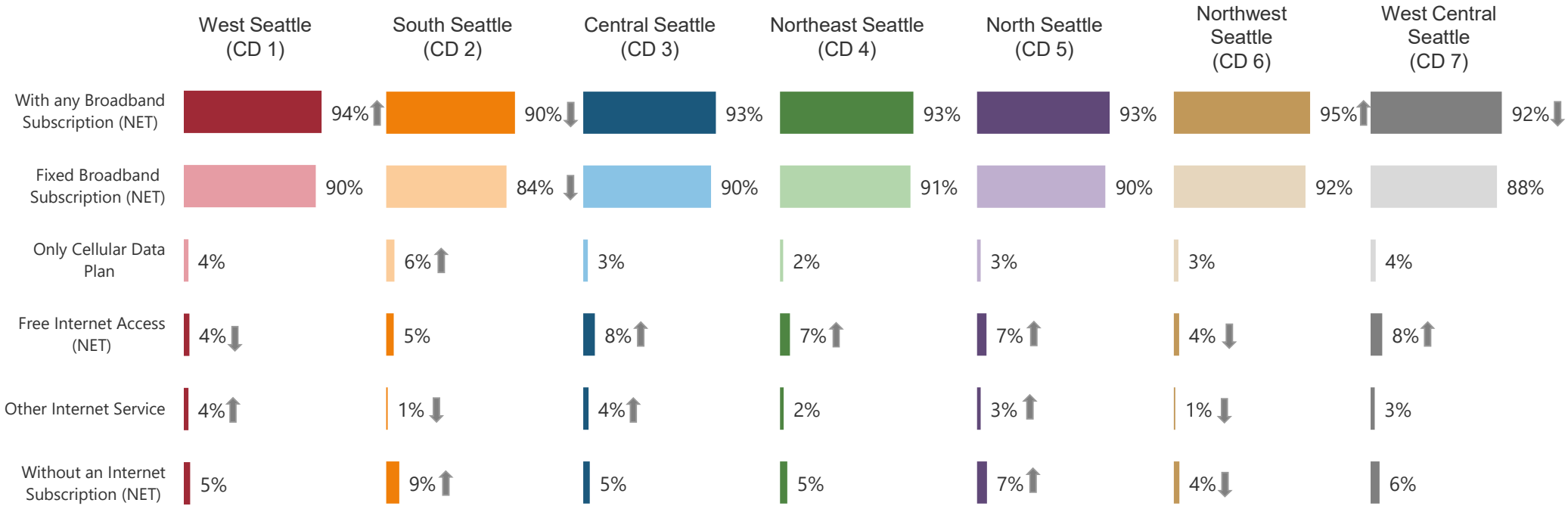


Base: Total Answering (n4273). Household Weight.
Q4 - What are all the ways you get internet in the place where you live?

Although the majority have internet subscriptions, those living in NW and West Seattle (CD 6 and 1) are the most likely to have a broadband subscription.

Those living in South Seattle (CD 2) are the most likely to be limited in their access due to fewer fixed subscriptions and greater likelihood to rely on cellular data plans or not have any internet subscriptions at all. Central Seattle residents (CDs 3 and 7) are the most likely to use free or public internet where they live.

Type of Internet Services and Providers Where they Live: By Council Districts



= Sig. Higher than at Least One Other Group Shown

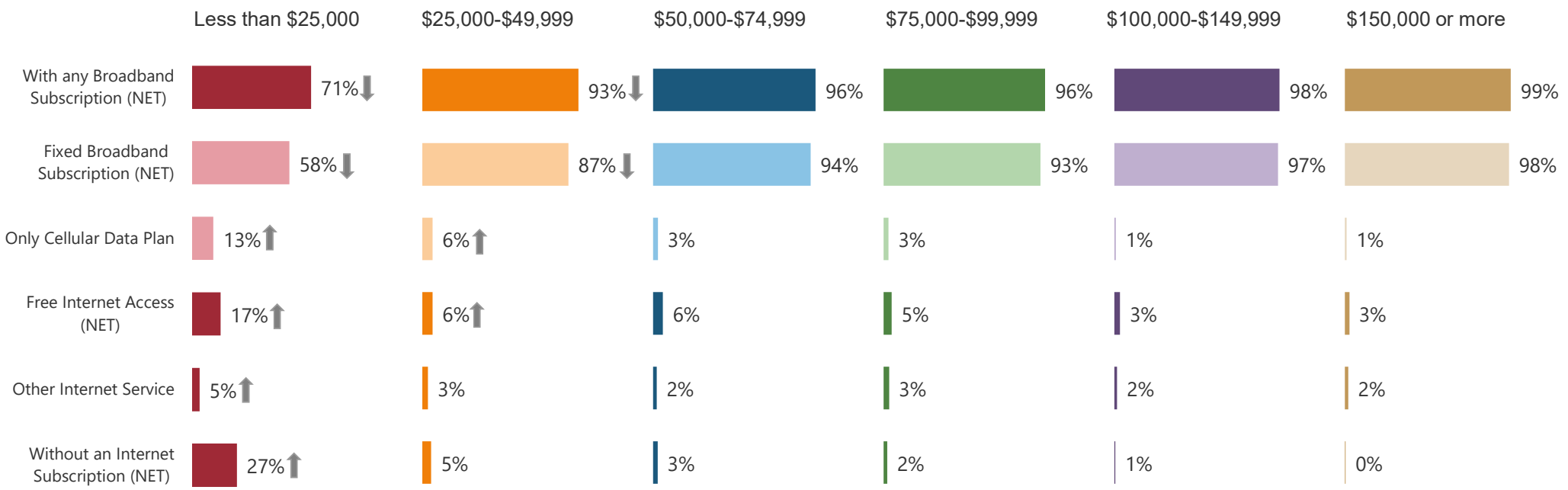
= Sig. Lower than at Least One Other Group Shown

Base: Total Answering – Council District 1 (n628), Council District 2 (n600), Council District 3 (n526), Council District 4 (n575), Council District 5 (n772), Council District 6 (n641), Council District 7 (n469). Household Weight.
Q4 - What are all the ways you get internet in the place where you live?

Household income is a major factor in the source of in-home internet.

Those with under $25,000 household incomes are significantly more likely to have no internet subscription. They are also more than double as likely (when compared to households with higher incomes) to rely on a cellular data plan as the only source of internet access.

Type of Internet Services and Providers Where they Live: By Income



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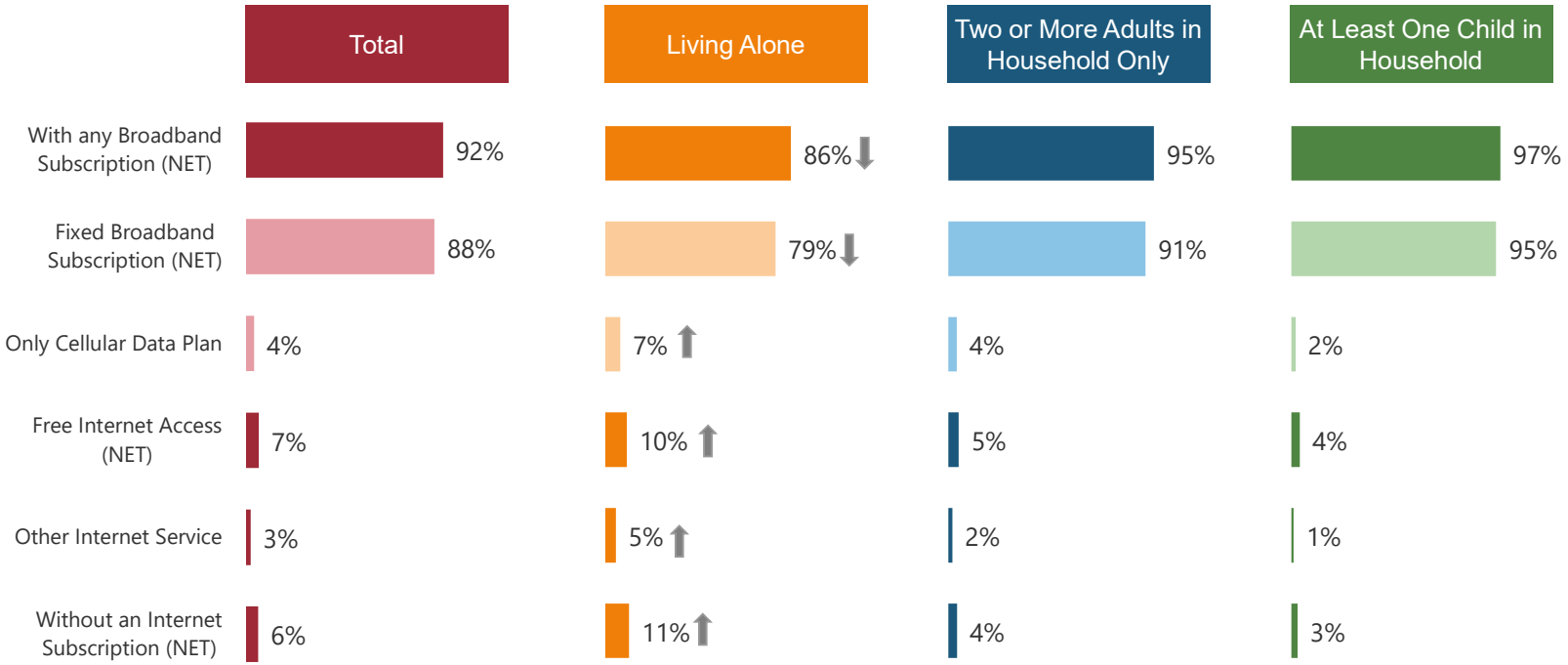
= Sig. Lower than at Least One Other Group Shown

Base: Total Answering – <$25K (n600), $25K-$50K (n496), $50K-$75K (n471), $75K-$100K (n431), $100K-$150K (n692), $150K+ (n897). Household Weight.
Q4 - What are all the ways you get internet in the place where you live?

Those living alone are less likely to have broadband internet service and more likely to have cell data only, free or other means of access, or no internet at all.

Patterns of internet services/access are similar between those with two adults in the household only and those with at least one child in the household. Households with at least one child are significantly more likely to have fixed broadband provider subscriptions.

Type of Internet Services and Providers Where they Live: By Housing Size



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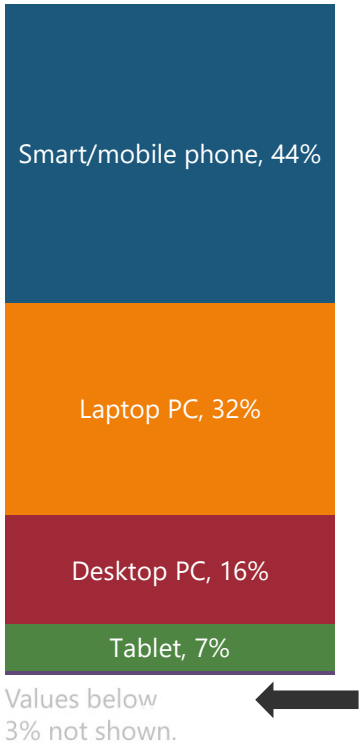
Base: Total Answering – Total Pop (n4273), Living Alone (n1109), Two or More Adults in HH Only (n1183), Child in HH (n1448). Household Weight.
Q4 - What are all the ways you get internet in the place where you live?

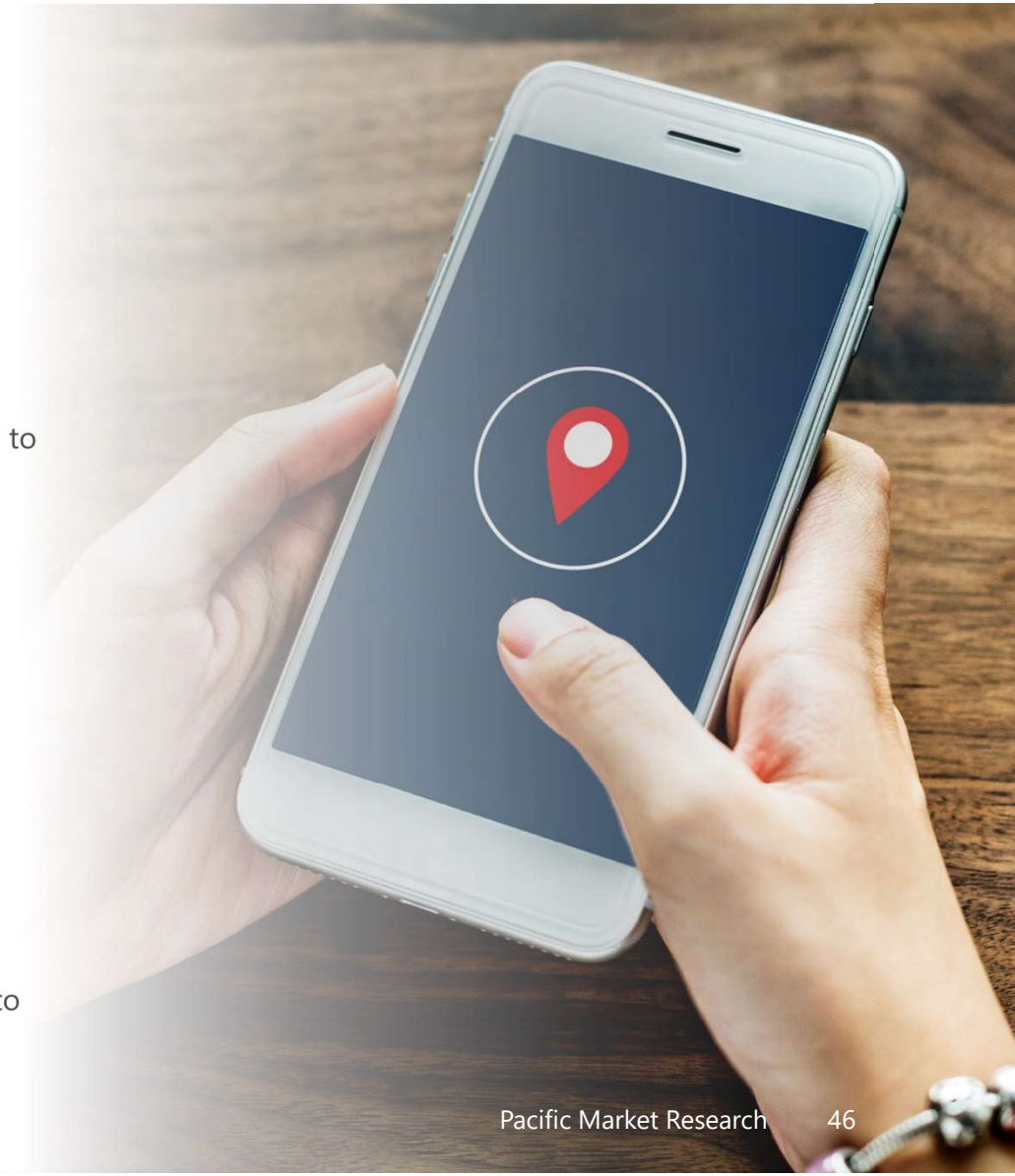
Smartphone/ mobile phones and laptop computers are the most common primary devices used by Seattle residents.



Younger adults (18-34 years old) are more likely to use a smartphone or mobile phone as their primary device.

Those with high household incomes ($150,000 or more) are more likely to use a laptop as their primary device.

Those with low household income (Less than $25,000) are the most likely to not have access to any devices.



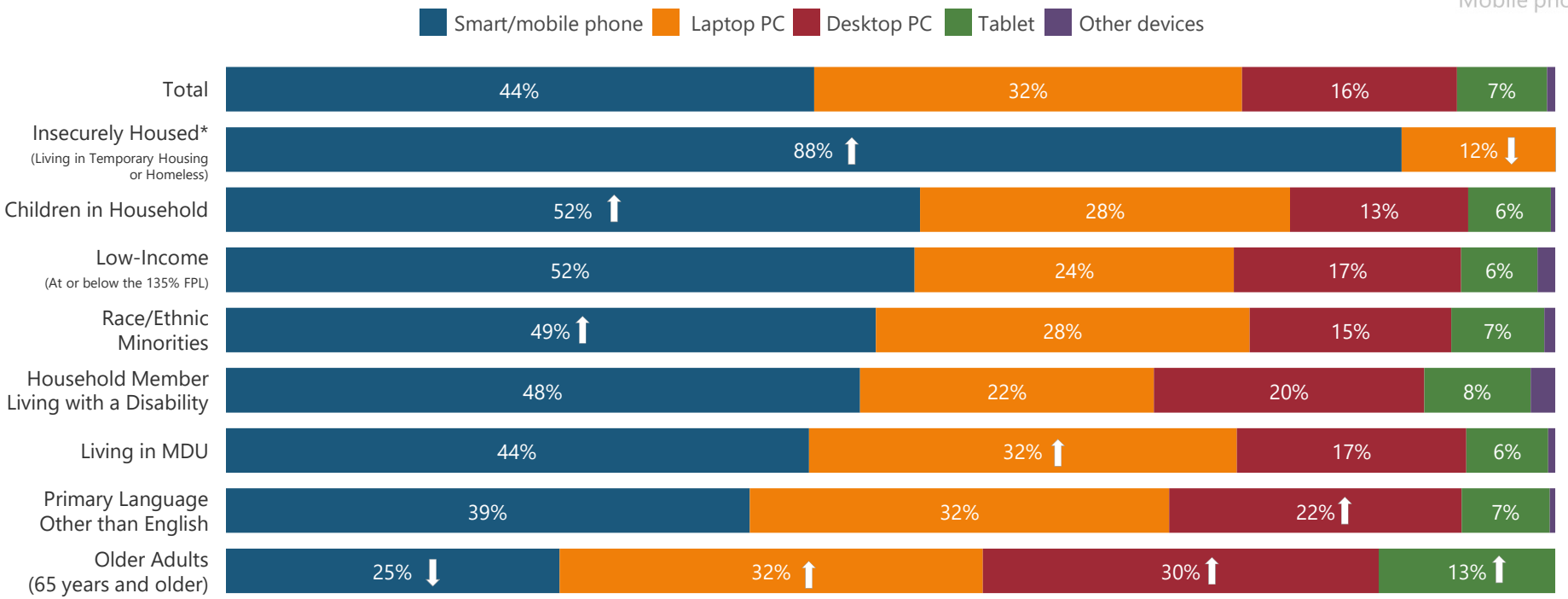
Base: Total Answering - n4152. Individual Weight.
Q3 - Of all of the devices you have access to, which ONE device do you personally rely on or use most to access the internet in the place where you live?

Reliance on a smartphone or mobile phone to access the internet is higher among the insecurely housed, along with households with children.

Older adults (age 65 and older) are the least likely to rely on their phone for this purpose, but more likely to rely on other devices including, desktop, laptop and tablet devices.

Values below 3% not shown.
Sorted by Smartphone/ Mobile phone use.

Primary Device Used to Access the Internet at Residence: By Impacted Groups



Race/Ethnic Comparison:
Hispanics are significantly more likely to use a smartphone or mobile as their primary device, compared to White residents (54% vs. 42%).
Blacks are significantly less likely to use a laptop computer as their primary device, compared to White residents (21% vs. 34%).

Base: Total Answering, Total (n4152), By Impacted Group – Primary Language Other than English (n222), Race or Ethnic Minority (n887), Insecurely Housed (n54*), Age 65+ (n808), Low Income (n344), Living in MDU (n1469), Living with a Disability (n389), Children in HH (n1450).
Individual Weight. *Limited sample size. Sub-segment analysis warrants further research and/or a large sample size.
Q3 - Of all of the devices you have access to, which ONE device do you personally rely on or use most to access the internet in the place where you live?

↑ = Sig. Higher than at Least One Other Group Shown
↓ = Sig. Lower than at Least One Other Group Shown

Residents that rely on *only* a cellular data plan to access the internet have distinct differences from those with a fixed broadband subscription.

Those who are relying on a cell phone connection for internet access report frustrations with reliability and speeds; however, they are more likely than others to have lower incomes or living at or below the poverty level – which may be preventing them from accessing a fixed broadband subscription.

4% of Seattle households are reliant on cellular data plans alone to access the internet.

Those with cellular data plan only…
Are less likely to consider their connection at least mostly adequate (66% vs. 84% with a FBBS)*
Are more likely to want faster speeds (30% vs. 18% with a FBBS)
Are less likely to have devices, other than their phone, in the home
Are nearly twice as likely to have household members visit the library or community center for internet access (48% vs. 24% with a FBBS)
Are more likely to 'apply for jobs online' at least weekly (speaking to the life stage/situation of these respondents)

Those with cellular data plan only…
Are more likely to be unemployed (30% vs. 18% with a FBBS), and more likely to be disabled (19% vs. 4% with a FBBS)
Are more likely to live alone (54% vs. 30% with a FBBS); and to not have children in the home (10% do vs. 26% with a FBBS)
Are more likely to live at or below 135% of the FPL (34% vs. 7% with a FBBS) and to have lower average incomes ($43K vs. $97K)
Are more likely to only have a high school level education or some college compared to those with a FBBS
Are more likely to be a racial or ethnic minority (55% are White vs. 68% with a FBBS; 13% are Black vs. 5% with a FBBS)

While one-third of those with a cell plan only are eligible for low income digital programs, usage among those who would qualify is low:

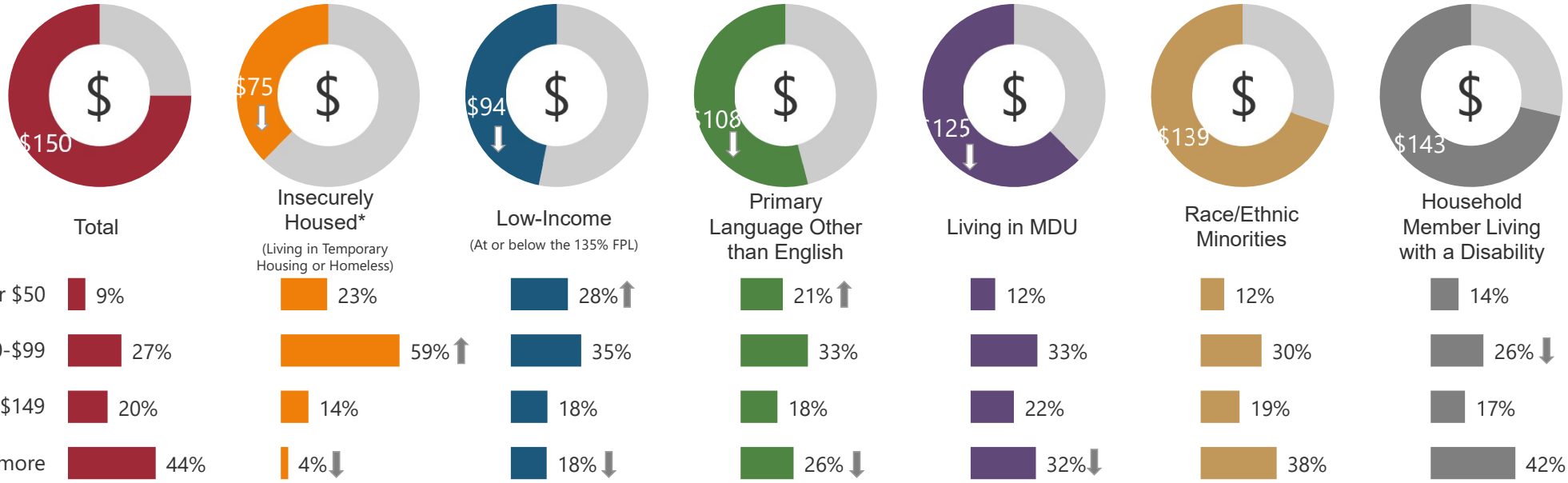
- Lifeline program (33%)
- Mobile Citizen/ InterConnection (15%)

*FBBS= Fixed broadband internet subscription

Most residents spend about $150 per month on internet related services for their household, with many spending more than $150.

Residents with established digital inequity spend less per month on internet related services than the general population. Many are paying for services with lower download speeds which they report as not adequate for their needs.

Total Approx. Monthly Cost (Bundled OR Individual Services): By Critical Groups



Race/Ethnic Comparison: White residents are significantly more likely to spend more on their internet subscription than Black or Asian residents ($154, vs. $126 and $138). Two out of five black residents (20%) spend under $50 per month on their internet subscriptions vs. White (9%) or Mixed (8%).

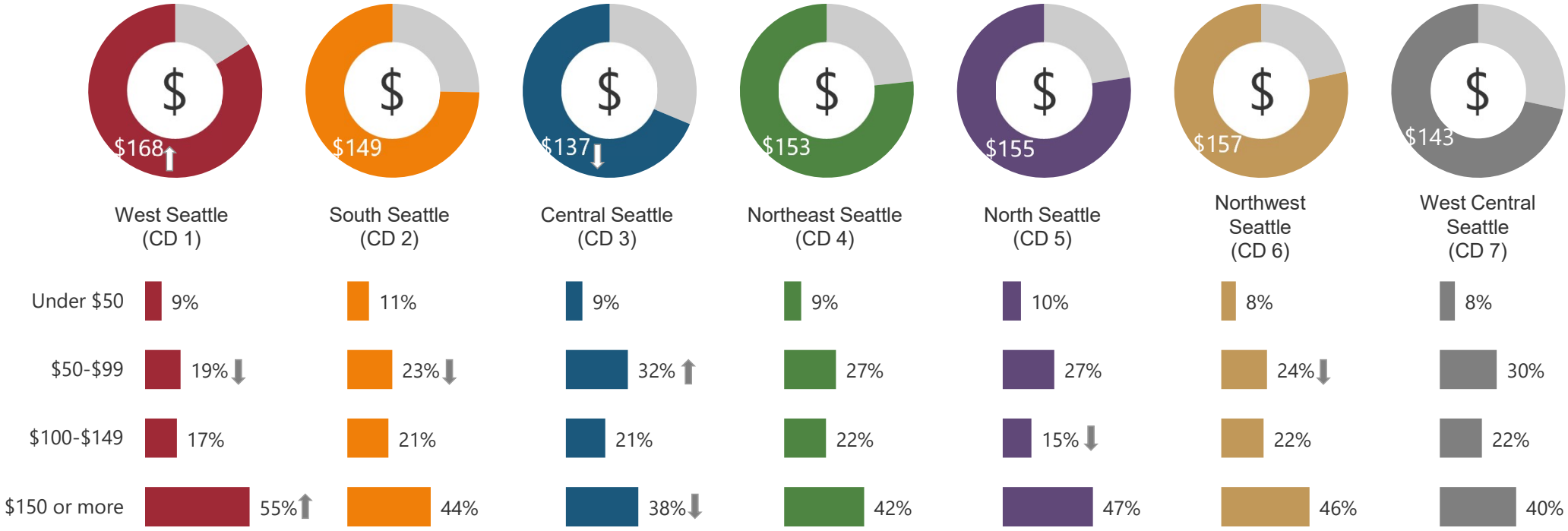
Base: Total Answering – Total (n3690), Insecurely Housed (n19*), Low Income (n237), Primary Language Other than English (n184), Living in MDU (n1301), Race/Ethnic Minority (n769), Household Member with a Disability (n302).
Household Weight. *Limited sample size. Sub-segment analysis warrants further research and/or a large sample size.
Q5B - Please tell us approximately how much each internet service costs per month to your household.
Q5C - Please tell us the total cost per month for all bundled services.

↑ = Sig. Higher than at Least One Other Group Shown ↓ = Sig. Lower than at Least One Other Group Shown

There are differences in what residents are paying for internet across the Council Districts.

Those living in Council District 1 (West Seattle) spend the most, while those living in Council District 3 (Central Seattle) spend the least amount.

Total Approx. Monthly Cost (Bundled OR Individual Services): By Council Districts



= Sig. Higher than at Least One Other Group Shown

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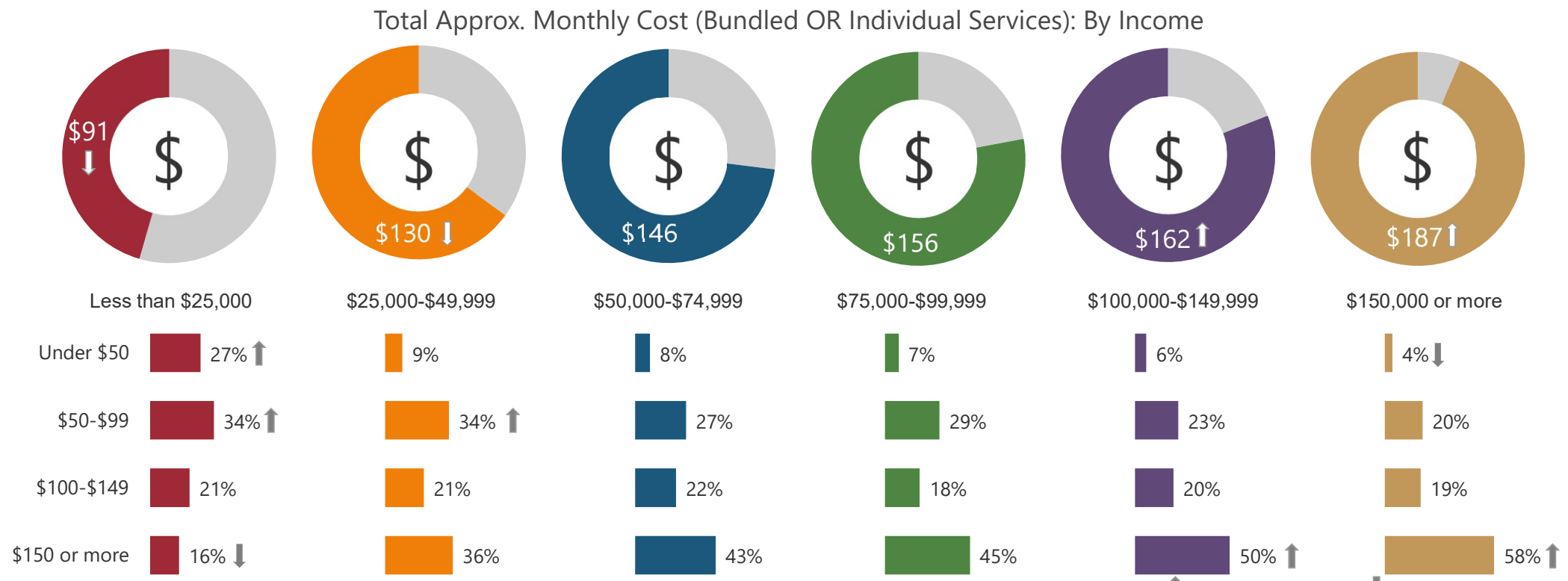
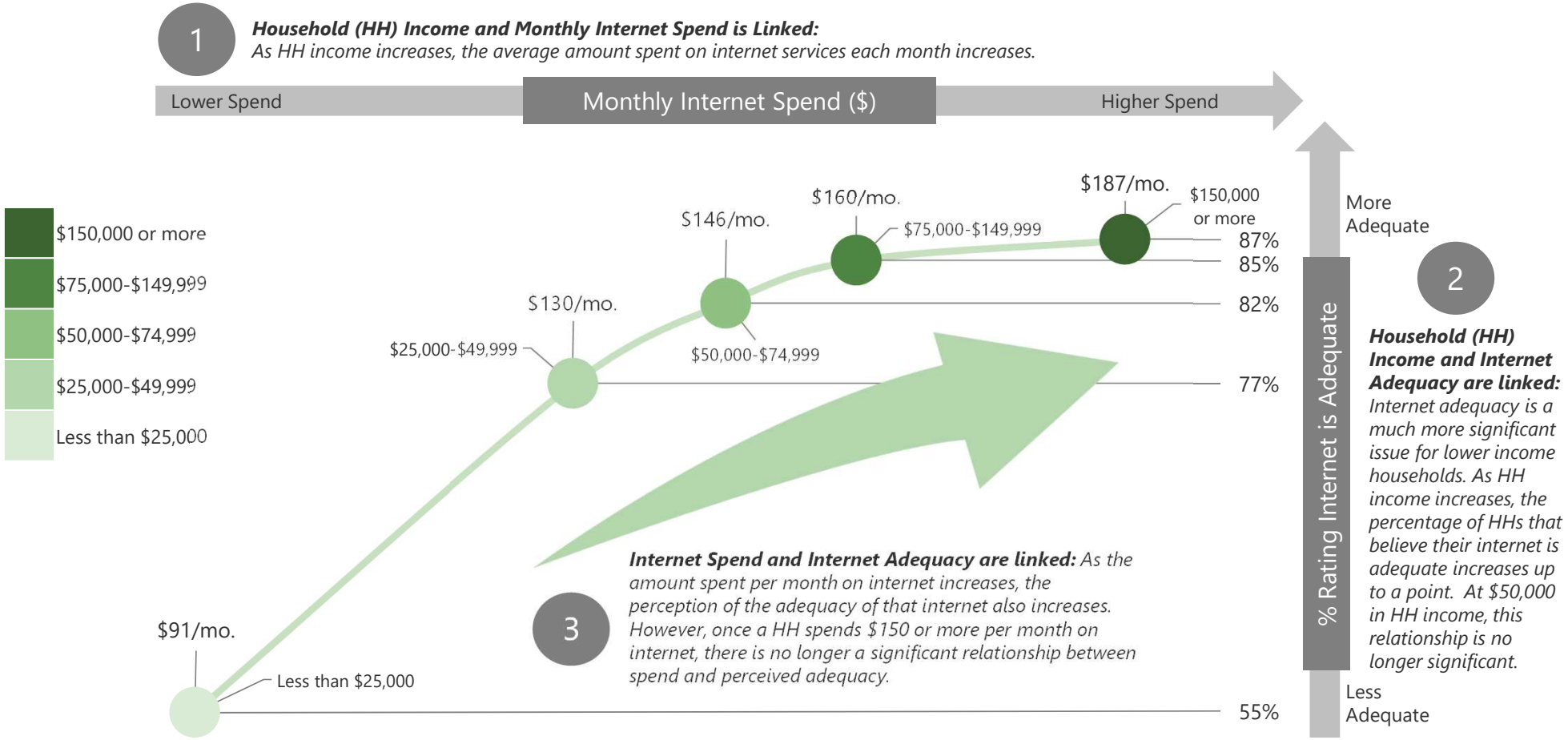
Base: Total Answering – Council District 1 (n531), Council District 2 (n514), Council District 3 (n456), Council District 4 (n513), Council District 5 (n679), Council District 6 (n578), Council District 7 (n393). Household Weight.
Q5B - Please tell us approximately how much each internet service costs per month to your household.
Q5C - Please tell us the total cost per month for all bundled services.

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



Base: Total Answering – Income: <$25K (n374), $25K-$49.9K (n427), $50K-$74.9K (n437), $75K-$99.9K (n403), $100K-$149.9K (n652), $150K+ (n854). Household Weight.
Q5B - Please tell us approximately how much each internet service costs per month to your household.
Q5C - Please tell us the total cost per month for all bundled services.

Relationship Between Household Income, Internet Adequacy, and Internet Spend

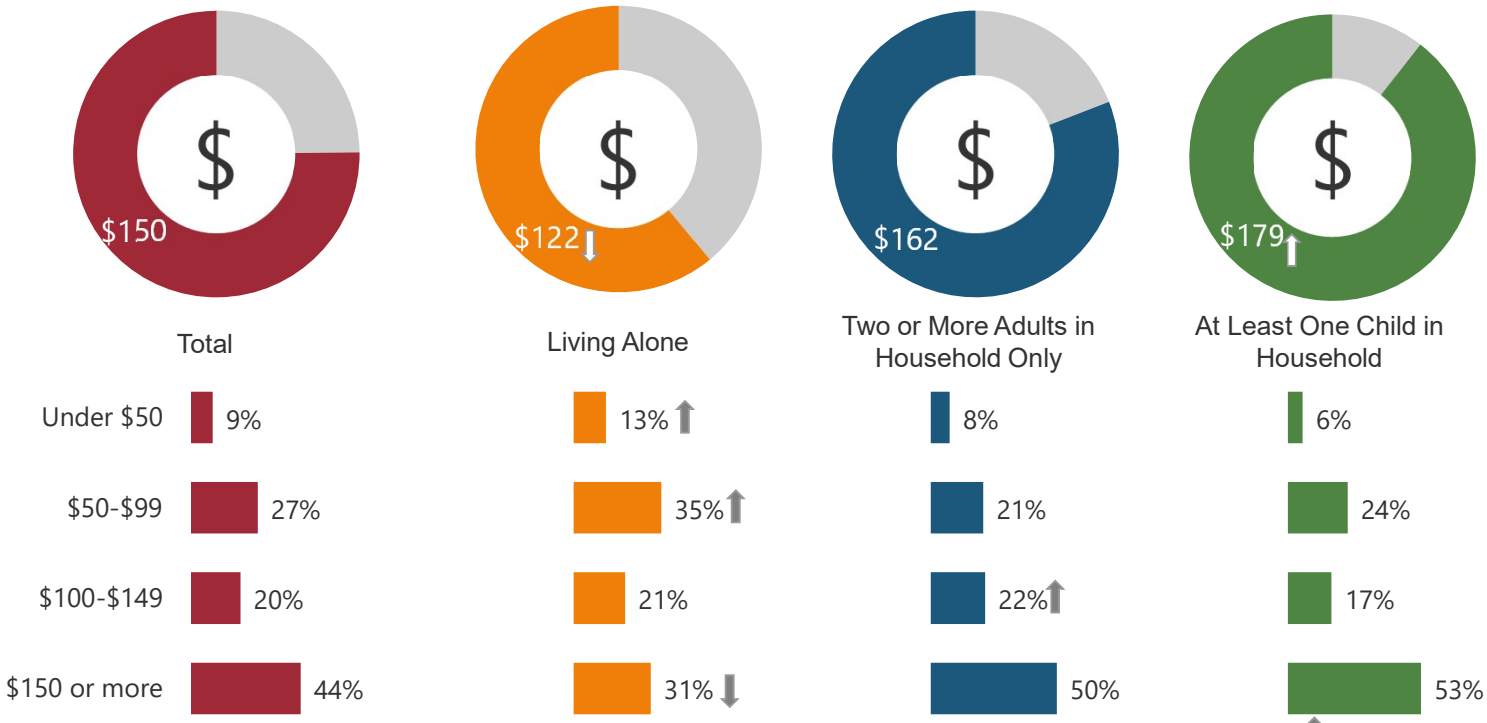


Base: Total Answering – Income: <$25K (n374), $25K-$49.9K (n427), $50K-$74.9K (n437), $75K-$149.9K (n1,055), $150K+ (n854). Household Weight.
Q5B - Please tell us approximately how much each internet service costs per month to your household. Q5C - Please tell us the total cost per month for all bundled services.
Base: Total Answering – Income: <$25K (n583), $25K-$49.9K (n487), $50K-$74.9K (n466), $75K-$149.9K (n1,119), $150K+ (n898). Household Weight.
Q6 - How would you rate the adequacy of the internet connection and speeds in the place where you live when it comes to your ability to do the tasks you want and need to do on the internet?

On average, those with a child in the household pay about 50% more per month for internet related services than those living alone.

Those with multiple adults but no children in the household pay about 33% more, on average, than someone living alone, but about 10% less than households with at least one child.

Total Approx. Monthly Cost (Bundled OR Individual Services): By Housing Size

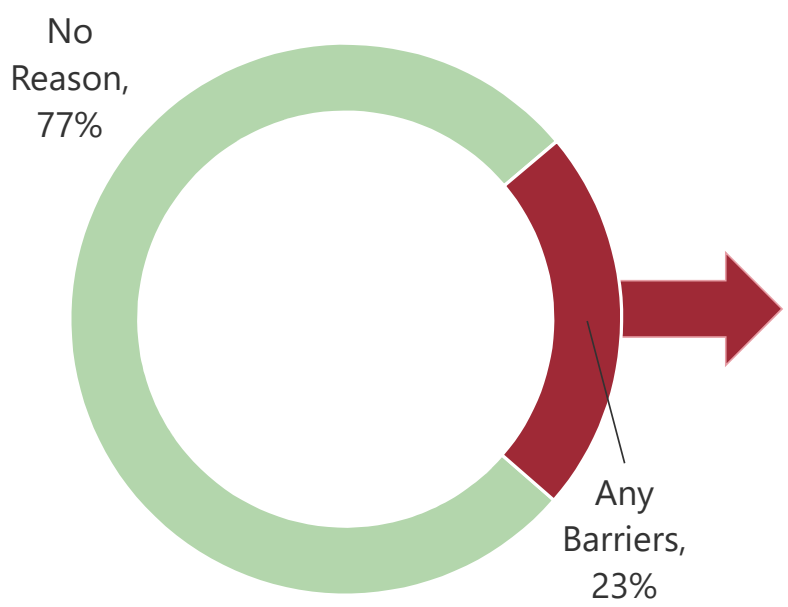


Base: Paid Bundled or Individual for Any Internet Service – Total Pop (n3690), Living Alone (n883), Two or More Adults in HH Only (n1017), Child in HH (n1334). Household Weight.
Q5B - Please tell us approximately how much each internet service costs per month to your household.
Q5C - Please tell us the total cost per month for all bundled services.

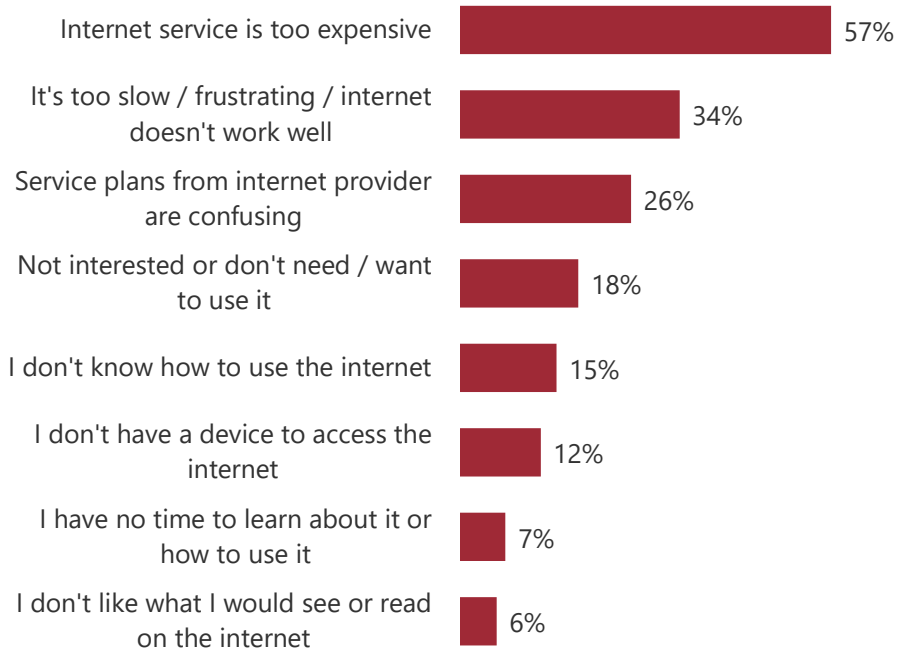
While most residents use the internet a great deal, almost one out of four cite something that is keeping them from using the internet more.

Cost limits residents' use, followed by speed, how well the internet works, and confusing service plans.

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)

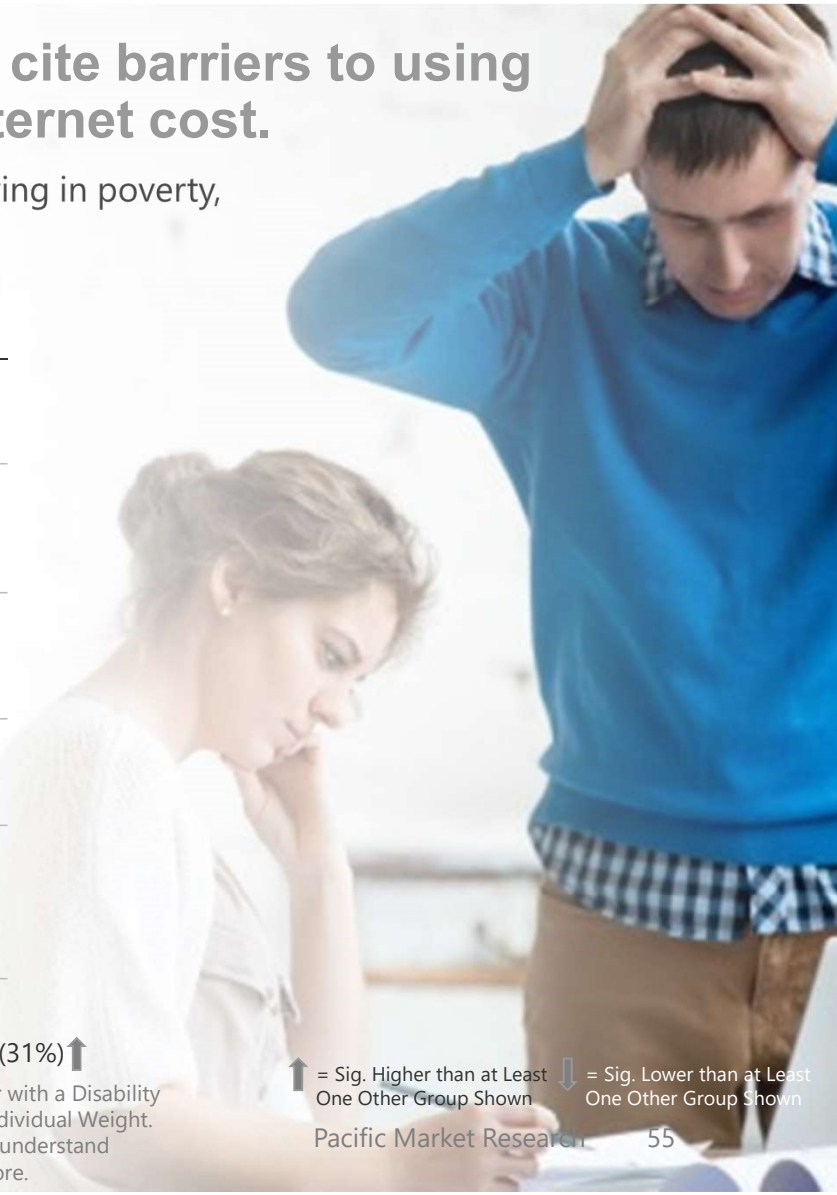


Base: Total Answering (n4095), Total with any barrier (n895). Individual Weight.
Q13 - The City would like to understand reasons why residents do not use the internet. Please check the box next to all the reasons why you do not use the internet more.

Some populations are significantly more likely to cite barriers to using the internet more; the most common barrier is internet cost.

The lack of knowledge about using the internet is most likely to impact those living in poverty, impacted by a household disability, or older adults.

	Report ANY reasons for not using the internet more	Top reasons why residents do not use the internet more (among those with ANY barriers)
Insecurely Housed* (Living in Temporary Housing or Homeless)	59%	Internet service is too expensive (68%) It's too slow/ frustrated/ doesn't work (38%)
Low-Income (At or below the 135% FPL)	54%	Internet service is too expensive (66%) It's too slow/ frustrated/ doesn't work (30%) I don't know how to use the internet (28%)↑
Household Member Living with a Disability	49%	Internet service is too expensive (57%) Service plans are confusing (35%)↑ I don't know how to use the internet (33%)↑
Primary Language Other than English	48%	Internet service is too expensive (71%) It's too slow/ frustrated/ doesn't work (36%)
Older Adults (65 years +)	38%	Internet service is too expensive (59%) Service plans are confusing (30%) Not interested or don't need to use it (27%)↑ I don't know how to use the internet (26%)↑
Race/Ethnic Minorities	32%	Internet service is too expensive (65%) It's too slow/ frustrated/ doesn't work (31%) I don't know how to use the internet - among Black residents (31%)↑



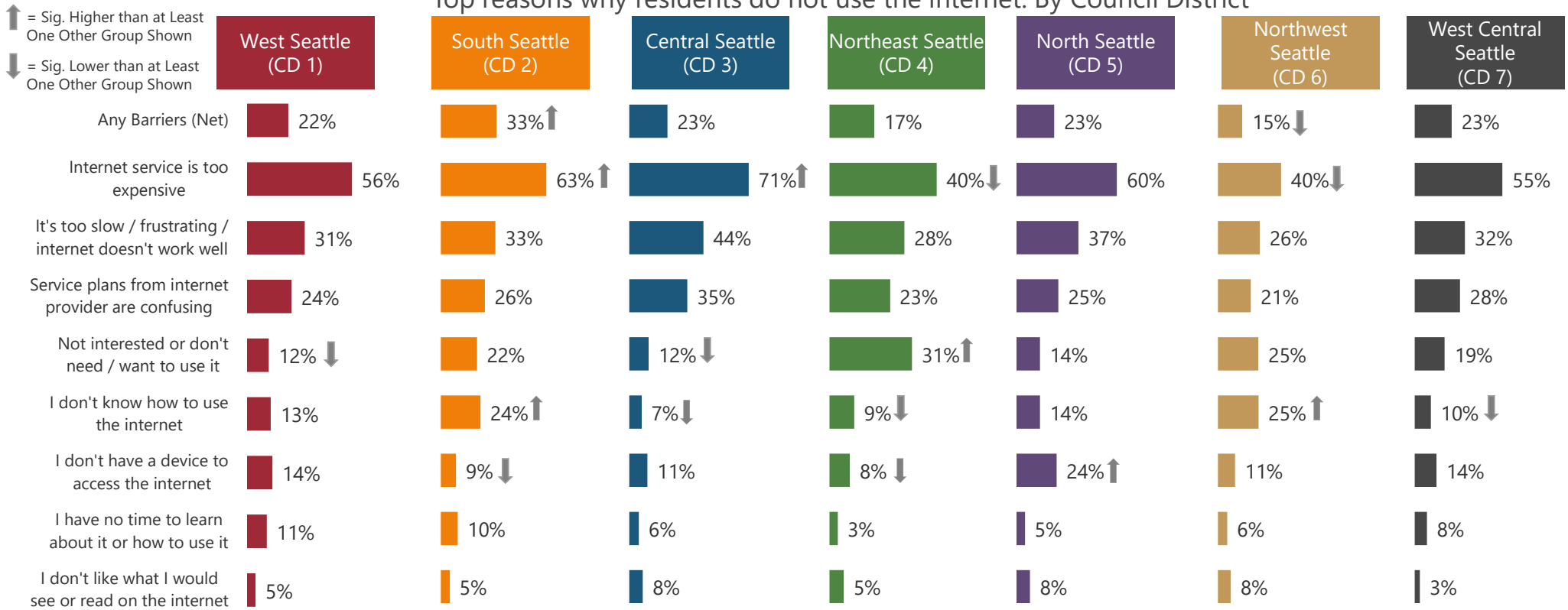
↑ = Sig. Higher than at Least One Other Group Shown ↓ = Sig. Lower than at Least One Other Group Shown

Base: Total Answering: Total/Have Any Barriers – Insecurely Housed (n51*/n33*), Low Income (n380/n206), Household Member with a Disability (n396/n181), Primary Language Other than English (n228/n96), Older Adults (n811/n239), Race/Ethnic Minority (n884/n269). Individual Weight. *Limited sample size. Sub-segment analysis warrants further research and/or a large sample size. Q13 - The City would like to understand reasons why residents do not use the internet. Please check the box next to all the reasons why you do not use the internet more.

Regarding barriers to internet use, residents of South Seattle (CD 2) are the most likely to cite barriers, while those in Northwest Seattle (CD 6) are the least likely to do so.

Residents in Southeast and Central Seattle (CD 2 and 3) are more likely to cite service cost, those in Northeast (CD 4) are more likely to cite lack of interest, those in Districts 2 and 6 are more likely to cite not knowing how to use it, and those in North Seattle (CD 5) are more likely to cite not having a device.

Top reasons why residents do not use the internet: By Council District

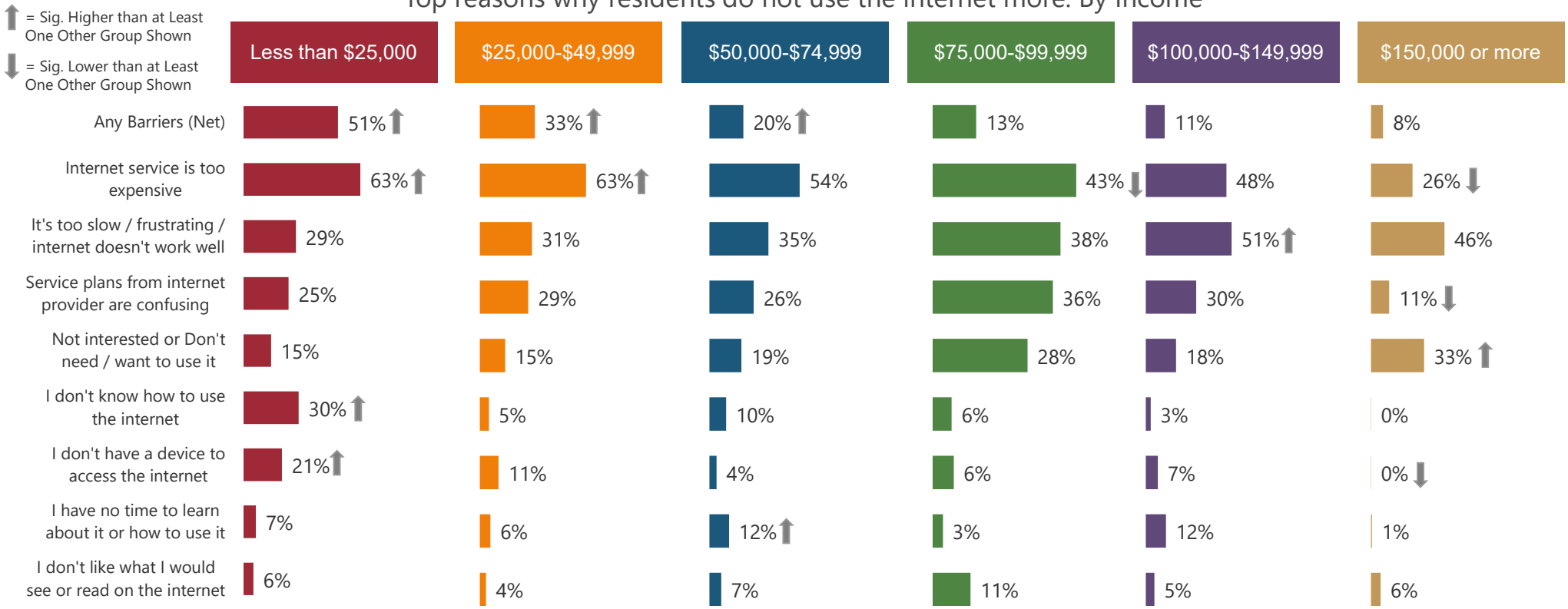


Base: Total Answering: Total/Have Any Barriers – CD1 (n603/n134), CD2 (n577/n162), CD3 (n499/n106), CD4 (n561/n101), CD5 (n734/n162), CD6 (n615/n99), CD7 (n447/n99). Individual Weight.
Q13 - Please check the box next to all the reasons why you do not use the internet more.

Those with lower household incomes are the most likely to report barriers that prevent them from using the internet to a great extent.

The most common barrier for residents with less than $100,000 in household income is the service is too expensive. Those with higher household incomes are less concerned about the expense and frustrated more by the speed and reliability of their internet connection.

Top reasons why residents do not use the internet more: By Income

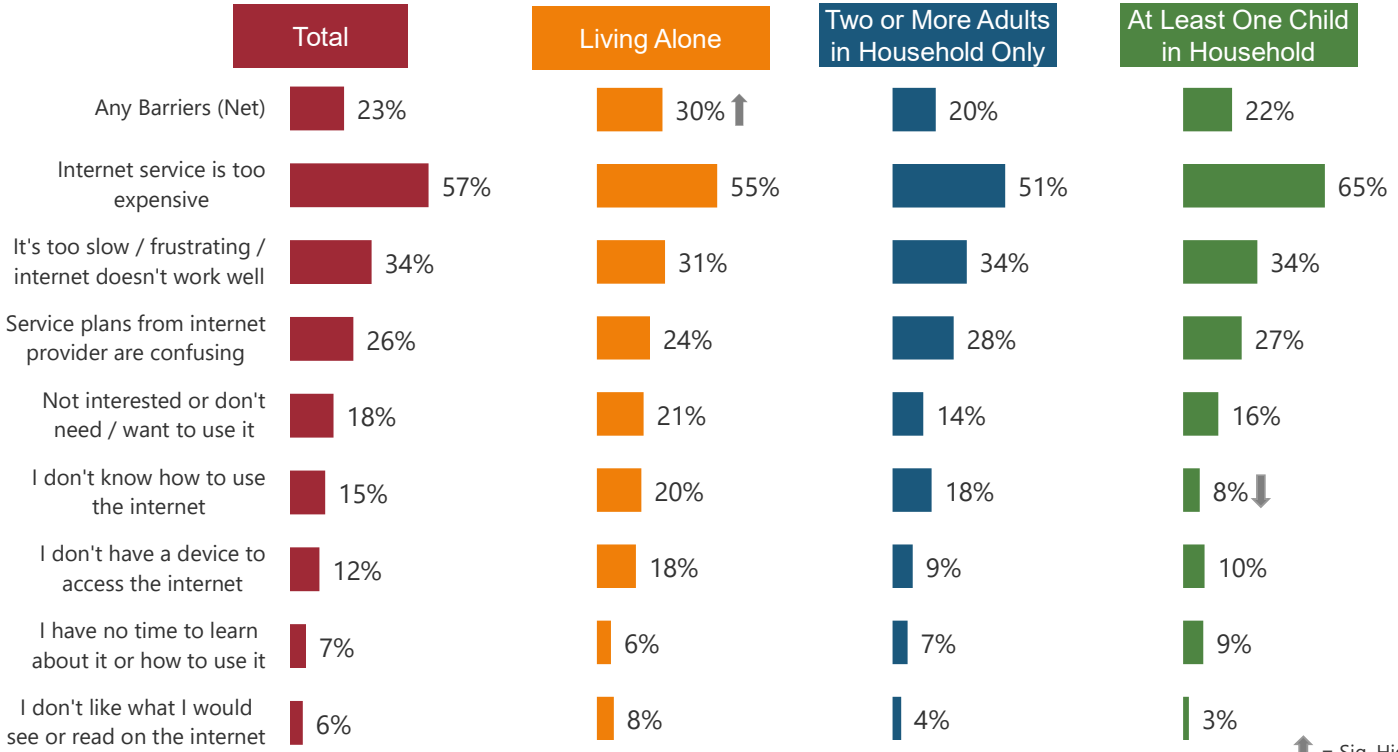


Base: Total Answering: Total/Have Any Barriers – <$25K (n563/n271), $25K-$50K (n478/n145), $50K-$75K (n456/n105), $75K-$100K (n414/n67), $100K-$150K(n662/n77), $150K+ (n880/n72). Individual Weight.
Q13 - The City would like to understand reasons why residents do not use the internet. Please check the box next to all the reasons why you do not use the internet more.

Those living alone cite significantly more barriers to using the internet than other households.

Those with children at home are less likely to mention not knowing how to use the internet as a barrier to using the internet more often.

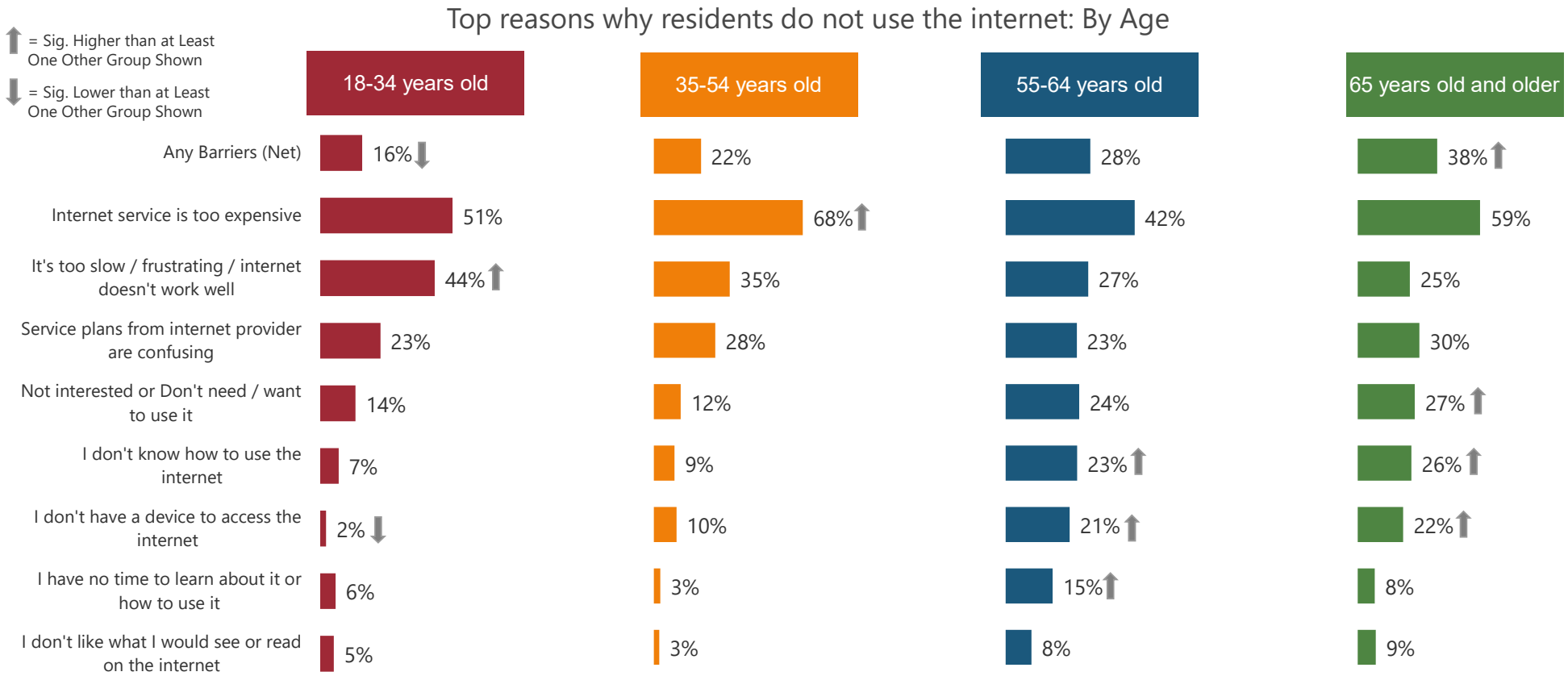
Top reasons why residents do not use the internet: By Household Size



Base: Total Answering: Total/Have Any Barriers – Total (n4095/n895), Living Alone (n1062/n319), Two or More Adults in HH Only (n1111/n233), Child in HH (n1404/n237). Individual Weight.
Q13 - Please check the box next to all the reasons why you do not use the internet more.

Older adults have more barriers to increased internet use.

The cost of the internet service is the most common reason for not using the internet more among those who are 65 years old and older. This group also mentions lack of interest and skills to use the internet.

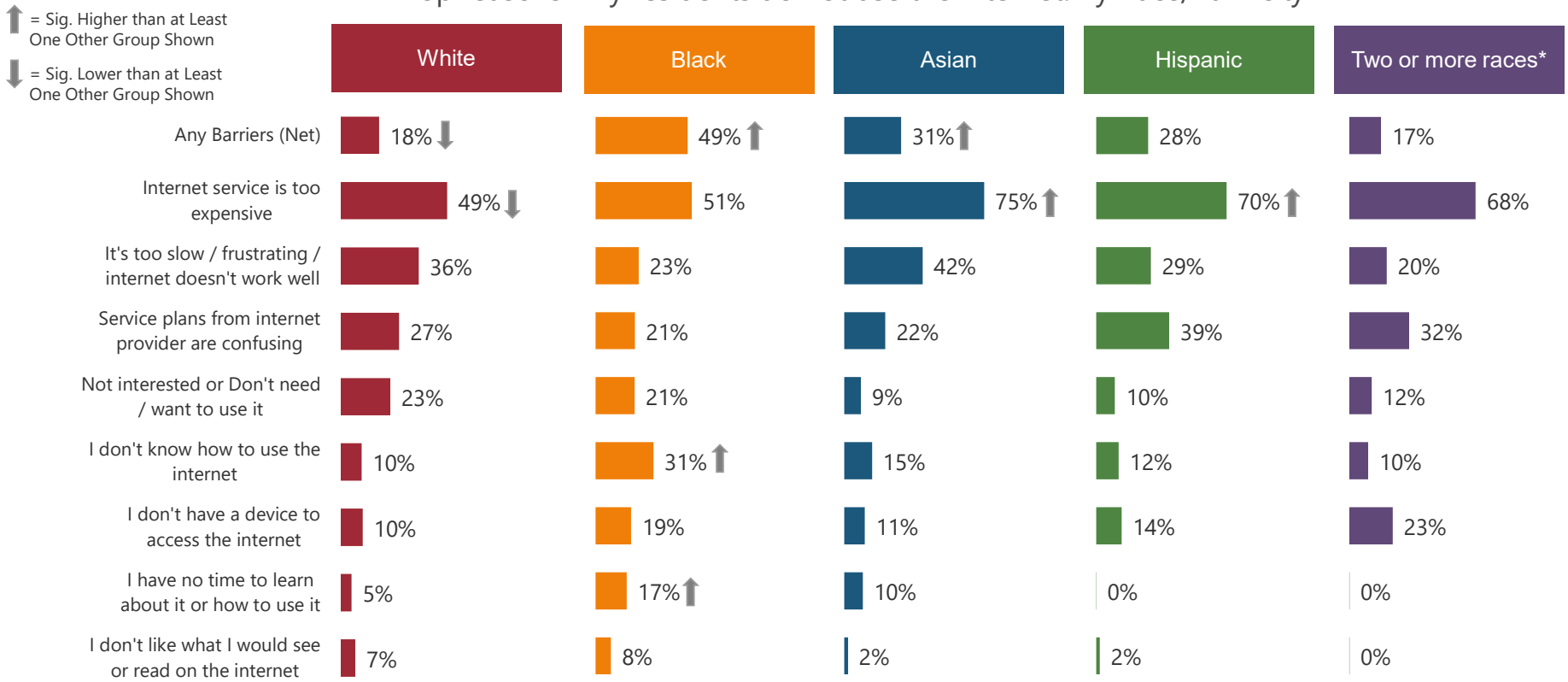


Base: Total Answering: Total/Have Any Barriers – 18-34 years old (n618/n95), 35-54 years old (n1475/n248), 55-64 years old (n612/n138), 65 years and older (n814/n241). Individual Weight.
Q13 - The City would like to understand reasons why residents do not use the internet. Please check the box next to all the reasons why you do not use the internet more.

Black and Asian residents are the most likely racial groups to report barriers to using the internet more often.

Internet cost is the most commonly mentioned barrier, though Black residents are also significantly more likely to mention not knowing how to use the internet and not have time to learn about it.

Top reasons why residents do not use the internet: By Race/Ethnicity

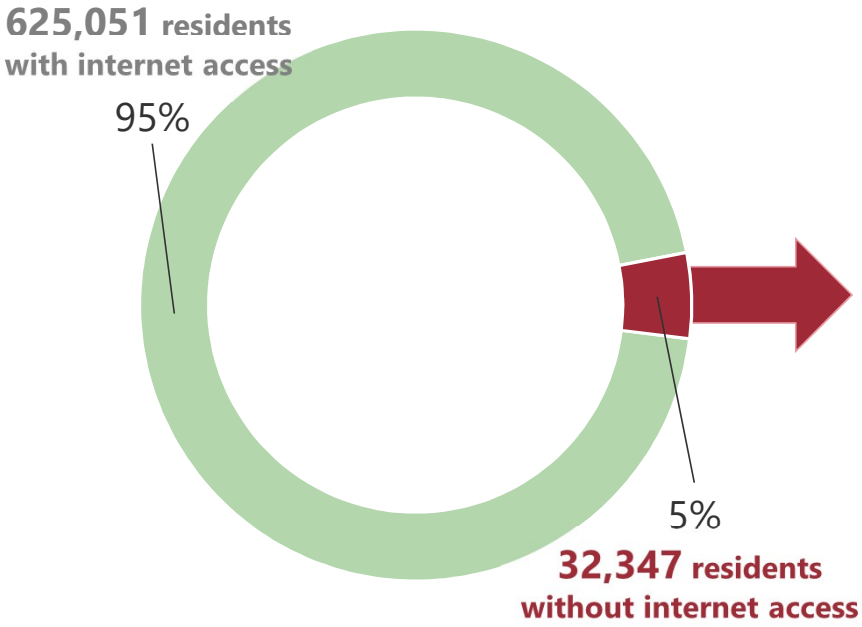


Base: Total Answering – White (n2939/n538), Black (n153/n67), Asian (n392/n104), Hispanic (n162/n55), Two or more races (n147/n32*).
Note: Native Hawaiian/ Pacific Islander, American India/Alaska Native, Other Races are not shown due to small base sizes. Individual Weight.
*Limited sample size. Sub-segment analysis warrants further research and/or a large sample size. Q13 - The City would like to understand reasons why residents do not use the internet. Please check the box next to all the reasons why you do not use the internet more.

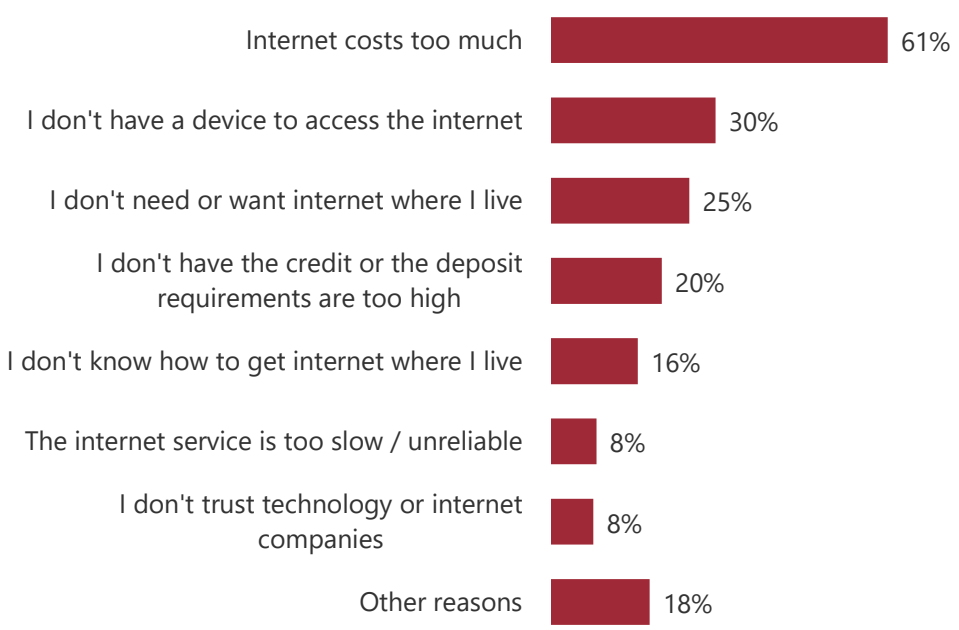
Cost of internet is the primary reason why residents do not have internet in their homes. Not having a device is also a common factor.

On the other hand, one out of four residents who do not have internet in their home report that they choose not to have internet.

Internet access where they live:



Top reasons why residents do not have internet where they live:



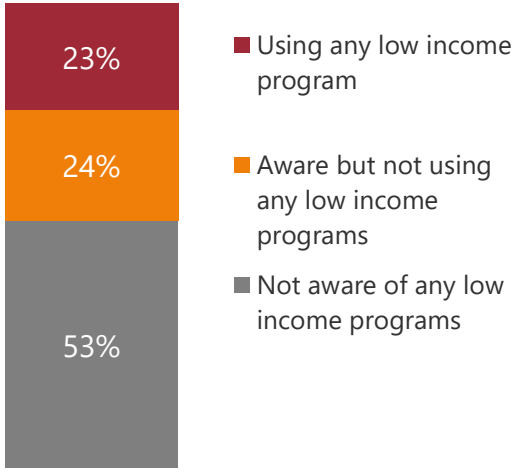
Base: Total Answering (n4315). Household Weight.
Q1 - Does your household have a way to access the internet in the place where you currently live?
Base: Total Answering (n188). Individual Weight.
Q15 - If you do not have internet where you live, please tell us why.

Over half of low-income residents are not aware of available lower-cost internet programs.

Additionally, even among those who are aware, many are not using any of these programs even though all would qualify given their living situation at or below the federal poverty level.

More information about the low-income internet access programs offered in the City of Seattle can be found at: https://www.seattle.gov/tech/services/internet-access.

Awareness and Usage of Low Income Internet Access Programs
(among those living at or below 135% of Federal Poverty Level)



(% of households) (# of households)	Among those living at or below 135% of the Federal Poverty Level (FPL) and ...				
	...are Living with a disability or someone in the household has a disability	...are Living with at least one Child under 18 Years Old	...are Older Adults (65 years old and older)	...have a Primary Language in Home Other than English	...are Housing Insecure* (Homeless or Group Housing)
Low income households that are **using** any low income internet access programs	26% ~2,744	20% ~1,516	22% ~1,929	30% ~1,626	33% ~1,882
Low income households that are **aware but not using** any low income internet access programs	26% ~2,832	24% ~1,826	26% ~2,262	28% ~1,502	12% ~702
Low income households that are **unaware** of any low income internet access programs	48% ~5,175	56% ~4,270	52% ~4,626	42% ~2,298	55% ~3,184

Base: City of Seattle Households (319,125 as of 2016 ACS)
Base: Low Income – Total (n412), Household Member with a Disability (n144), Children in Household (n106), Older Adults (n109), Primary Language Other than English (n77), Insecurely Housed (n41*). Household Weight. *Limited sample size. Sub-segment analysis warrants further research and/or a large sample size.
Q1 - Does your household have a way to access the internet in the place where you currently live?
Q12 - Please tell us if you know about and / or currently use the following lower cost internet services for qualified low-income households.

Digital Activities & Skills

- Online Activity Levels
- Reliance on Others to Help with Access and Navigation of the Internet
- Digital Skills Levels

The frequency in which a variety of online activities is performed was used to create a summary metric that measures the households' overall level of online engagement.

Research respondents were asked how often any member of their household engages in each of the twenty two (22) online activities listed below.

On each of these activities, they indicated if any household member performs each activity : **Daily, Weekly, Monthly, Less Often, or Never.**

Go online and get information from or about local government
Access or apply for benefits (Medicare, VA, social security, etc.) online
Do schoolwork or online research for school
Read or send email
Research and buy a product online
Use online banking services or pay bills online
Create or post original media (writing, art, music, videos) online
Listen to music or radio online
Watch videos or TV online
Access social media (Facebook, Twitter, LinkedIn, Instagram, etc.)
Get health or medical information online

Look for or apply for a job online
Attend an online class, meeting, or webinar
Find legal or consumer rights information online
Stay in touch with friends or family online
Look for answers to computer problems online
Use the internet to work from home
Start or run a business online
Arrange transportation online (check bus schedule, get transportation, order a ride)
Online search for homes / rentals
Research a new skill online
Learning language (programs or watching videos) online

1. A numeric score from 0 to 5 was given to each of the online task responses, depending on their level of engagement (e.g. Daily equals 5 and Never equals 0).

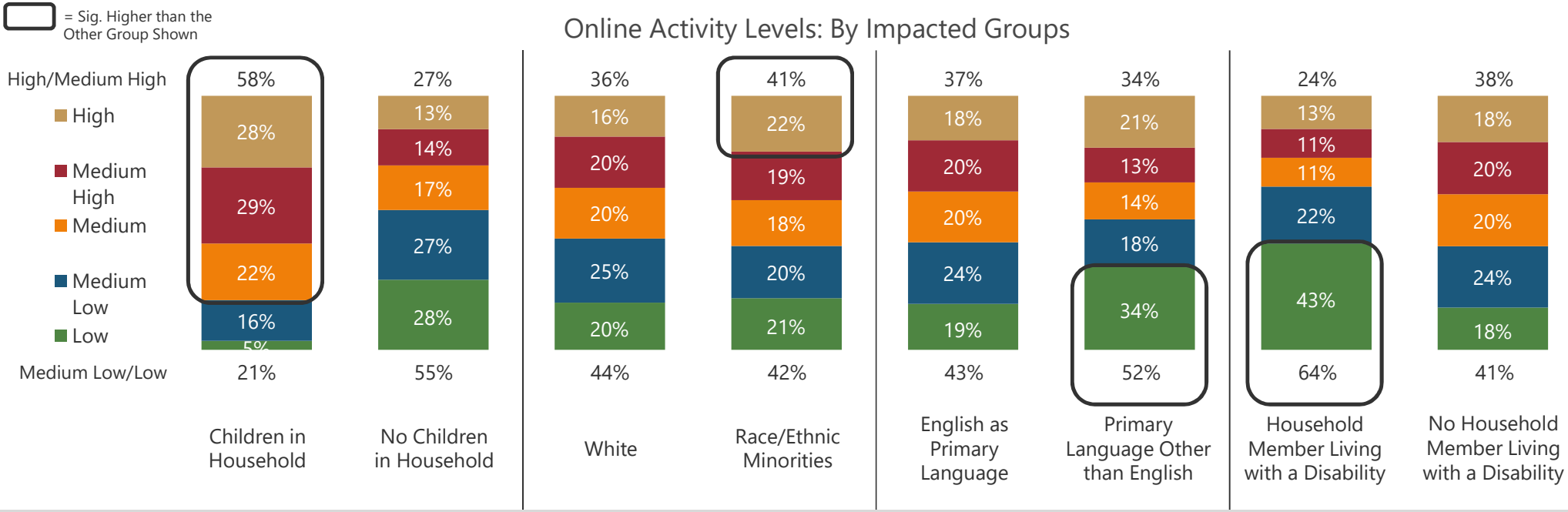
2. Individual scores for each tasks were summed to create a total score for each household responding to the survey. This score represents the households' total level of digital engagement.

3. All scores were tabulated and sorted from high to low into five independent groups **(High, Medium High, Medium, Medium Low, and Low).**

Households with children and residents that are part of racial or ethnic minorities are more likely to have a higher degree of online activities, compared to each of their contrasting groups (no children and white residents).

On the other hand, those who primarily speak a language other than English and those living with a disability or have a household member with a disability are more likely than their counterparts to have lower online activity levels.

= Sig. Higher than the Other Group Shown



Specific Race/Ethnic Comparison: Asian (43%), Hispanic (47%) and Mixed race (47%) residents are significantly more likely to have higher online activity levels compared to White (36%) and Black residents (23%). Three out of five Black residents (60%) indicate having a lower level of online activity, significantly more than any other race/ethnic group.

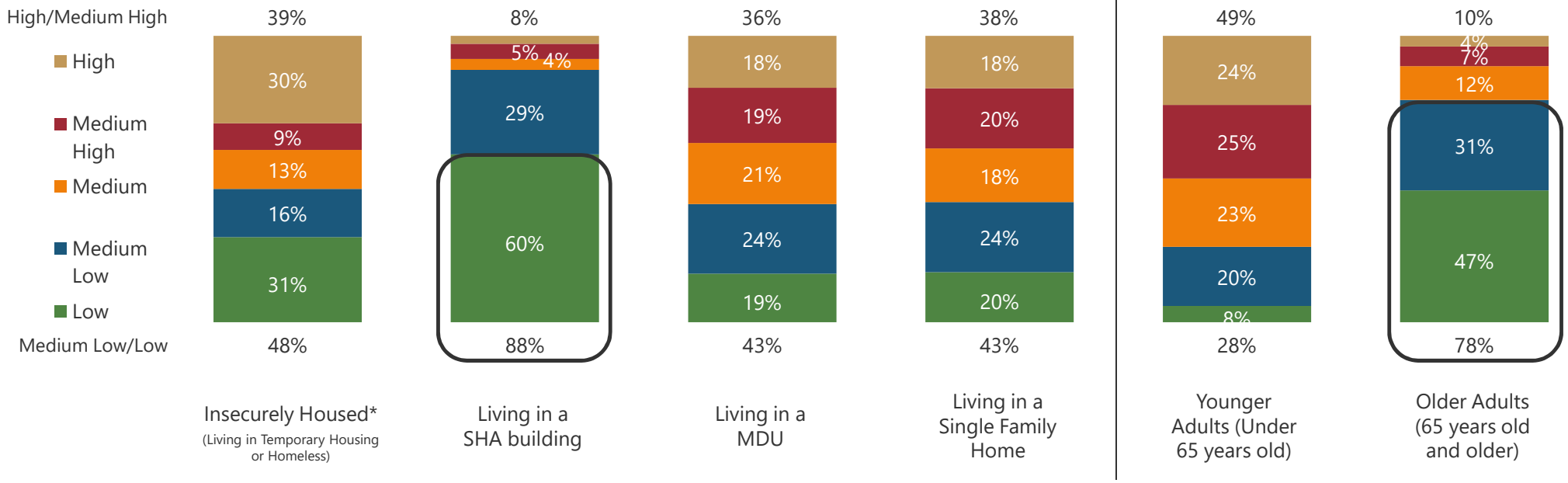
Base: Total Answering (n4269), By Impacted Group – Children in HH (n1450), No Children in HH (n2249), White (n3057), Race/Ethnic Minority (n911), English as Primary Language (n3951), Primary Language Other than English (n234), Household Member Living with a Disability (n425), No Household Member Living with a Disability (n3825). Household Weight.
Q16 - How often does anyone in your household engage in the following activities online?

Older residents and households living in Seattle Housing Authority (SHA) properties are more likely to have a lower online activity level, when compared to their counterparts.

= Sig. Higher than at Least One Other Group Shown

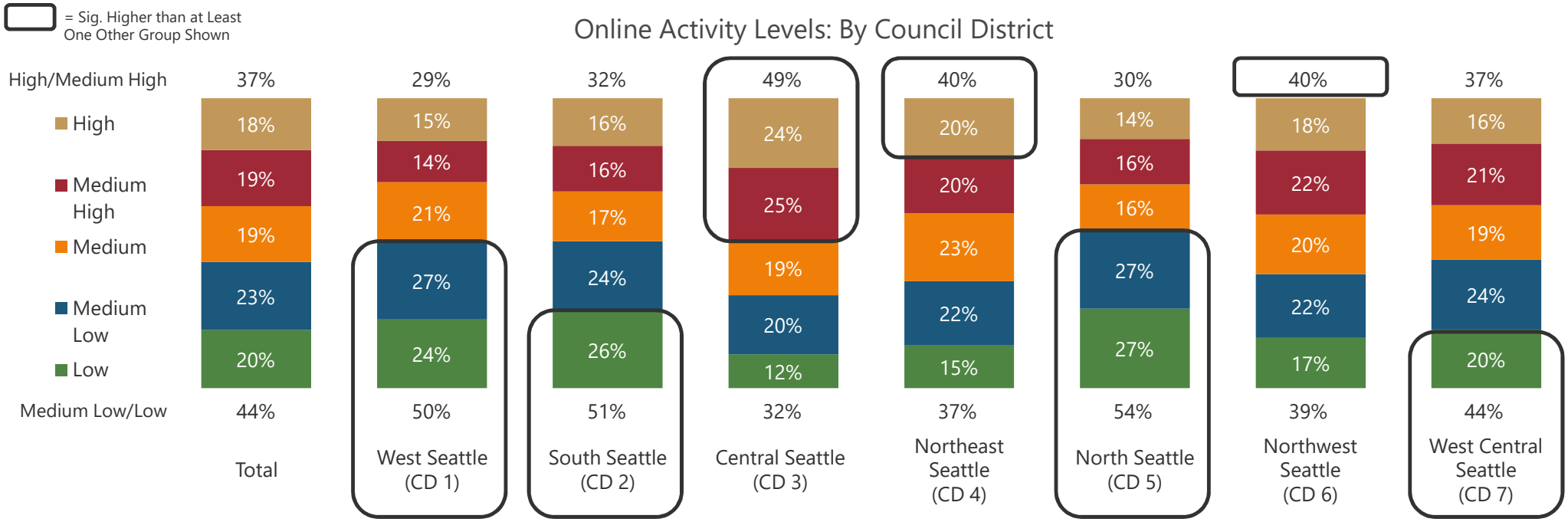
Online Activity Levels: By Impacted Groups (cont'd.)

Values below 4% not shown.



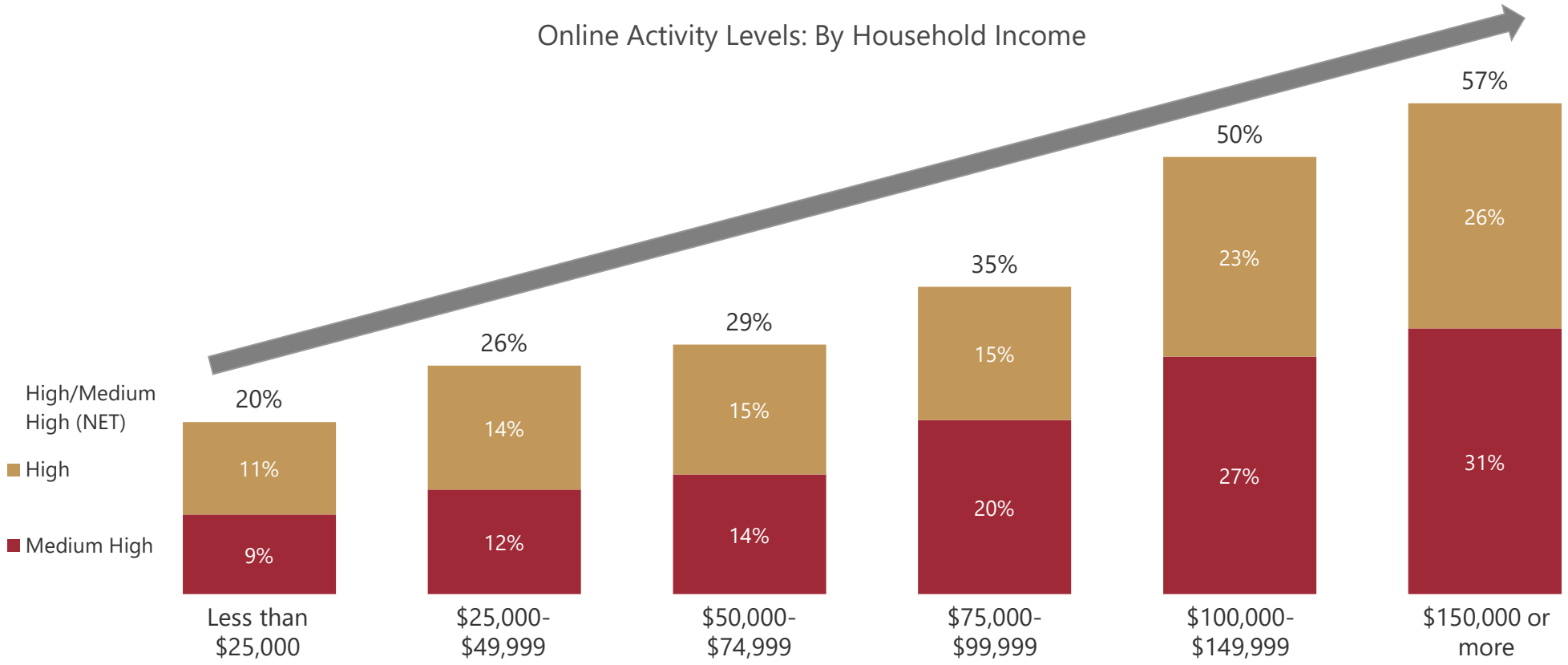
Base: Total Answering (n4269), By Impacted Group – Insecurely Housed (n56*), Living in SHA Building (n260), Living in MDU (n1527), Living in Single Family Home (n2463), Younger Adults (n2767), Older Adults (n865).
Household Weight. *Limited sample size. Sub-segment analysis warrants further research and/or a large sample size.
Q16 - How often does anyone in your household engage in the following activities online?

Central Seattle households (CD 3) stand apart for having residents with the highest online activity levels, while West, South, North, West Central Seattle households (CDs 1, 2, 5, and 7) have residents with significantly lower activity levels.



Base: Total Answering (n4269), By Council District – CD1 (n628), CD2 (n602), CD3 (n517), CD4 (n579), CD5 (n767), CD6 (n641), CD7 (n471). Household Weight.
Q16 - How often does anyone in your household engage in the following activities online?

There is a direct correlation between income and online activity. The greater the income, the more online activities are done on a regular basis.

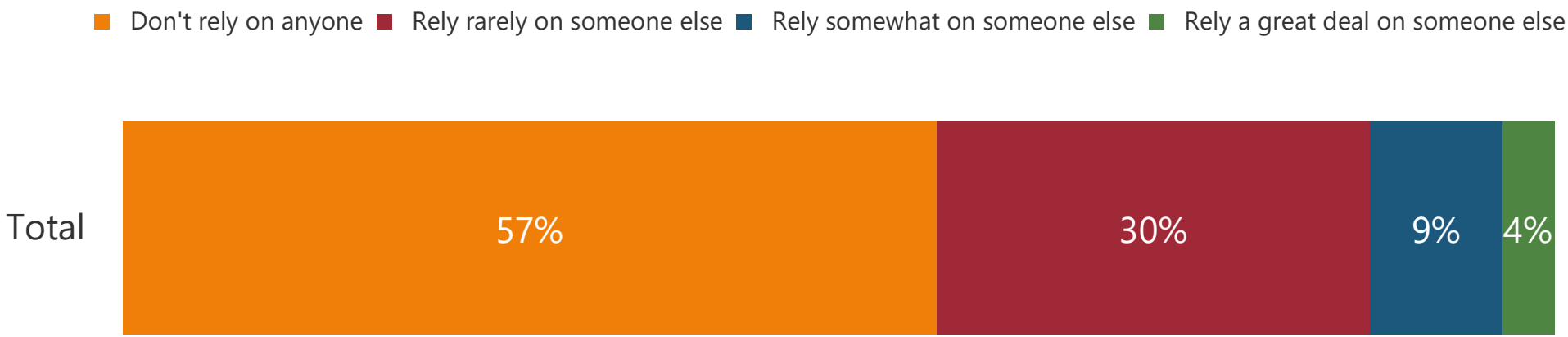


Base: Total Answering By Household Income – <$25K (n594), $25K-$49.9K (n499), $50K-$74.9K (n468), $75K-$99.9K (n433), $100K-$149.9K (n693), $150K+ (n901). Household Weight.
Q16 - How often does anyone in your household engage in the following activities online?

The majority of residents have the skills required to independently access and use the internet.

However, more than one out of ten (13%) residents rely on someone else to help them access or navigate the internet.

Reliance on Others to Help with Access and Navigation of the Internet: By Total Population

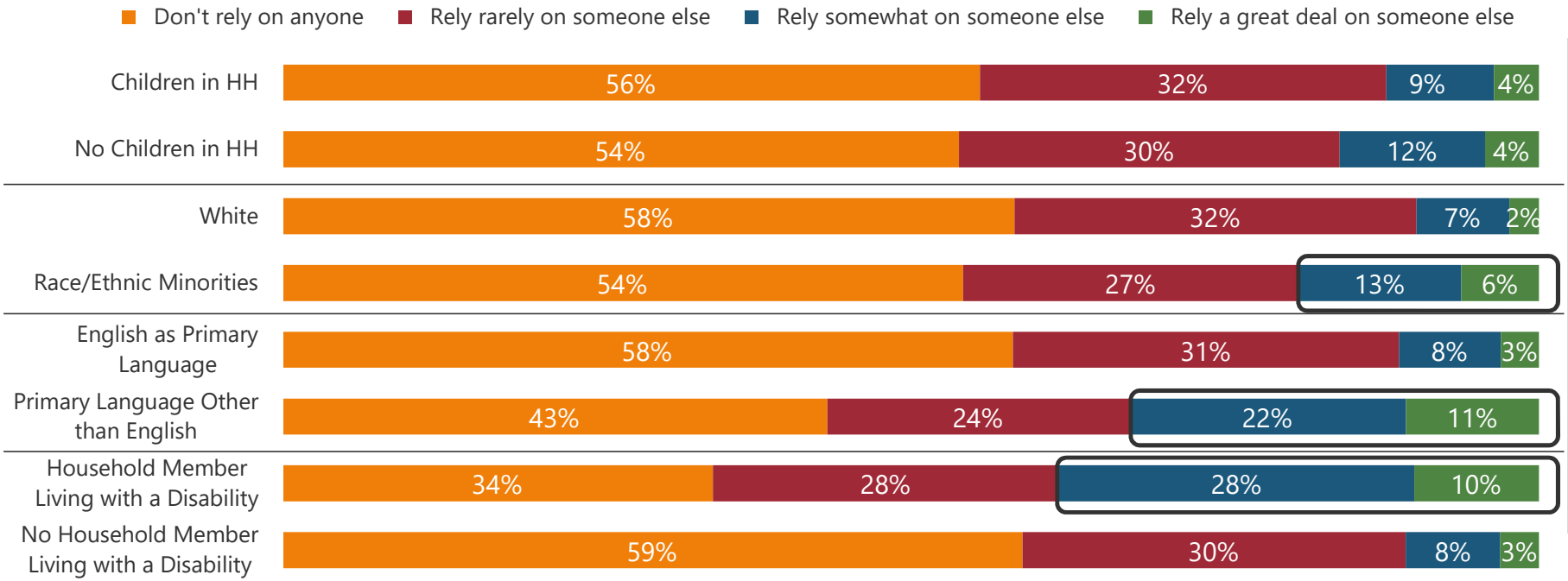


Base: Total Answering (n4166). Individual Weight.
Q18 - How much do you rely on others to help you with the skills needed to access and navigate the internet?

Residents that are part of race and/or ethnic minorities, those who primarily speak a language other than English, and those where a member of the household (HH) is living with a disability are more likely than their contrasting groups to rely on others to help them access and use the internet.

= Sig. Higher than the Other Group Shown

Reliance on Others to Help with Access and Navigation of the Internet: By Impacted Groups

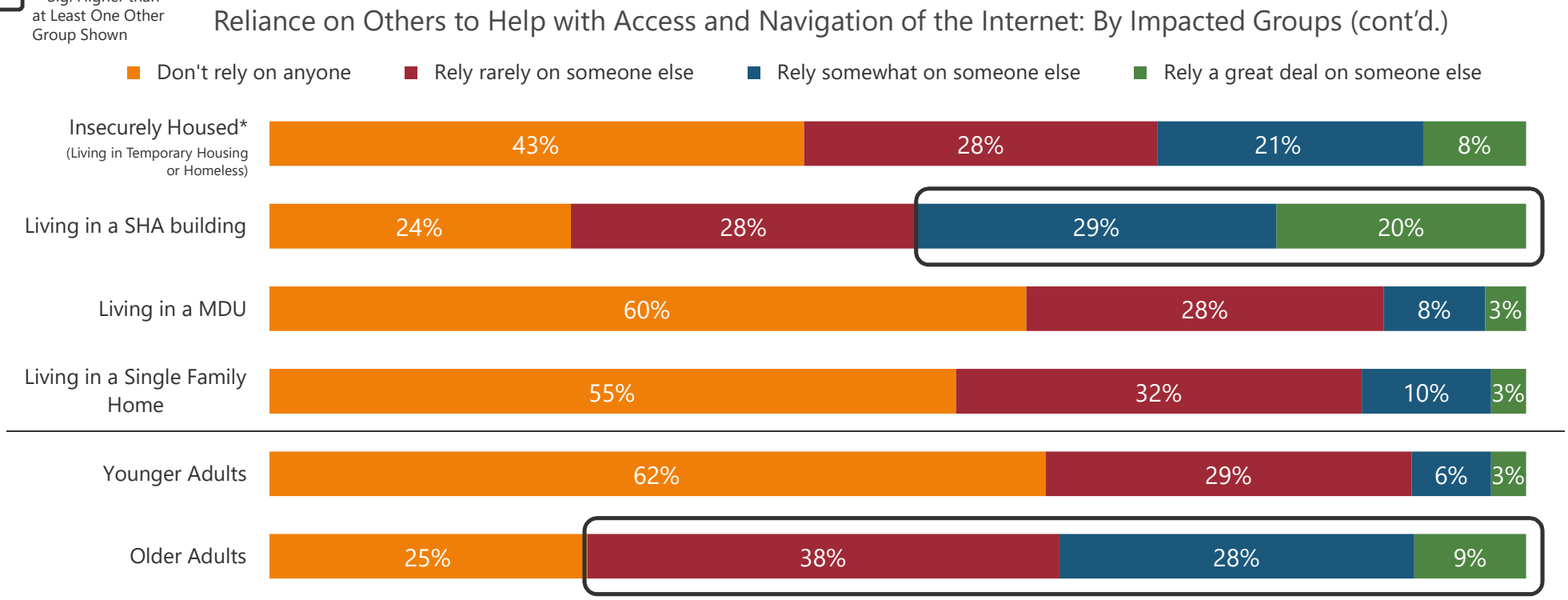


Race/Ethnic Comparison: Hispanic residents are significantly more likely to be self-reliant in using the internet, compared to White, Black, and Asian residents (70%, vs 58%, 38%, 50%). Black residents are the most likely to rely on someone else to access the internet, compared to White, Asian, Hispanic, and Mixed race residents (34%, vs 10%, 20%, 8%, 12%).

Base: Total Answering (n4166), By Impacted Group – Children in HH (n1437), No Children in HH (n2161), White (n3018), Race/Ethnic Minority (n867), English as Primary Language (n3884), Primary Language Other than English (n209), Household Member Living with a Disability (n387), No Household Member Living with a Disability (n3762). Individual Weight.
Q18 - How much do you rely on others to help you with the skills needed to access and navigate the internet?

Those living in Seattle Housing Authority (SHA) properties, as well as older residents, are more likely than their counterparts to rely on others to access and navigate the internet.

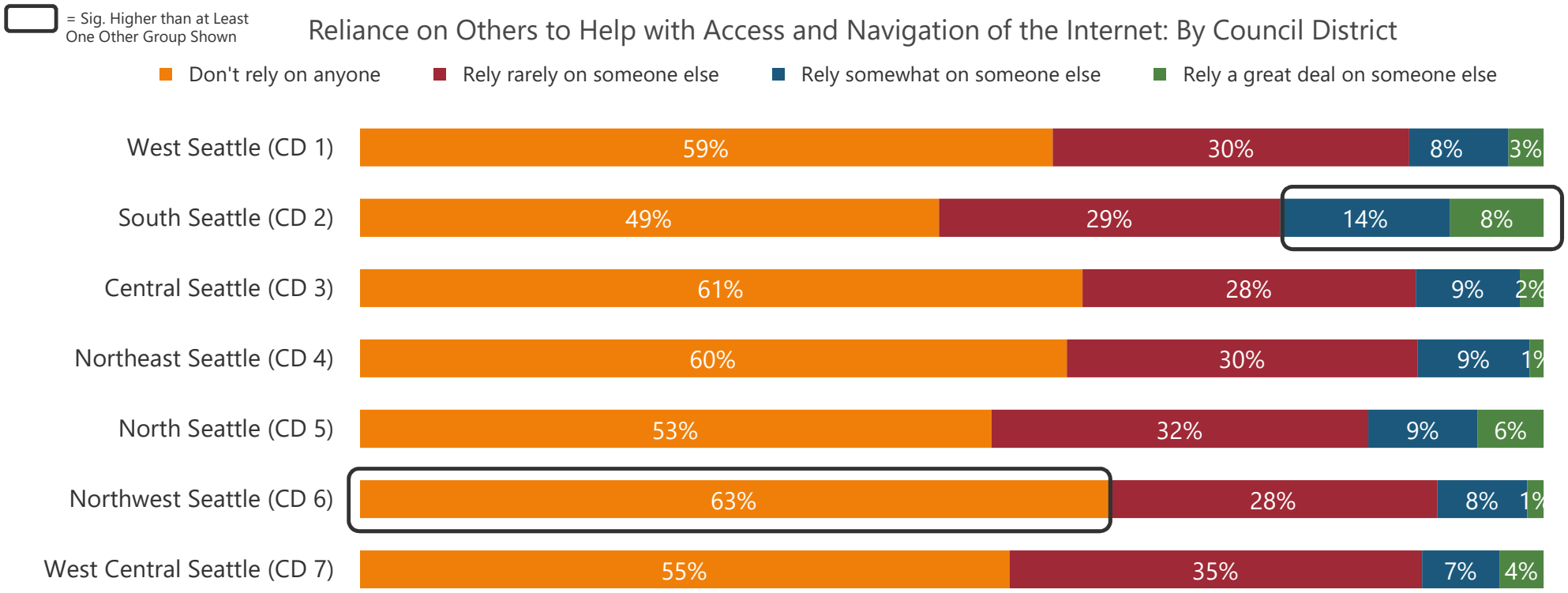
= Sig. Higher than at Least One Other Group Shown



Base: Total Answering (n4166), By Impacted Group – Insecurely Housed (n51*), Living in SHA Building (n227), Living in MDU (n1488), Living in Single Family Home (n2424), Younger Adults (n2744), Older Adults (n823). Individual Weight. *Limited sample size. Sub-segment analysis warrants further research and/or a large sample size.
Q18 - How much do you rely on others to help you with the skills needed to access and navigate the internet?

Those in South Seattle (CD 2) are almost twice as likely as those in other areas to need assistance in accessing or using the internet.

Residents of Northwest Seattle (CD 6) are the most likely to say they do not rely on anyone.



Base: Total Answering – CD1 (n616), CD2 (n575), CD3 (n508), CD4 (n569), CD5 (n749), CD6 (n631), CD7 (n460). Individual Weight.
Q18 - How much do you rely on others to help you with the skills needed to access and navigate the internet?

The reliance on others for help accessing and navigating the internet is more pronounced among those who live alone.

Unfortunately, this means for those where self-reliance is limited, there are also fewer ready "resources" to help accomplish online tasks.

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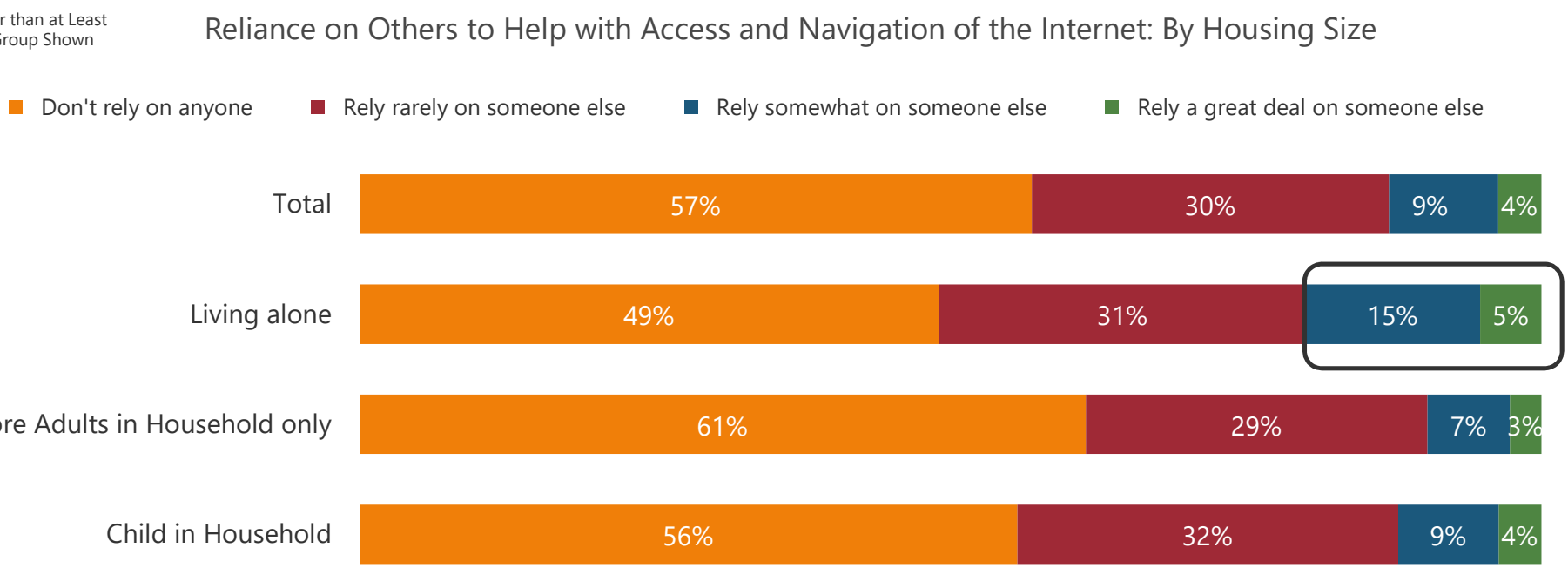

Base: Total Answering – Total Pop (n4166), Living Alone (n1057), Two or More Adults in HH Only (n1163), Child in HH (n1437). Individual Weight.
Q18 - How much do you rely on others to help you with the skills needed to access and navigate the internet?

Residents with more household income are less likely to need assistance to access and navigate the internet.

Only one third (38%) of respondents with less than $25,000 in household income are able to use the internet independently and are significantly more likely than any other income group to need a "great deal" of help from someone else to access and navigate the internet.

= Sig. Higher than at Least One Other Group Shown

Reliance on Others to Help with Access and Navigation of the Internet: By Income

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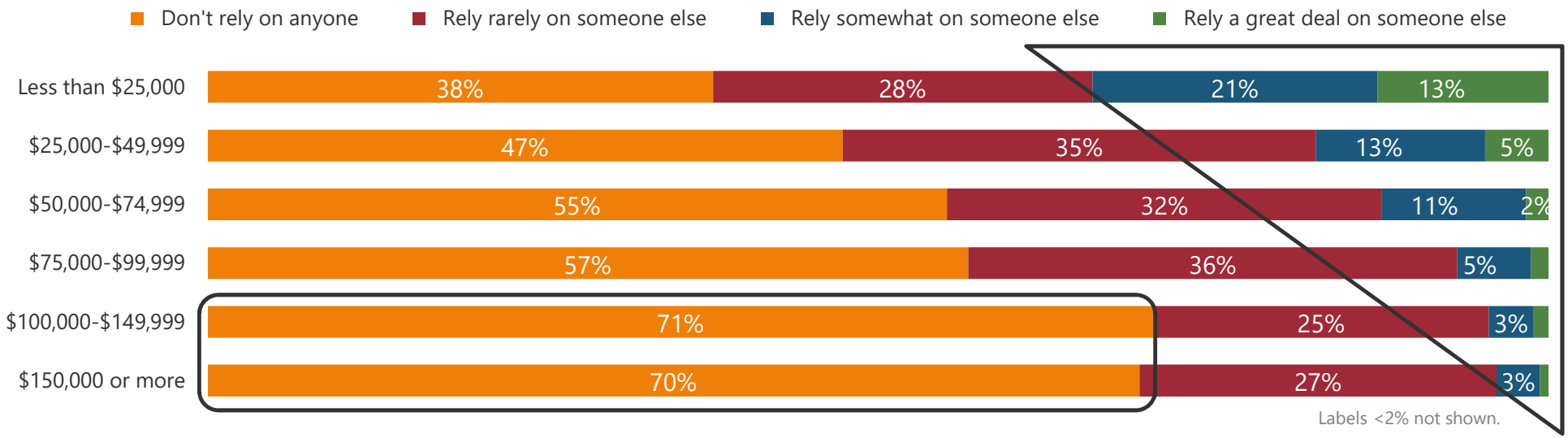

Labels <2% not shown.

Base: Total Answering – <$25K (n534), $25K-$50K (n486), $50K-$75K (n468), $75K-$100K (n431), $100K-$150K (n693), $150K+ (n901). Individual Weight.
Q18 - How much do you rely on others to help you with the skills needed to access and navigate the internet?

A summary metric (Digital Skills Index) was created to assess Seattle residents' skill levels when it comes to performing online tasks (ranging from basic to more advanced tasks).

Research respondents were asked how comfortable they are in performing each of the twelve (12) online activities listed below.

On each of these activities, they indicated if they personally **"could do this if asked to,"** "could NOT do this if asked to," or "have no idea what is being asked."

Use a search engine to look for information online	Buy and install apps on a device
Download / save a photo you found online	Solve a problem you have with a device or digital service using online help
Find a website you have visited before	Verify sources of information you found online
Send a personal message to another person via email, text message or online messaging service	Complete online application forms which include personal details
Make comments and share information online	Create something new from existing online images, music or video
Buy items or services from a website	Send or open attachments

1. Responses for each task were tabulated and summed – so that a total number of digital tasks that could be performed was obtained for each individual respondent.

2. The average number of tasks that could be performed by Seattle residents is 10 (out of 12 possible). This average becomes the benchmark to which each individual respondent is compared.

3. Each respondent is divided into one of three groups – above average skill level, average skill level, and below average skill level.

Households without children, ethnic minorities, those who primarily speak a language other than English, and households impacted by a disability are more likely to have a lower level of digital skill than their counterparts.

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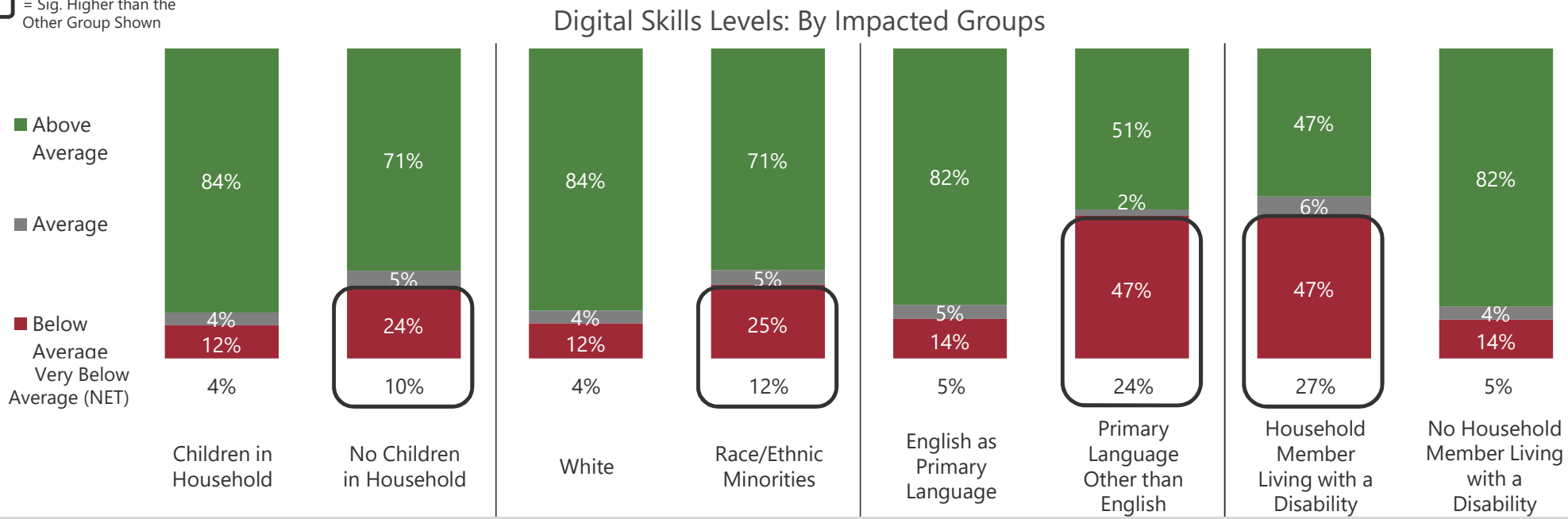
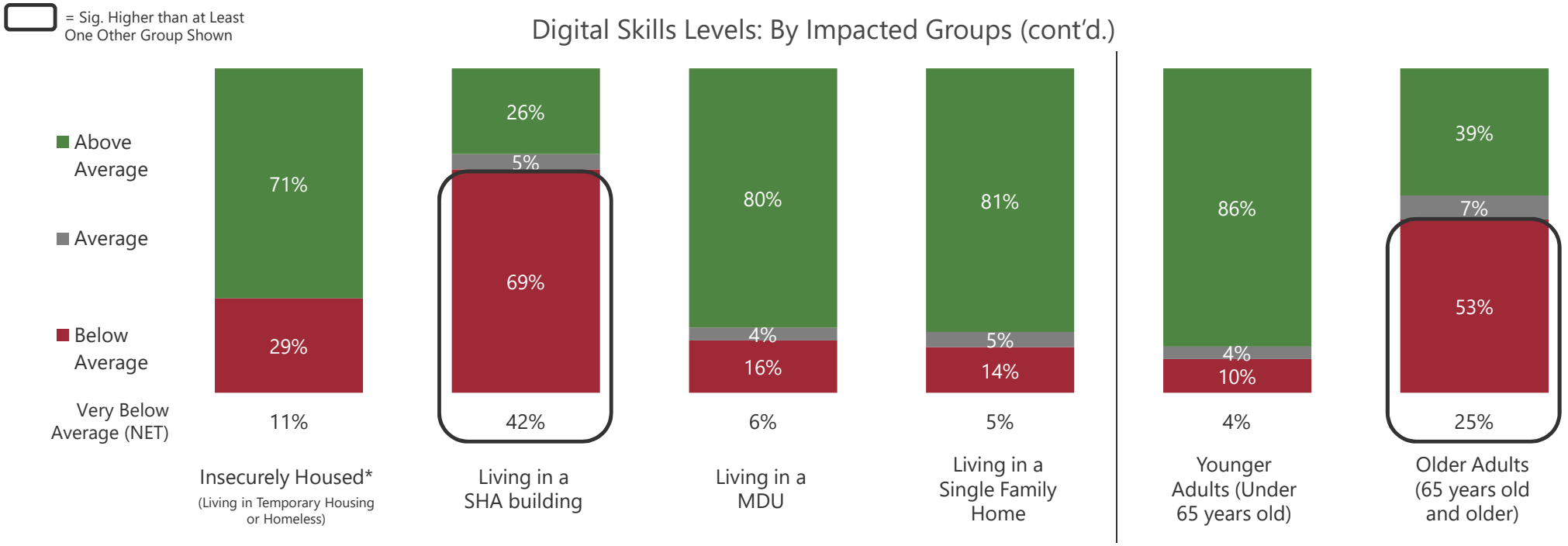


Race/Ethnic Comparison: Half of Black residents (49%) have below average online skills, this is significantly higher than all other race/ethnic groups including: White (12%), Asian (23%), Hispanic (13%), and Mixed race residents (9%).

Base: Total Answering (n4255), By Impacted Group – Children in HH (n1447), No Children in HH (n2238), White (n3052), Race/Ethnic Minority (n908), English as Primary Language (n3945), Primary Language Other than English (n231), Household Member Living with a Disability (n421), No Household Member Living with a Disability (n3815). Individual Weight.
Q17 - How comfortable are you in performing the following activities online?

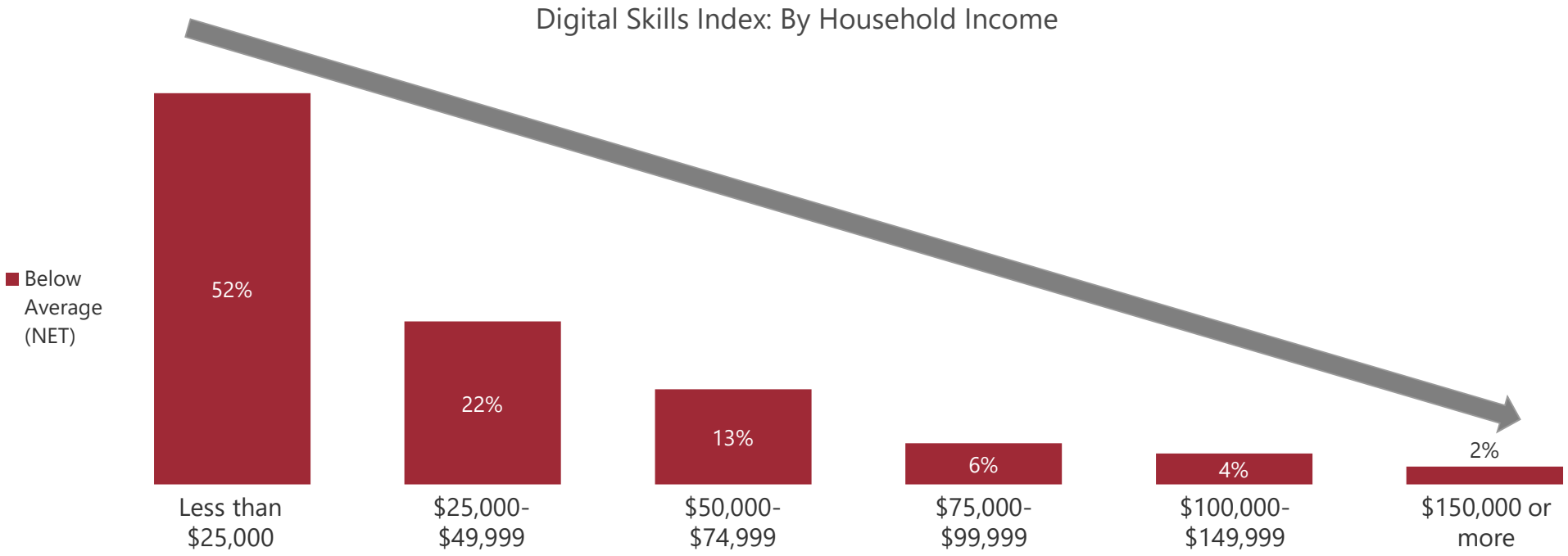
Older residents and households living within Seattle Housing Authority (SHA) properties are more likely to have a lower digital skill level, when compared to their contrasting groups (younger residents and other living situations).



Base: Total Answering (n4255), By Impacted Group – Insecurely Housed (n51*), Living in SHA Building (n257), Living in MDU (n1522), Living in Single Family Home (n2461), Younger Adults (n2764), Older Adults (n860).
Individual Weight. *Limited sample size. Sub-segment analysis warrants further research and/or a large sample size.
Q17 - How comfortable are you in performing the following activities online?

Online skill level increases in step with household income – those with higher incomes are significantly more comfortable with executing a range of online activities.

Lack of digital ability is the stark reality among very low and medium/low income households. More than half of the individuals living with a household income of less than $25K report a below average skill level. On the other hand, ability constraints are virtually non-existent among households with income levels over $100K.



Base: Total Answering By Household Income – <$25K (n586), $25K-$49.9K (n495), $50K-$74.9K (n470), $75K-$99.9K (n433), $100K-$149.9K (n692), $150K+ (n902). Individual Weight.
Q17 - How comfortable are you in performing the following activities online?

Those living at or below the poverty level and those who primarily speak a language other than English are more interested than their counterparts in a majority of the technology training topics.

Households are split on training topics based on presence of children in the home. Those with children are more likely to be interested in training on using advanced software, while those without children are more interested in training on using basic software.

Percent Interested (Very/Possibly Net) in Technology Training Topic	Total	Lower Income (At or below the 135% FPL)	Higher Income (Above the 135% FPL)	Children in Household	No Children in Household	English as Primary Language	Primary Language Other than English
Protecting yourself and your data online	71%	70%	72%	71%	72%	72%	68%
Using advanced software (e.g. coding, design, video editing)	54%	55%	54%	63%	50%	54%	60%
Computer hardware or mobile device troubleshooting	51%	59%	50%	48%	52%	51%	53%
Learning to create, edit, and publish my own work	47%	57%	45%	52%	45%	46%	57%
Using basic software (e.g. word processing, spreadsheet applications)	33%	51%	31%	29%	36%	32%	52%
Selling products or services online	30%	38%	29%	30%	29%	29%	36%
Setting up / Using social media	22%	41%	20%	21%	24%	21%	39%
Job searching and online job applications	21%	42%	19%	25%	21%	20%	38%
Setting up / Using email	19%	43%	17%	15%	23%	18%	41%

= Sig. Higher than the Other Group Shown

Base: Total Answering – By Impacted Group – Lower Income (n373-n385), Higher Income (n3790-n3825), Children in HH (n1420-n1434), No Children in HH (n2181-n2210), English as Primary Language (n3870-n3914), Primary Language other than English (n219-n224). Household Weight.
Q19 - Please rate how interested you or anyone in your household would be in each of the following technology training topics.

Race and ethnic minorities and households impacted by a disability are more interested in the technology training topics.

Also, older adults are more likely to have interest in training topics including protecting themselves, troubleshooting, and setting up and using social media and email.

Percent Interested (Very/Possibly Net) in Technology Training Topic	Total	White	Race/Ethnic Minorities	Less than 65 years old	65 years old and older	Household Member Living with a Disability	No Household Member Living with a Disability
Protecting yourself and your data online	71%	71%	71%	68%	78%	78%	71%
Using advanced software (e.g. coding, design, video editing)	54%	52%	62%	62%	36%	56%	54%
Computer hardware or mobile device troubleshooting	51%	49%	54%	48%	56%	61%	50%
Learning to create, edit, and publish my own work	47%	44%	56%	50%	39%	54%	46%
Using basic software (e.g. word processing, spreadsheet applications)	33%	30%	42%	28%	44%	52%	31%
Selling products or services online	30%	26%	39%	33%	22%	37%	29%
Setting up / Using social media	22%	20%	30%	18%	30%	45%	20%
Job searching and online job applications	21%	18%	32%	24%	12%	37%	20%
Setting up / Using email	19%	17%	28%	14%	31%	45%	17%

Race/Ethnic Comparison: Black residents are significantly more interested in training for using basic software (63%), compared to Hispanic (41%), Mixed race (39%), Asian (37%), and White residents (30%). Black residents are also significantly more interested in training for job searching online (45%), compared to Asian, Hispanic, Mixed race (all at 30%) and White residents (18%).

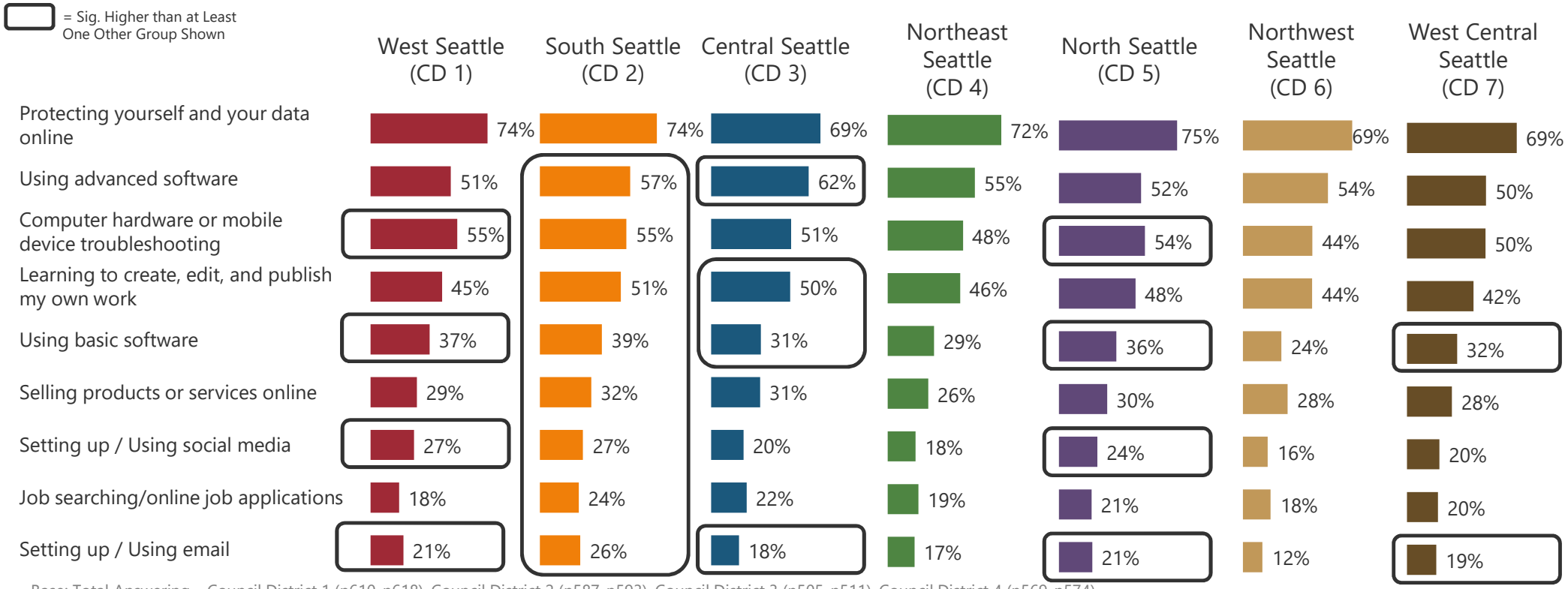
Base: Total Answering – By Impacted Group – White (n3001-n3029), Race/Ethnic Minority (n883-n896), Younger Adults (Under 65 years old) (n2735-n2755), Older Adults (65 years old and older) (n839-n857), Household Member Living with a Disability (n394-n406), No Household Member Living with a Disability (n3756-n3787). Household Weight.
Q19 - Please rate how interested you or anyone in your household would be in each of the following technology training topics.

= Sig. Higher than the Other Group Shown

Interest in protecting yourself, using advanced software, and device troubleshooting are the most popular training topics among Seattle residents.

West Seattle, South Seattle, Central, and North Seattle residents (Council Districts 1, 2, 3, 5) have the greatest amount of interest across all the possible training topics.

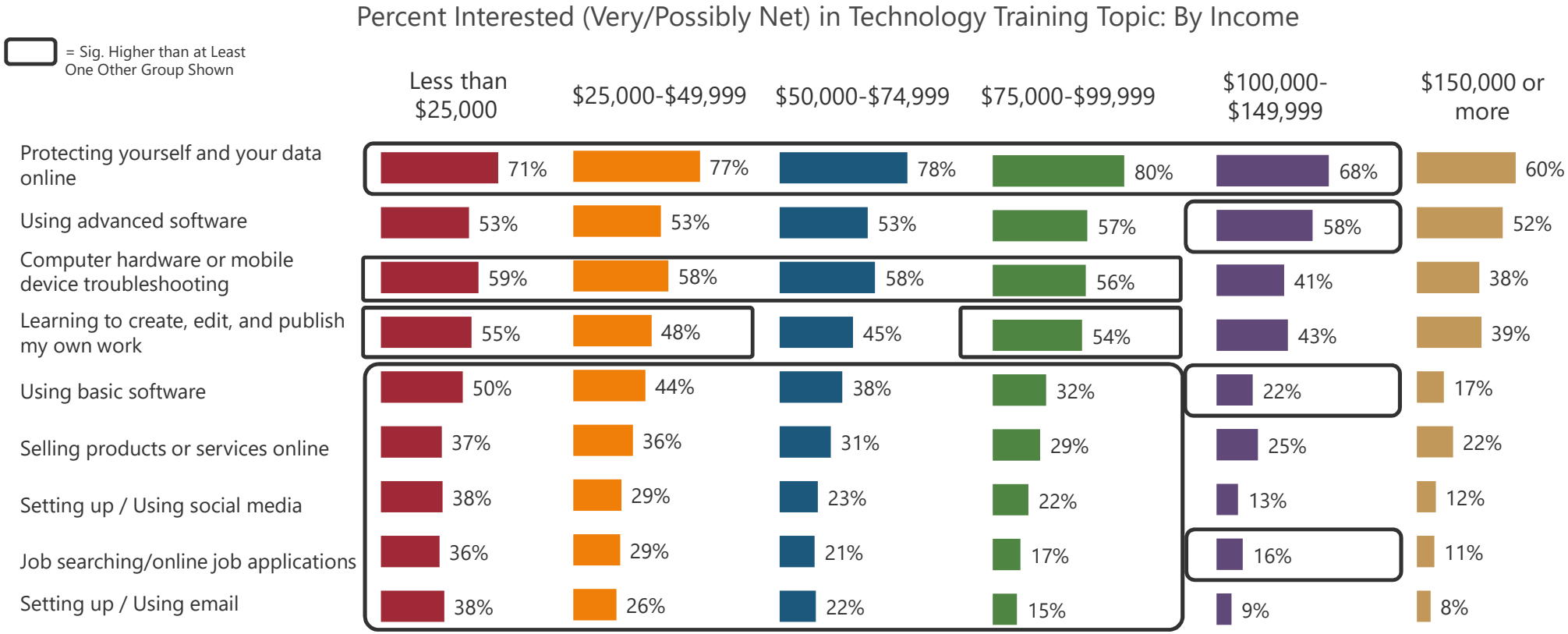
Percent Interested (Very/Possibly Net) in Technology Training Topic: By Council District



Base: Total Answering – Council District 1 (n610-n618), Council District 2 (n587-n593), Council District 3 (n505-n511), Council District 4 (n569-n574), Council District 5 (n748-n763), Council District 6 (n626-n635), Council District 7 (n461-n468). Household Weight.
Q19 - Please rate how interested you or anyone in your household would be in each of the following technology training topics.

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

Those in households with less than $100K in annual income are significantly more interested learning about most topics presented (except using advanced software).



Base: Total Answering – <$25K (n559-n576), $25K-$50K (n485-n490), $50K-$75K (n463-n468), $75K-$100K (n427-n433), $100K-$150K (n685-n688), $150K+ (n895-n899). Household Weight.
Q19 - Please rate how interested you or anyone in your household would be in each of the following technology training topics.

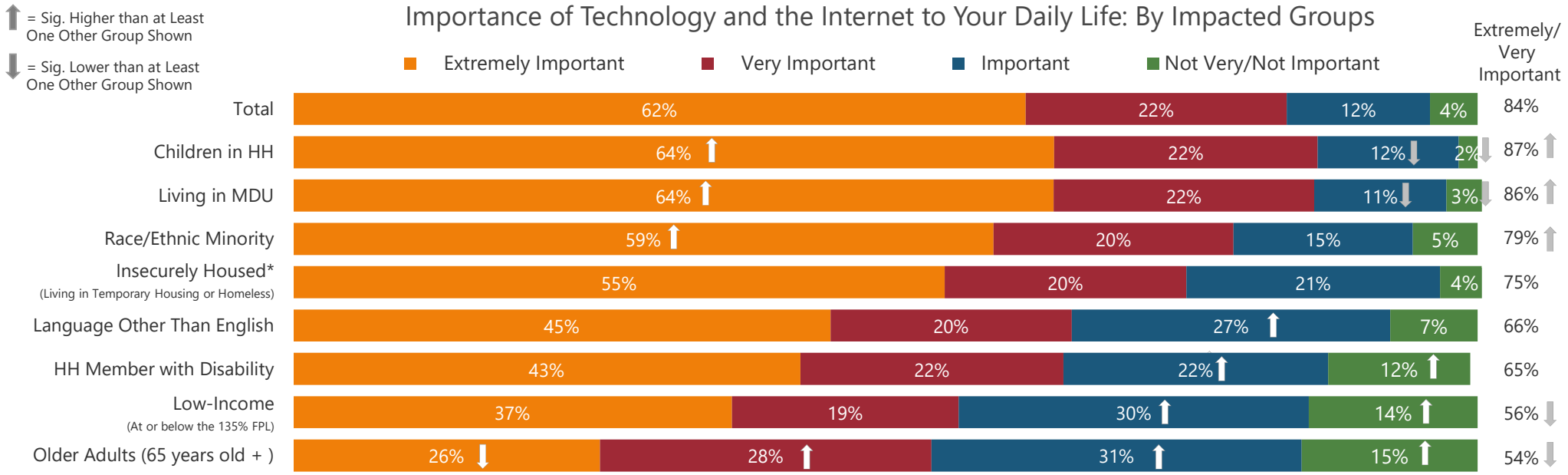
Technology Attitudes

- Importance of Technology and the Internet to Your Daily Life
- Effect of the Internet and Technology on You and Your Family
- Effect of the Internet and Technology on Society
- Concerns Using the Internet

Most of those that are at risk of digital inequity believe technology and the internet is important to their lives and their children's lives.

Residents living at or below 135% of federal poverty level and older adults (65 years old and older) are more likely to place less importance on technology and the internet.

Those with children in the household (HH), those living in a multi-dwelling unit (MDU), or members of a race or ethnic minority are more likely to place higher importance on technology in their daily lives.

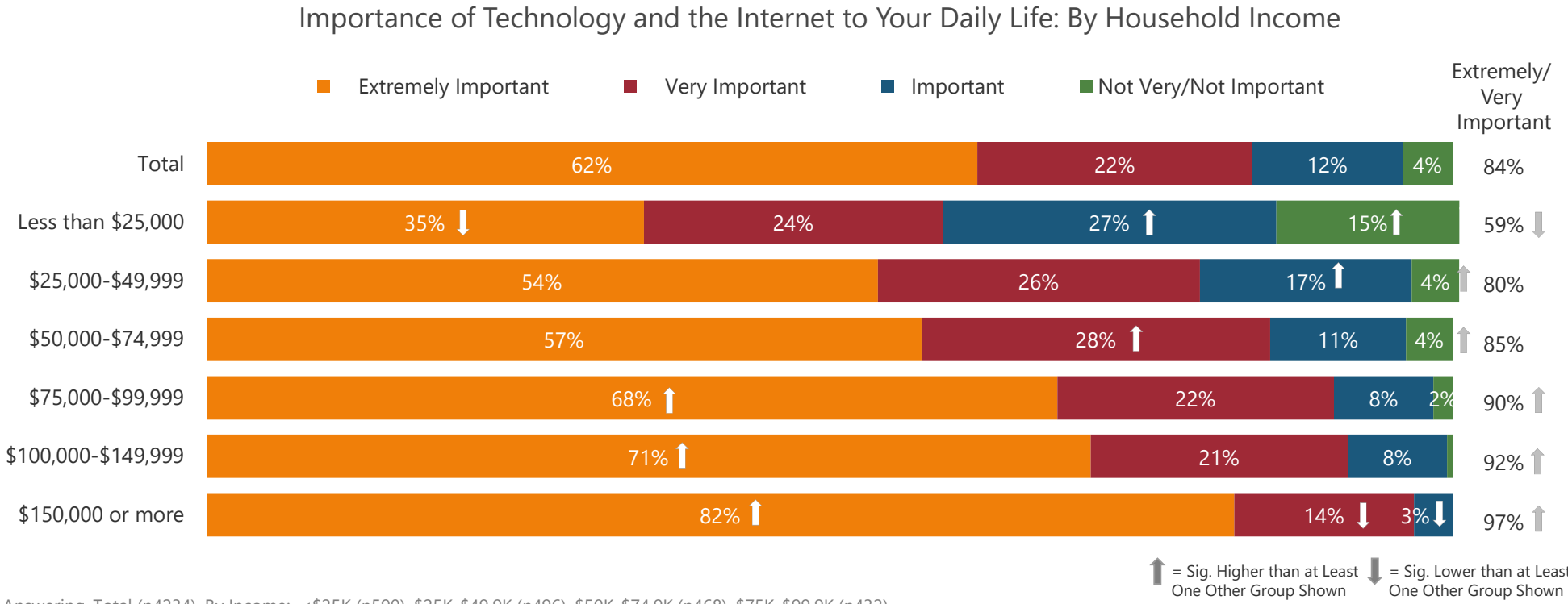


Race/Ethnic Comparison: Only two thirds of Black residents (63%) believe technology and the internet is important to their daily lives. This is significantly less than White (86%), Asian (82%), Hispanic (82%), and Mixed race residents (89%).

Base: Total Answering, Total (n4234), By Impacted Group – Primary Language Other than English (n232), Race/Ethnic Minority (n901), Insecurely Housed (n52*), Older Adults (Age 65+) (n859), Low Income (n398), Living in MDU (n1517), Living with a Disability (n417), Children in HH (n1440). Individual Weight. *Limited sample size. Sub-segment analysis warrants further research and/or a large sample size.
Q20 - How important is technology and the internet to your daily life?

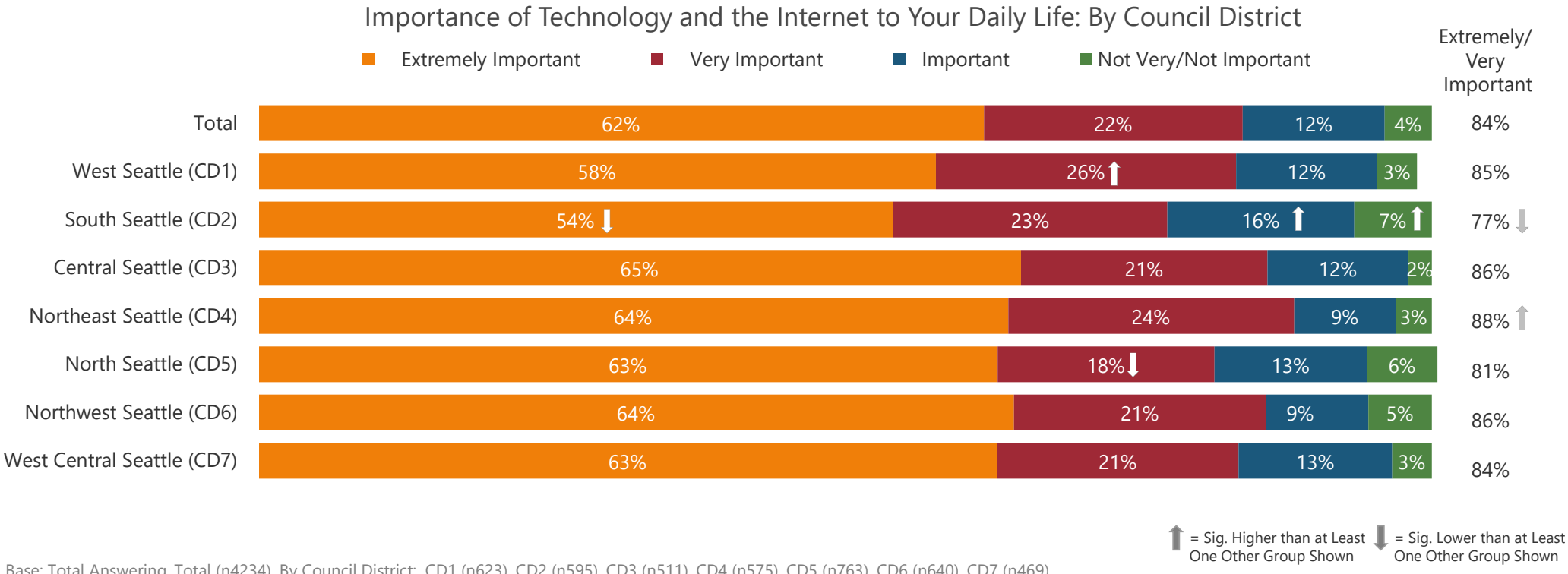
Individuals with higher incomes, when compared to those with lower incomes, are more likely to say the internet is extremely important to their life.

Individuals with household income less than $25,000 are more likely than any other group to rate technology and the internet as not important to their lives.



Base: Total Answering, Total (n4234), By Income: <$25K (n590), $25K-$49.9K (n496), $50K-$74.9K (n468), $75K-$99.9K (n432), $100K-$149.9K (n692), $150K+ (n900). Individual Weight.
Q20 - How important is technology and the internet to your daily life?

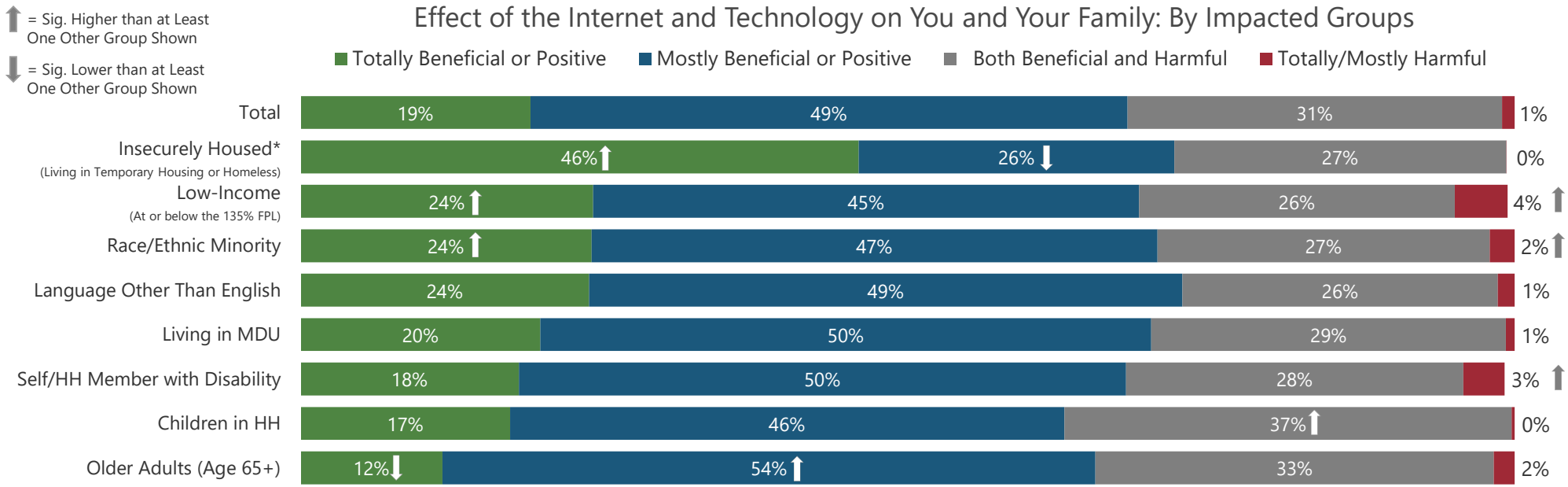
South Seattle residents (CD 2) are less likely than those living in other areas of the city to see technology and the internet as important to their life.



Base: Total Answering, Total (n4234), By Council District: CD1 (n623), CD2 (n595), CD3 (n511), CD4 (n575), CD5 (n763), CD6 (n640), CD7 (n469). Individual Weight.
Q20 - How important is technology and the internet to your daily life?

Those with children in the household (HH) and older adults are the most likely groups to feel the internet and technology has been *both* beneficial and harmful to themselves or their families.

Residents that are insecurely housed, those in low income households, and race/ethnic minorities are the most likely to rate the effect of the internet and technology as "totally beneficial."

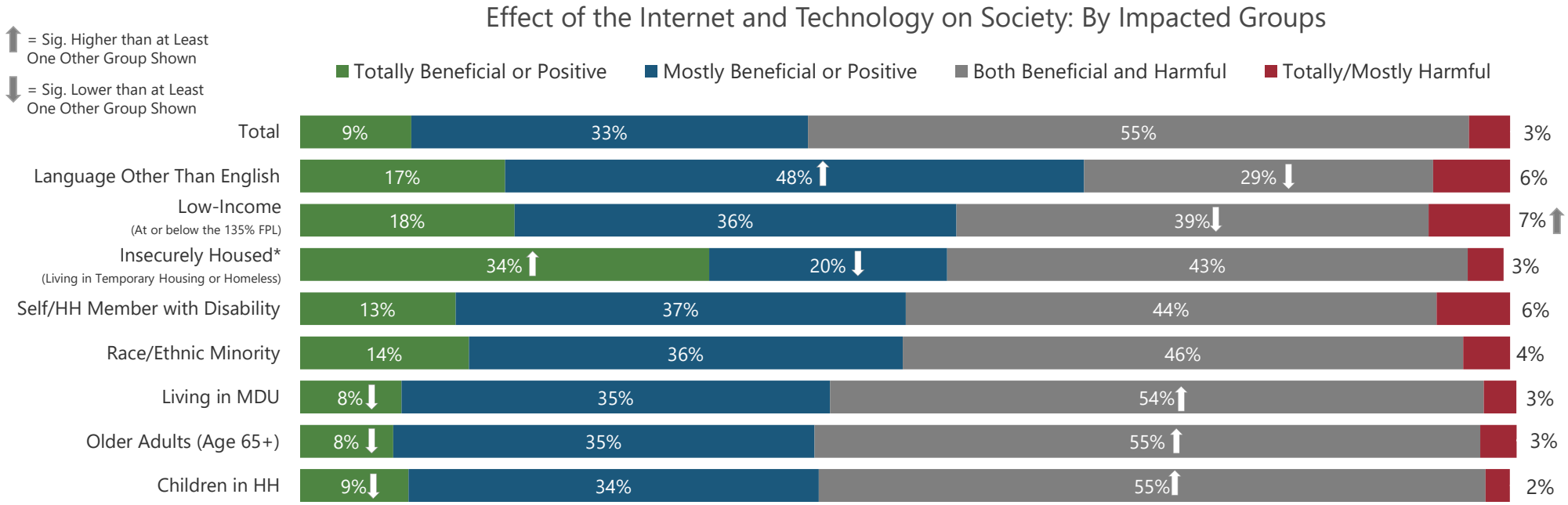


Race/Ethnic Comparison: Only half of Black residents (55%) are likely to believe internet has a positive impact (totally positive or mostly positive) on themselves and their families, compared to White (67%), Asian (78%), and Hispanic residents (73%).

Base: Total Answering, Total (n4218), By Impacted Group – Primary Language Other than English (n231), Race/Ethnic Minority (n906), Insecurely Housed (n53*), Older Adults (n853), Low Income (n391), Living in MDU (n1508), Living with a Disability (n417), Children in HH (n1444).
Individual Weight. *Limited sample size. Sub-segment analysis warrants further research and/or a large sample size.
Q22-1 - What effect does internet and technology have on you and your family?

Among the unique-needs groups, those with children in the household (HH), residents of MDUs, or those over age 65 are more likely than others to feel the internet and technology has been both beneficial and harmful to society.

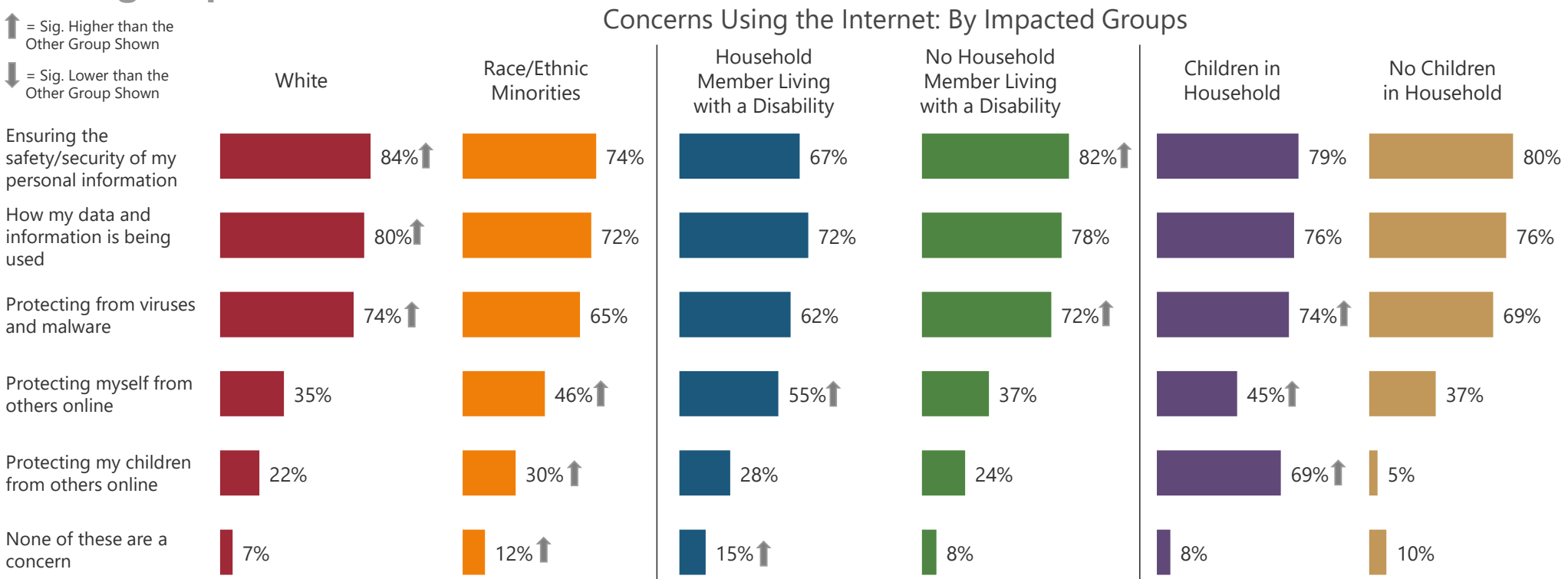
Those whose primary language is other than English, those with low incomes, or the insecurely housed are more likely than others to rate the effect as beneficial.



Race/Ethnic Comparison: Asian (59%) and Hispanic residents (50%) are the most likely to feel the effect of technology on society is at least mostly positive. Black residents are the most likely to believe the effect is at least somewhat harmful (9%).

Base: Total Answering, Total (n4183), By Impacted Group – Primary Language Other than English (n217), Race/Ethnic Minority (n883), Insecurely Housed (n48*), Age 65+ (n841), Low Income (n372), Living in MDU (n1500), Living with a Disability (n400), Children in HH (n1435). Individual Weight. *Limited sample size. Sub-segment analysis warrants further research and/or a large sample size.
Q22-2 - What effect does internet and technology have on Society as a whole?

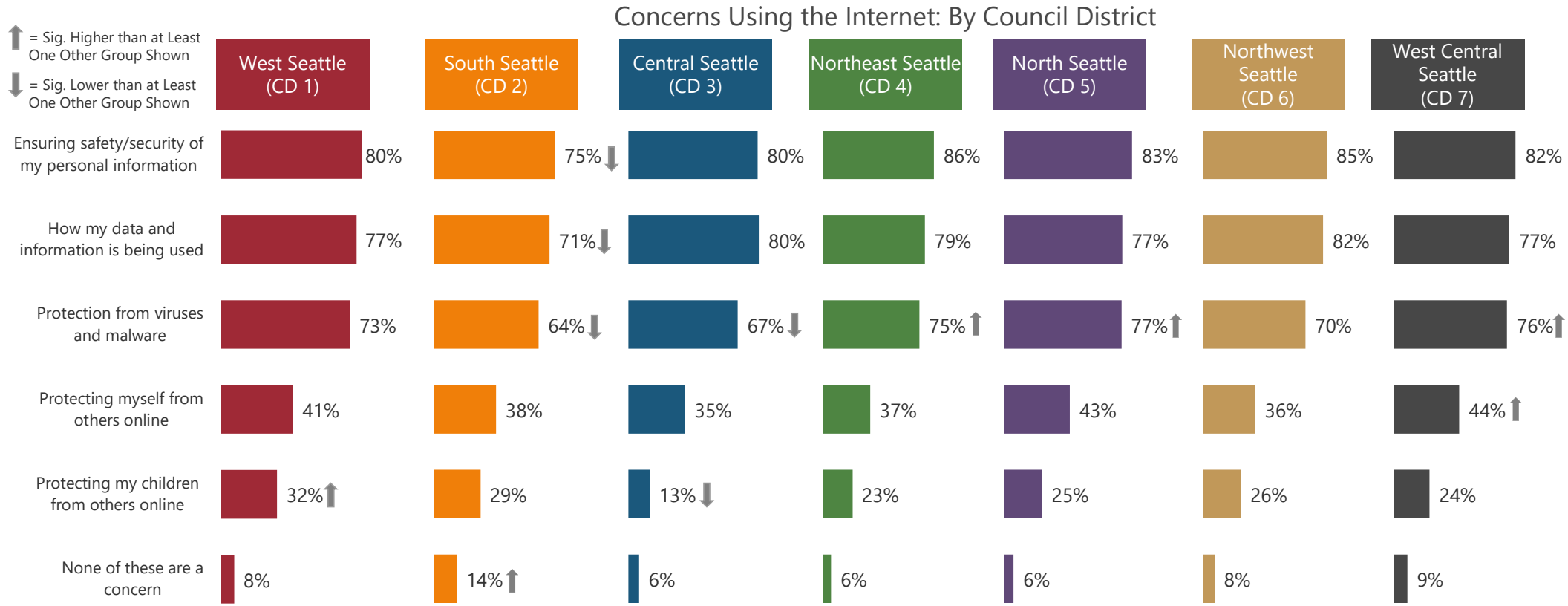
Residents at risk of digital inequity (minorities, households with members living with a disability) and those with children in the household are more likely to have concerns about using the internet. However, those concerns vary by the needs of each group.



Specific Race/Ethnic Comparison: White residents (84%) are more likely than Black (66%), Hispanic (75%), and Asian residents (77%) to have concerns about ensuring the safety/security of personal information. Black (51%) and Asian residents (47%) are more likely to have concerns about protecting themselves online, compared to White residents (35%).

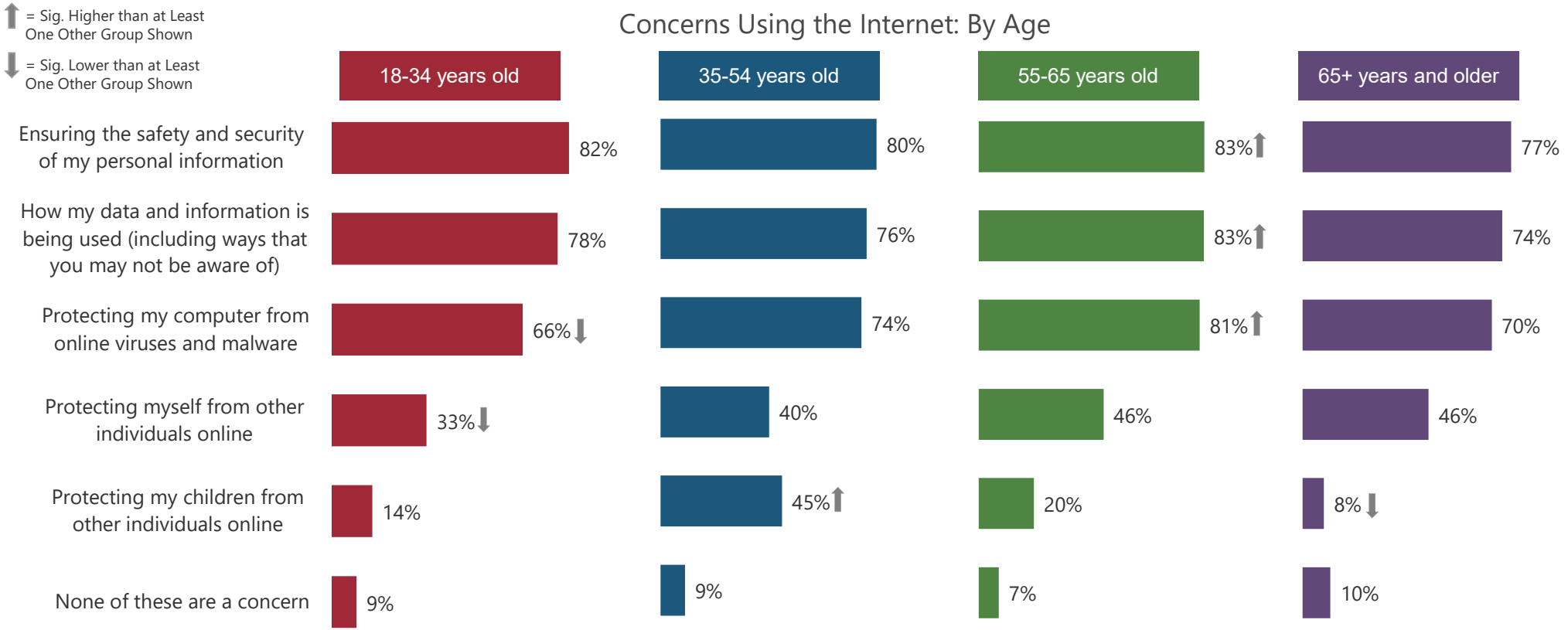
Base: Total Answering, By Impacted Group – White (n3016), Race/Ethnic Minority (n897), Living with a Disability (n407), No one in the household Living with a Disability (n3781), Children in HH (n1438), No Children in HH (n2199). Individual Weight.
Q14 - Which of the following are concerns you have when it comes to accessing and using the internet:

Protection from viruses and malware is more of a concern in North Seattle (CDs 4, 5 and 7). Protecting children from others online is less of a concern in Central Seattle (CD 3) and more of a concern in West Seattle/South Park (CD 1). South Seattle (CD 2) residents are more likely to have none of the listed concerns.



Base: Total Answering – CD1 (n618), CD2 (n597), CD3 (n511), CD4 (n573), CD5 (n751), CD6 (n634), CD7 (n464). Individual Weight.
Q14 - Which of the following are concerns you have when it comes to accessing and using the internet:

City residents, regardless of age, are most concerned about the security of their personal information, how their data is used, and protection from viruses.



Base: Total Answering – 18-34 years old (n623), 35-54 years old (n1502), 55-64 years old (n623), 65 years and older (n843). Individual Weight.
Q14 - Which of the following are concerns you have when it comes to accessing and using the internet:

Primary Language Summary

(English vs. Non-English Primary Speakers)

Summary Highlights: Primary Language - English vs. Non-English

Those living in households (HHs) where primary language is not English are at a disadvantage, with lower likelihood to have an internet connection, fewer types of devices, inadequate connections, and more barriers to navigating the internet. Primary English speaking households are more likely to spend more on internet subscriptions, have more types of devices, and have more digital skills.

Internet / Device Access

Those whose primary language is other than English…

… are *less likely* to have internet access in the home (90%, vs. 95%).

… are *less likely* to have a fixed broadband subscription (79%, vs. 88%).

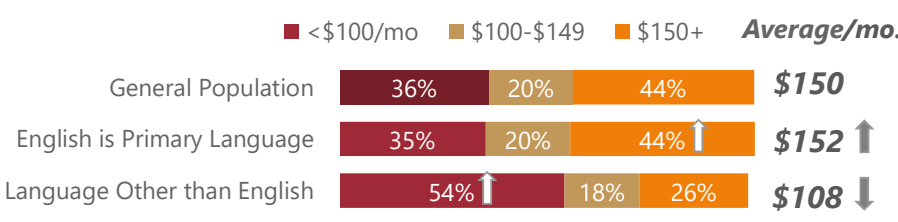
… *have fewer* types of devices in the home, on average, compared to English primary speakers (2.8 types of devices, vs. 3.4).

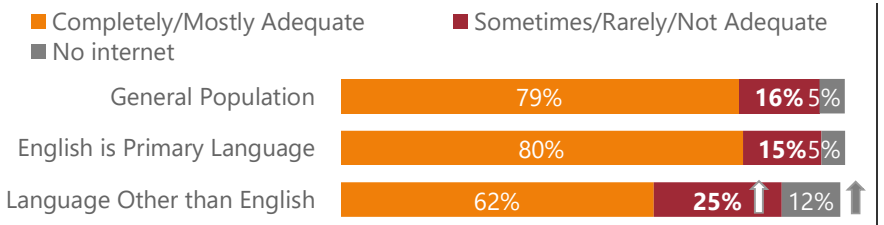
Devices and Subscriptions	Gen Pop	English is Primary	Other than English
Have internet access at home	**95%**	**95%**	**90%** ↓
With any broadband subscription	92%	92%	87%
With fixed broadband subscription	88%	88%	79% ↓
Cellular data plan with no other type of internet subscription	4%	4%	8% ↑
Without an internet subscription	6%	6%	12% ↑
Average number of types of devices in HH	**3.4**	**3.4**	**2.8** ↓
Average number of types of devices owned in HH	3.3	3.3	2.8 ↓

Subgroup Analysis: Primary Language not English & Living at or below 135% on Federal Poverty Level: These HH have significantly less access to the internet (75%), broadband subscriptions (72%), fixed broadband subscriptions (59%), average number of types of devices (2.1), average spend ($76 per month), and completely/mostly adequate internet (34%), compared to higher income residents who also are in primary non-English HHs. This indicates that income may be a strong contributing factor to the differences found between households with English as a primary vs. those who are English as a second language.

Internet Spend and Adequacy

English primary speakers spend about 40% *more per month* on internet related services and are *more likely* to describe their internet connection as adequate. A higher portion of Non-Primary English speakers have slower download speeds.





↑ = Sig. Higher than the Other Group Shown

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Summary Highlights: Primary Language - English vs. Non-English

Barriers to Internet Use & Reliance on Others

Those whose primary language is one other than English…

… are *more likely* to have barriers that prevent them from using the internet more (48%, vs. 20%), and to mention "*service is too expensive*" as a barrier (71%, vs. 53% among those with any barriers).

… are *three times as likely* as English speakers to rely on others to access and navigate the internet (33%, vs. 11%).

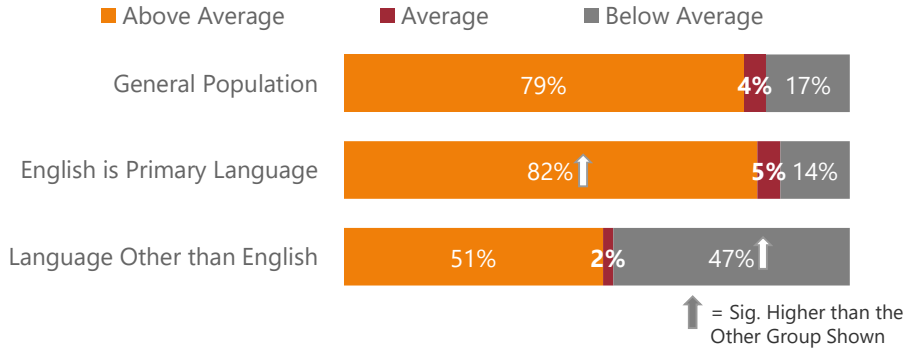
…are *less likely* to feel confident using devices to access the internet (76%, vs. 91%) or to believe they are "very good" with technology and the internet (59%, vs. 81%).

	Gen Pop	English is Primary	Other than English
Have ANY barriers to internet use	23%	20%	48% ⬆
Internet service is too expensive *(among those with any barriers)*	57%	53%	71% ⬆
Rely on others somewhat or a great deal to navigate/access the internet	13%	11%	33% ⬆
"I am very confident using (devices) to access the internet" (Agreement)	90%	91%	76% ⬇
"I am very good with technology and the internet" (Agreement)	79%	81%	59% ⬇

Subgroup Analysis: Primary Language not English & Living at or below 135% on Federal Poverty Level:
These residents are significantly more likely to report barriers (65%), have below average skills (73%), and are less likely to believe technology and the internet is important (43%) compared to higher income residents who also are in primary non-English HHs.

Digital Skills

Those whose primary language is other than English are *less likely* to feel comfortable doing basic technological tasks, like verifying sources of information found online and solving a problem they have with a device or service using online help.



Importance and Impact of Internet/Technology

Those whose primary language is other than English are *less likely* to rate technology and the internet as "very" or "extremely important" to their lives…

Rate technology and the internet very/extremely important…
General Population **84%**
English is Primary Language **86%**
Language Other than English **66%** ⬇

… but are *more likely* to believe technology is beneficial or positive to society.

Rate technology and the internet mostly/totally beneficial…
General Population **42%**
English is Primary Language **40%**
Language Other than English **65%** ⬆

Housing Situation Summary

(Home Owners vs. Renters vs. Insecurely Housed) and (Single Family Home vs. Multi-Dwelling Unit (MDU))

Summary Highlights: Owners, Renters, Insecurely Housed

Home owners are the most likely to be connected and using high speed internet often throughout their household (HH). Renters are also connected but run into barriers and lack of skills (though most use the internet to great extent). Housing insecure residents are the least connected, reliant on cellular data and others for internet access and usage more than other groups, though many have the skills needed to conduct tasks online.

Internet / Device Access

Home owners…

… are *more likely* to have internet access in the home than renters or the insecurely housed (98%, vs. 94% and 65%).

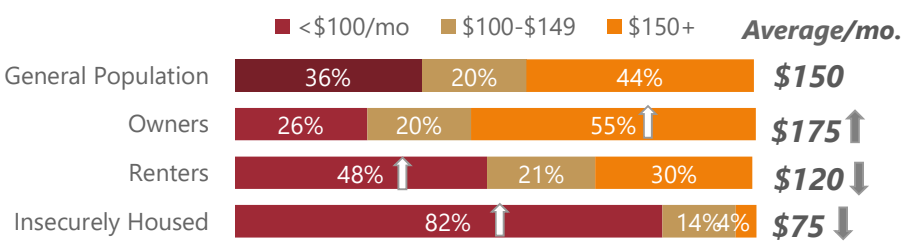
… are *more likely* to have a fixed broadband subscription (94%), while the insecurely housed are *more likely* to rely on cellular data plan only (48%) or to have free access (20%).

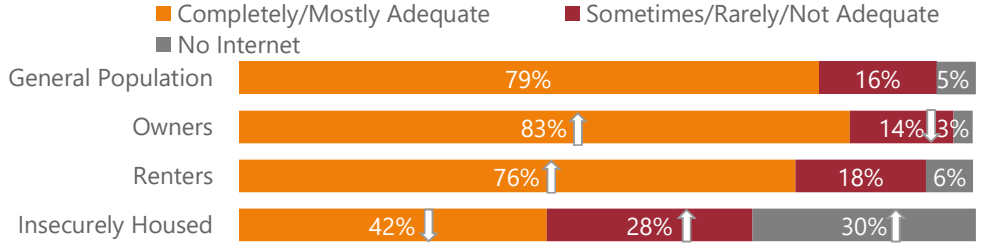
… *own more* types of devices, on average, than other groups (3.6 types of devices, vs. 3.2 among renters and 2.4 among insecurely housed).

Devices and Subscriptions	Gen Pop	Owners	Renters	Insecurely Housed
Have internet access at home	**95%**	**98%↑**	**94%**	**65%↓**
With any broadband subscription	92%	96%↑	89%	52%↓
With fixed broadband subscription	88%	94%↑	84%	5%↓
Cellular data plan with no other type of internet subscription	4%	2%	5%↑	48%↑
Without an internet subscription	6%	3%	9%↑	43%↑
Average number of types of devices in HH	**3.4**	**3.6↑**	**3.2**	**2.4↓**
Average number of types of devices owned in HH	3.3	3.5↑	3.1	2.3↓

Internet Spend and Adequacy

Home owners spend 45% *more per month* on internet related services than renters, and nearly two and a half times more than the insecurely housed. Renters also spend significantly more on internet services than the insecurely housed. Home owners and renters are *more likely* than the insecurely housed to describe their internet connection as adequate, with home owners giving the highest ratings to this measure.





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↓ = Sig. Lower than at Least One Other Group Shown

Summary Highlights: Owners, Renters, Insecurely Housed

Barriers to Internet Use

The insecurely housed are *most likely* to have internet barriers preventing them from using the internet more. Renters follow behind and owners are the least likely to have barriers. Price is the largest barrier for all three groups.

	Gen Pop	Owners	Renters	Insecurely Housed
Have ANY barriers to internet use	23%	15% ↓	27%	59% ↑
Internet service is too expensive (among those with any barriers	57%	47% ↓	59%	68%

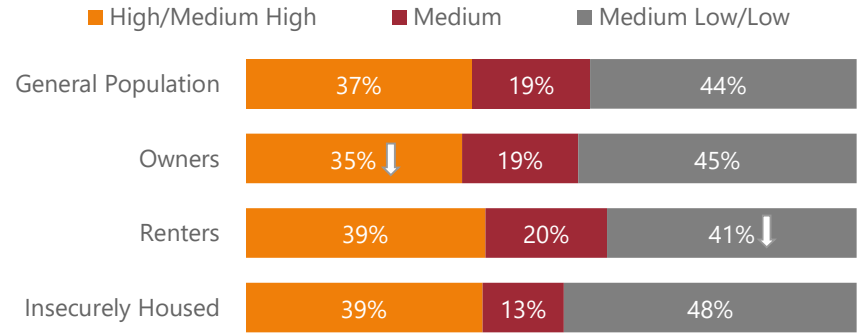
Impact of Internet/Technology on Themselves and Society

The insecurely housed are *more likely* to believe the effect of the internet and technology is totally beneficial to themselves and their children, and to society, compared to renters and owners.

Impact is TOTALLY beneficial…	*to you/your family…*	*to society*
General Population	**19%**	**9%**
Owners	**18%**	**8%**
Renters	**19%**	**9%**
Insecurely Housed	**46%** ↑	**34%** ↑

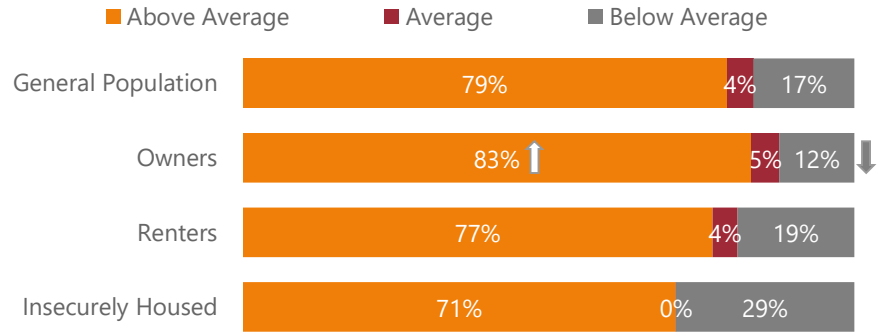
Online Activities

Renters and those that are insecurely housed are *less likely* than owners to go online often to perform common tasks, such as online banking services, researching and buying online, and working from home.



Digital Skills

Home owners are *more likely* to have most basic digital skills compared to renters and those who are insecurely housed, including sending/opening a photo and buying items or services online.



↑ = Sig. Higher than at Least One Other Group Shown ↓ = Sig. Lower than at Least One Other Group Shown

Summary Highlights: Single Family Residence vs. MDU

Seattle residents largely have the same likelihood of having home internet connections regardless of the type of home they live in. However, those living in MDUs (especially larger MDUs) are less likely to have fixed broadband subscriptions, have fewer types of devices, have less than adequate internet, and are more likely to be impacted by barriers that limit internet usage.

Internet / Device Access

Regardless of single family home or MDU, similar proportions have internet access at home.

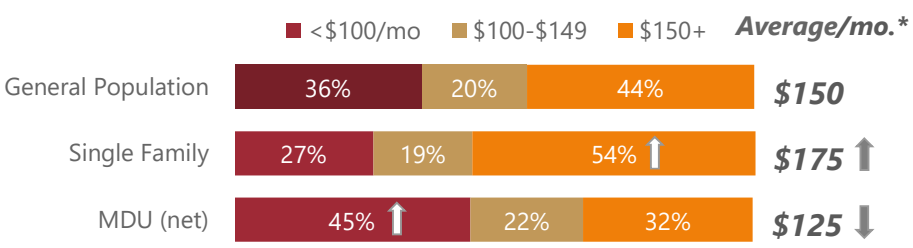
Single family dwellers are *more likely* to have fixed broadband subscriptions (91%, vs. 86% MDUs), while MDUs are more likely to rely on cellular data plans (5%, vs. 3% single family) and not other subscriptions (4%, vs 2%).

Those residing in single family homes or smaller MDUs (1-10 units) *own more* types of devices, on average (3.6 and 3.2).

Devices and Subscriptions	Gen Pop	Single Family	MDU (net)	1-10 Units	11-50 Units	51+ Units
Have internet access at home	**95%**	**96%**	**95%**	**96%**	**94%**	**96%**
With any broadband subscription	92%	95% ↑	90%	93%	90%	89%
With fixed broadband subscription	88%	91% ↑	86%	90% ↑	85%	84%
Cellular data plan with no other type of internet subscription	4%	3%	5% ↑	3%	5%	5%
Without an internet subscription	6%	4% ↓	7%	6%	8%	8%
Average number of types of devices in HH	**3.4**	**3.6** ↑	**3.2**	**3.5** ↑	**3.1**	**3.2**
Average number of types of devices owned in HH	3.3	3.5 ↑	3.1	3.4 ↑	3.0	3.1

Internet Spend and Adequacy

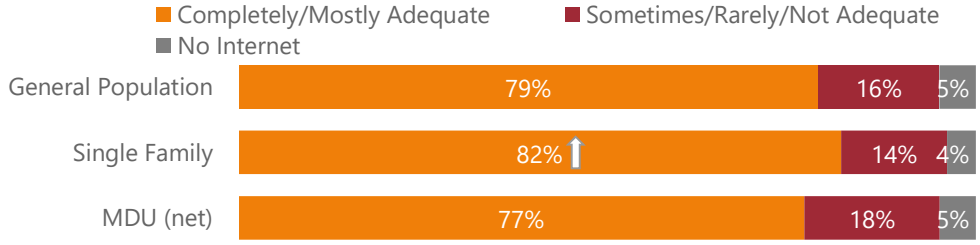
Those residing in single family home spend about 40% *more per month* on internet related services compared to those living in MDUs (regardless of the number of units). Among MDU residents, those in smaller MDUs (1-10 units) pay the *most per month*. Most residents have adequate internet access, but those living in single family homes are more likely to have adequate internet service.



*Average/mo. by MDU – 1-10 Units: $143, 11-50 Units: $122, 50+ Units: $114

↑ = Sig. Higher than at Least One Other Group Shown

↓ = Sig. Lower than at Least One Other Group Shown



Summary Highlights: Single Family Residence vs. MDU

Barriers to Internet Use

Residents of MDUs are *more likely* to have barriers to using the internet more, especially those who live in buildings with more units.

While price is the largest barrier to use among all Seattle residents, it is more of a factor for those residing in MDUs.

Those in single family homes are *more likely* to cite not having an interest or a need to use the internet.

	Gen Pop	Single Family	MDU (net)	1-10 Units	11-50 Units	51+ Units
Have ANY barriers to internet use	23%	18%	23%↑	20%	24%	25%↑
Among those with any barriers…						
Internet service is too expensive	57%	50%	63%↑	61%	65%	63%
Not interested/don't need or want to use	18%	27%↑	14%	13%	14%	15%

Interest in Training Topics

Residents of single family homes are *more likely* to be interested in training for protecting themselves and their data online, while those living in MDUs (especially smaller MDUs) are more likely to be interested in training for using advanced software. Those living in larger MDUs are *least likely* to want to learn to create their own content.

	Gen Pop	Single Family	MDU (net)	1-10 Units	11-50 Units	51+ Units
Protecting yourself and your data online	71%	74%↑	69%	71%	70%	68%
Using advanced software (e.g. coding, design, video editing)	54%	52%	57%↑	62%↑	61%↑	49%
Learning to create, edit, and publish my own work	47%	45%	48%	51%↑	52%	41%↓

↑ = Sig. Higher than at Least One Other Group Shown ↓ = Sig. Lower than at Least One Other Group Shown

Impact of Internet/Technology on Themselves and Society

Those living in medium to larger MDUs (11 or more units) are *more likely* to believe technology is beneficial to themselves and their children, or to society in general.

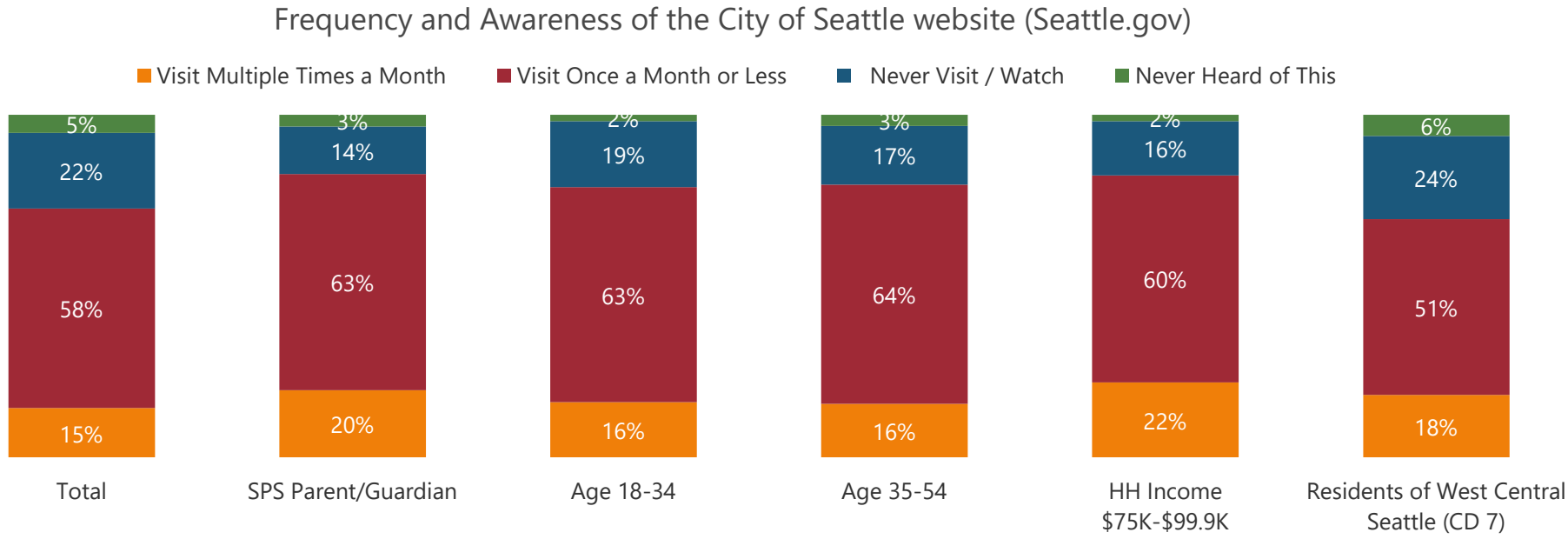
Impact is TOTALLY or MOSTLY beneficial….	***to you/your family…***	***to society***
General Population	**68%**	**42%**
Single Family	**66%**	**40%**
MDU (net)	**70%**	**44%**
1 – 10 Units	**61%**	**35%**
11 – 50 Units	**76%↑**	**47%↑**
51 or more Units	**72%↑**	**48%↑**

Civic Engagement

- Frequency and Awareness of the City of Seattle website (Seattle.gov)
- Frequency and Awareness of the Seattle Channel (Cable 21 or Online)
- Participation in Community Groups
- Communication Preferences with Community Groups

Nearly three quarters (73%) have visited Seattle.gov (up from 67% in 2013); but few visit often (15% visit multiple times per month, up from 8% from 2013).

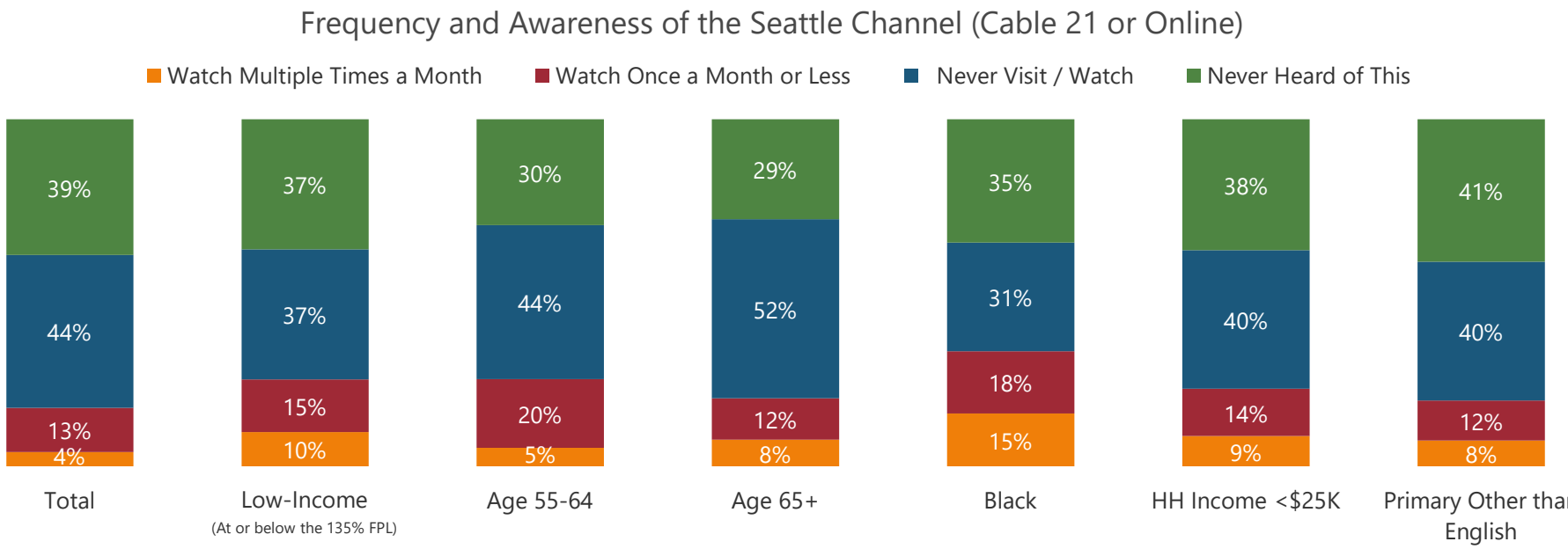
Segments that over index for multiple visits a month include SPS parents/guardians, those under age 55, those with household incomes between $75K and $100K, and residents of Council District 7.



Base: Total Answering – Total (n4213), SPS Parents/Guardians (n665), Age 18-34 (n624), Age 35-54 (n1497), HH Income $75K-$99.9K (n430), CD7 Resident (n465). Individual Weight.
Q23-1 - How often do you visit - City of Seattle website (seattle.gov)?

Only one in six have ever watched the Seattle Channel (down significantly from 51% in 2013), and even fewer watch often (4% watch multiple times per month, down from 11% in 2013).

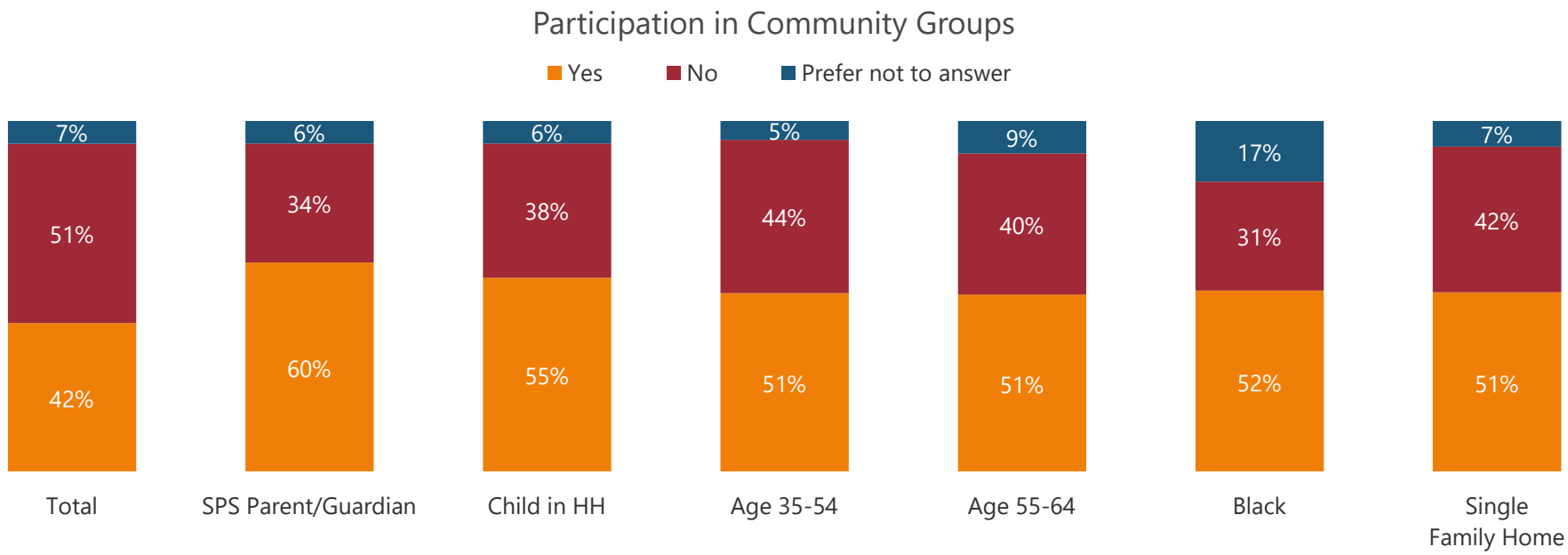
Segments that over index for watching multiple times a month include low income households (HHs) (135% FPL), those age 55 and older, Black residents, and those whose primary language is other than English.



Base: Total Answering – Total (n4216), Low Income (n388), Age 55-64 (n634), Age 65+ (n862), Black (n157), HH Income <$25K (n578), Primary Language Other than English (n221). Individual Weight.
Q23-2- How often do you watch - The Seattle Channel on Cable 21 or online at seattlechannel.org?

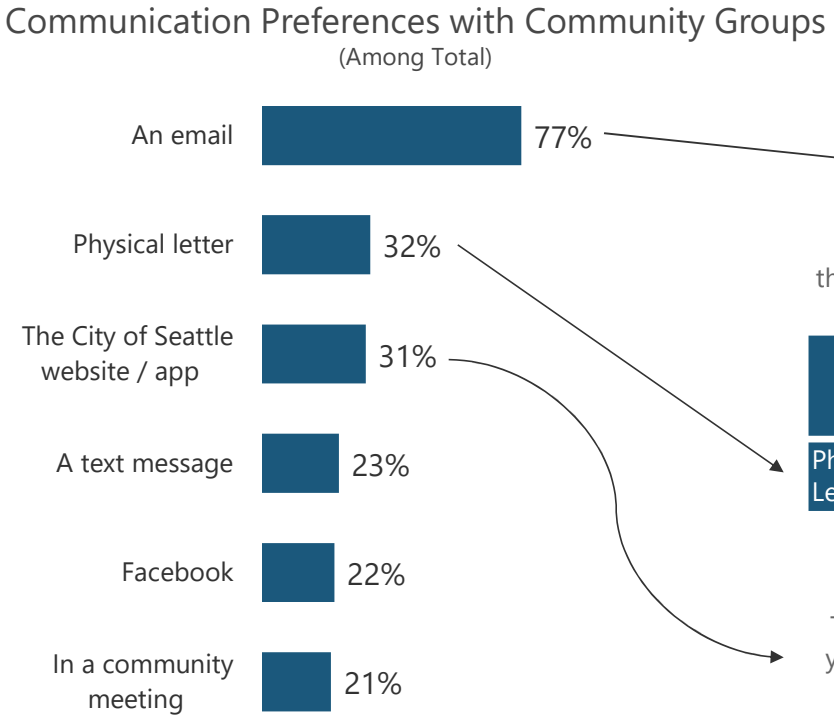
Around two in five residents (42%) are part of a community group.

Segments that over index for community group participation include SPS parents/guardians, those with a child in the home, the middle aged (ages 35-64), Black residents, and those living in a single family home.



Base: Total Answering – Total (n4086), SPS Parents/Guardians (n666), Child in Household (n1417), Age 35-54 (n1478), Age 55-64 (n606), Black (n144), Live in Single Family Home (n2374). Individual Weight.
Q24 - Do you participate in any type of community group, like a neighborhood association, block watch, school, religious group, or other?

When it comes to communicating with a group or the city, electronic communication is more preferred than physical communication, with over three quarters mentioning email as a preferred method.



Emails are *preferred less* by those whose primary language is other than English, those with household income under $25K, Black residents, those living in SHA buildings, and those with less than a high school education.

	Total	Other than English	Income <$25K	Black	SHA Housing	Less than High School
Email	**77%**	54%	53%	51%	49%	30%

Physical letters are *preferred more* by those living in SHA buildings, older adults, Asian residents, those with less than a high school education, those with household income under $25K, residents of District 2, living alone and whose primary language other than English.

	Total	SHA Housing	Age 65+	Asian	Income <$25K	Less than High School	CD#2 (South Seattle)	Living Alone	Other than English
Physical Letters	**32%**	50%	47%	42%	43%	40%	39%	39%	39%

The city website/app is *preferred more* by younger adults, high income earners, and college graduates.

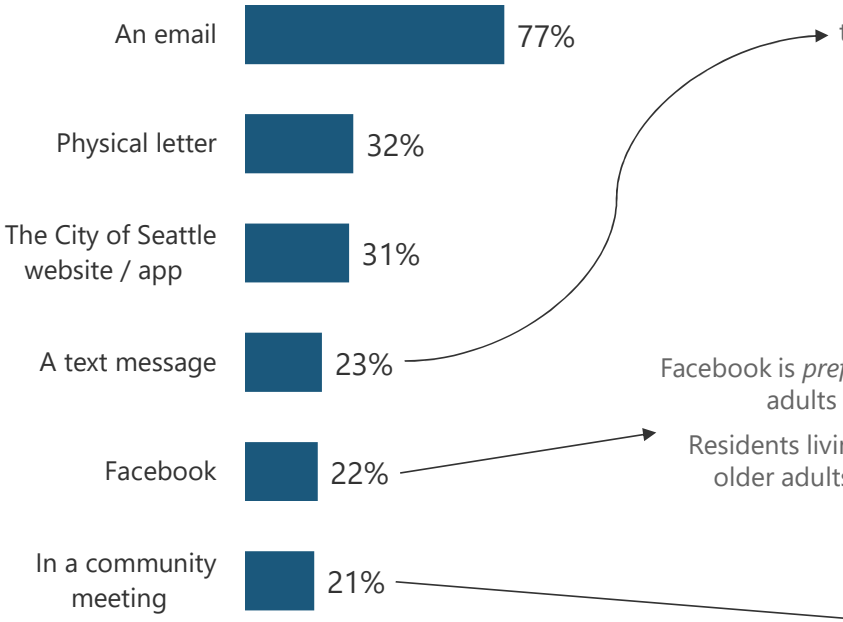
	Total	Income $150K+	Age 18-34	College Grad
City Website/App	**31%**	39%	37%	36%

Base: Total Answering – Total (n4081), SHA Buildings (n241), Age 18-34 (n605), Age 65+ (n817), Asian (n379), Black (n150), HH Income <$25K (n553), HH Income $150K+ (n881), Less than HS Education (n59), College graduate (n2964), Primary Language Other than English (n210), Council District 2 (n572, Living Alone (n1054). Individual Weight. Q25 - What are your preferred methods of communication when it comes to receiving information or giving an opinion to a community group or to the City of Seattle?

Text messages, Facebook, and community meetings are less popular ways of communicating with the City and community groups; however, each are still preferred by about one out of five residents.

Communication Preferences with Community Groups (cont'd.)

(Among Total)



A text message is *preferred more* by residents whose are Mixed-race or Hispanic, those with less than a college degree, those with household incomes under $25K, those renting their home, and residents living in MDUs (multi-dwelling units)

	Total	Mixed race	Hispanic	HS Grad, Some College	Income <$25K	Rent/ Other Housing	Living in MDU
Text Message	**23%**	33%	32%	29%	29%	27%	25%

Facebook is *preferred more* by younger adults and Hispanic residents.

Residents living in SHA housing, and older adults are *less likely to prefer* Facebook.

	Total	Hispanic	Age 18-34	SHA Housing	Age 65+
Facebook	**22%**	31%	27%	12%	9%

A community meeting is *preferred more* by older adults and lower income earners.

	Total	Age 65+	Income <$25K
Community Meeting	**21%**	28%	28%

Base: Total Answering – Total (n4081), Mixed race (n142), Hispanic (n161), High School Grad/Some College (n939), Household Income less than $25,000 (n553), Rent/Other Housing (n1493), Living in MDU (1446), Age 18-34 (n605), Age 65+ (n817). Living alone (n1054), SHA Housing (n241).
Individual Weight. Q25 - What are your preferred methods of communication when it comes to receiving information or giving an opinion to a community group or to the City of Seattle?

Council District Comparisons

Demographics

The gender mix of residents and the average number of years they have resided in Seattle did not vary significantly across Council Districts.

The age of respondents is similar across Districts, but some differences include Central Seattle (CD 3) being younger and West Central Seattle (CD 7) being older.

	Total	Council District 1	Council District 2	Council District 3	Council District 4	Council District 5	Council District 6	Council District 7
Respondent Age								
18-34 years old	39%	31%	41%	52% ⇧	44%	35%	42%	31% ⇩
35-54 years old	33%	38%	27%	27%	34%	33%	35%	35%
55-64 years old	13%	16%	16%	10% ⇩	12%	15%	10% ⇩	16%
65+ years old	14%	15%	17%	12%	11% ⇩	17%	13%	19% ⇧
Average	44.5	46.7 ⇧	45.1	40.9 ⇩	41.9 ⇩	46.4	43.5	47.2 ⇧
Gender								
Male	50%	48%	51%	50%	50%	47%	50%	51%
Female	49%	52%	47%	48%	49%	52%	50%	48%
Gender non-conforming*	1%	1%	2%	1%	1%	1%	<1%	1%
Average Years Residing in Seattle								
Average	19.4	22.1	22.2	15.9	17.9	20.3	19.6	19.4

Individual Weight
Age – Base: Total Answering – Total (n3657), CD 1 (n532), CD 2 (n514), CD 3 (n447), CD 4 (n499), CD 5 (n667), CD 6 (n555), CD 7 (n407)
Q28 (Gender) – Base: Total Answering – Total (n4059), CD 1 (n601), CD 2 (n573), CD 3 (n493), CD 4 (n551), CD 5 (n727), CD 6 (n616), CD 7 (n450)
*Gender non-conforming includes gender non-conforming/genderqueer/non-binary
Q30 (Years in Seattle) – Base: Total Answering – Total (n4256), CD 1 (n625), CD 2 (n600), CD 3 (n521), CD 4 (n575), CD 5 (n768), CD 6 (n644), CD 7 (n468)

⇧ = Sig. Higher than Total (General Population) ⇩ = Sig. Lower than Total (General Population)

The proportion of unemployed and households with disabilities is highest in West Central Seattle (CD 7). South Seattle (CD 2) residents are the more likely than others to be Asian or Black, and those in Central Seattle (CD 3) are more likely than others to be Hispanic. Residents in NW Seattle (CD 6) are most likely to be white.

Residents of Northeast and Northwest Seattle (CDs 4 and 6) are more likely to have completed higher levels of education, while West and North Seattle (CDs 2 and 5) have more residents who completed high school or less.

	Total	Council District 1	Council District 2	Council District 3	Council District 4	Council District 5	Council District 6	Council District 7
Race/Ethnicity								
White	66%	72%↑	41%↓	64%	70%	61%	81%↑	74%↑
Asian	14%	6%↓	29%↑	13%	15%	17%	8%↓	11%
Black	7%	8%	19%↑	7%	2%↓	7%	2%↓	3%↓
Hispanic	7%	7%	4%↓	10%↑	6%	7%	5%	5%
Mixed	5%	6%	6%	5%	5%	7%	4%	5%
Other*	1%	1%	2%	1%	1%	1%	<1%	1%
Employment Status								
Employed (net)	73%	77%	71%	76%	77%	72%	79%	67%↓
Unemployed (net)	21%	21%	22%	16%	17%	20%	19%	28%↑
Disabled	6%	6%	7%	8%	4%	7%	3%	9%
Student	6%	2%↓	6%	9%↑	12%↑	7%	4%	2%↓
Education Completed								
HS Grad/Some College or Less	39%	50%↑	55%↑	35%	25%↓	48%↑	26%↓	33%↑
4-year degree	32%	28%	27%	32%	36%	30%↑	39%↑	34%
Post grad (net)	29%	22%↓	17%↓	33%	39%↑	22%↓	35%	33%

↑ = Sig. Higher than Total (General Population) ↓ = Sig. Lower than Total (General Population)

Individual Weight
Ethnicity – Base: Total Answering – Total (n4008), CD 1 (n591), CD 2 (n566), CD 3 (n493), CD 4 (n535), CD 5 (n725), CD 6 (n608), CD 7 (n440)
*Other includes American Indian or Alaska Native, Native Hawaiian/Pacific Islander, Other
Q35 (Employment Status) – Base: Total Answering – Total (n4263), CD 1 (n629), CD 2 (n605), CD 3 (n522), CD 4 (n573), CD 5 (n767), CD 6 (n642), CD 7 (n471)
Q38 (Education) – Base: Total Answering – Total (n4154), CD 1 (n609), CD 2 (n576), CD 3 (n506), CD 4 (n567), CD 5 (n746), CD 6 (n633), CD 7 (n464)

West Central Seattle (CD 7) has a higher proportion of single person households, while Northeast and Northwest Seattle (CDs 4 and 6) have a higher proportion of households with four or more members.

West Seattle and North Seattle (CDs 1 and 5) are more likely to have members age 65 years or older, while Central Seattle (CD 3) is the most likely to have members under age 35.

	Total	Council District 1	Council District 2	Council District 3	Council District 4	Council District 5	Council District 6	Council District 7
Household Size								
1	34%	30%	31%	34%	32%	36%	27%⬇	41%⬆
2	43%	49%⬆	43%	48%	43%	43%	44%	37%⬇
3	11%	11%	13%	10%	10%	10%	13%	10%
4+	12%	10%	13%	8% ⬇	15%	11%	15%	12%
Average	2.1	2.1	2.2	2.0	2.2	2.0	2.2⬆	2.0
Household Age (at least one member in each range)								
1+ member age 18-34 years old	30%	21%⬇	32%	40%⬆	33%	25%⬇	32%	24%⬇
1+ member age 35-54 years old	39%	38%	39%	39%	39%	32%⬇	42%	38%
1+ member age 55-64 years old	21%	25%	27%⬆	17%⬇	20%	27%⬆	19%	19%
1+ member age 65+ years old	30%	37%⬆	35%	20%⬇	25%⬇	41%⬆	29%	31%

⬆ = Sig. Higher than Total (General Population) ⬇ = Sig. Lower than Total (General Population)

Base: Total Answering – Total (n4315), CD 1 (n632), CD 2 (n610), CD 3 (n527), CD 4 (n582), CD 5 (n775), CD 6 (n649), CD 7 (n476)
Household Size
Base: Total Answering – Total (n3704), CD 1 (n541), CD 2 (n521), CD 3 (n448), CD 4 (n511), CD 5 (n675), CD 6 (n562), CD 7 (n410)
Household Age

West Seattle (CD 1) stands apart with fewer having children in the household.

West Central Seattle (CD 7) has a higher proportion of children attending Seattle Public Schools, while South Seattle (CD 2) has a lower proportion in Seattle Public Schools. Attendance at private schools is similar across Districts.

Northwest Seattle (CD 6) has a higher proportion of residents who live with a spouse or partner. West Central Seattle (CD 7) has more residents who live alone. Those in South and North Seattle (CDs 2 and 5) are more likely to have adult children in the household.

	Total	Council District 1	Council District 2	Council District 3	Council District 4	Council District 5	Council District 6	Council District 7
Number of Children in Household								
None	76%	79%	77%	78%	72%	80%	71% ↓	75%
One or more	24%	21%	23%	22%	28%	20%	29% ↑	25%
School Attended (among those with Children in Household)								
Seattle Pub. Schools	59%	56%	45% ↓	56%	62%	43% ↓	61%	72% ↑
Other Pub. School	11%	13%	16%	3% ↓	14%	20% ↑	8% ↓	6% ↓
Private School	25%	27%	21%	29%	26%	27%	23%	26%
Homeschool/ Online	2%	1%	4%	3%	1%	5%	2% ↓	1%
None at this time	19%	18%	27% ↑	22%	18%	24%	20%	13% ↓
Relationship with Household Adults								
Spouse / partner	48%	52%	46%	48%	50%	47%	55% ↑	44%
Adult child	6%	7%	9% ↑	3% ↓	6%	8%	6%	4% ↓
Other	9%	8%	15% ↑	9%	10%	8%	10%	3%
None given	7%	7%	8%	7%	6%	8%	6%	8%
Live alone	36%	33%	33%	37%	35%	38%	30% ↓	44% ↑

↑ = Sig. Higher than Total (General Population) ↓ = Sig. Lower than Total (General Population)

Q27A (Children in HH) – Base: Total Answering – Total (n3745), CD 1 (n561), CD 2 (n537), CD 3 (n423), CD 4 (n507), CD 5 (n673), CD 6 (n573), CD 7 (n412)
Q27B (School Attended) – Base: Children in HH – Total (n1326), CD 1 (n206), CD 2 (n186), CD 3 (n105), CD 4 (n199), CD 5 (n257), CD 6 (n243), CD 7 (n120)
Q26C (Relationship with HH Adults) – Base: Total Answering – Total (n4315), CD 1 (n632), CD 2 (n610), CD 3 (n527), CD 4 (n582), CD 5 (n775), CD 6 (n649), CD 7 (n476)

NE, NW, and West Central Seattle (CDs 4, 6 and 7) have a higher percentage of residents with household incomes of $150,000 or more.

In line with the higher household income, those living in West, NE and NW Seattle (CDs 1, 4 and 6) have a smaller percentage of their population living at or below 135% of the federal poverty level, while South Seattle (CD 2) is more likely to have members living at this level.

South and North Seattle (CDs 2 and 5) are more likely to have members with an impairment that makes it difficult to use technology or the internet. NE and NW Seattle (CDs 4 and 6) have the fewest members with such an impairment.

	Total	Council District 1	Council District 2	Council District 3	Council District 4	Council District 5	Council District 6	Council District 7
Household Income								
Less than $25,000	17%	11%⬇	19%	17%	11%⬇	21%⬆	9%⬇	19%
$25,000 - $49,999	18%	19%	27%⬆	16%	19%	26%⬆	14%⬇	10%⬇
$50,000 - $74,999	15%	21%⬆	16%	13%⬇	18%	15%	15%	15%
$75,000 - $99,999	12%	15%⬆	10%	13%	11%	13%	13%	11%
$100,000 - $149,999	17%	17%	16%	19%	17%	14%	20%	17%
$150,000 or more	21%	16%⬇	12%⬇	23%	25%⬆	11%⬇	29%⬆	28%⬆
Average	$90.0K	$87.1K	$74.3K⬇	$94.6K	$98.1K⬆	$72.0K⬇	$107.8K⬆	$100.2K⬆
Households Living at or below 135% of the Federal Poverty Level								
At or Below 135%	11%	7%⬇	16%⬆	11%	5%⬇	12%	5%⬇	11%
Above 135%	89%	93%	84%	89%	95%	88%	95%	89%
Household Member with Condition/Disability that makes it Difficult to Use Technology/Internet								
Any Impairment (net)	10%	11%	13%	9%	5%⬇	12%	7%⬇	9%
None	90%	89%	87%	91%	95%	88%	93%	91%

⬆ = Sig. Higher than Total (General Population) ⬇ = Sig. Lower than Total (General Population)

Household Income – Base: Total Answering – Total (n3616), CD 1 (n535), CD 2 (n523), CD 3 (n441), CD 4 (n479), CD 5 (n653), CD 6 (n547), CD 7 (n391)
Poverty Guidelines – Base: Total Answering – Total (n4315), CD 1 (n632), CD 2 (n610), CD 3 (n527), CD 4 (n582), CD 5 (n775), CD 6 (n649), CD 7 (n476)
Q37 (Impairment) – Base: Total Answering – Total (n4223), CD 1 (n619), CD 2 (n592), CD 3 (n518), CD 4 (n574), CD 5 (n760), CD 6 (n637), CD 7 (n466)

Those in West, South and NW Seattle (CDs 1, 2 and 6) are more likely to live in single family homes. Those in Central Seattle (CDs 3 and 7) are more likely to reside in multi-unit dwellings and have a higher proportion of larger unit buildings.

South and North Seattle (CDs 2 and 5) are more likely to have members that speak a language other than English at home.

	Total	Council District 1	Council District 2	Council District 3	Council District 4	Council District 5	Council District 6	Council District 7
Type of Dwelling								
Single family	50%	66%↑	64%↑	34%↓	54%	52%	62%↑	31%↓
Multi- family	50%	34%↓	36%↓	66%↑	46%	48%	38%↓	69%↑
Number of Units (among Multi-Family Dwellers)								
<6 units	20%	26%	27%	14%↓	25%↑	18%	35%↑	13%↓
7-20 units	20%	25%	14%↓	21%	28%↑	19%	32%↑	13%↓
21+ units	60%	48%↓	59%	65%↑	47%↓	63%	34%↓	73%↑
Housing Situation								
Own	54%	69%↑	60%↑	43%↓	56%	57%	63%↑	45%↓
Rent	43%	30%↓	39%	56%↑	43%	41%	36%↓	54%↑
Other	3%	1%	1%	1%	1%	2%	1%	1%
Primary Language Spoken at Home								
English	95%	96%	87%↓	97%↑	96%	93%↓	99%↑	96%
Any Language other than English	5%	4%	13%↑	3%↓	4%	7%↑	1%↓	4%

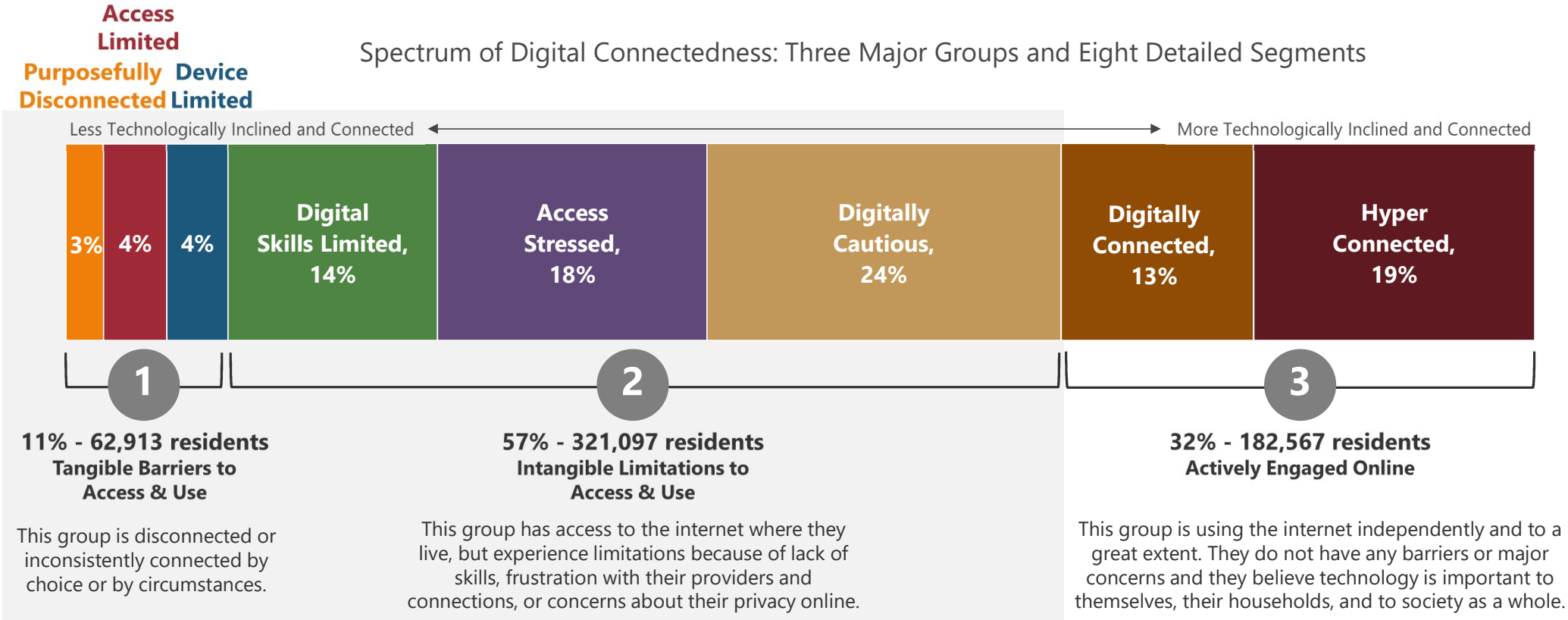
↑ = Sig. Higher than Total (General Population) ↓ = Sig. Lower than Total (General Population)

Q33 (Housing Situation) Base: Total Answering – Total (n4220), CD 1 (n619), CD 2 (n597), CD 3 (n517), CD 4 (n569), CD 5 (n756), CD 6 (n633), CD 7 (n469)
Q34A (Type of Dwelling) – Base: Total Answering – Total (n4182), CD 1 (n620), CD 2 (n596), CD 3 (n513), CD 4 (n569), CD 5 (n752), CD 6 (n632), CD 7 (n465)
Q34B (# of Units) – Base: Multi-Unit Residence – Total (n1543), CD 1 (n169), CD 2 (n163), CD 3 (n279), CD 4 (n203), CD 5 (n261), CD 6 (n189), CD 7 (n273)
Q36 (Language at Home) – Base: Total Answering – Total (n4225), CD 1 (n625), CD 2 (n597), CD 3 (n518), CD 4 (n569), CD 5 (n757), CD 6 (n637), CD 7 (n465)

Segmentation Overview

Eleven percent (11%) of residents have a tangible barrier that restricts digital connectedness.

An additional 57% of the population has at least one factor (which may be financial, skill based, or attitudinal) that limits digital adoption to some degree.



Base: City of Seattle Residents age 18 and older (566,577). Individual Weight.

Each segment has a unique identity based on how connected they are to the internet and devices, and on their digital skills and confidence level.

Spectrum of Digital Connectedness: Segment Descriptions

Less Technologically Inclined and Connected ← → More Technologically Inclined and Connected

Purposefully Disconnected	Access Limited	Device Limited	Digital Skills Limited	Access Stressed	Digitally Cautious	Digitally Connected	Hyper Connected
3% 14,373 residents	**4%** 24,766 residents	**4%** 23,773 residents	**14%** 80,708 residents	**18%** 103,620 residents	**24%** 136,769 residents	**13%** 74,398 residents	**19%** 108,169 residents
Lack internet at home because they "don't need or want the internet," "don't trust the internet," or "don't believe it is important or useful."	Believe the internet is important but do not have access where they live or rely on limited access including limited cellular data plans or free/public internet only.	Have access to the internet where they live, but use borrowed devices or may only own one device in the household. Technology/the internet is not central to their lives.	Lack necessary skills to access and use the internet independently and confidently.	Have access and the skills needed, but are frustrated by the speed and cost of their connection, as well as the service from their provider.	Technologically savvy and adept, with adequate connections, but affected by worry about privacy/data security and lack of trust of internet companies.	Have adequate access and the skills needed to actively utilize the internet. They also have all the devices and appropriate connections to reliably use the internet every day.	Use the internet independently. Technology is "extremely important" to them. They have faster connections, unlimited data plans, and use a variety of devices throughout their daily lives.

129,247 are limited by barriers related to access, devices, or skills

103,620 are limited by cost concerns

136,769 are impacted by data security concerns

Base: City of Seattle Residents age 18 and older (566,577). Individual Weight.

Segment Classification Criteria
(Survey Questions Applied to Determine Segments)

Purposefully Disconnected
"Don't need or want the internet (as a reason for why they are not using the internet)" OR "Don't trust the internet (as a reason for why they are not using the internet)" OR "Don't have internet at home" AND "Believe internet is not important or useful at all"

Access Limited
Not any of the previous segment AND "Don't have internet at home" AND "Believe it is at least somewhat important/useful" OR "Rely on a limited/prepaid cell phone plan ONLY" OR "Rely on free/ public/ or building-supplied internet ONLY"

Device Limited
Not any of the previous segments AND "Only have a smartphone, no other devices" OR "Are borrowing their device (do not own one)"

Digital Skills Limited
Not any of the previous segments AND "Rely on others to use internet at least sometimes (but they own devices and have internet service at home, so access is not the reason for the reliance)" OR "Are unable to do three or more internet related tasks online" OR "Are not confident using the internet" OR agree that they are "Not very good with technology" OR "Have a hard time learning how to use technology"

Less Technologically Inclined and Connected → More Technologically Inclined and Connected

Access Stressed
Not any of the previous segments AND "Have inadequate internet at home to do all the things they need to do" OR "Worry about affording new technology as it comes out" OR "Believe internet service is too expensive (as a reason they do not use it more)" OR "Believe internet is too slow (as a reason they do not use it more)" OR "Believe service plans are confusing (as a reason they do not use it more)"

Digitally Cautious
Not any of the previous segments AND "Believe internet companies are hard to trust" OR "Worry about online privacy" OR "Are not confident doing all business online" OR "Believe technology is at least somewhat harmful to themselves, their families or society"

Digitally Connected
Not any of the previous segments AND "Technology is somewhat important to them"

Hyper Connected
Not any of the previous segments AND "Technology is extremely important to them"

Barriers and Potential Strategies for Segments

- Access Limited
- Device Limited
- Digital Skills Limited
- Access Stressed
- Digitally Cautious

Access Limited

Size: 1 out of 25 (4%)

Who are they? Access Limited individuals want to have the internet, but either do not have access where they live (54%), rely on free access only (30%), or rely on limited cellular data plans (16%).

Demographics: Three out of five are women and the majority live alone. Most are renters and seven out of ten live in multi-dwelling units (MDUs). One out of three are living in a household where they or another member is impacted by a disability that makes it difficult to use technology. The majority of this segment are non-white, and this is a low income segment (nearly seven out of ten have household annual incomes of less than $25,000).

What are their barriers? They believe internet service is too expensive and this is the main reason why they do not have the internet where they live and do not use the internet more (if they have internet). Around one out of four are aware of programs like Comcast Internet and Century Link Internet Basics, but few have used them (Lifeline Phone Discount is the most used at 8%). More than half (53%) visit libraries or community centers to access the internet. For those that do have internet, slow speeds are a major frustration that keeps them from doing all the things they need to do online.

Potential Strategies: Interventions to address needs for less expensive and faster internet would move most past the "Device Limited" segment (the majority are not facing device limitations) and into "Digital Skills Limited" or "Access Stressed" where they would need a different intervention strategy to increase their digital engagement.

Where else do they fit?

Cross Segment Comparison: Access Limited

Device Limited	Digital Skills Limited	Access Stressed	Digitally Cautious
36%	58%	62%	54%

Device Limited

Size: 1 out of 25 (4%)

Who are they? Device Limited individuals all own ONE or ZERO types of devices. For those that own no devices, they are all using borrowed devices (10% of this segment is given or borrows all devices).

Demographics: Most live alone and few have children in the home. More than half are renters and two thirds live in MDUs. They tend to be older – three out of five are age 60 or older. Just over half of this segment are non-white, and they are more than twice as likely than the average resident to not speak English as their primary language. Half of households incomes are less than $25K.

Access trends: While most (86%) use their device to access the internet at home, more than a third (37%) use their devices to access the internet at a library or other public/free area). About one-in-four are aware of low income programs with 9% currently using Comcast Internet Essentials.

What are their barriers? They want lower cost internet at home, but many also lack the skills to use the internet fully. Many are worried about how they will continue to afford devices and keep up with the changing technological world. They do not see themselves as confident or savvy technology consumers. Their use of internet centers around basic needs (sending/reading email).

Potential Strategies: Simply providing devices is not a long term solution for this group as two out of three (68%) would still be impacted by their lack of skills. Focus should be placed on improving their computer skills, particularly on increasing their confidence in technology and device purchase and adoption as well as other digital skill building programs. Increasing awareness of low cost internet services for the limited income is also an opportunity for this group.

Where else do they fit?

Cross Segment Comparison: Device Limited

- **Digital Skills Limited** 68%
- **Access Stressed** 56%
- **Digitally Cautious** 58%

Digital Skills Limited

Size: 1 out of 7 (14%)

Who are they? Digital Skills Limited individuals mostly rely on others to access and use the internet – fully two thirds do so. They are the segment most likely to say they have a hard time learning how to use new technology devices and software programs, are more likely to prefer "basic models" when it comes to technology, and tend to lack confidence in using the internet.

Demographics: They tend to be middle aged or older, and when compared to the population, are more likely to be: Asian or Black. They have less household income than average (but not as low as the Access or Device Limited), are less educated than more connected segments, and are somewhat more likely to speak a language other than English as their primary language. Three out of five are home owners and they live in a mix of single family homes and MDUs.

What are their barriers? Their greatest barrier is lack of skills to use the internet to its greatest potential (67% rely on others), followed by lack of skills to do eight or more common tasks (44%). Half would agree that they have a hard time learning how to use technology, and one third disagree (at least somewhat) that they are very good with using technology and the internet.

Potential Strategies: Given their reliance on others to use the internet, in-person skills training would likely be the most effective path towards increased digital adoption. They are the segment *most interested* in learning about "using basic software" and "setting up/using email". However, it is important to remember that the majority (71%) would also qualify for the Digital Cautious segment as well, making online data security and privacy a salient topic to this segment as well.

About half (46%) participate in a community group. Senior centers and recreational centers may be beneficial in reaching this group.

Where else do they fit?

Cross Segment Comparison: Digital Skills Limited

- **Access Stressed** 48%
- **Digitally Cautious** 71%

Access Stressed

Size: 1 out of 5.5 (18%)

Who are they? Most Access Stressed individuals worry about affording technology/internet access (83%) and believe internet service is too expensive (63%). They also believe their internet is too slow/frustrating (50%) and service plans are confusing (33%).

Demographics: This group tends to be younger and well educated – two out of three have a college degree, one in four with post-graduate work. Most are employed, but tend to be middle income earners, with an average household income of $73K. A little over half are renters and nearly three out of five live in MDUs. One in four have children in the household.

Access trends: Most would not qualify for low income internet programs (only 13% are at 135% or below on the FPL).

What are their barriers? Over half would "lower the price" if they could change one thing about their internet plan (56%) – which is average for the city, but they are significantly more likely than the residents' average to want "faster speeds" (24%). This segment is significantly less likely to feel they have adequate internet speeds to do all of the tasks they want to do online.
Access Stressed spend about $20 less per month on internet services compared to Digitally Cautious ($141 vs. $162), which also aligns with their income difference ($73K for Access Stressed vs. $110K for Digitally Cautious).

Story: The "Access Stressed" is the "middle income" family. Costs in Seattle are going up across all goods and services; however, at the same time, this group does not qualify for programs and services targeted towards lower income households. They feel they are getting priced out of the fastest and most robust technology and have to make due with what they can afford, which manifests itself as slower internet speeds for less money. On average they spend 3.24% of their annual income on monthly internet related services (significantly more of their total income than more connected groups).

Potential Strategies: Affordable and sustainable internet is this segments' chief concern. On average, they are paying 25% more of their income for speeds that are comparable or less than their more connected Seattleite counterparts.

Where else do they fit?

Cross Segment Comparison: Access Stressed

Digitally Cautious
62%

Digitally Cautious

Size: 1 out of 4 (24%)

Who are they? The Digitally Cautious worry about their digital privacy and about information they send or receive over the internet.

Demographics: This group tends to be younger and well educated – most hold college degrees; a third have done post graduate work. More than a quarter have children at home and while most of the children attend Seattle Public Schools, this segment is the most likely to have children in private schools. Most are employed, and they tend to be high income earners, with household average of $110K. Nearly two thirds are home owners – and therefore most are property tax payers.

Access trends: Despite their mistrust of the digital world, this segment is confident using technology devices and they use the internet to a great extent (e.g. 25% bank online every day). Three out of four (77%) would be interested in training on how to protect themselves and their data online. Almost all (98%) are aware of the Seattle.gov website; and 81% have interacted with the City online. Although less than half (43%) are part of a community group, most communicate with that group online.

What are their barriers? Digitally Cautious individuals believe that along with the benefits of technology, there comes some harmful effects. They worry about "digital privacy" and that "information sent online will be seen by others" (nine out of ten worry about these issues), many also are unsure if they should trust the information they read online (72% are unsure) and nearly two out of five do not feel confident doing business with a company that is only online.

Potential Strategies: One way to address the concerns of this segment is by partnering with internet providers to provide online courses and materials in safe internet use practices. Demonstrating an understanding of this segments' concerns and a commitment to the digital safety and security of the public is vital. Visible alignment with neighborhood and educational organizations (including the Seattle Public Schools) to promote digital security and safety will resonate with this segment. Sharing these efforts and stated commitment through the city communication channels like the website, social media, and cable channels is also important. Consumer advocacy groups and other "watch dog" organizations promoting security and safety online should be heavily promoted.

This group could benefit from additional exploratory research to probe into their concerns about digital access and interaction. This is also the largest segment, so additional research could add more granularity on inherent subsegments within this macro group.

Segment Comparisons

- Digital Access and Devices
- Obtaining Access
- Digital Activities & Skills
- Technology Attitudes

As residents move along the digital spectrum, the frequency of these common online tasks increases dramatically.

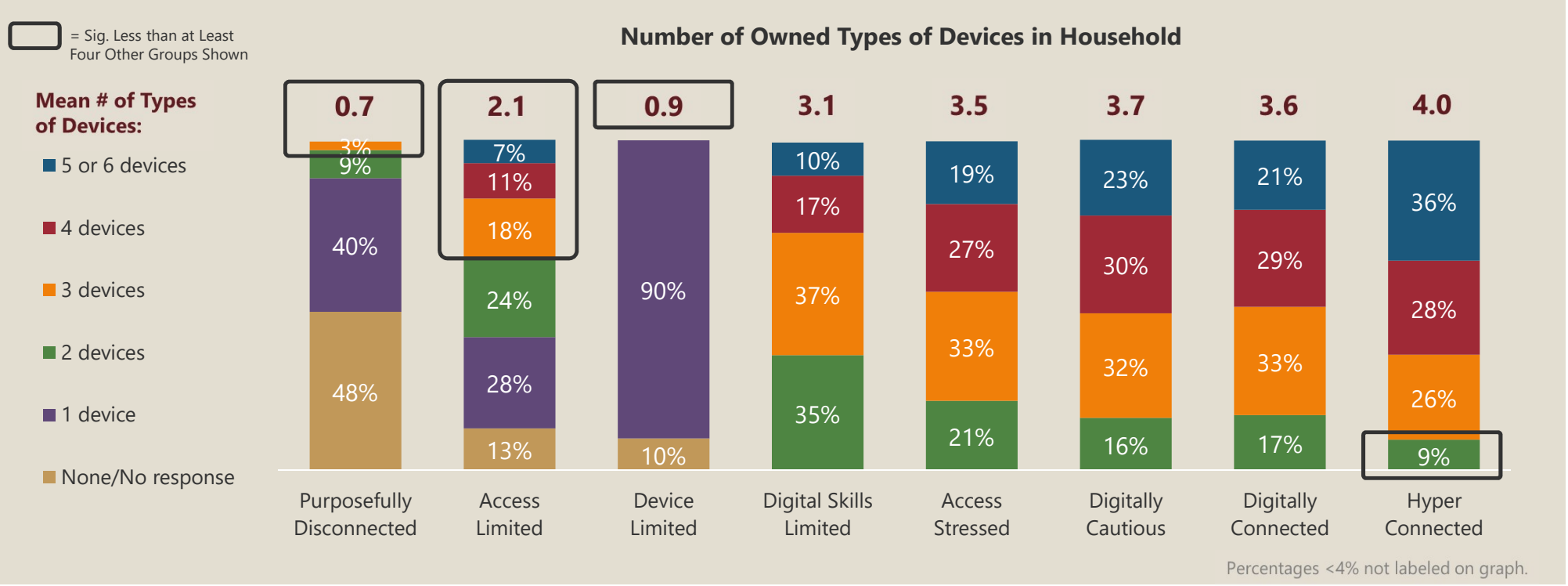
Activities Rank Ordered by Mean Times per Month

Significantly less likely than the majority (5 or more) of other segments 9.0	Purposefully Disconnected	Access Limited	Device Limited	Digital Skills Limited	Access Stressed	Digitally Cautious	Digitally Connected	Hyper Connected
Read or send email	2.2	21.0	18.1	25.2	27.9	29.5	29.4	30.1
Access social media	1.5	13.6	10.3	13.2	21.7	20.1	21.3	25.8
Stay in touch with friends or family	0.7	13.1	11.3	16.5	18.1	17.9	19.6	21.1
Watch videos or TV	0.9	13.2	8.4	11.8	20.3	18.2	17.9	23.4
Listen to music or radio	0.4	12.2	7.8	8.9	17.3	16.1	15.8	21.6
Research and buy a product	0.3	5.5	5.1	6.9	9.9	10.5	9.7	12.8
Use the internet to work from home	0.0	6.3	3.5	5.7	10.0	11.0	9.9	12.5
Use online banking services or pay bills	0.1	5.8	4.8	7.3	9.6	9.9	7.9	10.4
Get information from/about local government	0.5	6.4	5.9	7.4	8.0	7.5	7.8	7.3
Arrange transportation online	1.2	8.1	3.6	4.4	9.4	7.0	6.6	10.8
Do schoolwork or research for school	0.9	7.8	0.9	4.4	8.4	5.1	5.0	5.9
Look for answers to computer problems	0.1	4.9	2.5	4.8	5.8	4.7	3.8	5.8
Create or post original media	0.4	4.8	3.1	3.1	6.0	3.5	4.8	5.8
Get health or medical information	1.5	4.5	3.8	3.7	4.0	3.0	3.1	3.1
Start or run a business	0.0	2.4	0.7	2.2	4.0	3.6	3.2	4.4
Research a new skill	1.0	3.8	1.2	1.9	3.9	2.5	1.9	3.4
Attend a class, meeting, or webinar	0.6	3.0	1.0	1.3	3.1	2.0	1.8	3.8
Search for homes / rentals	0.9	3.2	1.4	1.9	2.7	1.8	1.7	2.2
Learning language	0.6	2.6	1.0	1.7	2.9	1.6	1.6	2.2
Look for or apply for a job	0.6	3.9	2.4	1.5	3.7	1.2	0.7	1.5
Find legal or consumer rights information	0.6	2.1	0.9	1.5	1.5	0.8	0.8	0.9
Access or apply for benefits	0.4	2.9	0.6	1.5	1.0	0.7	0.6	0.3

Base: Total Answering. Household Weight.
Q16 - How often does anyone in your household engage in the following activities online? (Mean Times Monthly)

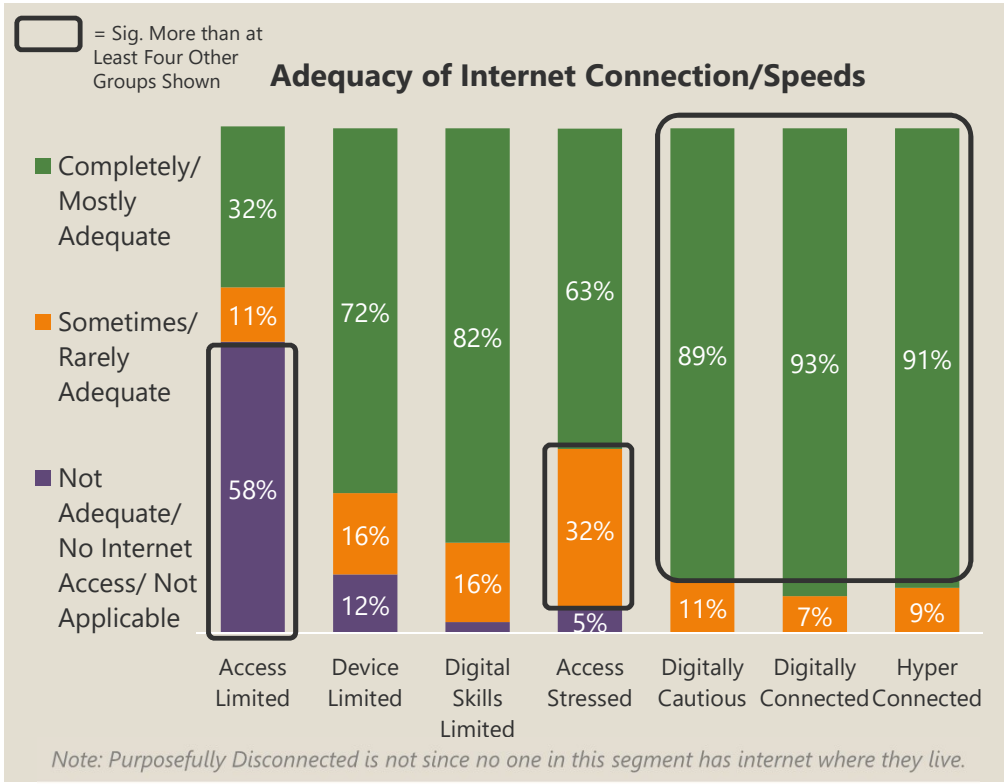
Most residents own at least three types of devices in their home.

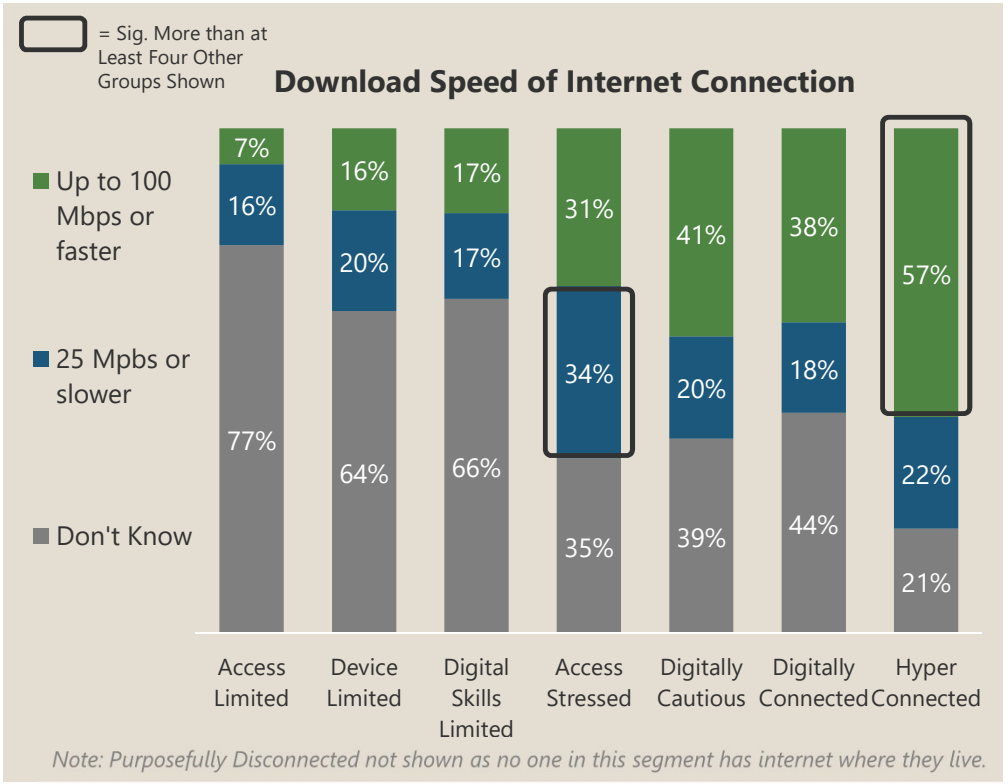
Those who are Access Limited are less likely to own more than three types of devices. Purposefully Disconnected and Device Limited own the least number of types of devices (based on choice and circumstance respectively).



Base: Total Answering – Purposeful Disconnected (n133), Access Limited (n160), Device Limited (n218), Digital Skills Limited (n762), Access Stressed (n676), Digitally Cautious (n1142), Digitally Connected (n616), Hyper Connected (n608). Household Weight.
Q2 - Thinking about each type of device you have in the place where you live; do you own the device?

While most believe their internet to be at adequate, it should be noted that reported speeds increases as individuals move along the digital engagement spectrum.





Base: Total Answering With Home Internet. Access Limited (n153), Device Limited (n198), Digital Skills Limited (n735), Access Stressed (n667), Digitally Cautious (n1135), Digitally Connected (n611), Hyper Connected (n606). Household Weight.
Q6 - How would you rate the adequacy of the internet connection and speeds in the place where you live…
Base: Total Answering With Home Internet. Access Limited (n63), Device Limited (n200), Digital Skills Limited (n711), Access Stressed (n656), Digitally Cautious (n1110), Digitally Connected (n606), Hyper Connected (n593). Household Weight.
Q7 - What is the download speed of the internet connection in the place where you live?

Additionally, when residents become more connected, they are also more comfortable performing tasks online.

= Sig. Less than at Least Four Other Groups Shown

Activities Rank Ordered by Total Respondents

Comfort performing the following tasks	Purposefully Disconnected	Access Limited	Device Limited	Digital Skills Limited	Access Stressed	Digitally Cautious	Digitally Connected	Hyper Connected
Send a personal message to another via email, text or online messaging service	38%	79%	80%	86%	100%	100%	100%	100%
Find a website you have visited before	36%	81%	78%	84%	100%	100%	100%	100%
Use a search engine to look for info	35%	82%	74%	76%	100%	99%	100%	100%
Buy items or services from a website	34%	64%	74%	75%	99%	100%	100%	100%
Send or open attachments	32%	66%	66%	72%	99%	100%	100%	100%
Make comments and share information	32%	75%	65%	70%	98%	98%	99%	100%
Download / save a photo you found	32%	65%	74%	66%	99%	99%	99%	100%
Complete application forms which include personal details	32%	71%	65%	63%	98%	98%	99%	98%
Buy and install apps on a device	21%	57%	52%	59%	98%	98%	98%	100%
Solve a problem you have with a device or digital service using online help	16%	61%	58%	57%	99%	98%	98%	99%
Verify sources of information found online	32%	72%	57%	52%	95%	95%	97%	99%
Create something new from existing online images, music or video	20%	53%	40%	33%	82%	81%	81%	94%

Base: Total Answering. Individual Weight.
Q17AD-CANDO - How comfortable are you in performing the following activities online?

Residents across all segments have at least some concerns with keeping their information and data safe as well as their devices clear of viruses.

Segments that are more comfortable and use the internet and technology more often have more concern than those who use it less. Access Stressed and Digitally Cautious residents have the most worry about these three most common concerns.

= Sig. More than at Least Four Other Groups Shown

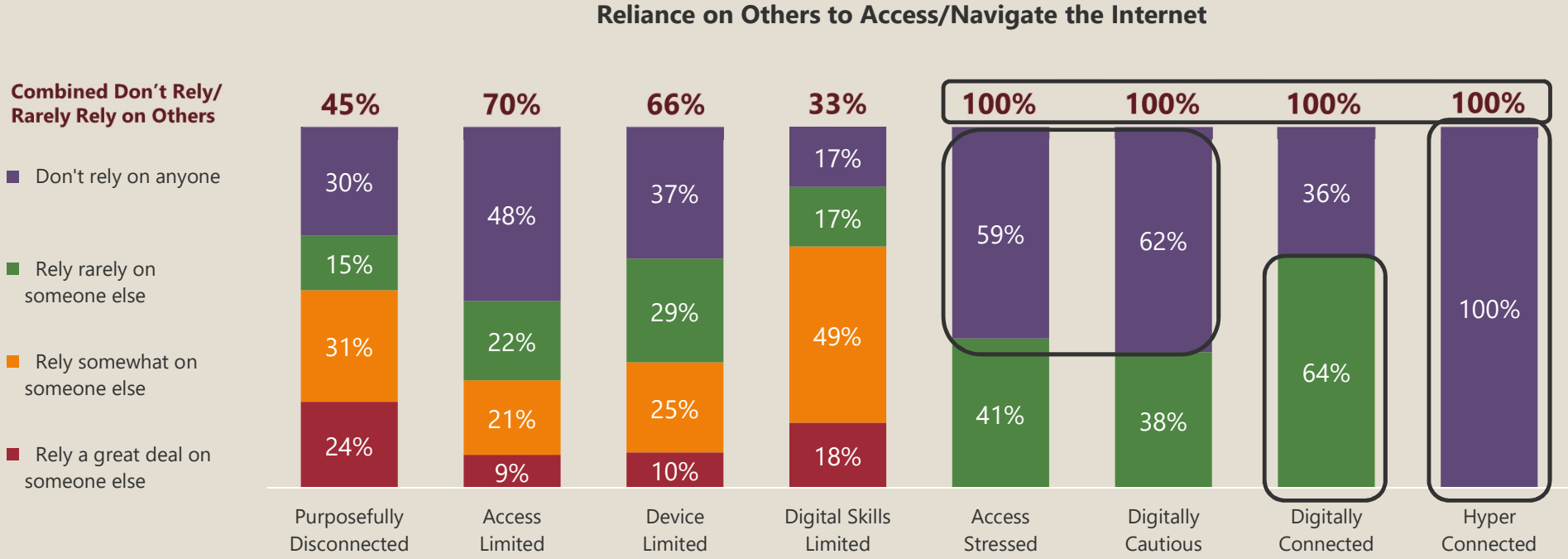
Concerns About Accessing/ Using the Internet	Purposefully Disconnected	Access Limited	Device Limited	Digital Skills Limited	Access Stressed	Digitally Cautious	Digitally Connected	Hyper Connected
Any concerns (NET)	71%	78%	87%	88%	94%	98%	92%	89%
Ensuring the safety and security of my personal information (such as banking or health information)	69%	61%	67%	70%	87%	92%	78%	78%
How my data and information is being used (including ways that you may not be aware of)	55%	57%	67%	69%	83%	89%	76%	74%
Protecting my computer from online viruses and malware	38%	57%	67%	68%	75%	81%	70%	66%
Protecting myself from other individuals online (cyberstalking, cyberbullying)	42%	37%	37%	48%	43%	45%	27%	29%
Protecting my children from other individuals online (cyberstalking, cyberbullying)	19%	14%	15%	23%	28%	28%	26%	21%

Base: Total Answering. Purposefully Disconnected (n111), Access Limited (n145), Device Limited (n201), Digital Skills Limited (n736), Access Stressed (n672), Digitally Cautious (n1128), Digitally Connected (n609), Hyper Connected (n605). Individual Weight.
Q14 - Which of the following are concerns you have when it comes to accessing and using the internet?

Reliance on others varies among the less engaged segments.

Those in the Digital Skills Limited segment rely on others a great deal; however, one out of three in the Device Limited segment also face digital skills barriers.

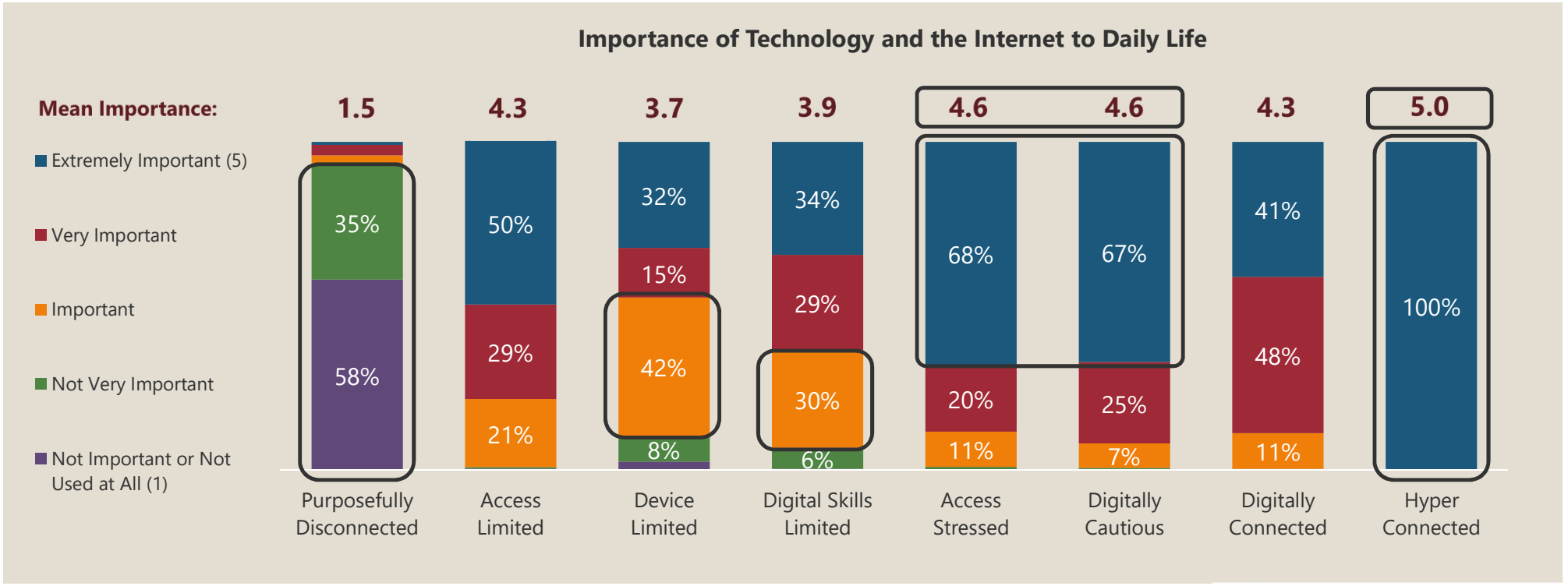
= Sig. More than at Least Four Other Groups Shown



Base: Total Answering. Purposefully Disconnected (n53), Access Limited (n140), Device Limited (n199), Digital Skills Limited (n736), Access Stressed (n674), Digitally Cautious (n1140), Digitally Connected (n616), Hyper Connected (n608). Individual Weight.
Q18 - How much do you rely on others to help you with the skills needed to access and navigate the internet?

As residents become more connected, their endorsement that the internet and technology is important to their daily life increases.

= Sig. More than at Least Four Other Groups Shown

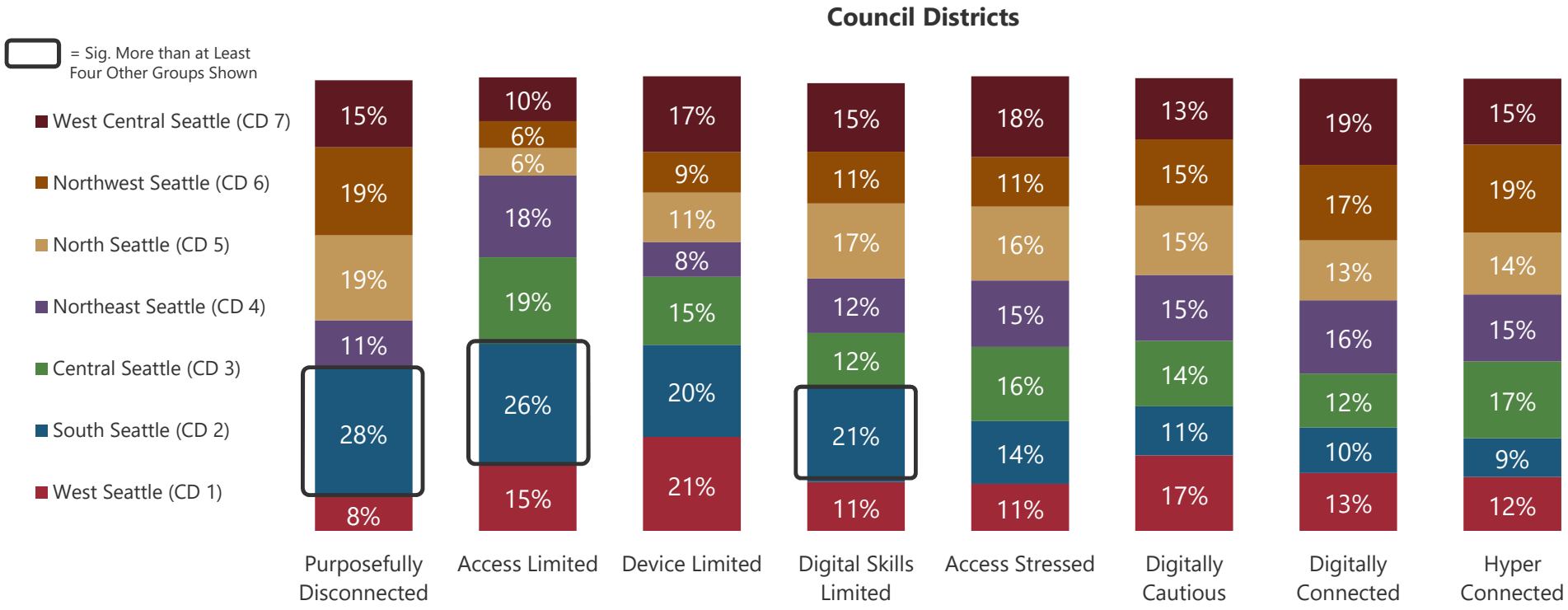


Percentages <4% not labeled on graph.

Base: Total Answering. Purposefully Disconnected (n130), Access Limited (n143), Device Limited (n206), Digital Skills Limited (n737), Access Stressed (n668), Digitally Cautious (n1139), Digitally Connected (n603), Hyper Connected (n608). Individual Weight.
Q20 - How important is technology and the internet to your daily life?

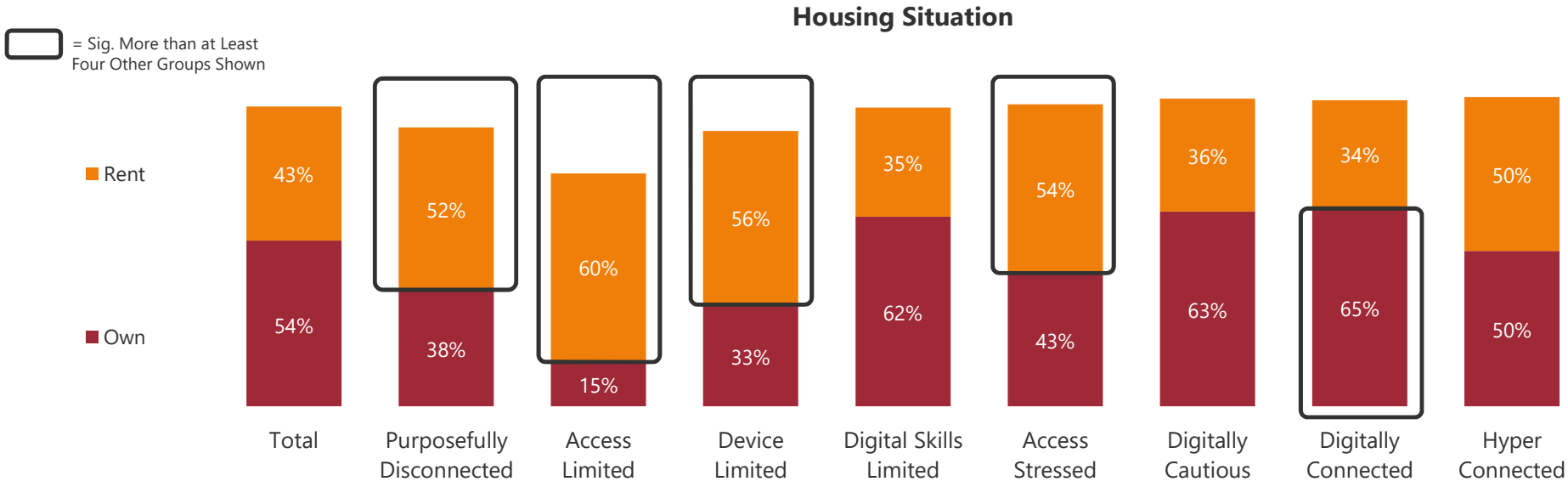
Residents of South Seattle (CD 2) stand out for having more members at the less connected end of the spectrum.

Most Districts have similar proportions of Digital Skills Limited, Access Stressed, and Digitally Cautious residents.



Base: Total Answering. Purposefully Disconnected (n130), Access Limited (n140), Device Limited (n206), Digital Skills Limited (n752), Access Stressed (n669), Digitally Cautious (n1140), Digitally Connected (n609), Hyper Connected (n605). Individual Weight.
City of Seattle Council Districts

Those in the Digitally Connected segment are more likely to be home owners, while those who are Access Limited, Access Stressed, Device Limited or Purposefully Disconnected are more likely to be renters.



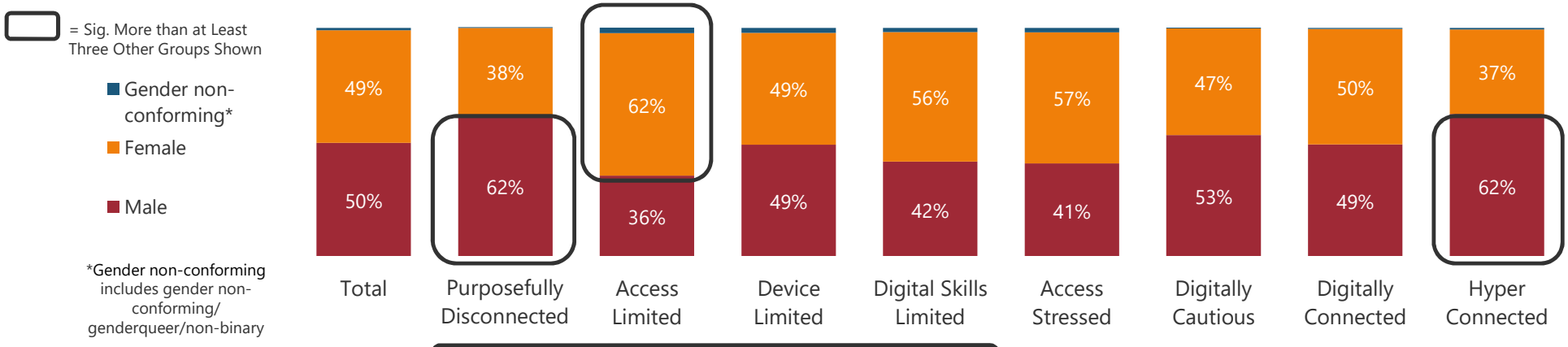
Note: "Other" category (insecurely housed, group homes) not shown.
Base: Total Answering. Total (n4220), Purposefully Disconnected (n124), Access Limited (n150), Device Limited (n208), Digital Skills Limited (n745), Access Stressed (n661), Digitally Cautious (n1124), Digitally Connected (n610), Hyper Connected (n598). Household Weight.
Q33 – Which of the following best describes your current housing situation?

The Purposefully Disconnected and the Hyper Connected are more likely to be male, while the Access Limited are more likely to be female.

Those in the Purposefully Disconnected, Device Limited and Digital Skills Limited segments are more likely to be older and to have lived in Seattle for a longer period of time. The Hyper Connected segment tends to be younger newcomers.

Gender

Values below 4% not shown.

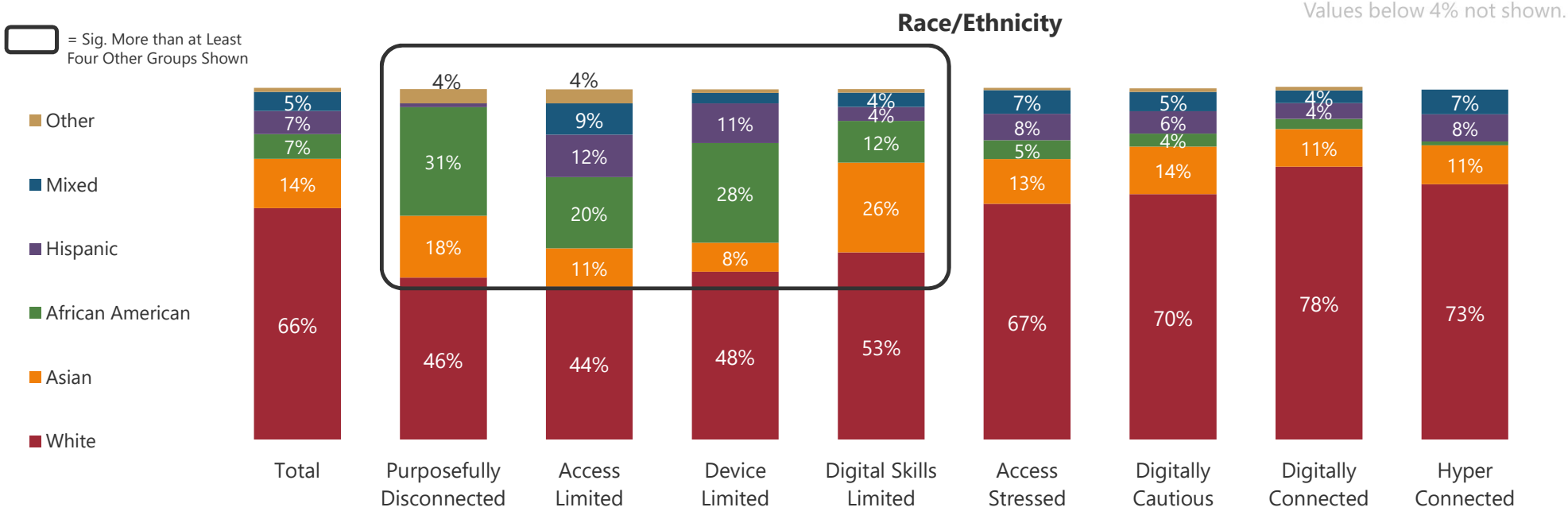


	Total	Purposefully Disconnected	Access Limited	Device Limited	Digital Skills Limited	Access Stressed	Digitally Cautious	Digitally Connected	Hyper Connected
Average Age	44.5	64.5	50.7	60.3	55.7	39.4	42.2	44.4	36.6
Average Years in Seattle	19.4	37.0	22.1	29.1	27.6	16.5	18.4	18.3	12.9

Base: Total Answering. Total (n3657), Purposefully Disconnected (n92), Access Limited (n131), Device Limited (n169), Digital Skills Limited (n591), Access Stressed (n581), Digitally Cautious (n988), Digitally Connected (n543), Hyper Connected (n562). Individual Weight.
Q26B - Thinking about the adults (age 18 and older) living in your household, how old are they?
Base: Total Answering. Total (n4059), Purposefully Disconnected (n116), Access Limited (n135), Device Limited (n198), Digital Skills Limited (n692), Access Stressed (n636), Digitally Cautious (n1096), Digitally Connected (n591), Hyper Connected (n595). Individual Weight.
Q28 - With which gender do you most identify?
Base: Total Answering. Total (n4256), Purposefully Disconnected (n125), Access Limited (n152), Device Limited (n211), Digital Skills Limited (n748), Access Stressed (n673), Digitally Cautious (n1134), Digitally Connected (n610), Hyper Connected (n603). Individual Weight.
Q30 - About how long have you lived in Seattle?

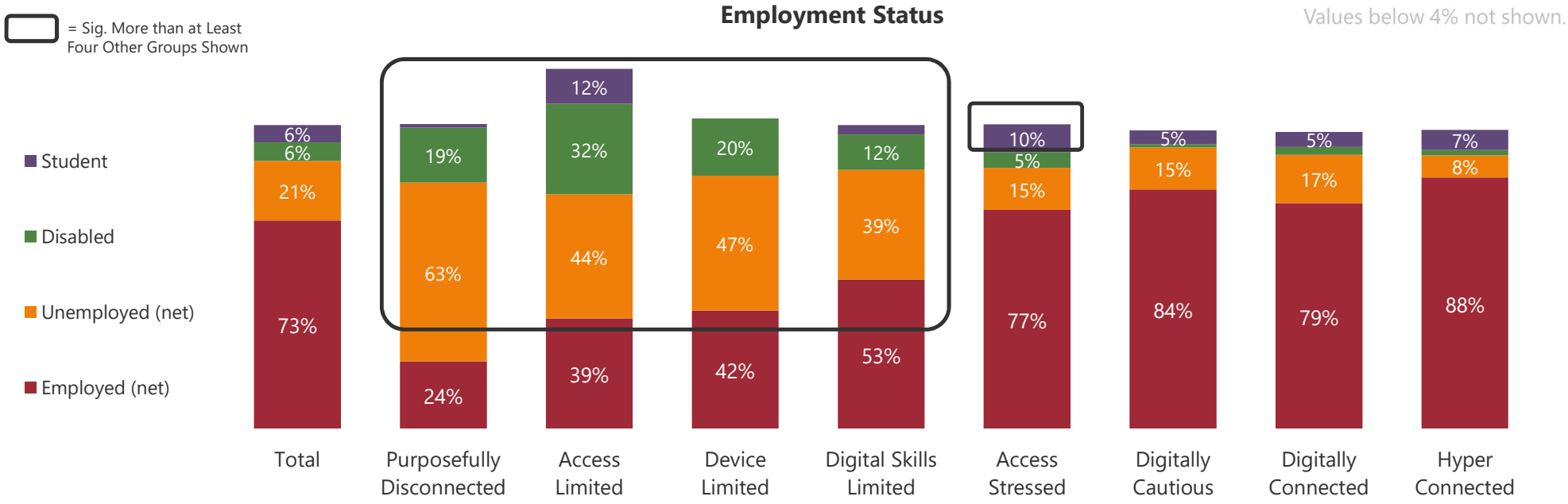
The less connected segments tend to be the most racial/ethnically diverse.

Relative to their size in the general population, a high number of the Purposefully Disconnected and Device Limited segments are African American, a notable portion of the Digital Skills Limited segment are Asian, and Hispanics have their highest presence in the Access Limited and Device Limited segments.



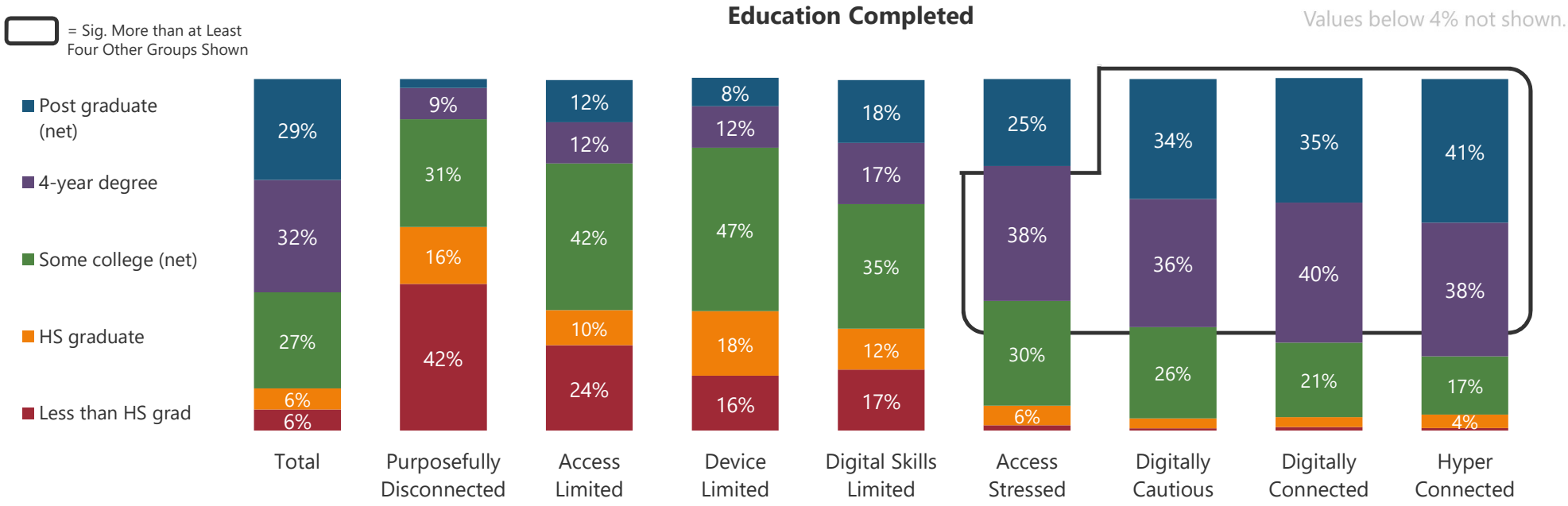
Note: "Other" category includes American Indian/Alaska Native, Native Hawaiian/Pacific Islander, and Other.
Base: Total Answering. Total (n4008), Purposefully Disconnected (n118), Access Limited (n140), Device Limited (n199), Digital Skills Limited (n708), Access Stressed (n661), Digitally Cautious (n1066), Digitally Connected (n586), Hyper Connected (n580). Individual Weight.
Q31 – Are you, yourself, of Hispanic, Latino, or Spanish origin?
Q32 – Which race / ethnicity do you consider yourself to be?

The less connected segments have higher proportions of unemployed and/or disabled members. Students have their highest presence in the Access Limited and Access Stressed segments.



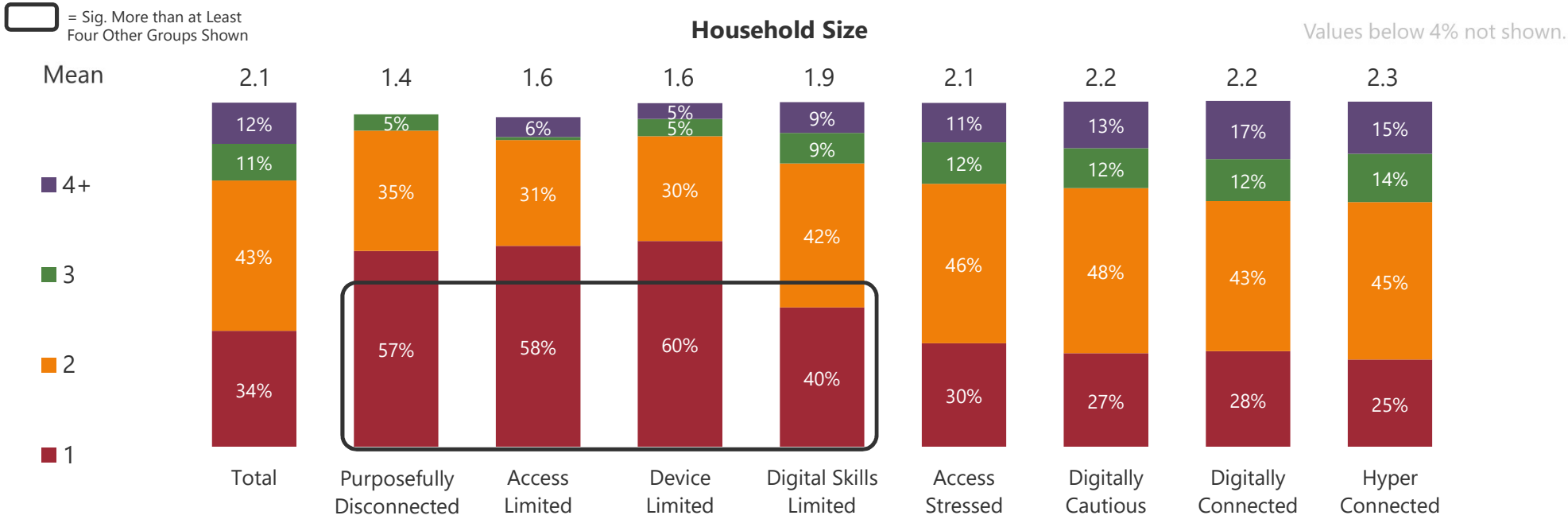
Note: Homemaker/ Not Employed Outside the Home and Other are not shown.
Base: Total Answering. Total (n4263), Purposefully Disconnected (n128), Access Limited (n153), Device Limited (n210), Digital Skills Limited (n751), Access Stressed (n671), Digitally Cautious (n1135), Digitally Connected (n612), Hyper Connected (n603). Individual Weight.
Q35 – Are you…[Employment Status]

There is a positive correlation between education and digital connectedness – those with higher education levels are more likely to have stronger digital connectedness.



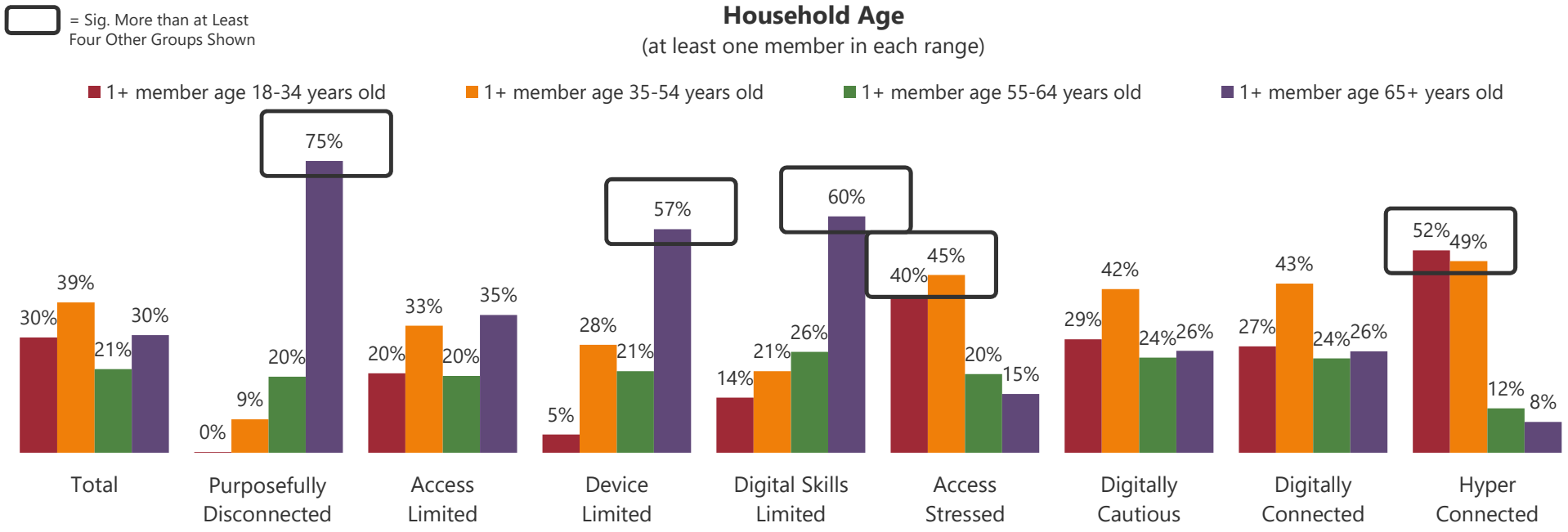
Base: Total Answering. Total (n4154), Purposefully Disconnected (n113), Access Limited (n140), Device Limited (n196), Digital Skills Limited (n724), Access Stressed (n662), Digitally Cautious (n1117), Digitally Connected (n605), Hyper Connected (n597). Individual Weight.
Q38 – What is the last year of schooling you completed?

Those in the Purposefully Disconnected, Access Limited, Device Limited, and Digital Skills Limited segments tend to have smaller households and/or to live alone.



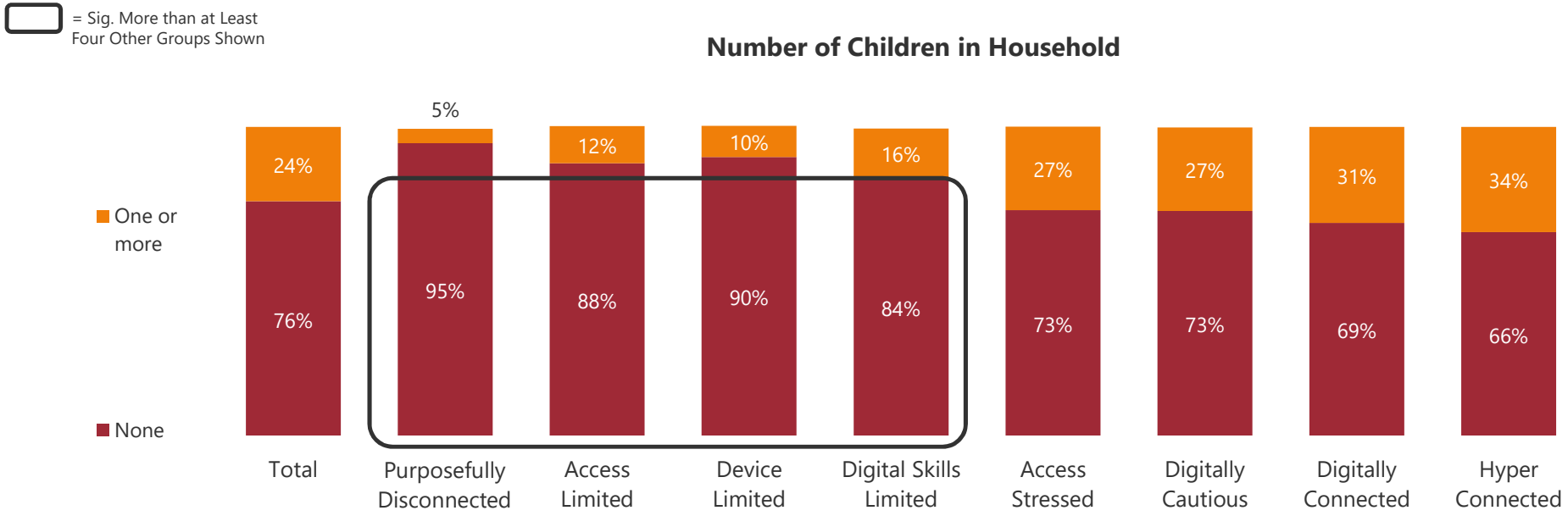
Base: Total Answering. Total (n4315), Purposefully Disconnected (n133), Access Limited (n160), Device Limited (n218), Digital Skills Limited (n762), Access Stressed (n676), Digitally Cautious (n1142), Digitally Connected (n616), Hyper Connected (n608). Household Weight.
Q26A – Including yourself, how many adults (age 18 and older) live in your household?
Q27A – Please tell us the number of children where you live in each of the age and grade categories listed.

The Purposefully Disconnected, Device Limited, or Digital Skills Limited are more likely to be 65 years or older, while the Access Stressed and Hyper Connected are more likely to fall into younger age categories.



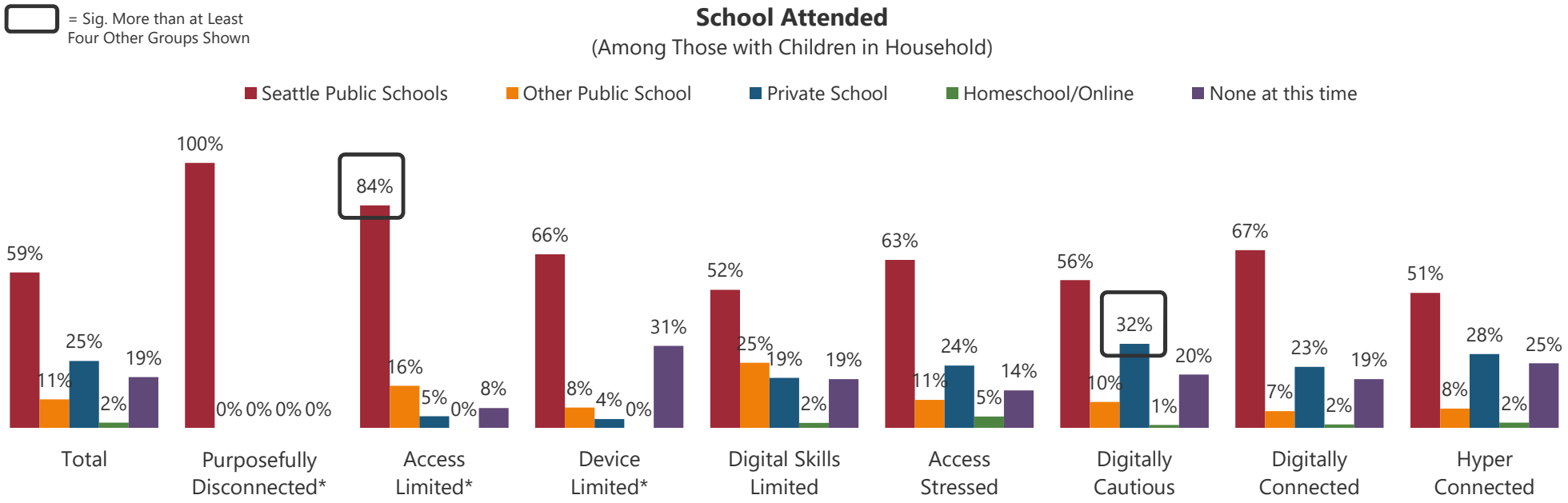
Base: Total Answering. Total (n3704), Purposefully Disconnected (n92), Access Limited (n131), Device Limited (n173), Digital Skills Limited (n600), Access Stressed (n588), Digitally Cautious (n1001), Digitally Connected (n551), Hyper Connected (n568). Household Weight.
Q26B - Thinking about the adults (age 18 and older) living in your household, how old are they?

Those at the more connected end of the digital spectrum are more likely to have children in the household.



Base: Total Answering. Total (n3745), Purposefully Disconnected (n132), Access Limited (n136), Device Limited (n206), Digital Skills Limited (n719), Access Stressed (n585), Digitally Cautious (n965), Digitally Connected (n527), Hyper Connected (n475). Household Weight.
Q27A – Please tell us the number of children where you live in each of the age and grade categories listed.

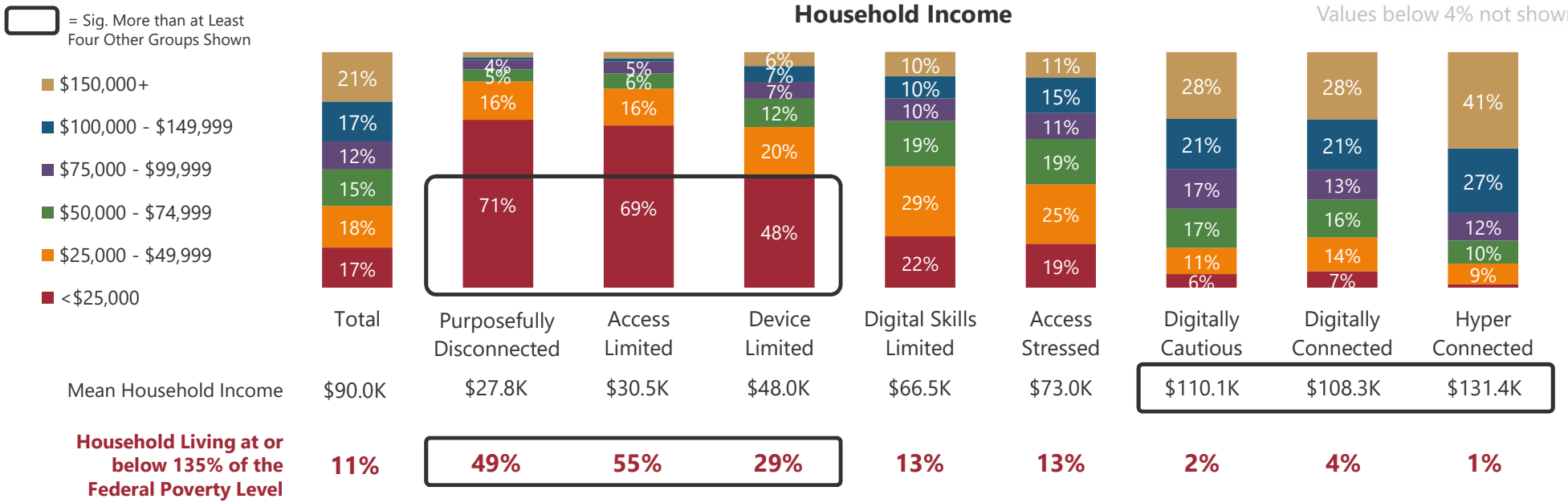
There is some variance across segments regarding how they are schooling their children. Seattle Public Schools are utilized to a greater degree by the less connected end of the digital spectrum. Private schools are more likely utilized by the Digitally Cautious segment.



Base: Total Answering – Among those with Children in Household. Total (n1326), Purposefully Disconnected (n2*), Access Limited (n22*), Device Limited (n21*), Digital Skills Limited (n161), Access Stressed (n224), Digitally Cautious (n408), Digitally Connected (n245), Hyper Connected (n243). Household Weight.
*Limited sample size. Sub-segment analysis warrants further research and/or a large sample size.
Q27B - Please also tell us where each of the children attend school (if you have children in school).

There is a positive correlation between household income and digital connectedness – those with higher incomes are more likely to have stronger digital connectedness.

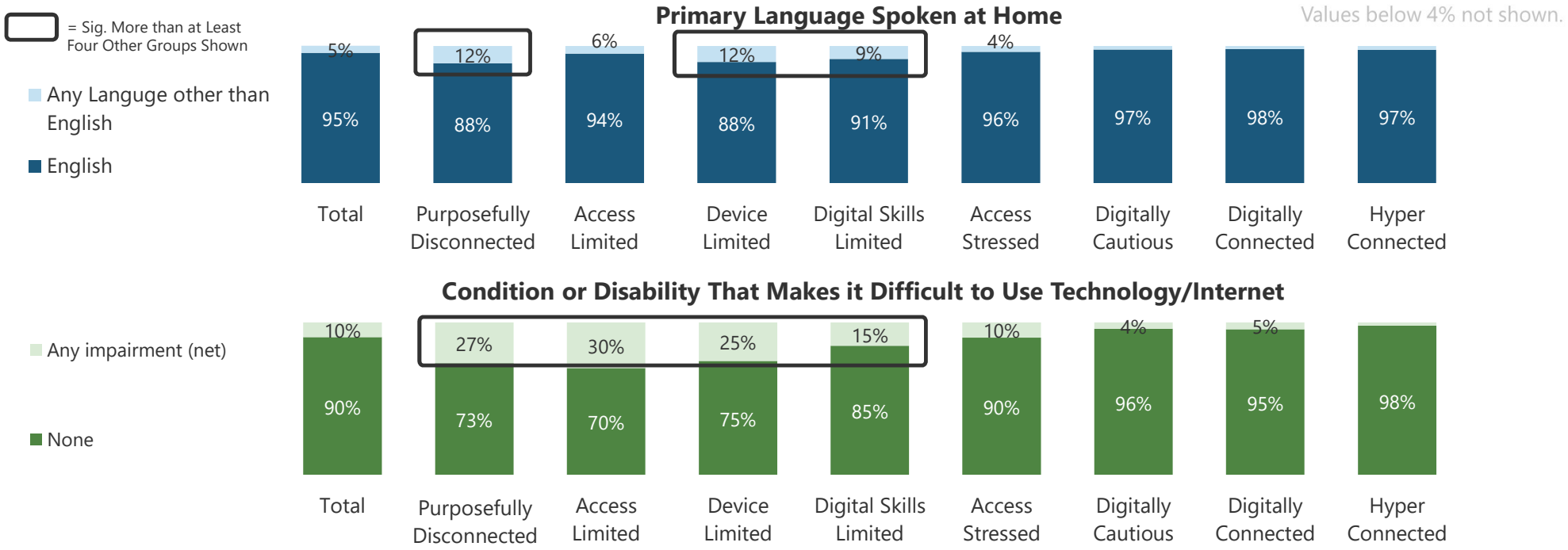
In line with the higher household income, those at the less connected end of the spectrum are more likely to have members living at or below 135% of the Federal Poverty Level.



Base: Total Answering. Total (n3616), Purposefully Disconnected (n97), Access Limited (n138), Device Limited (n188), Digital Skills Limited (n610), Access Stressed (n574), Digitally Cautious (n956), Digitally Connected (n516), Hyper Connected (n537). Household Weight.
Q29 – What is your approximate total household annual income?
Base: Total Answering. Total (n4315), Purposefully Disconnected (n133), Access Limited (n160), Device Limited (n218), Digital Skills Limited (n762), Access Stressed (n676), Digitally Cautious (n1142), Digitally Connected (n616), Hyper Connected (n608). Household Weight.
Q26A – Including yourself, how many adults (age 18 and older) live in your household?
Q27A – Please tell us the number of children where you live in each of the age and grade categories listed.

Purposefully Disconnected, Device Limited, and Digital Skills Limited segments are the most likely to have members that speak a language other than English at home.

These same segments, along with the Access Limited are also more likely to have members with an impairment that makes it difficult to use technology or the internet.



Base: Total Answering. Total (n4225), Purposefully Disconnected (n123), Access Limited (n155), Device Limited (n205), Digital Skills Limited (n746), Access Stressed (n664), Digitally Cautious (n1123), Digitally Connected (n609), Hyper Connected (n600). Household Weight.
Q36 – What language is spoken most of the time where you live?
Base: Total Answering. Total (n4223), Purposefully Disconnected (n115), Access Limited (n151), Device Limited (n204), Digital Skills Limited (n740), Access Stressed (n672), Digitally Cautious (n1131), Digitally Connected (n611), Hyper Connected (n599). Household Weight.
Q37 – Do you, or does any member of your household, have a medical condition or disability that makes it difficult to use technology or the internet without assistance or adaptation?

Segment Profiles

- Purposefully Disconnected
- Access Limited
- Device Limited
- Digital Skills Limited
- Access Stressed
- Digitally Cautious
- Digitally Connected
- Hyper Connected

Purposefully Disconnected

3% of the Total Population

Purposefully Disconnected Segment

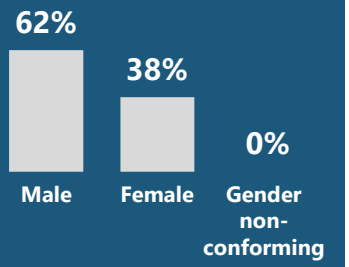
Segment Profile: 3% of the total population

This segment does not feel any connection with technology or the internet – they do not need or want it, and they find it unimportant in their daily lives. They tend to feel the internet and technology has had either a harmful or mixed effect; few see it as solely beneficial. They have a level of mistrust for the internet or for businesses who only operate online.

They do not have a lot of personal devices (with the exception of a mobile phone), and they do not have internet access where they live. They express a distinct preference for in-person/personal communication in interactions with a group or the City. On the rare occasions they go online, (perhaps at the library), the primary purpose is to read or send email. More than half rely on someone else to help them access or navigate the internet. Over a quarter have a household (HH) member with an impairment that makes it difficult to use technology or the internet without assistance or adaptation.

Purposefully Disconnected – Demographic Profile

Gender Profile



3 in 5 live alone

58% Live alone

41% 2 adults in HH

(9% Spouse/partner; 32% no relationship given)

Only 5% have a school-age child at home.

3 in 5 are high school educated

58% High school grad or less

22% Some college/vocational

18% 2-yr or 4-yr degree

3% Post graduate work

Nearly half are retired; 1 in 5 are disabled

24% Employed

63% Unemployed (net)

47% Retired

19% Disabled

Long-term Seattle residents

22% 10 yrs or less

14% 11-20 yrs

63% 21 yrs or more

Mean 37 years

Older; 2 in 5 are age 70 or older

12% 30-49

19% 50-59

30% 60-69

27% 70-79

12% 80+

Mean 64

Low Income; 7 in 10 have income <$25K

37% <$12K

17% $12K-$16.5K

18% $16.5K-24.9K

16% $25K-$49.9K

12% $50K or more

Mean $27.8K

Half are renters; half live in multi-unit buildings

38% Own

52% Rent

5% Homeless

5% Group housing

48% Single family

52% Duplex/triplex/apt

Mean# (if multi-unit): 41

Strong ethnic mix; 3 in 10 are Black; 2 in 10 are Asian

46% White

31% Black

18% Asian

1% Hispanic/Latino

4% Other

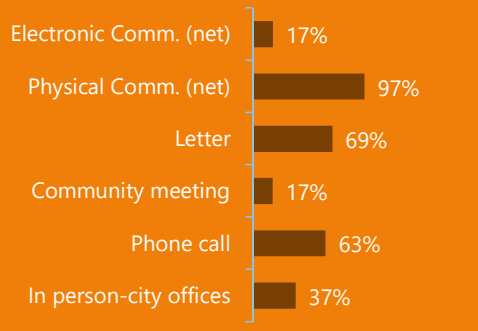
9 in 10 say English is the primary language spoken where they live

88% English

12% Other

Purposefully Disconnected – Psychographic Profile

Most express a distinct preference for physical communication in interactions with a group or with the City.



Multiple responses allowed

6 in 10 have heard of the City of Seattle Website but only 1 in 10 have visited it.

Heard Of	Ever Visited	Mean Visits
62%	12%	0.15

Close to half have heard of The Seattle Channel, but few have ever watched it.

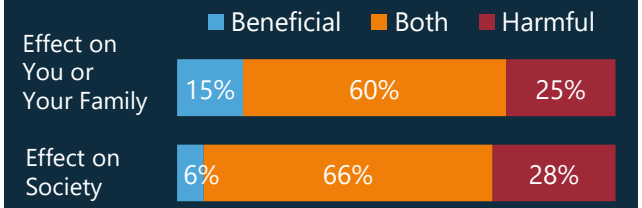
Heard Of	Ever Watched	Mean Views
45%	16%	0.46

9 in 10 say technology and the internet are not important to their daily lives.

Mean	T3B	B2B
1.5	7%	93%

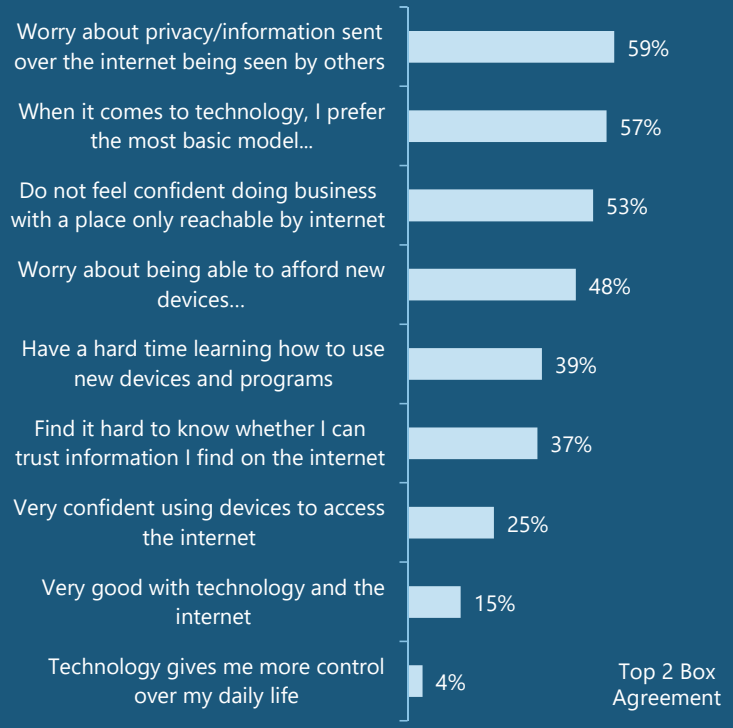
5=Extremely Important; 1=Not Important/Not Used at All

A large majority feel the internet and technology have a harmful effect, even if there are some benefits.



2 in 10 say they participate in a community group; (3 in 10 prefer not to say).

Top worries include internet privacy and lack of confidence in businesses only reachable online. 6 in 10 prefer the most basic model of technology, and half worry about affording it.

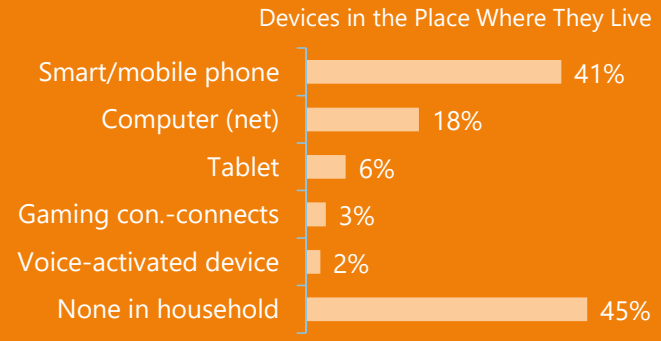


Purposefully Disconnected – Internet / Device Access

0%
Have access

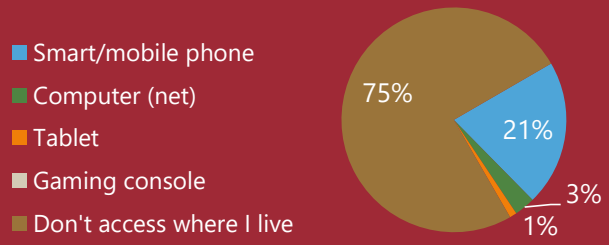
None in this segment have a way to access the internet where they live.

2 in 5 have a smart or mobile phone, 1 in 5 have a computer. Nearly half have no devices where they live.

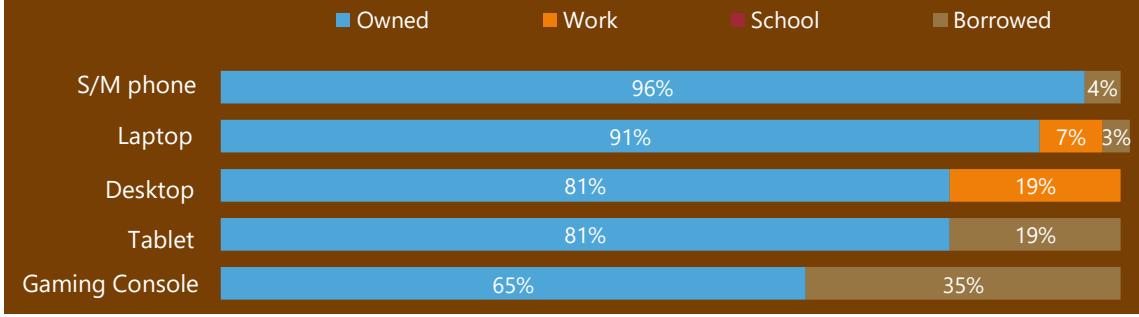


Three quarters do not access the internet; 1 in 5 use their phone.

The ONE device they have access to that they rely on most to access Internet



Most own their devices, although a third of gaming consoles are borrowed.

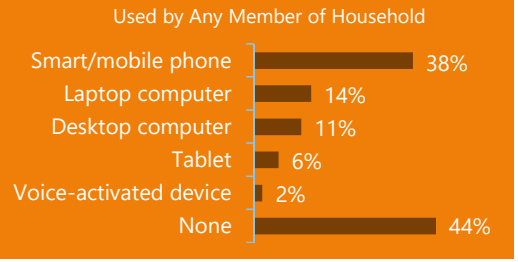


Note: Total may equal more than 100% because of multiple devices in the household.

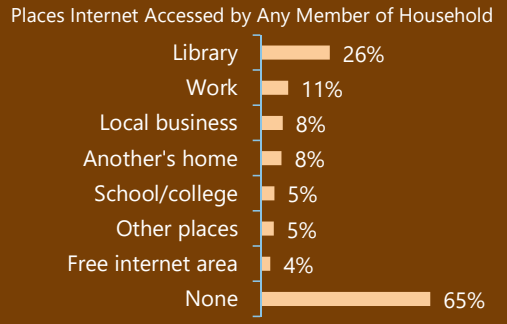
None in this segment have a home internet provider or have free internet access where they live (e.g. through their building or a neighbor).

Purposefully Disconnected – Technology / Device Usage

Across the household, close to 2 in 5 have smart/mobile phones, but more than 2 in 5 have no devices in the household.

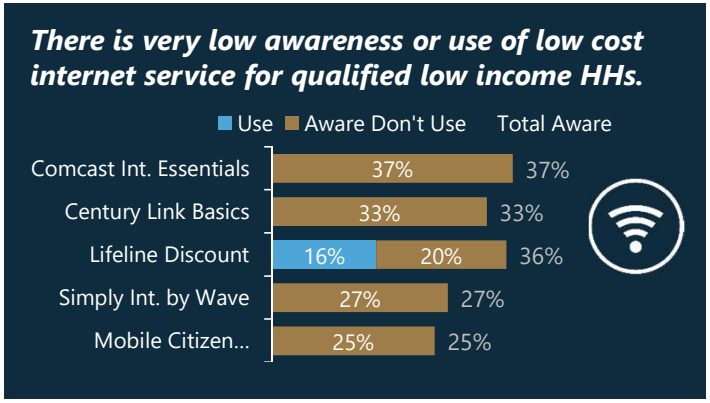


Two thirds have not accessed the internet in the past month, one quarter accessed it through the library.



Half with smart/mobile phones are on a pay-as-you-go basis.

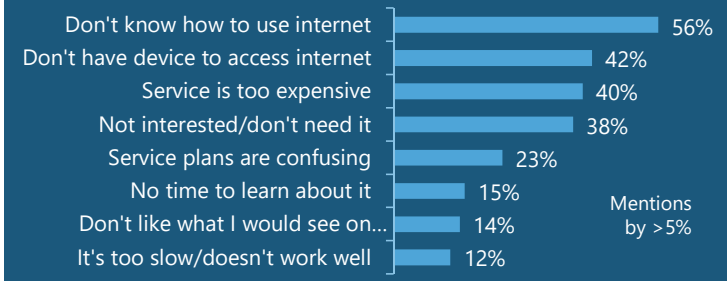
There is very low awareness or use of low cost internet service for qualified low income HHs.



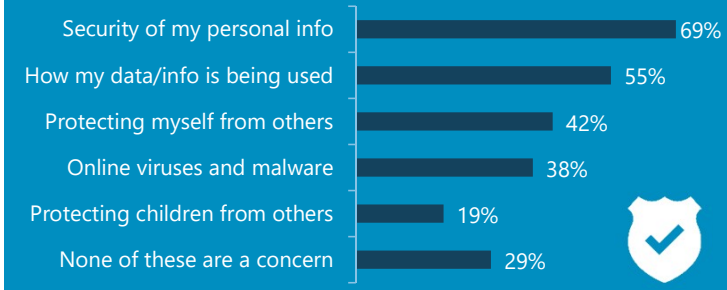
1 in 5
Don't know how to get internet where they live

Top reasons for not having internet:
Cost – 51%
Don't need it/want it – 46%
No device to access – 38%
Don't have credit/deposit – 21%
Don't know how to get it – 20%

More than half do not use the internet more because they do not know how to use it.



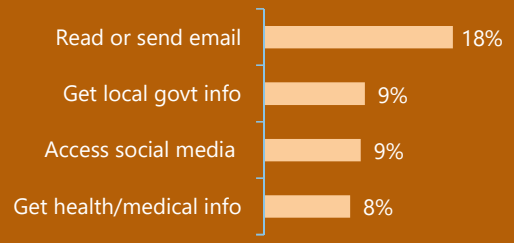
Top concerns about using the internet include security of personal information and how that data may be used.



Purposefully Disconnected – Use of Internet / Ability to Use the Internet

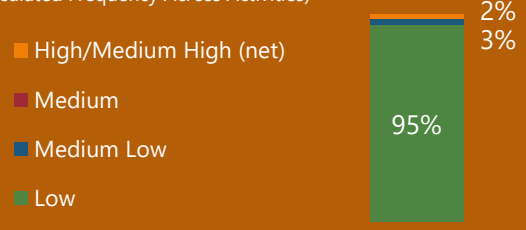
The top ONLINE activity engaged in most frequently is email. Fewer than 1 in 10 engage in other types of online activities on a weekly basis.

Online Activities Done AT LEAST WEEKLY (Top Mentions)



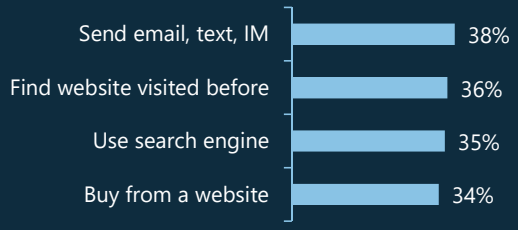
This segment is NOT active online – nearly all (95%) fall into the lowest activity category.

Online Activity Level
(Calculated Frequency Across Activities)



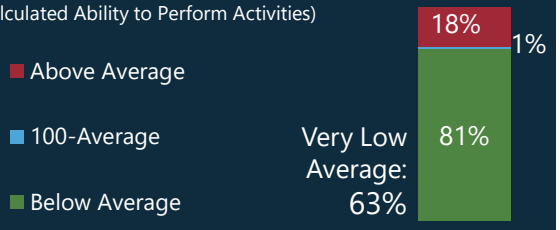
Just over a third can do the most common online activities, including using email, visiting websites, using a search engine, or shopping online. Only a third or fewer can do 8 activities of the remaining 12.

Could Do These Online Activities
(Top Mentions for "Can Do")

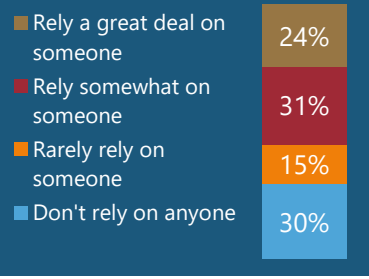


This segment indexes very low on online skills with 4 in 5 rated "below average." (Close to 2 in 3 index at a "very low.")

Online Skills Index
(Calculated Ability to Perform Activities)



More than half rely on someone else to help them access or navigate the internet.

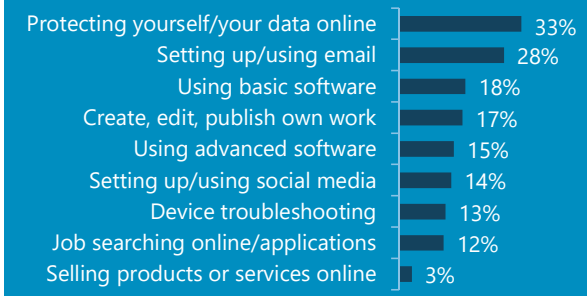


27% ***Have impairment***

Over a quarter have a household member with an impairment that makes it difficult to use technology or the internet without assistance or adaptation.

Around 3 in 10 would be interested in learning how to protect themselves online or in how to use email.

Interest in Training Topics (combined "possibly" or "very" interested)



Access Limited

4% of the Total Population

Access Limited Segment

Segment Profile: 4% of the total population

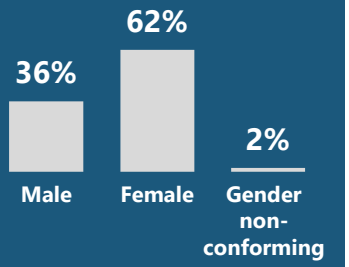
This segment feels a connection with technology and the internet – both are important to their daily lives – but they face access barriers. Less than half have internet access where they live. Most rely on their phone to access the internet and the majority are on a limited or pre-paid plan. Cost is the primary reason they don't use the internet more. This segment has some limited awareness of low cost internet service plans for qualified households (HHs), but few use them.

While they worry, like many, about the security of their personal data, this segment does not mistrust the internet. Three quarters feel the internet and technology have been personally beneficial. Seven in ten feel confident in accessing or navigating the internet, and rarely, if ever, rely on someone else to help them. Most are comfortable engaging in a wide range of online activities. When they go online, they commonly email, use social media, and stream video or music.

This segment has limited income. One third are disabled and three in ten have a household member with an impairment that makes it difficult to use technology or the internet without assistance or adaptation.

Access Limited – Demographic Profile

Gender Profile



Nearly 2 in 3 live alone

63% Live alone

33% 2 adults in HH

(15% Spouse/partner; 14% no relationship given)

Only 12% have a child at home.

Two thirds have either some college, vocational training, or a degree

35% High school grad or less

30% Some college/vocational

24% 2-yr or 4-yr degree

12% Post graduate work

2 in 5 are employed; 1 in 3 are disabled

39% Employed

44% Unemployed (net)

28% Retired

32% Disabled

12% Student

Term of Seattle residency, mixed

30% 5 yrs or less

14% 6-20 yrs.

19% 11-20 yrs.

37% 21 yrs or more

Mean 22 years

Middle-aged; 2 in 5 are in their 40s or 50s

12% Under 30

17% 30-39

39% 40-59

25% 60-69

7% 70+

Mean 51

Low Income; 7 in 10 have income <$25K

45% <$12K

12% $12K-$16.5K

11% $16.5K-24.9K

16% $25K-$49.9K

15% $50K or more

Mean $30.5K

3 in 5 are renters; most live in multi-unit buildings; 1 in 5 are homeless or insecurely housed

15% Own

60% Rent

17% Homeless

3% Group housing

5% Insecurely housed

(temporary housing)

31% Single family

69% Duplex/triplex/apt

Mean# (if multi-unit): 56

Strong ethnic mix; fewer than half are White

44% White

20% Black

12% Hispanic/Latino

11% Asian

9% Mixed

4% Other

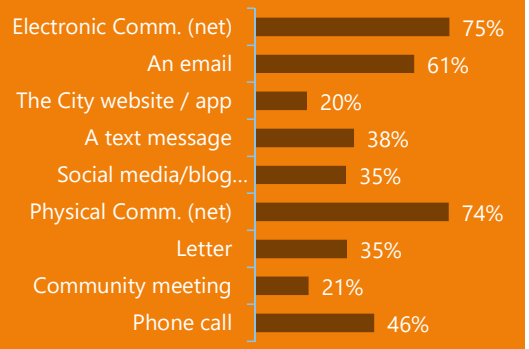
Nearly all say English is the primary language spoken where they live

94% English

6% Other

Access Limited – Psychographic Profile

Open to a variety of forms of communication in interactions with a group or with the City.



Multiple responses allowed

Most have heard of the City of Seattle Website and half have visited it.

Heard Of	Ever Visited	Mean Visits
84%	49%	0.75

7 in 10 have heard of The Seattle Channel, and 3 in 10 have watched it.

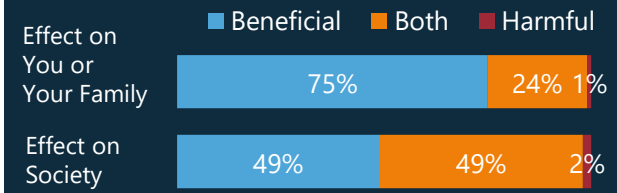
Heard Of	Ever Watched	Mean Views
69%	31%	0.60

Nearly all feel technology and the internet are highly important to their daily lives.

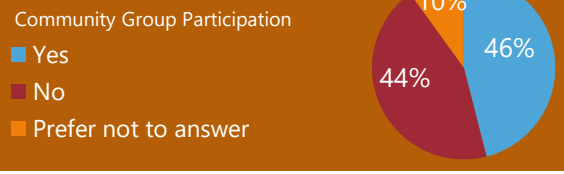
Mean	T3B	B2B
4.3	99%	1%

5=Extremely Important; 1=Not Important/Not Used at All

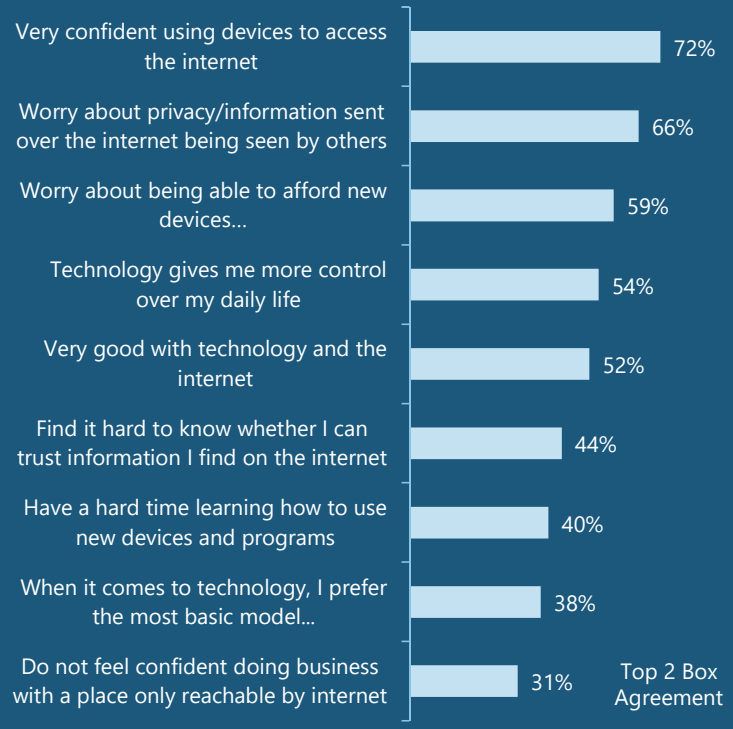
While three quarters feel the internet and technology have been personally beneficial, half feel the effects on society have been mixed.



Nearly half say they participate in a community group; (1 in 10 prefer not to say).



Around 7 in 10 feel very confident in using devices to access the internet, but do worry about internet privacy. 6 in 10 worry about being able to afford new devices.

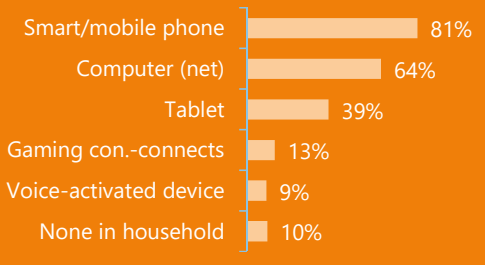


Access Limited – Internet / Device Access

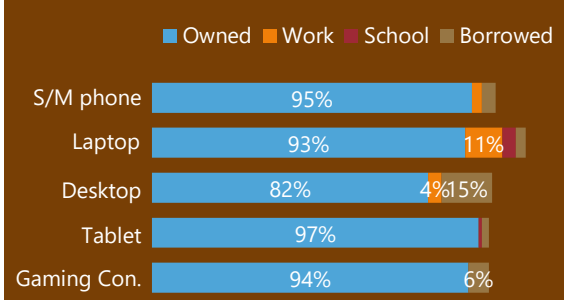
47% Have access

Just under half have a way to access the internet where they live.

8 in 10 have a smart or mobile phone, 6 in 10 have a computer, and 4 in 10 a tablet.

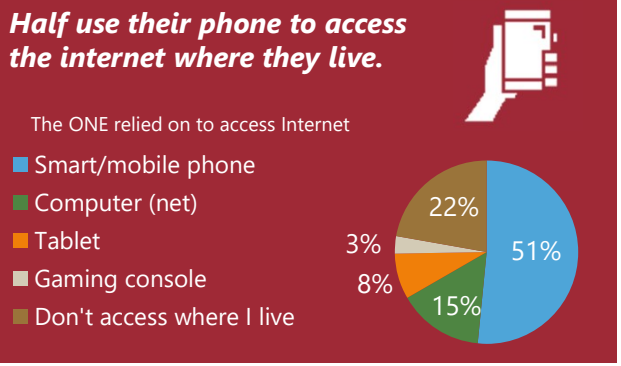


Most own their devices.

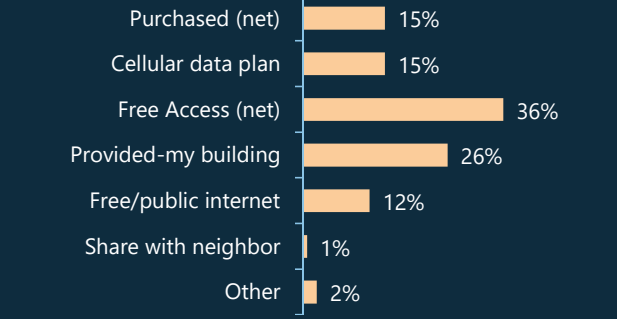


Note: Total may equal more than 100% because of multiple devices in the household.

Half use their phone to access the internet where they live.

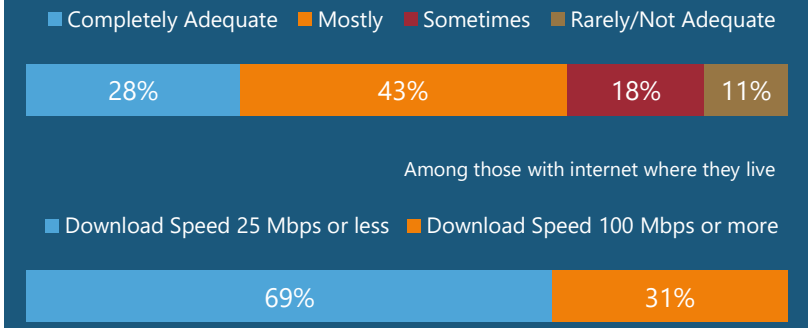


Over a third have free access to the internet where they live.

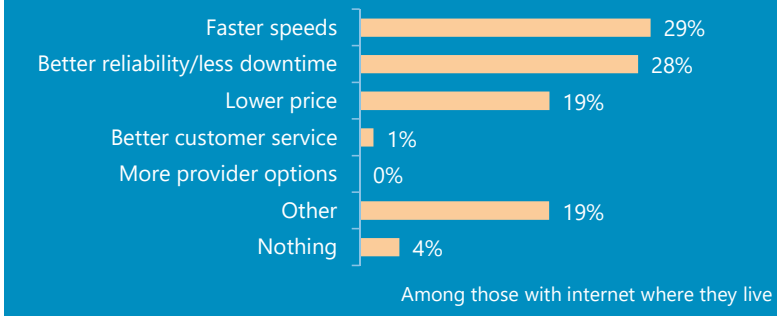


$67 ***Average monthly cost among those who pay for service.***

Around 7 in 10 feel the internet connection and speeds in the place they live are generally adequate to do the things they want or need to do.

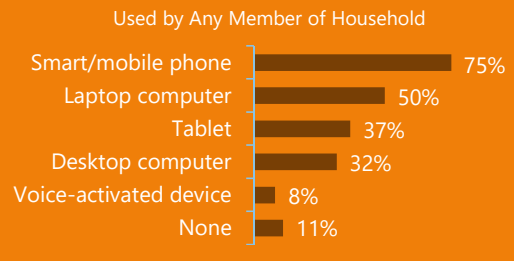


Regarding the ONE thing they would change, 3 in 10 cite faster speed, another 3 in 10 cite less downtime.

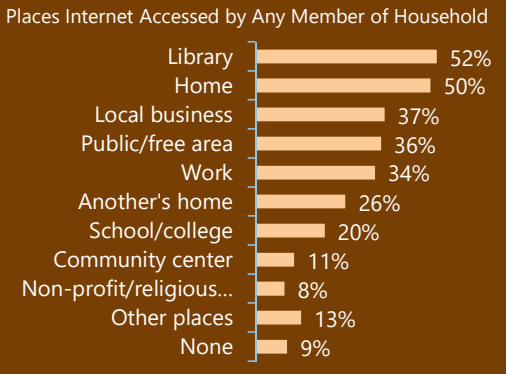


Access Limited – Technology / Device Usage

Across the household, three quarters have smart/mobile phones, half have laptop computers and a third or more have tablets and desktop PCs.

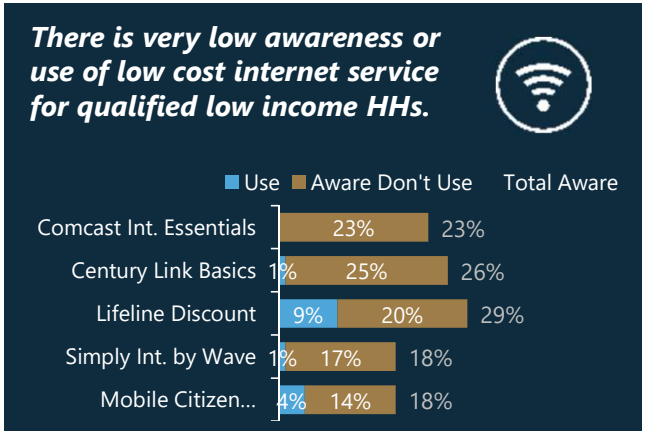


Half say household members have accessed the internet at the library in the past month.



2 in 5 with smart/mobile phones are on a pay-as-you-go basis.

There is very low awareness or use of low cost internet service for qualified low income HHs.

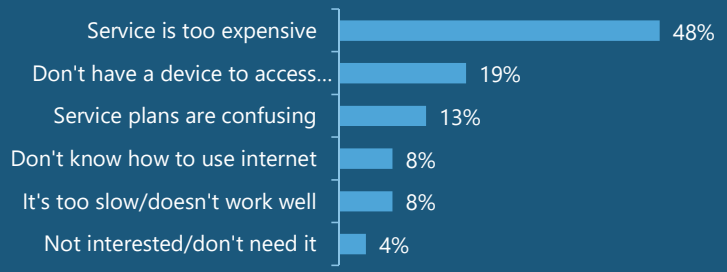


72%
Costs too much

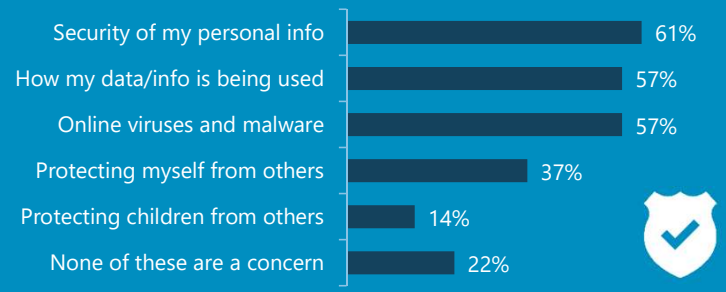
Top reasons for not having internet:

- ***Cost – 72%***
- ***No device to access – 20%***
- ***Don't have credit/deposit – 18%***

Most do not use the internet more because the service is too expensive, and one fifth do not have a device to access the internet.



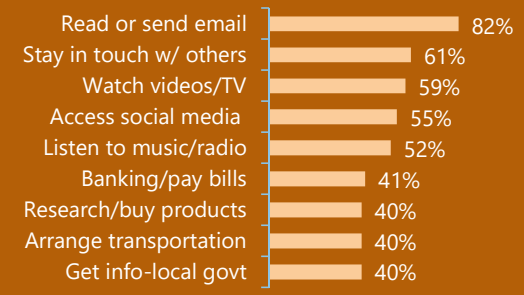
Top concerns about using the internet include security of their personal information, how their data may be used, and online viruses and malware.



Access Limited – Use of Internet / Ability to Use the Internet

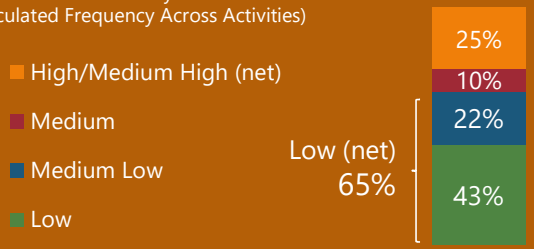
ONLINE activities engaged in most frequently include email, staying in touch with others, accessing videos/TV or music, and using social media. Fewer than half engage in other activities at least weekly

Online Activities Done AT LEAST WEEKLY (Top Mentions)



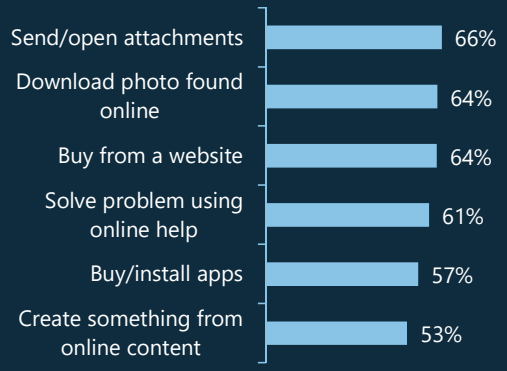
This segment is mixed in terms of online activity – one quarter falls into the "high activity (net)" category, while two thirds fall into the "low activity (net)" category.

Online Activity Level
(Calculated Frequency Across Activities)



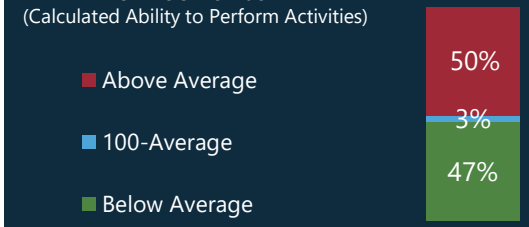
Notable portions are unable to do half of the online activities (out of 12).

Could Do These Online Activities
(Mentions 66% or Fewer "Can Do")

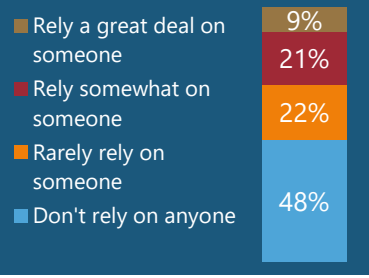


This segment is also mixed for online skills, with half indexing "above average" and close to half "below average."

Online Skills Index
(Calculated Ability to Perform Activities)



7 in 10 rarely, if ever, rely on someone else to help them access or navigate the internet.

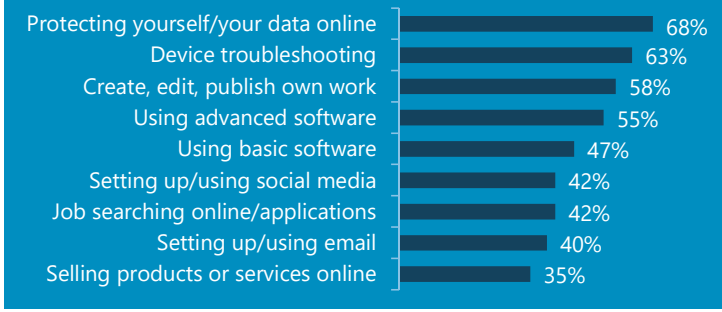


30%
Have impairment

3 in 10 have a household member with an impairment that makes it difficult to use technology or the internet without assistance or adaptation.

The top area of interest would be in learning how to protect themselves and their data online.

Interest in Training Topics (combined "possibly" or "very" interested)



Device Limited

4% of the Total Population

Device Limited Segment

Segment Profile: 4% of the total population

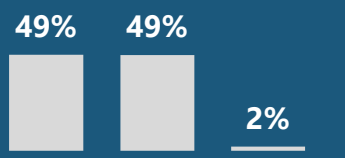
While this segment is not uncomfortable with technology and the internet, per se, neither one is central to their daily lives. Although they all have internet access where they live, only about half have a smart/mobile phone or a computer in their household (HH). With the exception of their phone, notable portions do not own their devices – they either have them through work or borrow them.

Nearly all purchase their internet service, and they would like it to be more affordable. Four in ten do not consider themselves especially confident in using devices to access the internet, and six in ten worry about being able to afford new devices. Over a third rely on someone else to help them access or navigate the internet. Their main use of the internet centers around reading or sending email.

Notable portions of this segment feel the internet and technology have had a mixed impact personally and on society. This segment has limited income. One fifth are disabled and a quarter have a household member with an impairment that makes it difficult to use technology or the internet without assistance or adaptation.

Device Limited – Demographic Profile

Gender Profile



Over 3 in 5 live alone

62% Live alone

34% 2 adults in HH

(17% Spouse/partner; 14% no relationship given)

Only 10% have a child at home.

One third have no post high school education, one quarter have some college or vocational training

34% High school grad or less

25% Some college/vocational

33% 2-yr or 4-yr degree

8% Post graduate work

Over 2 in 5 are retired; 1 in 5 are disabled

42% Employed

47% Unemployed (net)

44% Retired

20% Disabled

Long-term Seattle residents

27% 10 yrs or less

28% 11-20 yrs

45% 21 yrs or more

Mean 29 years

Older; 3 in 5 are in their 60s or older

11% 30-39

30% 40-59

30% 60-69

29% 70+

Mean 60

Lower Income; half have income <$25K

23% <$12K

26% $12K-24.9K

20% $25K-$49.9K

12% $50K-$74.9K

20% $75K or more

Mean $48.0K

More than half are renters; most live in multi-unit buildings; 1 in 10 are homeless or insecurely housed

33% Own

56% Rent

7% Homeless

3% Group housing

1% Insecurely housed
(temporary housing)

37% Single family

63% Duplex/triplex/apt

Mean# (if multi-unit): 56

Strong ethnic mix; fewer than half are White

48% White

28% Black

11% Hispanic/Latino

8% Asian

3% Mixed

1% Other

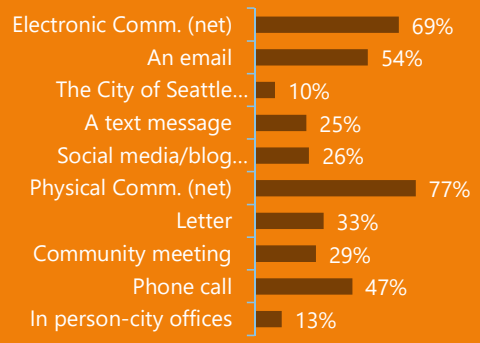
Over 1 in 10 speak a language other than English where they live

88% English

12% Other

Device Limited – Psychographic Profile

Open to a variety of forms of communication in interactions with a group or with the City.



Multiple responses allowed

Most have heard of the City of Seattle Website and 2 in 5 have visited it.

Heard Of	Ever Visited	Mean Visits
81%	40%	0.48

Two thirds have heard of The Seattle Channel, and 1 in 5 have watched it.

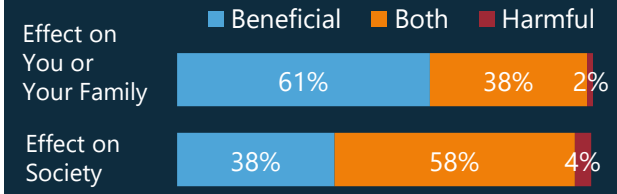
Heard Of	Ever Watched	Mean Views
65%	22%	0.50

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

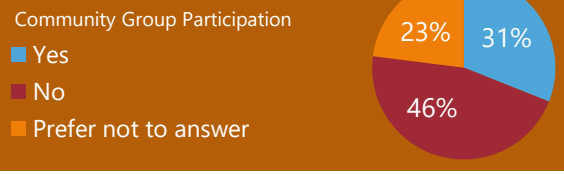
Mean	T3B	B2B
3.7	89%	11%

5=Extremely Important; 1=Not Important/Not Used at All

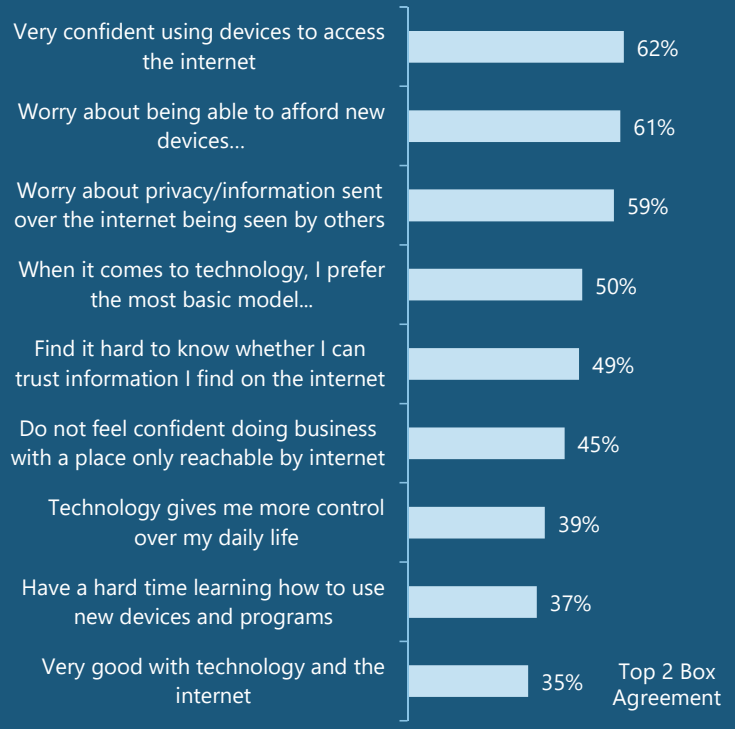
3 in 5 feel the internet and technology have been personally beneficial, but some feel they have had mixed impact personally and on society.



3 in 10 say they participate in a community group; (1 in 4 prefer not to say).



Around 6 in 10 feel very confident in using devices to access the internet, but do worry about internet privacy. 6 in 10 also worry about being able to afford new devices, and half prefer "the most basic model".

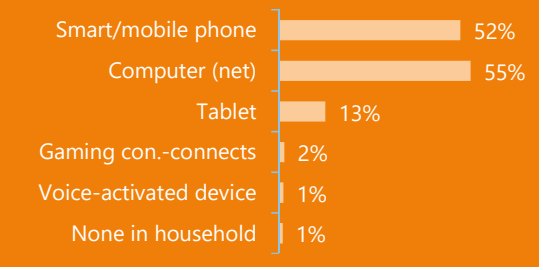


Device Limited – Internet / Device Access

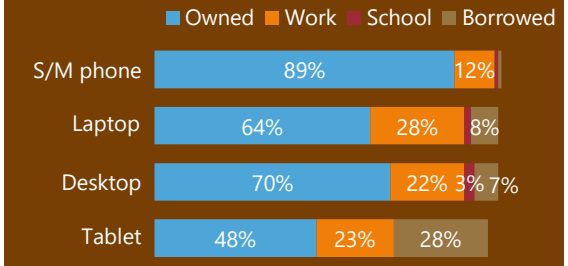
100% ***Have access***

All in this segment have a way to access the internet where they live.

About half have a smart/mobile phone in the household or a computer. Few have other devices.



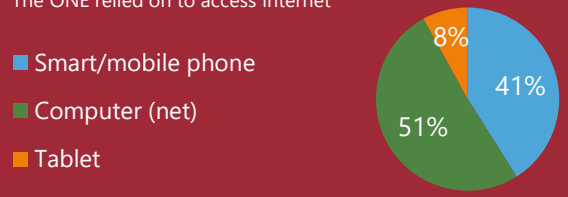
With the exception of their phone, high portions do not own their devices.



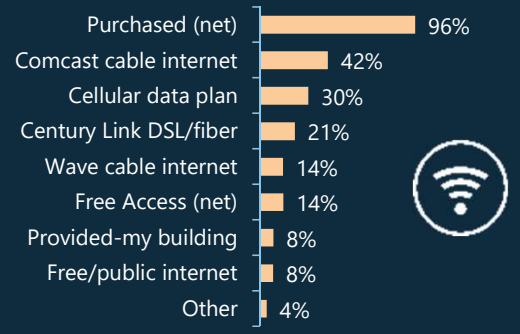
Note: Total may equal more than 100% because of multiple devices in the household.

Half use their computer to access the internet, 2 in 5 their phone, and the rest their tablet.

The ONE relied on to access Internet

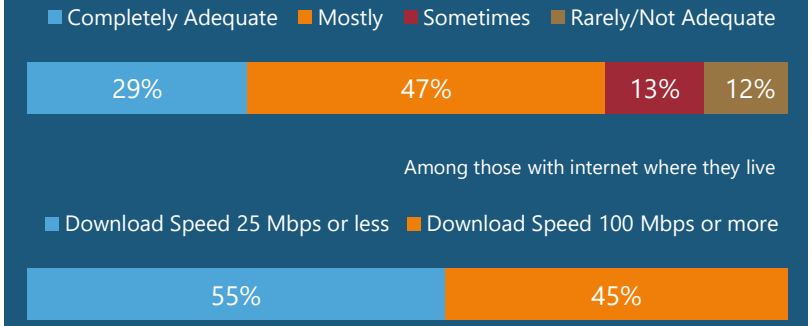


While nearly all say they purchase their internet, 1 in 7 also have free access.

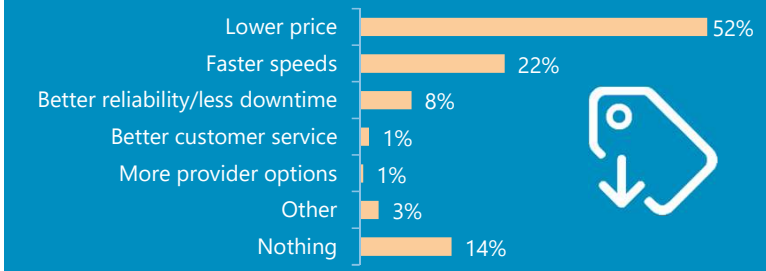


$99 ***Average monthly cost among those who pay for service.***

Three quarters feel the internet connection and speeds in the place they live are generally adequate to do the things they want or need to do.

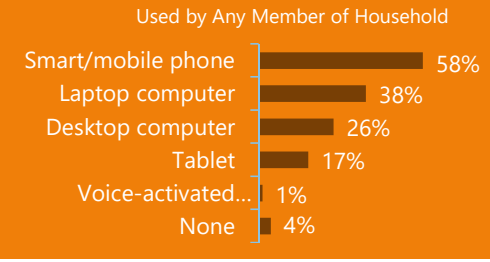


Regarding the ONE thing they would change about the internet where they live, half cite a lower price.



Device Limited – Technology / Device Usage

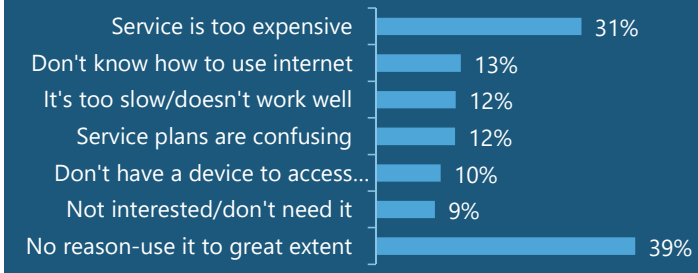
Across the household, close to 3 in 5 use a smart/mobile phone, about 2 in 5 use a laptop computer and 1 in 4 use a desktop PC.



Three quarters with smart/ mobile phones are on a contract, while a quarter are on a pay-as-you-go basis.

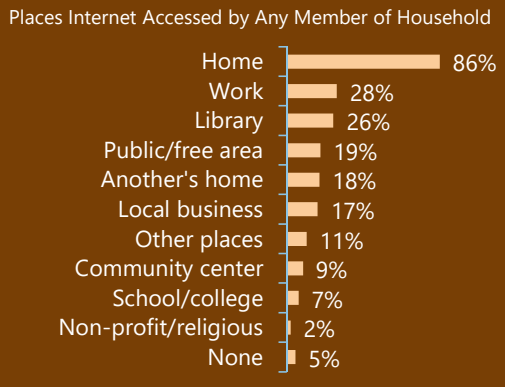
Among those with smart/mobile phones

A third do not use the internet more because the service is too expensive.

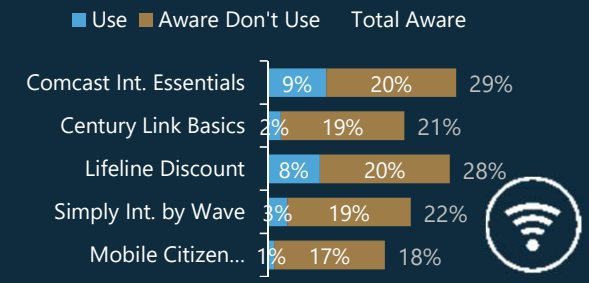


Mentions by 3% or more

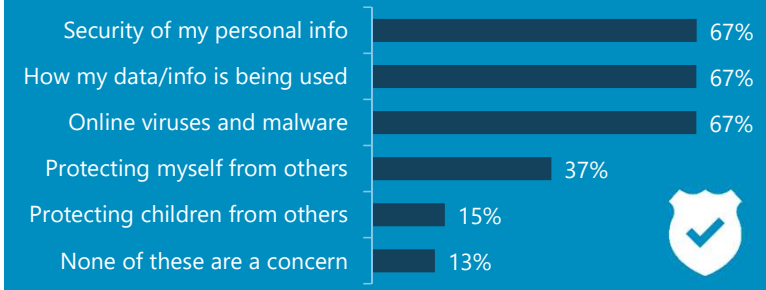
They have mostly accessed the internet at home in the past month.



A fifth or more are aware of low cost internet service plans for qualified low income HHs, but few use them.



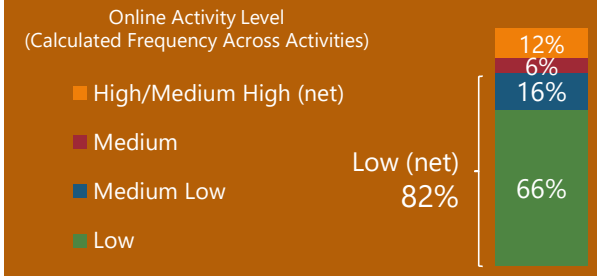
Top concerns about using the internet include security of their personal information, how their data may be used, and online viruses and malware.



Device Limited – Use of Internet / Ability to Use the Internet

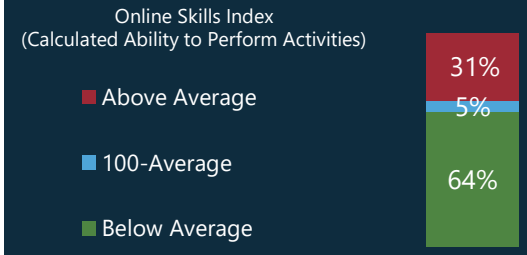
ONLINE activities engaged in most frequently include email, staying in touch with others, and accessing social media. Fewer than half engage in other activities at least weekly.

This segment is less active online – 4 in 5 fall into the "low activity (net)" category.

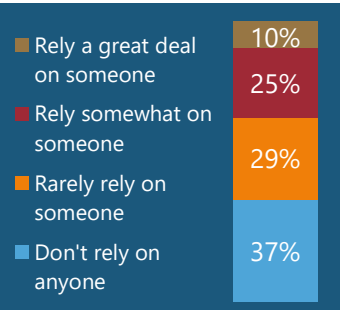


Notable portions are unable to do 7 out of 12 online activities.

This segment indexes low for online skills – nearly 2 in 3 (64%) index "below average."



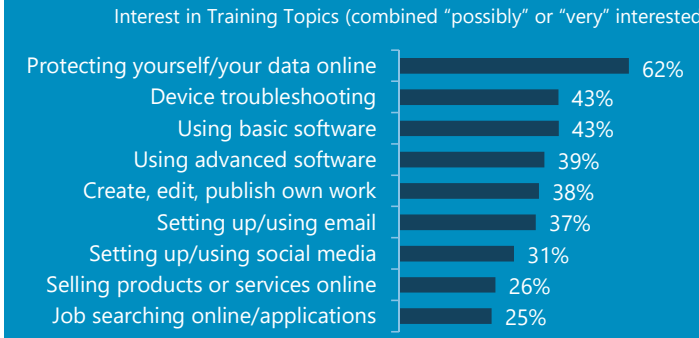
Over a third rely on someone else to help them access or navigate the internet.



25% ***Have impairment***

One in four have a household member with an impairment that makes it difficult to use technology or the internet without assistance or adaptation.

The top area of interest would be in learning how to protect themselves and their data online.



Digital Skills Limited

14% of the Total Population

Digital Skills Limited Segment

Segment Profile: 14% of the total population

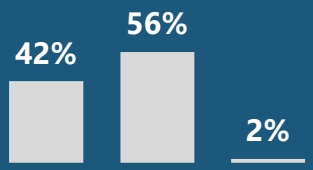
This segment tends to lack skills or confidence when it comes to technology and the internet. They are more likely than most others to prefer a basic model device, to have a hard time learning how to use a new device or software, and to not feel confident doing business with places only reachable online.

They are not limited by access – they all have internet where they live, and nearly all have a smart/mobile phone and computer in the household (HH), and they own their devices. Nearly all purchase their internet service, and nine in ten are on a contract data plan, split between limited and unlimited.

Two thirds in this segment rely on someone else to help them access or navigate the internet. While most are comfortable using email or visiting websites, notable portions would not be comfortable with a range of internet activities. Members in this segment are less likely to go online to bank, shop, stream video or music, or access social media.

Digital Skills Limited – Demographic Profile

Gender Profile



Most share their home; but few have children in the household

42% Live alone

50% 2 adults in HH

(38% Spouse/partner; 11% no relationship given)

16% have a child at home.

Close to half have at least a 2-year college degree or more

29% High school grad or less

24% Some college/vocational

28% 2-yr or 4-yr degree

18% Post graduate work

Around half are employed and more than a third are retired.

53% Employed

39% Unemployed (net)

35% Retired

12% Disabled

4% Homemaker

More tend to be long-term Seattle residents

31% 10 yrs or less

16% 11-20 yrs

54% 21 yrs or more

Mean 28 years

Middle aged or older; a third are in their 40s or 50s

11% Under 30

10% 30-39

32% 40-59

24% 60-69

24% 70+

Mean 56

Middle Income; half earn $50K or more

22% <$25K

29% $25K-$49.9K

19% $50K-$74.9K

20% $75K -$149.9K

10% $150K or more

Mean $66.5K

3 in 5 are home owners; they live in a mix of single family and multi-unit homes

62% Own

35% Rent

2% Homeless

1% Group housing

54% Single family

46% Duplex/triplex/apt

Mean# (if multi-unit): 49

Segment with the highest portion of Asian members, 1 in 4

53% White

26% Asian

12% Black

4% Hispanic/Latino

4% Mixed

1% Other

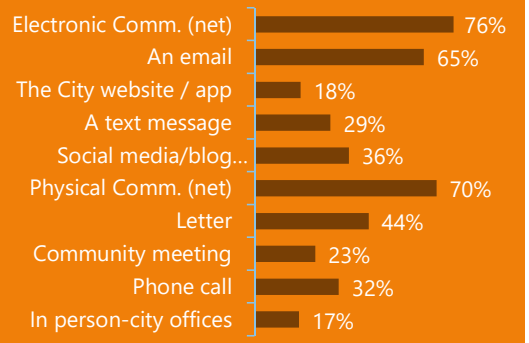
1 in 10 speak a language other than English where they live

91% English

9% Other

Digital Skills Limited – Psychographic Profile

Open to a variety of forms of communication in interactions with a group or with the City.



Multiple responses allowed

Most have heard of the City of Seattle Website and half have visited it.

Heard Of	Ever Visited	Mean Visits
86%	53%	0.73

Two thirds have heard of The Seattle Channel; around 1 in 5 have watched it.

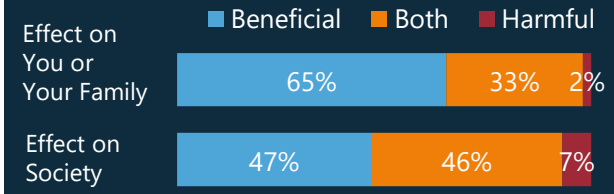
Heard Of	Ever Watched	Mean Views
66%	19%	0.29

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

Mean	T3B	B2B
3.9	93%	7%

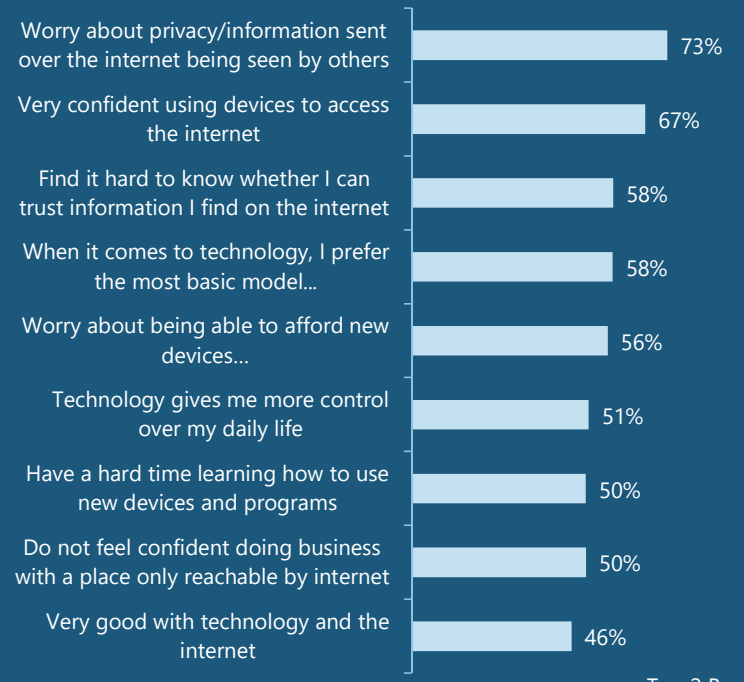
5=Extremely Important; 1=Not Important/Not Used at All

Two thirds feel the internet and technology have been personally beneficial, but some feel they have had mixed impact personally and on society.



Nearly half say they participate in a community group.

More likely than most others to prefer a basic model device, to have a hard time learning how to use a new device or software, and to not feel confident doing business with places only reachable online.



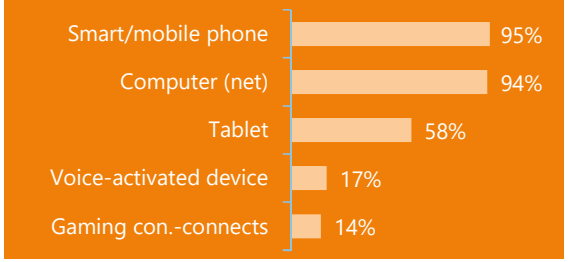
Top 2 Box Agreement

Digital Skills Limited – Internet / Device Access

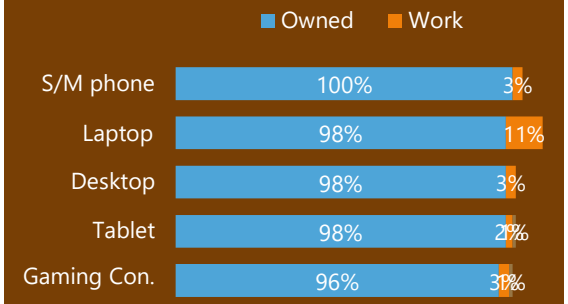
100%
Have access

All in this segment have a way to access the internet where they live.

Nearly all have a smart/mobile phone and computer in the household, and 3 in 5 have a tablet.



Just about all own their devices.

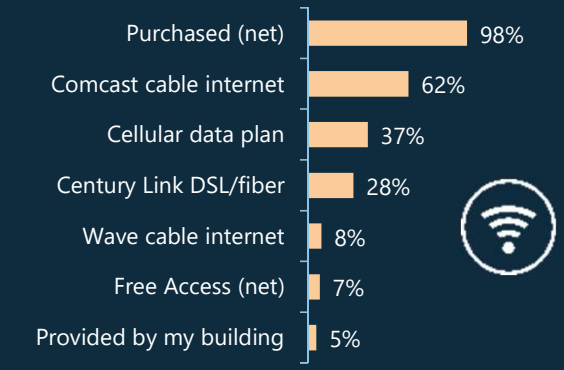


Note: Total may equal more than 100% because of multiple devices in the household.

Half use their computer to access the internet, 2 in 5 their phone, and the rest their tablet.

The ONE relied on to access Internet

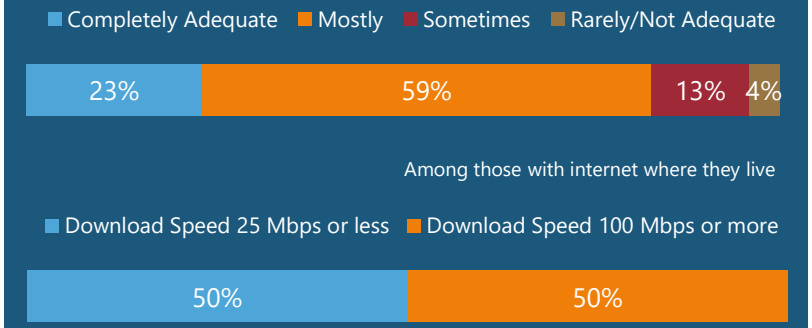
Nearly all purchase their internet.



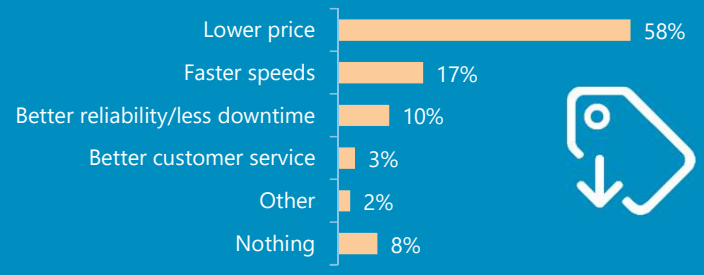
$144

Average monthly cost among those who pay for service.

4 in 5 feel the internet connection and speeds in the place they live are generally adequate to do the things they want or need to do.



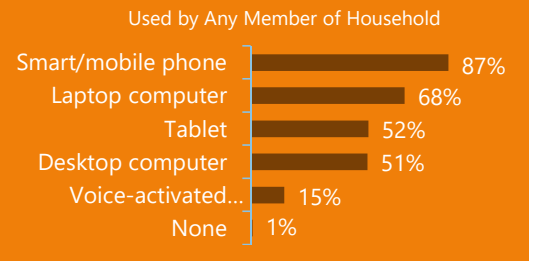
Regarding the ONE thing they would change about the internet where they live, 3 in 5 cite a lower price.



Among those with internet where they live

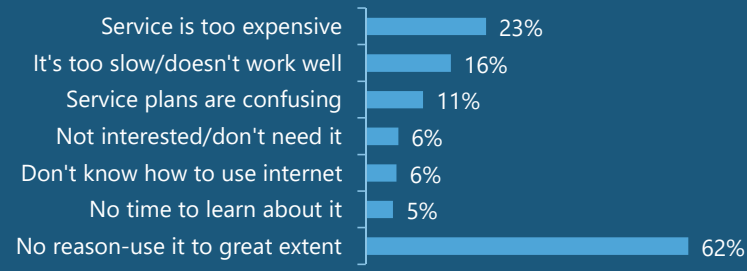
Digital Skills Limited – Technology / Device Usage

Across the household, close to 9 in 10 use a smart/mobile phone, over two thirds use a laptop, and half use a tablet or desktop PC.

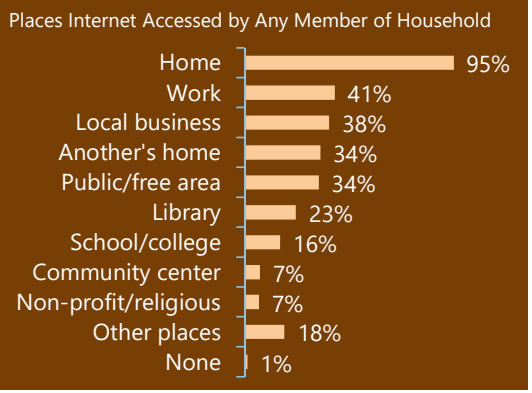


Nearly 9 in 10 are on a contract data plan, split between limited and unlimited.

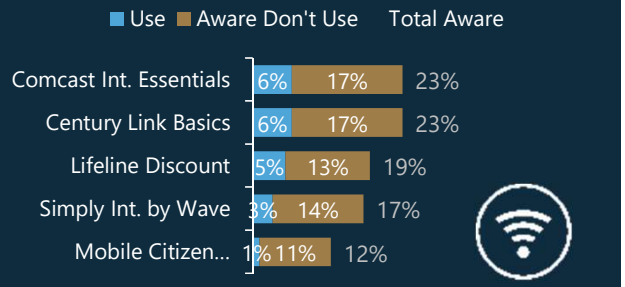
Close to a quarter do not use the internet more because the service is too expensive, but 3 in 5 note they already use the internet to a great extent.



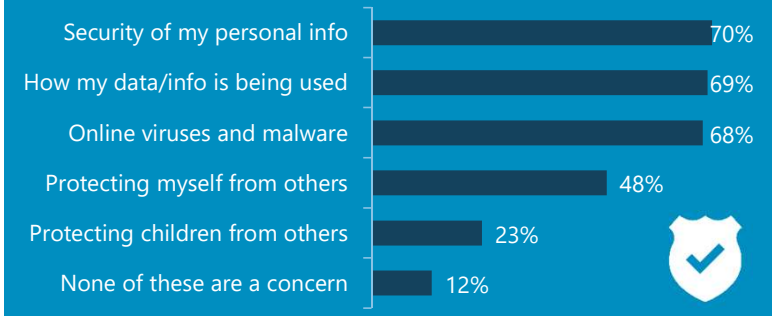
They have mostly accessed the internet at home in the past month



Roughly a fifth are aware of low cost internet service plans for qualified low income HHs, but few use them.



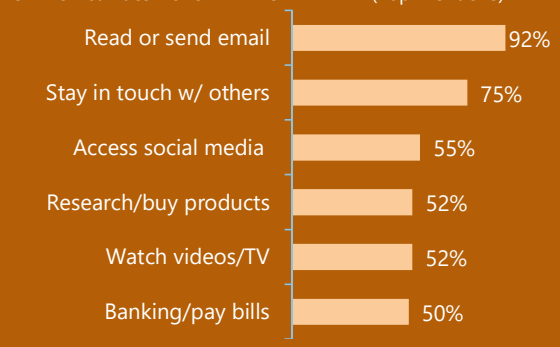
Top concerns about using the internet include security of their personal information, how their data may be used, and online viruses and malware.



Digital Skills Limited – Use of Internet / Ability to Use the Internet

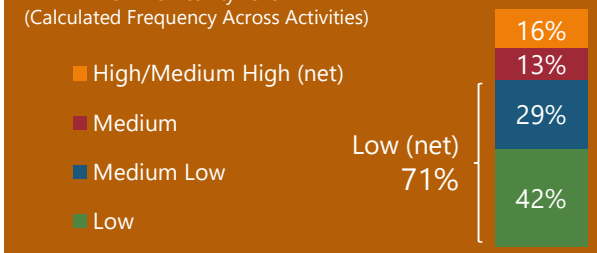
ONLINE activities engaged in most frequently include email and staying in touch with others. Only half or fewer engage in other activities at least weekly.

Online Activities Done AT LEAST WEEKLY (Top Mentions)



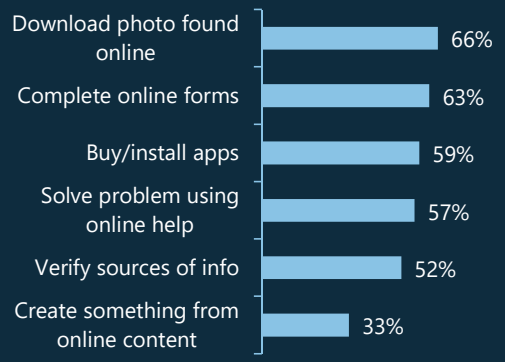
This segment is not very active online – 7 in 10 fall into the "low activity (net)" category.

Online Activity Level
(Calculated Frequency Across Activities)



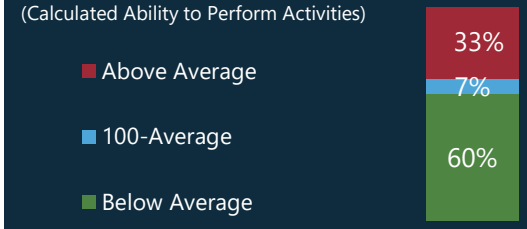
Notable portions are unable to do half of the online activities (out of 12).

Could Do These Online Activities
(Mentions 66% or Fewer "Can Do")

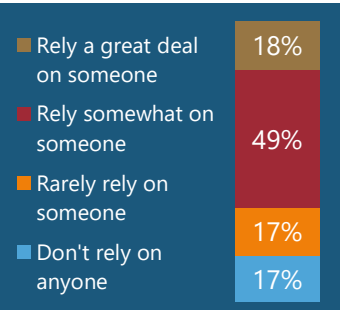


This segment indexes low for online skills with 3 out of 5 index "below average."

Online Skills Index
(Calculated Ability to Perform Activities)



Two thirds rely on someone else to help them access or navigate the internet.

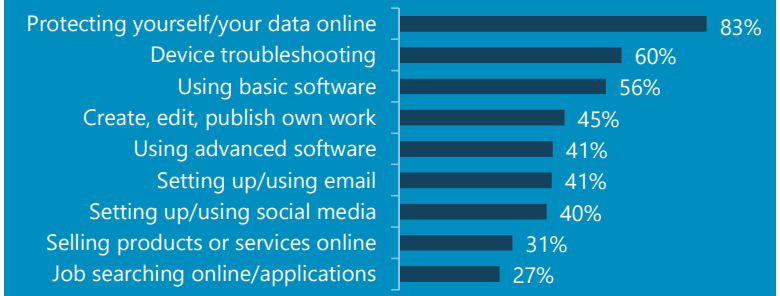


15%
Have impairment

About 1 in 7 have a household member with an impairment that makes it difficult to use technology or the internet without assistance or adaptation.

4 in 5 would be interested in learning how to protect themselves and their data; half "very" interested.

Interest in Training Topics (combined "possibly" or "very" interested)



Access Stressed

18% of the Total Population

Access Stressed Segment

Segment Profile: 18% of the total population

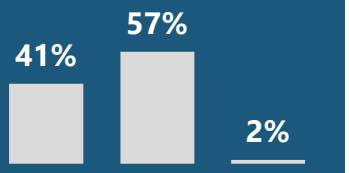
This younger, middle-income segment is technologically savvy and adept. They own an array of digital devices and virtually all consider technology and the internet to be important to their daily lives; two in three consider it "extremely important." They have internet access where they live, but that access is not always satisfactory.

This segment is more likely than others to say their internet is only sometimes adequate to do the things they want or need to do. They tend to have a slower download speed than other segments with a similar wide array of devices. One in four only have a speed of up to 15 Mbps.

Regarding the one thing they would change about the internet where they live, over half cite a lower price, and one in four cite faster speeds. Three in ten do not use the internet more because the service is too expensive, and nearly a quarter limit their use because it is too slow or does not work well. This segment is more likely than others to worry about being able to afford new devices as technology changes and improves.

Access Stressed – Demographic Profile

Gender Profile



Most share their home; 1 in 4 have children in the HH

35% Live alone
56% 2 adults in HH

(47% have spouse/partner; 8% have a roommate)

27% children at home (16% - 1 child, 8% - 2, 3% - 3+)

3 in 4 have a college degree; 1 in 4 have done post graduate work

7% High school grad or less
17% Some college/vocational
50% 2-yr or 4-yr degree
25% Post graduate work

3 in 4 are employed; most others are students or unemployed but looking for a job

77% Employed
15% Unemployed (net)
9% Looking for job
10% Student
5% Disabled
4% Homemaker

One third are Seattle newcomers

32% 5 yrs or less
20% 6-10 yrs
19% 11-20 yrs
30% 21 yrs or more

Mean 16 years

Younger; 3 in 10 are under 30

30% Under 30
27% 30-39
20% 40-49
13% 50-59
10% 60+

Mean 39

Middle Income; over half earn $50K or more

19% <$25K
25% $25K-$49.9K
19% $50K-$74.9K
26% $75K -$149.9K
11% $150K or more

Mean $73.0K

More than half are renters; around 6 in 10 live in multi-unit homes

43% Own
54% Rent
2% Homeless

42% Single family
58% Duplex/triplex/apt

Mean# (if multi-unit): 40

Ethnically diverse; two thirds are White

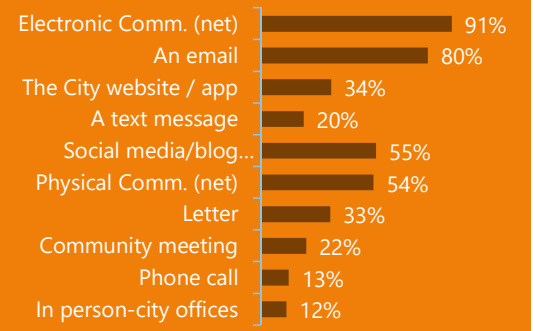
67% White
13% Asian
8% Hispanic/Latino
5% Black
7% Mixed

Nearly all say English is the primary language spoken where they live

96% English
4% Other

Access Stressed – Psychographic Profile

Open to a variety of forms of communication in interactions with a group or with the City, especially electronic communication.



Multiple responses allowed

Nearly all have heard of the City of Seattle Website; 4 in 5 have visited it.

Heard Of	Ever Visited	Mean Visits
97%	78%	1.16

3 in 5 have heard of The Seattle Channel; 1 in 5 have watched it.

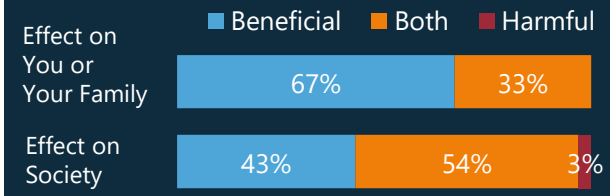
Heard Of	Ever Watched	Mean Views
61%	19%	0.29

Virtually all consider technology and the internet to be important, 2 in 3 say "extremely" important.

Mean	T3B	B2B
4.6	99%	1%

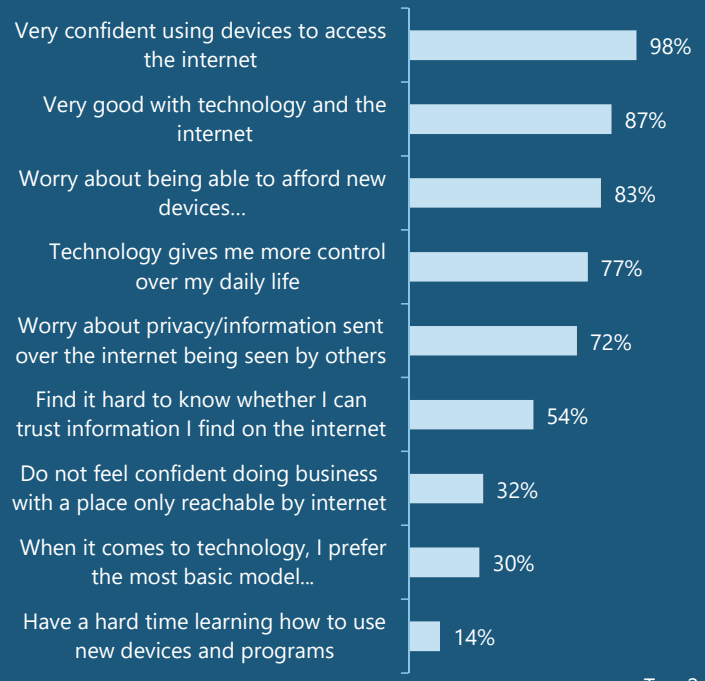
5=Extremely Important; 1=Not Important/Not Used at All

Two thirds feel the internet and technology have been personally beneficial, but some feel it has had mixed impact personally and on society.



Just under half say they participate in a community group.

While highly confident with technology and the internet, this segment is more likely than others to worry about being able to afford new devices as technology changes and improves.



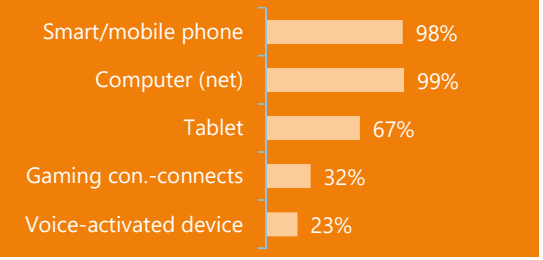
Top 2 Box Agreement

Access Stressed – Internet / Device Access

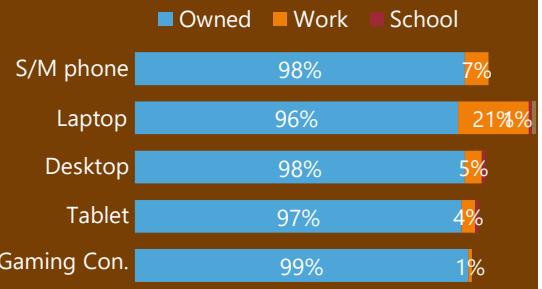
100% ***Have access***

All in this segment have a way to access the internet where they live.

Nearly all have a smart/mobile phone and computer in the household (HH), 2 in 3 have a tablet, 1 in 3 a gaming console.



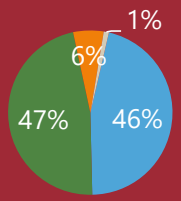
Just about all own their devices.



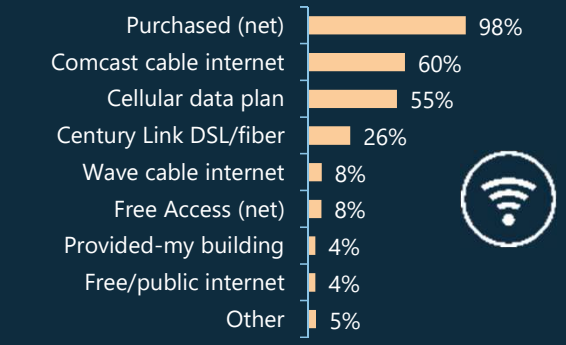
Note: Total may equal more than 100% because of multiple devices in the household.

Most are generally split between relying on their phone or their computer to access the Internet.

The ONE relied on to access Internet



Nearly all purchase their internet, but 1 in 12 note they have free access.

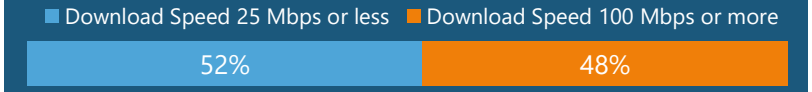


$141 ***Average monthly cost among those who pay for service.***

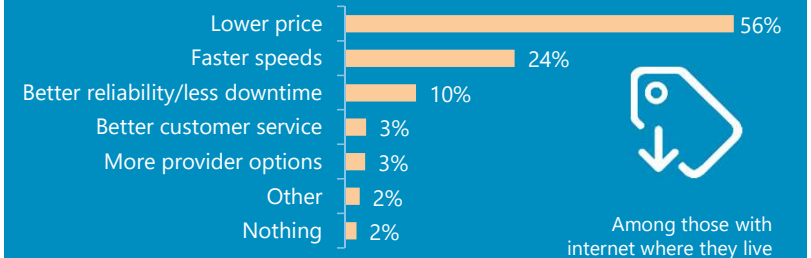
More likely than others to say their internet is only <u>sometimes</u> adequate to do the things they want or need to do.

Among those with internet where they live

They tend to have a slower download speed than other segments with a similar wide array of devices. (25% only have a speed of up to 15 Mbps)



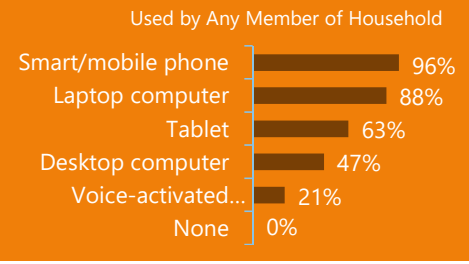
Regarding the ONE thing they would change about the internet where they live, over half cite a lower price, 1 in 4 cite faster speeds.



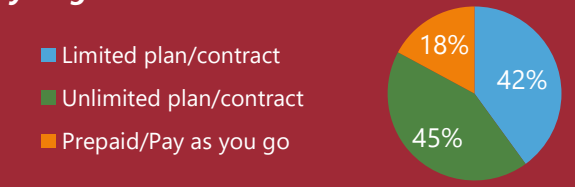
Among those with internet where they live

Access Stressed – Technology / Device Usage

Across the household, nearly all use a smart/mobile phone and a laptop, almost 2 in 3 use a tablet, and close to half use a desktop PC.

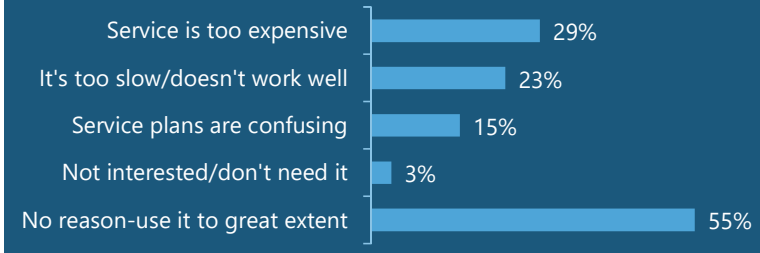


While the majority are on a contract data plan (split between limited and unlimited), nearly 1 in 5 are on a pay-as-you-go basis.



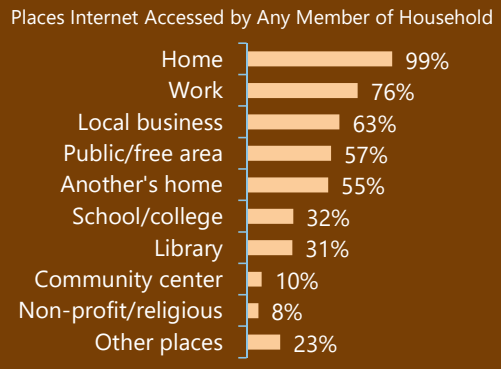
Among those with smart/mobile phones

3 in 10 do not use the internet more because the service is too expensive, and nearly a quarter limit their use because it is too slow or does not work well.

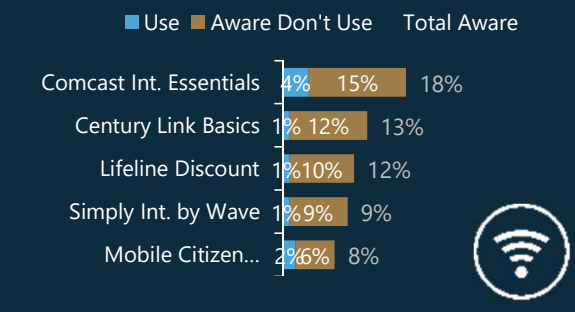


Mentions by 3% or more

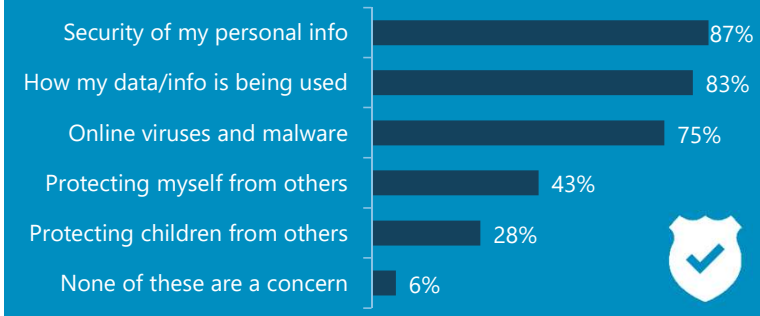
More likely than most others to have accessed the internet at school or the library.



Generally low awareness of low cost internet service plans for qualified low income HHs, and very little use of them.

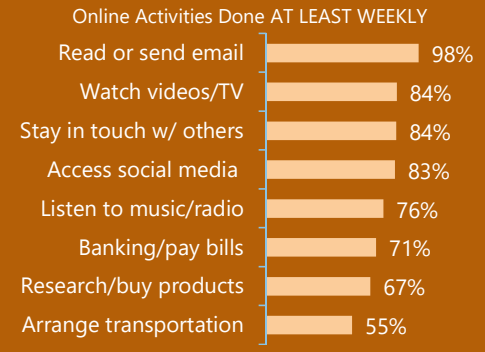


Top concerns about using the internet include security of their personal information, how their data may be used, and online viruses and malware.



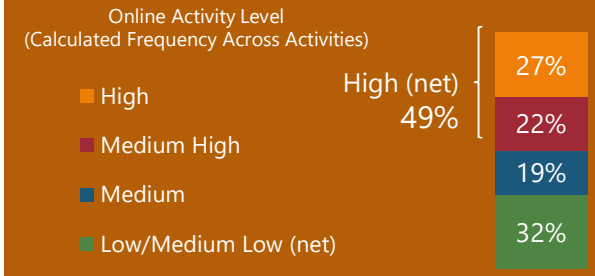
Access Stressed – Use of Internet / Ability to Use the Internet

ONLINE activities engaged in most frequently include email, staying in touch with others, streaming video or music, and accessing social media.

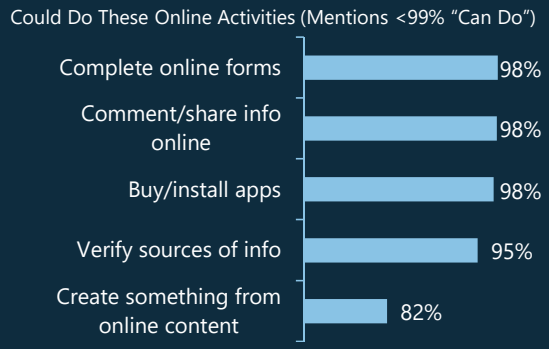


The Access Stressed segment is the second* most active online, with half falling into the "high activity (net)" level.

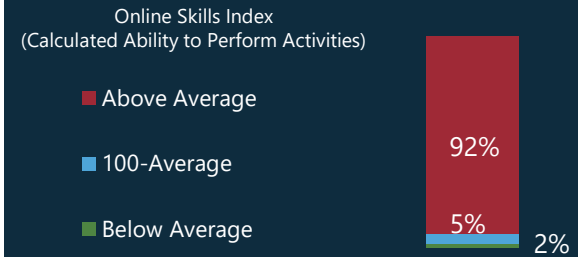
*(*Second only to the Hyper Connected.)*



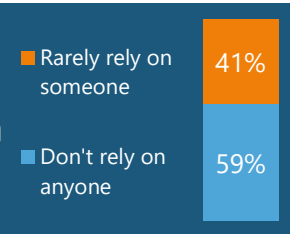
This segment is digitally adept. Nearly all can do 7 of 12 tasks, and most are capable of doing the remaining five activities.



This segment indexes high for online skills with nine in ten index "above average."



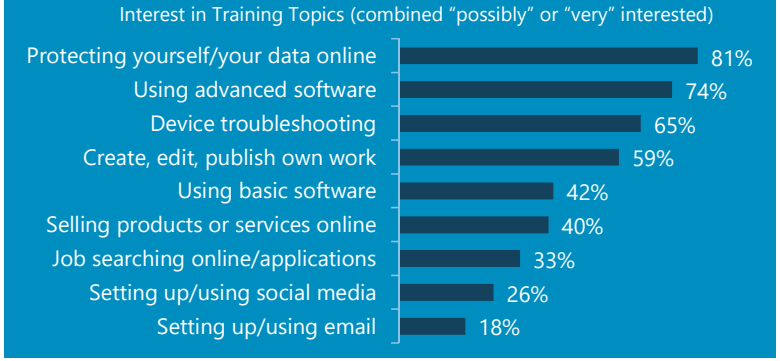
They rarely, if ever, rely on someone else to help them access or navigate the internet.



10%
Have impairment

1 in 10 have a household member with an impairment that makes it difficult to use technology or the internet without assistance or adaptation.

More likely than most to be interested in a wide array of topics, especially using advanced software, creating/publishing their own work, and selling products or services online.



Digitally Cautious

24% of the Total Population

Digitally Cautious Segment

Segment Profile: 24% of the total population

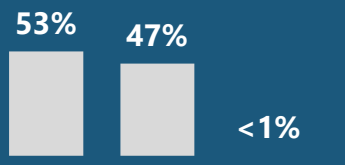
This segment is technologically savvy and adept – they own a lot of digital devices and use the internet frequently. Virtually all consider technology and the internet to be important to their daily lives; two in three consider it "extremely important." They have internet access where they live, and income levels that assure them access to technology.

This segment is very confident in their use of the internet and technology, but are also very worried about their privacy and about information sent across the internet. They tend to mistrust information found online. This segment has the highest proportion of members worried about the security of their personal information, how their data may be used, and about online viruses and malware. Around 6 in 10 feel the internet and technology have been personally beneficial, but the remainder feel the impact has been both beneficial and harmful.

In spite of their wariness, they use the internet to a great extent. They frequently email, access social media, and stream video and music. Although cautious, three quarters engage in online banking and shopping.

Digitally Cautious – Demographic Profile

Gender Profile



7 in 10 live with someone else

29% Live alone
62% 2 adults in HH
8% >2 adults in HH

59% have spouse/partner

27% children at home (15% - 1 child, 10% - 2, 3% - 3+)

Most are college educated; a third have done post graduate work

4% High school grad or less
14% Some college/vocational
48% 2-yr or 4-yr degree
34% Post graduate work

Most are employed.

84% Employed
15% Unemployed (net)
11% Retired
5% Student

Term of Seattle residency, mixed

29% 5 yrs or less
17% 6-10 yrs
15% 11-20
39% 21 yrs or more

Mean 18 years

Younger; a fifth are under 30, half are under 40.

21% Under 30
31% 30-39
31% 40-59
17% 60+

Mean 42

High Income; half have income >$100K

17% <$50K
34% $50K-$99.9K
21% $100K-149.9K
28% $150K or more

Mean $110.1K

Nearly two thirds own their home; live in a mix of single family or multi-unit dwellings

63% Own
36% Rent

56% Single family
44% Duplex/triplex/apt

Mean# (if multi-unit): 40

7 in 10 are White

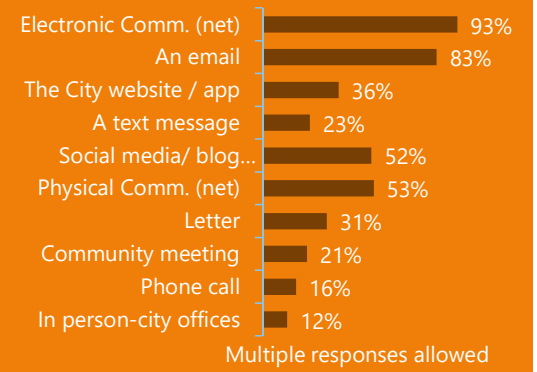
70% White
14% Asian
6% Hispanic/Latino
4% Black
5% Mixed
1% Other

Nearly all speak English where they live

97% English
3% Other

Digitally Cautious – Psychographic Profile

Open to a variety of forms of communication in interactions with a group or with the City, especially electronic communication.



Nearly all have heard of the City of Seattle Website; 4 in 5 have visited it.

Heard Of	Ever Visited	Mean Visits
98%	81%	1.10

6 in 10 have heard of The Seattle Channel; 1 in 6 have watched it.

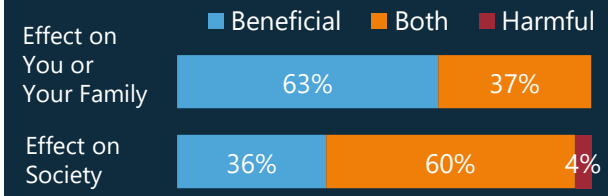
Heard Of	Ever Watched	Mean Views
61%	17%	0.22

Nearly all feel technology and the internet are important in their lives; 2 in 3 say "extremely important."

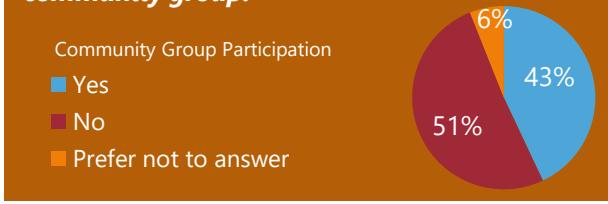
Mean	T3B	B2B
4.6	99%	1%

5=Extremely Important; 1=Not Important/Not Used at All

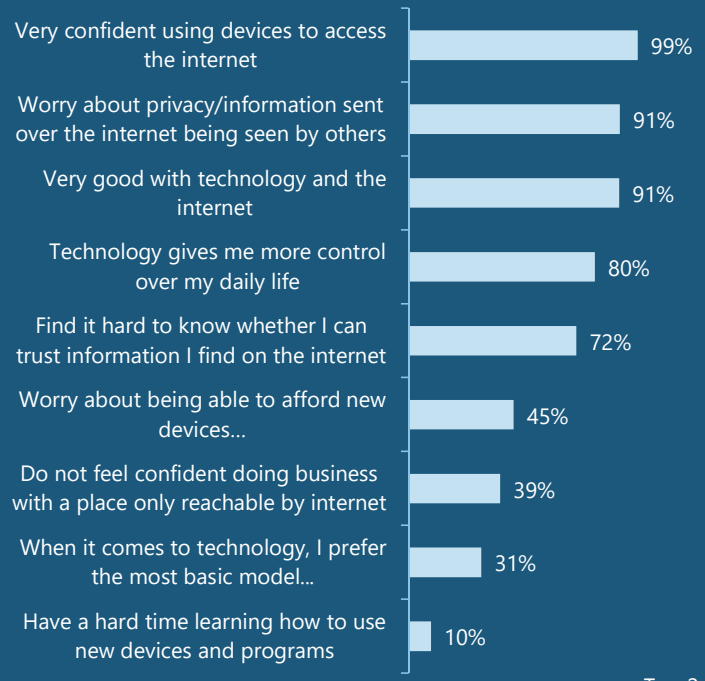
Around 6 in 10 feel the internet and technology have been personally beneficial, but that they have had a mixed impact on society.



Around 2 in 5 say they participate in a community group.



This segment is very confident in their use of the internet and technology, but also very worried about their privacy and about information sent across the internet. They also tend to mistrust information found online.

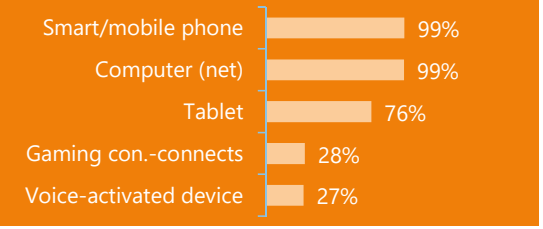


Digitally Cautious – Internet / Device Access

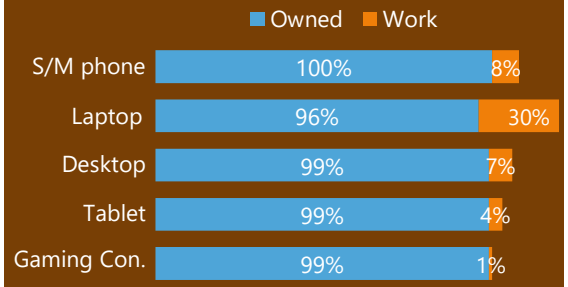
100% Have access

All in this segment have a way to access the internet where they live.

Nearly all have a smart/mobile phone and PC in the household (HH), 3 in 4 have a tablet, and more than 1 in 4 have connected gaming consoles and voice activated devices.



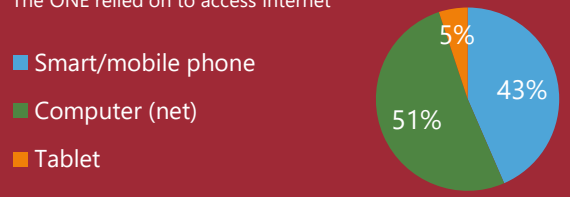
Just about all own their devices.



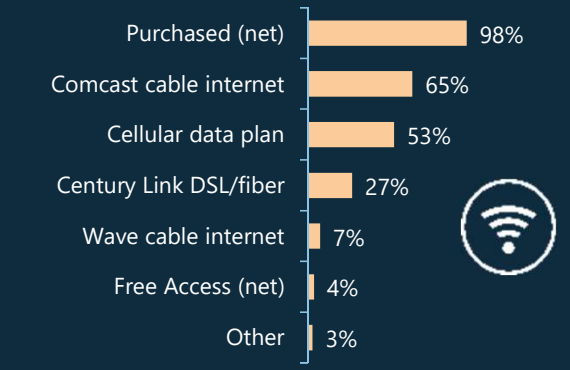
Note: Total may equal more than 100% because of multiple devices in the household.

Half use their computer to access the internet, 2 in 5 their phone, and the rest their tablet.

The ONE relied on to access Internet

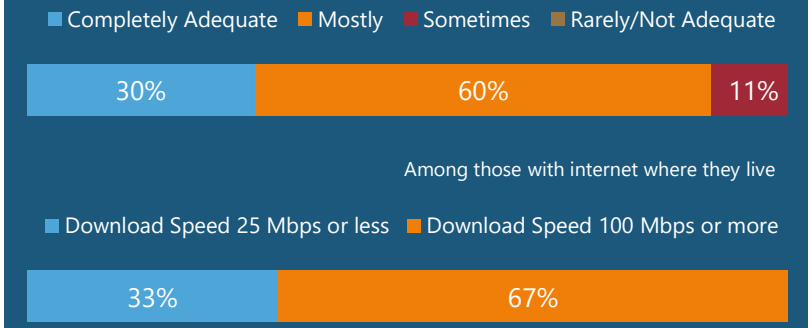


Nearly all purchase their internet.

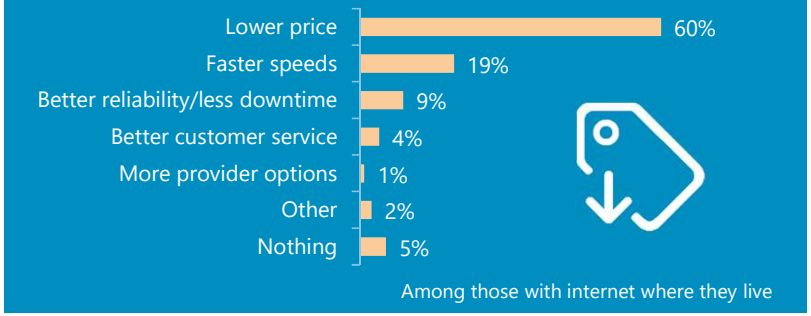


$162 ***Average monthly cost among those who pay for service.***

9 in 10 feel the internet connection and speeds in the place they live are generally adequate to do the things they want or need to do.

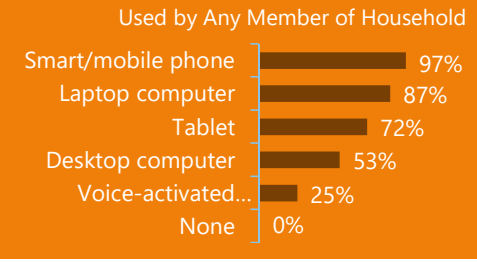


Regarding the ONE thing they would change about the internet where they live, 3 in 5 cite a lower price.

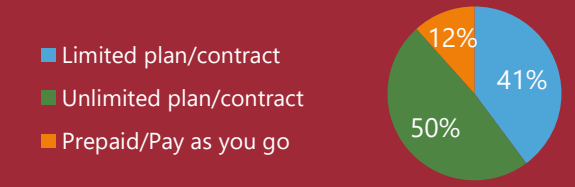


Digitally Cautious – Technology / Device Usage

Across the household, virtually all use a smart/mobile phone, 9 in 10 use a laptop, 3 in 4 use a tablet and half use a desktop PC.

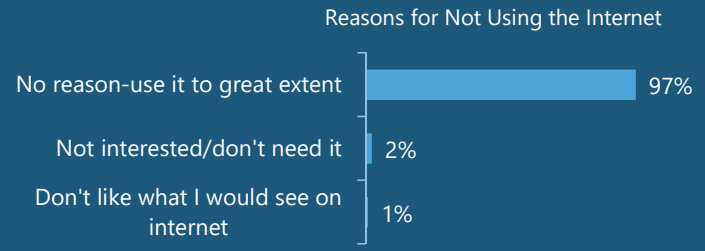


9 in 10 are on a contract data plan, with the majority on unlimited plans.

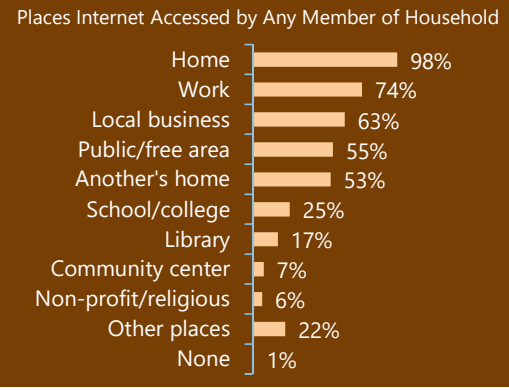


Among those with smart/mobile phones

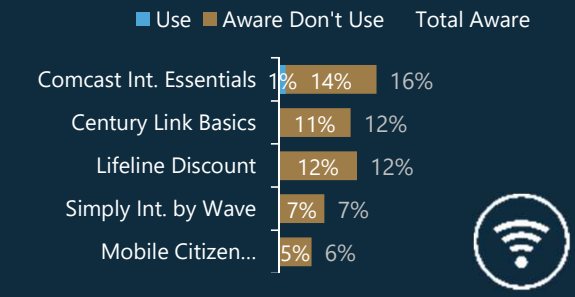
In spite of their wariness, they already use the internet to a great extent.



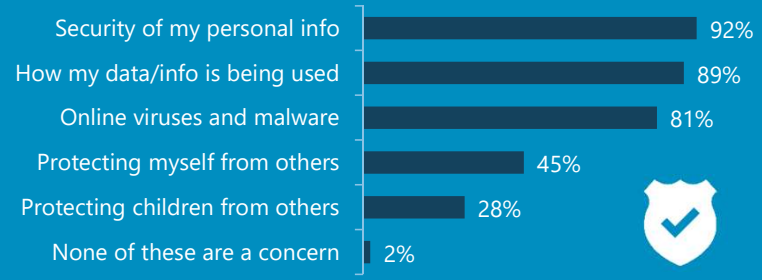
They mostly accessed the internet at home and work in the past month.



They have very little awareness of low cost internet service plans for qualified low income HHs, and virtually no use of them.



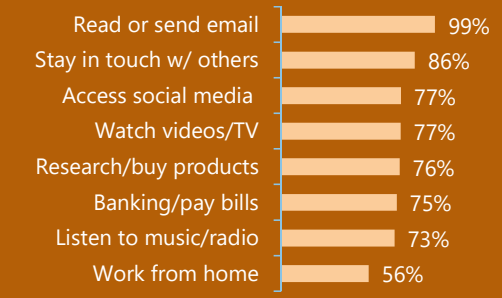
This segment has the highest proportion of members worried about the security of their personal information, how their data may be used, and online viruses and malware.



Digitally Cautious – Use of Internet / Ability to Use the Internet

ONLINE activities engaged in most frequently include email and staying in touch with others. Although cautious, three quarters engage in online banking and shopping.

Online Activities Done AT LEAST WEEKLY (Top Mentions)

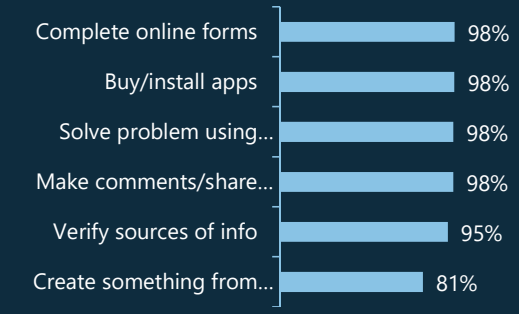


2 in 5 are "highly active (net)" online and over 1 in 3 are less active.

Online Activity Level
(Calculated Frequency Across Activities)

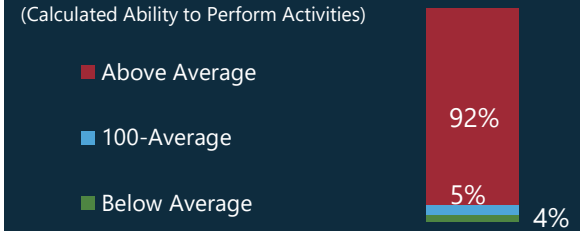
This segment is digitally adept. Nearly all can do 6 of 12 tasks, and most are capable of doing the remaining six activities.

Could Do These Online Activities (Mentions <99% "Can Do")

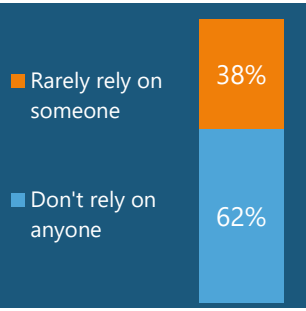


This segment indexes high for online skills with nine in ten index "above average."

Online Skills Index
(Calculated Ability to Perform Activities)



This segment rarely if ever relies on someone else to help them access or navigate the internet.

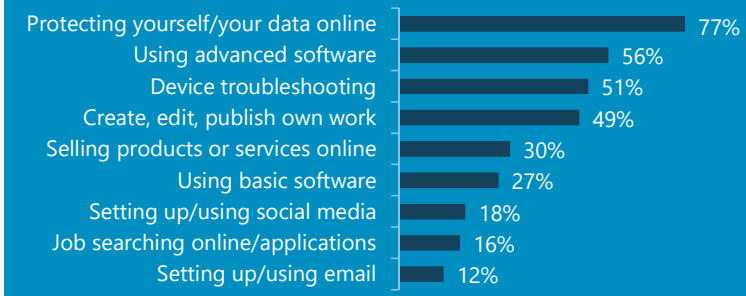


4%
Have impairment

Only 4% have a household member with an impairment that makes it difficult to use technology or the internet without assistance or adaptation.

Over three quarters would be interested in learning how to protect themselves and their data.

Interest in Training Topics (combined "possibly" or "very" interested)



Digitally Connected

13% of the Total Population

Digitally Connected Segment

Segment Profile: 13% of the total population

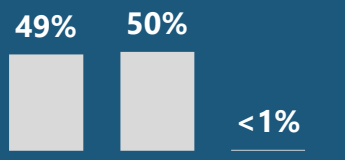
This segment values technology and the internet, and what it can do in their lives. All consider technology and the internet to be important to their daily lives; two in five consider them "extremely important." They all have internet access where they live, and have income levels that assure them access to technology.

The majority feel the internet and technology have had only a beneficial effect on their personal lives. They are very confident with technology and consider themselves highly capable when it comes to using devices to access the internet, and rarely need to rely on others for help.

Smartphones and laptops are ubiquitous across these households (HHs), and tablets, desktop computers and voice activated devices are also common. This segment likes to stay in touch electronically, frequently sending email and accessing social media. They also like to stream video or music, and bank or shop online. Three quarters feel technology gives them more control over their daily lives.

Digitally Connected – Demographic Profile

Gender Profile



7 in 10 live with someone else

30% Live alone
62% 2 adults in HH
8% >2 adults in HH

60% have spouse/partner

31% children at home (14% - 1 child, 15% - 2, 2% - 3+)

Most are college educated; over a third have done post graduate work

4% High school grad or less
14% Some college/vocational
47% 2-yr or 4-yr degree
35% Post graduate work

4 in 5 are employed

79% Employed
17% Unemployed (net)
14% Retired
5% Student
4% Homemaker

Term of Seattle residency, mixed

27% 5 yrs or less
20% 6-10 yrs
20% 11-20
33% 21 yrs or more
Mean 18 years

Younger; one fifth are under 30; one quarter are in their 30s.

20% Under 30
24% 30-39
21% 40-49
18% 50-59
18% 60+
Mean 44

High Income; half have income >$100K

21% <$50K
29% $50K-$99.9K
21% $100K-149.9K
28% $150K or more

Mean $108.3K

Two thirds own their home; live in a mix of single family or multi-unit dwellings

65% Own
34% Rent

56% Single family
44% Duplex/triplex/apt

Mean# (if multi-unit): 43

4 out of 5 are White

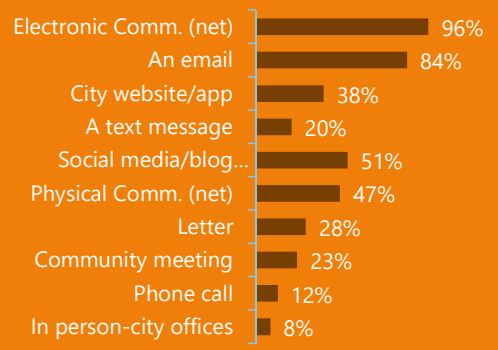
78% White
11% Asian
4% Hispanic/Latino
4% Mixed
3% Black
1% Other

Nearly all say English is the primary language spoken where they live

98% English
2% Other

Digitally Connected – Psychographic Profile

Favor electronic communication in interactions with a group or with the City.



Multiple responses allowed

Nearly all have heard of the City of Seattle Website and 4 in 5 have visited it.

Heard Of	Ever Visited	Mean Visits
99%	81%	1.1

2 in 3 have heard of The Seattle Channel, 1 in 6 have watched it.

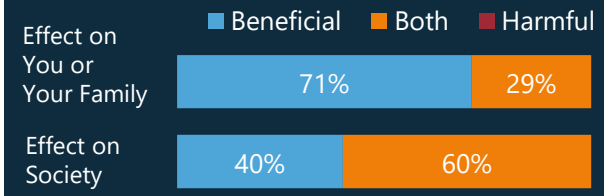
Heard Of	Ever Watched	Mean Views
65%	17%	0.24

All consider technology and the internet to be important to their daily lives; 2 in 5 consider it "extremely important."

Mean	T3B	B2B
4.3	100%	0%

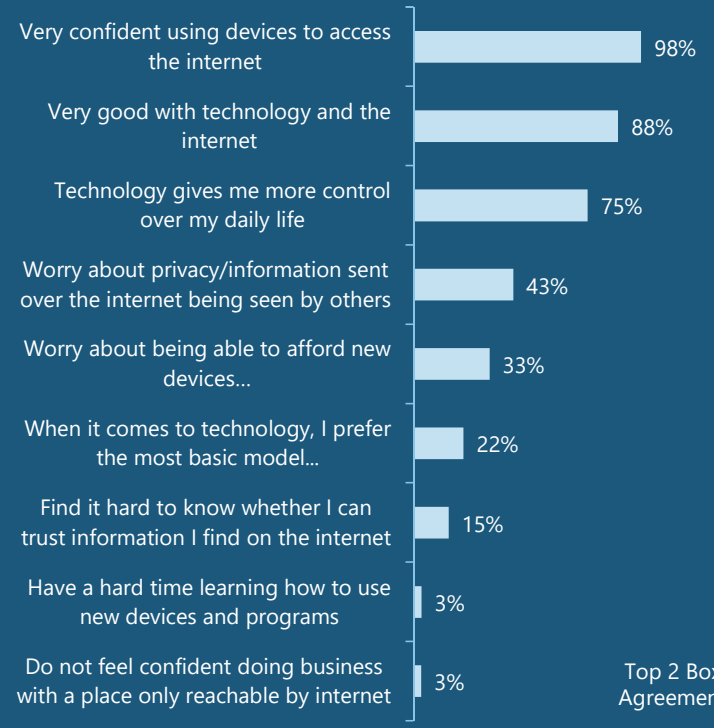
5=Extremely Important; 1=Not Important/Not Used at All

7 in 10 feel the internet and technology have been personally beneficial; but 3 in 5 feel the effects on society have been mixed.



Close to half say they participate in a community group.

Highly confident in their use of devices, technology, and the internet. They feel technology gives them more control over their lives.

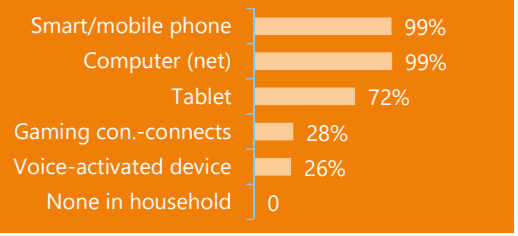


Digitally Connected – Internet / Device Access

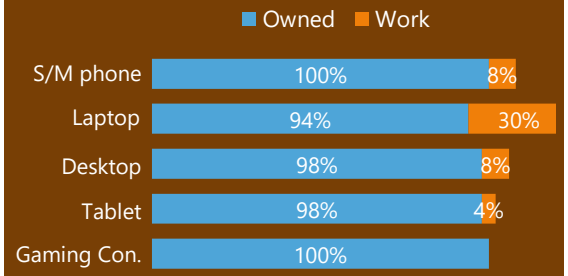
100%
Have access

All have a way to access the internet where they live.

Virtually all have a smart/mobile phone and a computer, 7 in 10 have a tablet, over a quarter have a connected gaming console and/or a voice activated device.

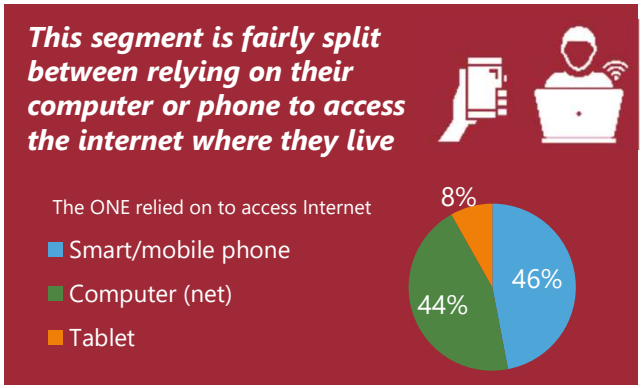


Nearly all own their devices.

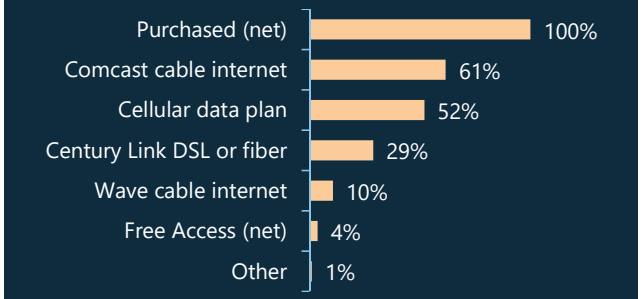


Note: Total may equal more than 100% because of multiple devices in the household.

This segment is fairly split between relying on their computer or phone to access the internet where they live

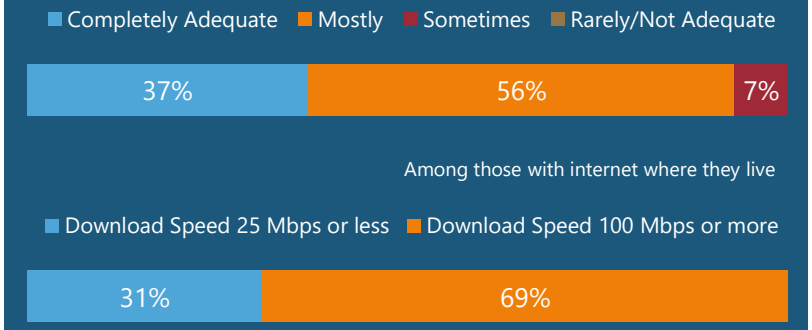


Nearly all purchase their internet access, primarily through Comcast cable or a cellular data plan.

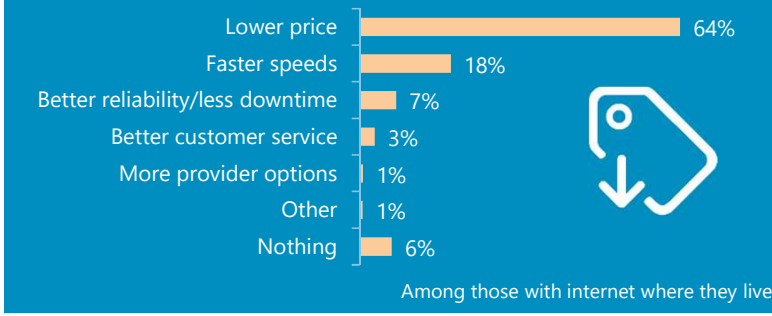


$156 ***Average monthly cost among those who pay for service.***

9 in 10 feel the internet connection and speeds in the place they live are mostly or completely adequate to do the things they want or need to do.



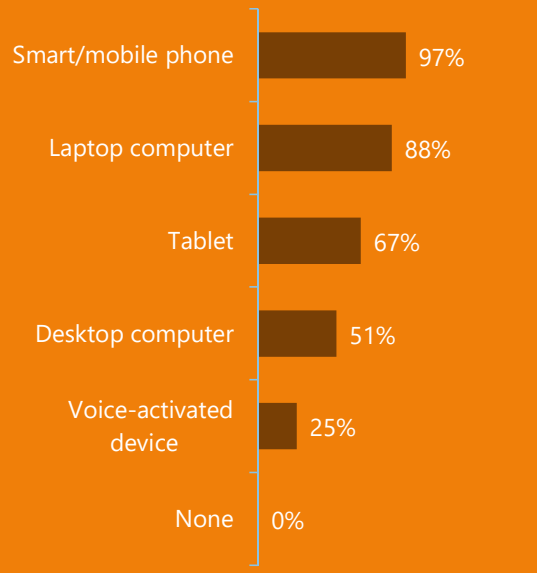
Regarding the ONE thing they would change about their internet service, nearly 2 in 3 cite a lower price.



Digitally Connected – Technology / Device Usage

Smart/mobile phones and laptops are ubiquitous across these households. Additionally, two thirds have tablets, half have desktop computers, and a quarter have voice activated devices.

Used by Any Member of Household

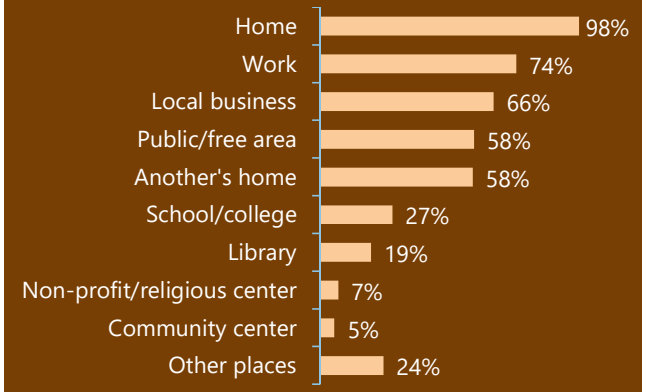


9 in 10 are on a contract data plan for their phone, nearly half are on an unlimited plan.

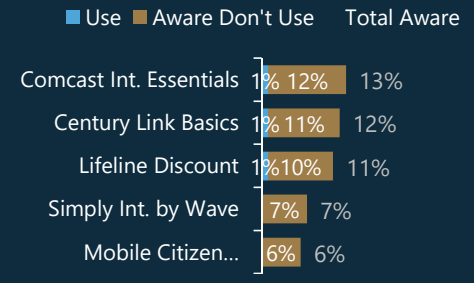
Among those with smart/mobile phones

Home and work are the most common places they accessed the internet in the past month.

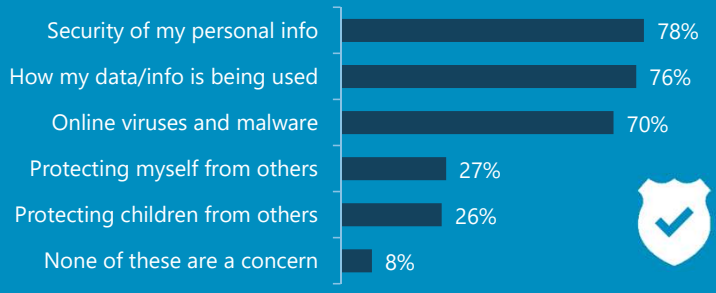
Places Internet Accessed by Any Member of Household



Few are aware of low cost internet service for qualified low income HHs, and virtually none in this segment use them.

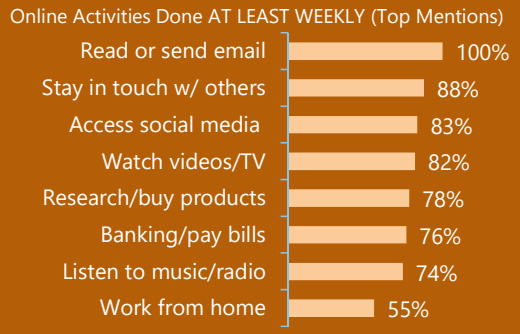


Top concerns about using the internet include security of their personal information, how their data may be used, and online viruses and malware.

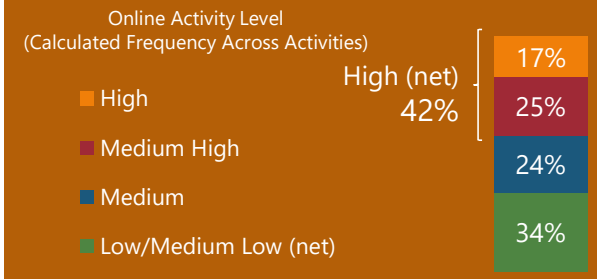


Digitally Connected – Use of Internet / Ability to Use the Internet

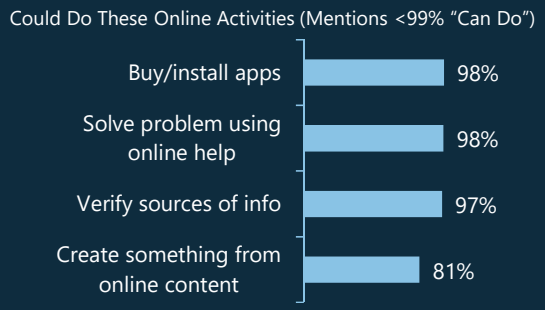
ONLINE activities engaged in most frequently include email, staying in touch with others, using social media, accessing videos/TV or music, shopping and banking.



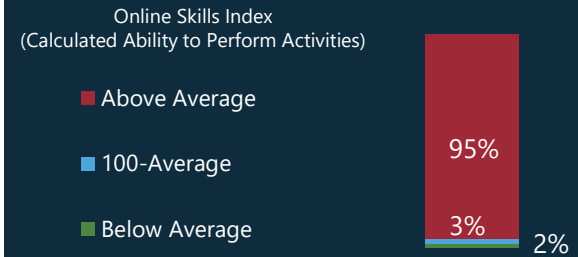
2 in 5 are "highly active (net)" online and less than a third are less active.



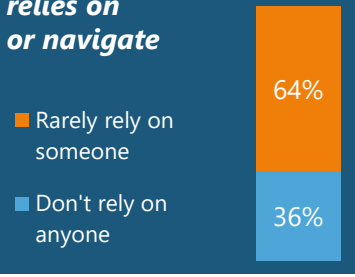
Virtually everyone in this segment can do a wide range of online activities. Only a few activities received less than 99% – but nearly all are capable of these as well.



This segment indexes high for online skills with 95% index "above average" and only 2% are "below average."



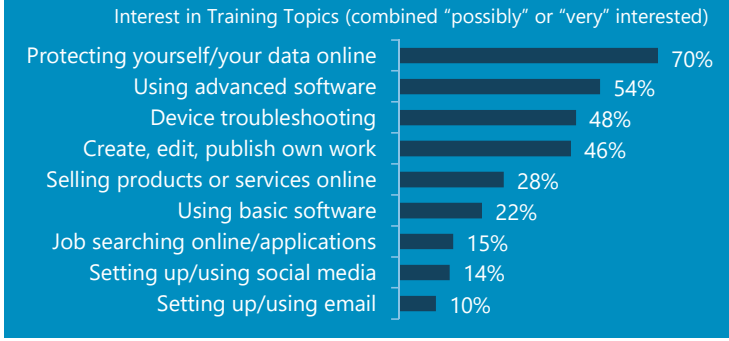
This segment rarely, if ever, relies on anyone to help them access or navigate the internet.



5%
Have impairment

Only 5% have a household member with an impairment that makes it difficult to use technology or the internet without assistance or adaptation.

The top area of interest would be learning how to protect themselves and their data online.



Hyper Connected

19% of the Total Population

Hyper Connected Segment

Segment Profile: 19% of the total population

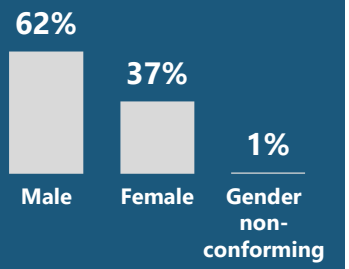
This segment has a passion for technology and the internet – they like their digital devices, their fast connection speed, and their unlimited data plans, and they can afford to pay for it all. They all have internet access where they live.

Each one in this segment feels technology and the internet are "extremely important" to their daily lives – and four out of five feel they have had only a beneficial effect on their personal lives. They are very confident with technology and consider themselves highly capable when it comes to using devices to access the internet, needing to rely on no one but themselves.

Smartphones and laptops are ubiquitous across these households (HHs). Additionally, tablets, desktop computers and voice activated devices are also common. This segment feels technology gives them more control over their daily lives. They frequently engage in a wide range of activities online, including banking, shopping, and working from home.

Hyper Connected – Demographic Profile

Gender Profile



3 in 4 live with someone else

27% Live alone
64% 2 adults in HH
10% >2 adults in HH

61% have spouse/partner

34% children at home (18% - 1 child, 13% - 2, 3% - 3+)

Most are college educated; 2 in 5 have done post graduate work

5% High school grad or less
9% Some college/vocational
46% 2-yr or 4-yr degree
41% Post graduate work

9 in 10 are employed

88% Employed
8% Unemployed (net)
7% Student

More newcomers to Seattle

38% 5 yrs or less
20% 6-10 yrs
20% 11-20
23% 21 yrs or more

Mean 13 years

Youngest segment, on average; over a quarter are under 30; 7 in 10 are under 40

27% Under 30
41% 30-39
19% 40-49
13% 50+

Mean 37

Segment with the highest income; 7 in 10 have income >$100K

11% <$50K
22% $50K-$99.9K
27% $100K-149.9K
41% $150K or more

Mean $131.4K

Mixture of home owners and renters; single family or multi-unit dwellings

50% Own
50% Rent

48% Single family
52% Duplex/triplex/apt

Mean# (if multi-unit): 43

More likely to be White

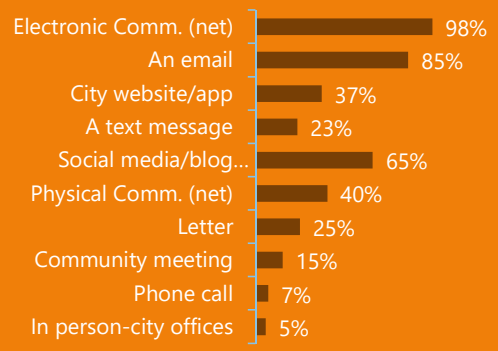
73% White
11% Asian
8% Hispanic/Latino
7% Mixed
1% Black

Nearly all say English is the primary language spoken where they live

97% English
3% Other

Hyper Connected – Psychographic Profile

They favor electronic communication in interactions with a group or with the City.



Multiple responses allowed

All have heard of the City of Seattle Website and most have visited it.

Heard Of	Ever Visited	Mean Visits
100%	84%	1.1

Around half have heard of The Seattle Channel, just 1 in 10 have watched it.

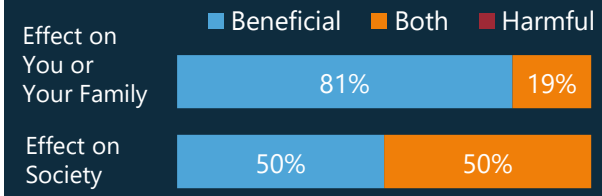
Heard Of	Ever Watched	Mean Views
54%	11%	0.13

ALL consider technology and the internet to be "extremely important" to their daily lives.

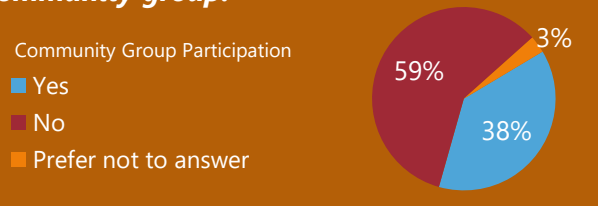
Mean	Extremely Important
5.0	100%

5=Extremely Important; 1=Not Important/Not Used at All

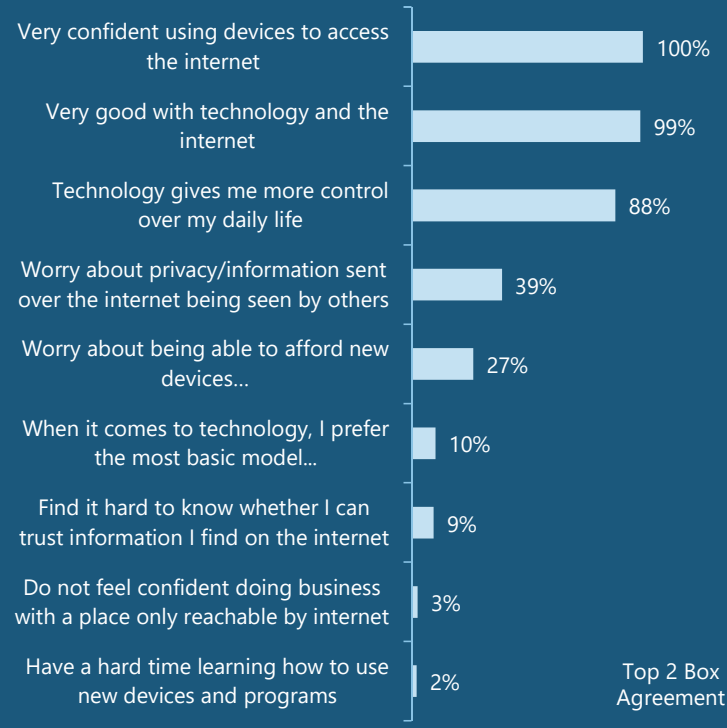
4 in 5 feel the internet and technology have been personally beneficial; half feel the effects on society have been mixed.



3 in 5 say they do not participate in a community group.



They are highly confident in their use of devices, technology, and the internet. They feel technology gives them more control over their lives.

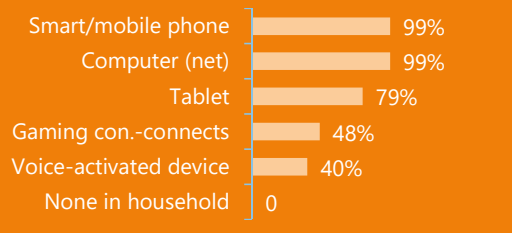


Hyper Connected – Internet / Device Access

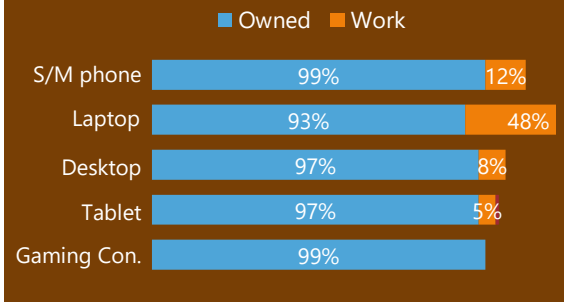
100%
Have access

All have a way to access the internet where they live.

Virtually all have a smart/mobile phone and a computer, 4 in 5 have a tablet, half have a connected gaming console, and 2 in 5 have a voice activated device.

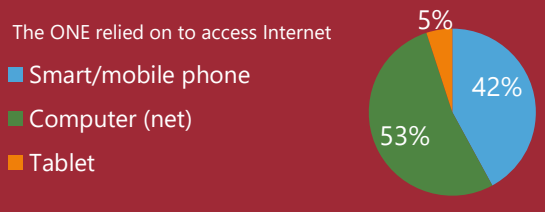


Nearly all own their devices.

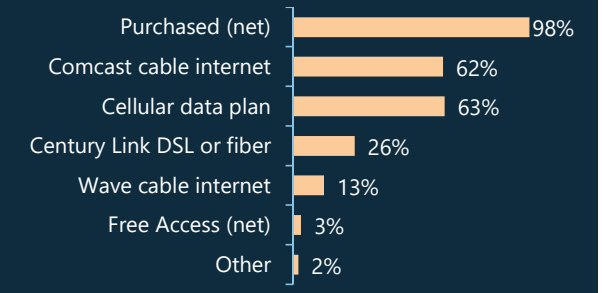


Note: Total may equal more than 100% because of multiple devices in the household.

Around half rely on their computer to access the internet where they live, most others rely on their phone.

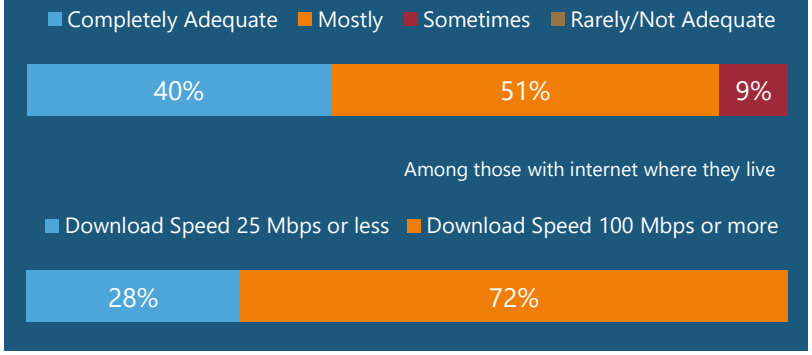


Nearly all purchase their internet access, primarily through Comcast cable or a cellular data plan.

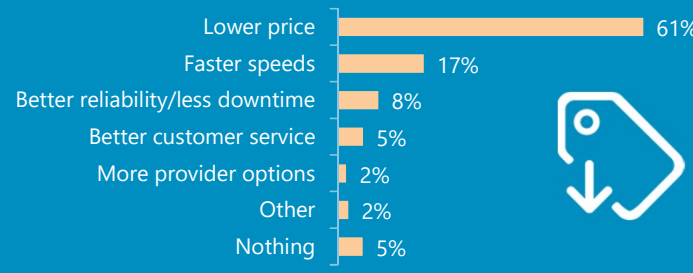


$159 ***Average monthly cost among those who pay for service.***

9 in 10 feel the internet connection and speeds in the place they live are mostly or completely adequate to do the things they want or need to do.



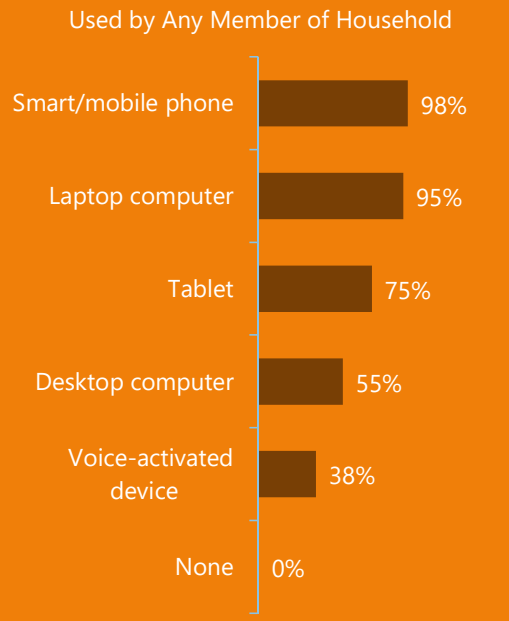
Regarding the ONE thing they would change about their internet service, 3 in 5 cite a lower price.



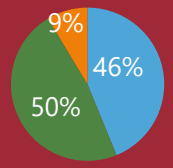
Among those with internet where they live

Hyper Connected – Technology / Device Usage

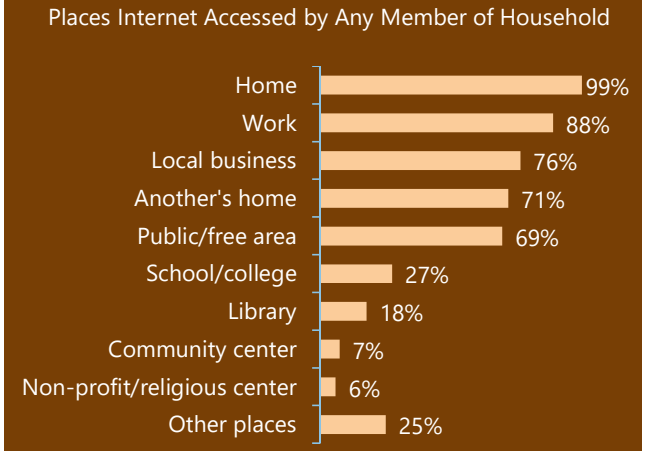
Smart/mobile phones and laptops are ubiquitous across these households. Additionally, three quarters have tablets, more than half have desktop computers, and 2 in 5 have voice activated devices.



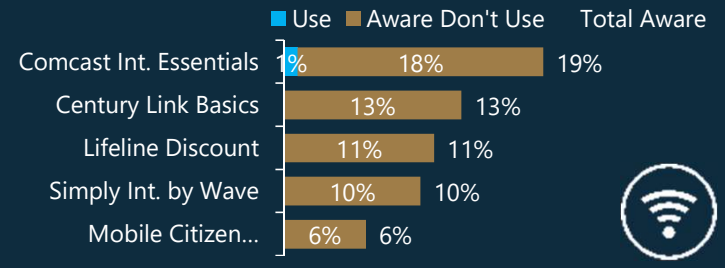
9 in 10 are on a contract data plan for their phone, half are on an unlimited plan.



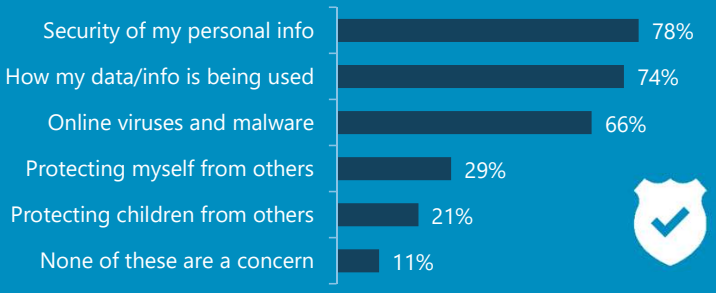
Home, work, and local businesses are the most common places they accessed the internet in the past month.



There is low awareness of low cost internet service for qualified low income HHs, and virtually none in this group use them.



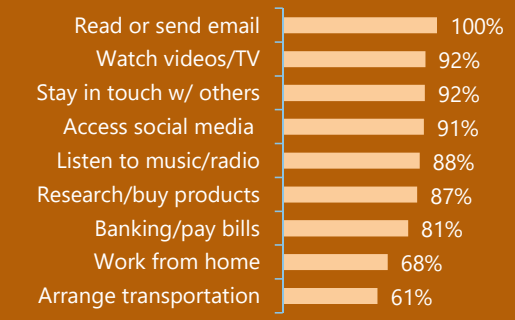
Top concerns about using the internet include security of their personal information, how their data may be used, and online viruses and malware.



Hyper Connected – Use of Internet / Ability to Use the Internet

ONLINE activities engaged in most frequently include email, staying in touch with others, accessing videos/TV or music, using social media, shopping and banking.

Online Activities Done AT LEAST WEEKLY (Top Mentions)

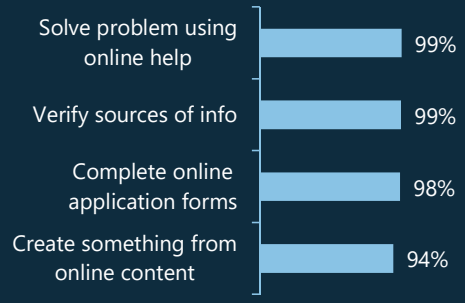


The Hyper Connected segment is the most active online with more than half falling into the "highly active (net)" level.

Online Activity Level
(Calculated Frequency Across Activities)

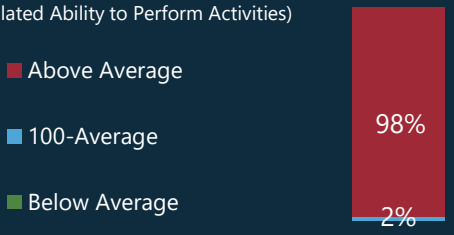
Virtually everyone in this segment would feel comfortable engaging in a wide range of online activities. 100% can do 8 of 12 tasks. Only a few activities received less than 100% – but nearly all are capable of these as well.

Could Do These Online Activities (Mentions <100% "Can Do")



This segment indexes highest for online skills with 98% index "above average" and none are "below average."

Online Skills Index
(Calculated Ability to Perform Activities)



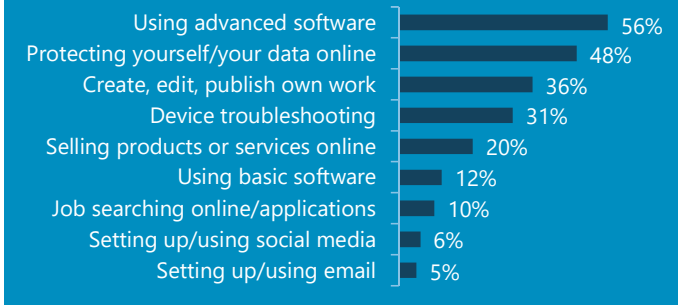
This segment does not rely on anyone to help them access or navigate the internet.

2%
Have impairment

Only 2% have a household member with an impairment that makes it difficult to use technology or the internet without assistance or adaptation.

Top areas of interest would be learning advanced software and how to protect themselves and their data online.

Interest in Training Topics (combined "possibly" or "very" interested)



Appendix: Digital Divide Index (DDI)

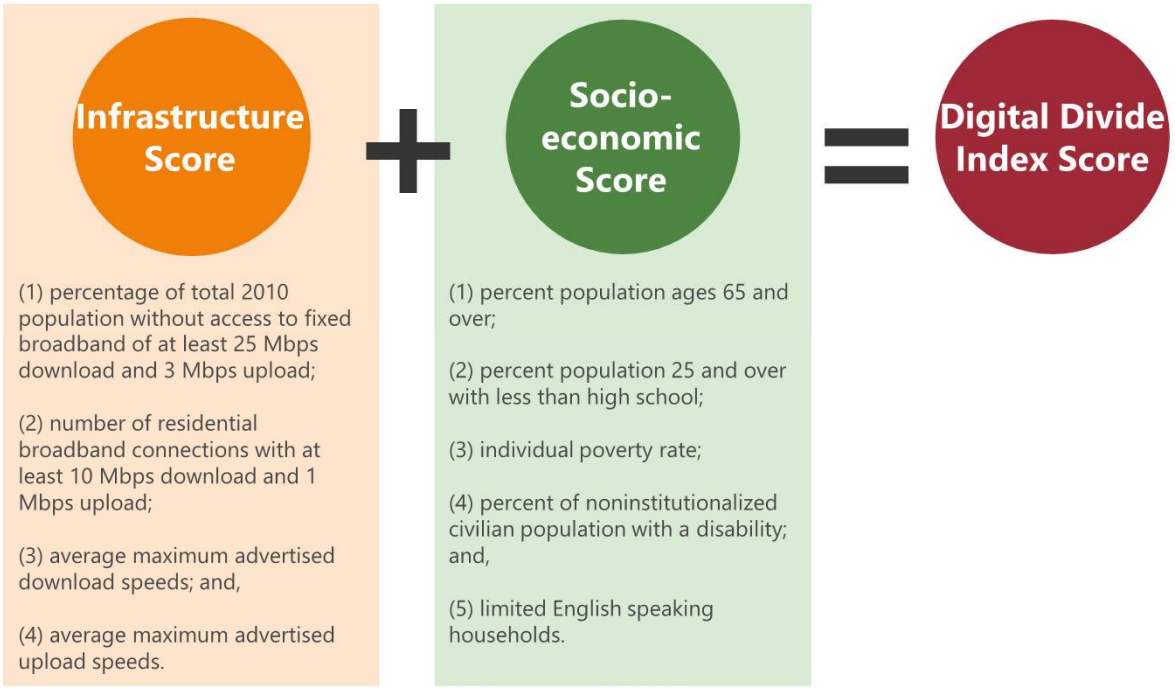
- Methodology
- Overall Digital Divide Index (DDI) Summary
- Infrastructure Score Summary
- Socioeconomic Score Summary

Digital Divide Index (DDI) Overview

As technological and digital advancement continues, there is a growing concern that some individuals may fall behind or be left out from receiving and benefiting from the opportunities of the digital age.

To measure and assess the issue of a lack of access and/or digital skills (known as the digital divide), Dr. Roberto Gallardo of Purdue University Center of Regional Development created a metric called the Digital Divide Index (DDI). The DDI was designed as a descriptive and pragmatic tool to help policymakers and leaders understand this topic and rank geographic areas along a digital divide continuum.

There are two main categories and scores that are used for the DDI index total score (Infrastructure and Socioeconomic scores). Each of these have different factors that make up each of their individual scores.



*Digital Divide Index produced by Dr. Roberto Gallardo, Purdue University Center for Regional Development and Extension Community Development Program; September 2017.

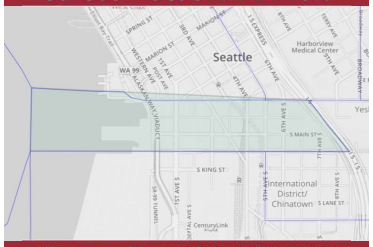
Households in South Central Seattle and Holly Park neighborhoods are significantly less likely to have internet access in the home. Residents living in these areas also have limited public resources for accessing the internet.

Census tracts with the most digital need (based on the Digital Divide Index*) include: South Central Seattle (Pioneer Square, Yesler Terrace, International District), and Holly Park in South Seattle.

Digital Device Index (DDI) Score*:

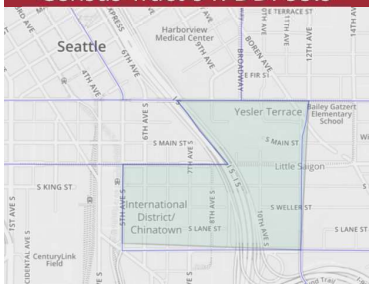
Digital access resources in **South Central Seattle** include some cultural centers and a few public access points: the Central Library in Downtown Seattle, the International District SPL Branch, and the Yesler Terrace Rec. Center Computer Lab.

Census Tract 92: DDI 49.0



Census Tract 85: DDI 47.7

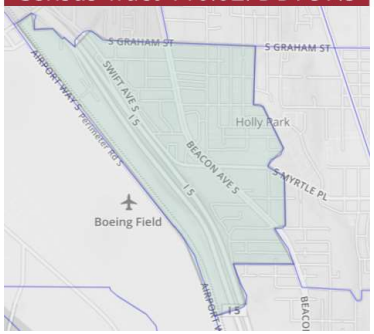
Census Tract 91: DDI 53.9



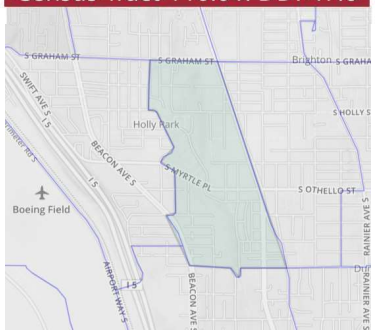
Census Tract 90: DDI 38.8

There are only three public access points in **Holly Park**: the New Holly SPL Branch, the New Holly Neighborhood Campus as a part of the Seattle Housing Authority, and the Southeast Customer Service Center.

Census Tract 110.02: DDI 37.5



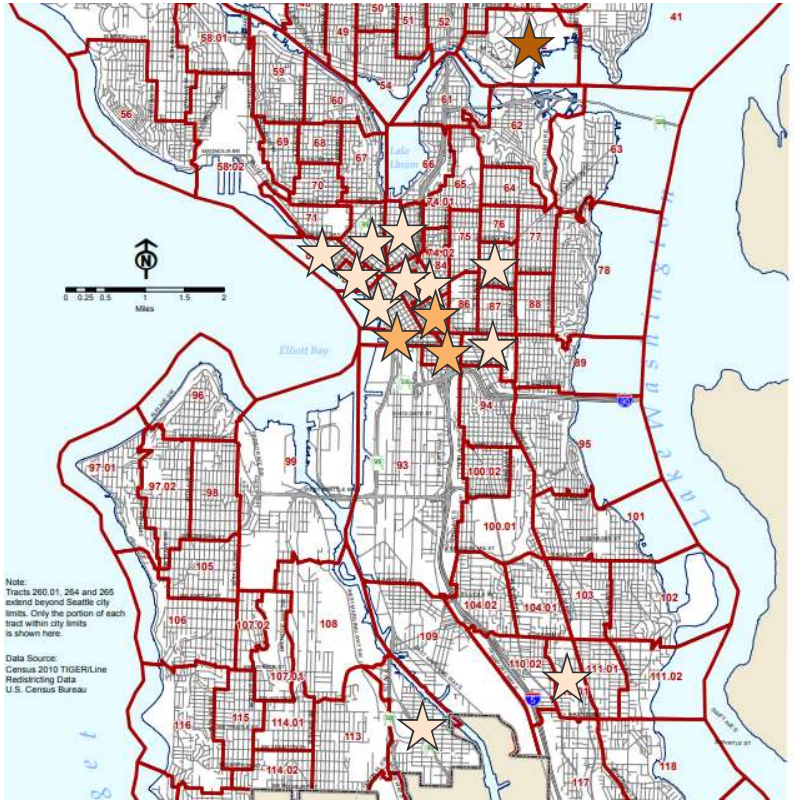
Census Tract 110.01: DDI 47.6



*Digital Divide Index produced by Dr. Roberto Gallardo, Purdue University Center for Regional Development and Extension Community Development Program; September 2017.

Limited adoption of broadband connections (at least 10 Mbps download/1 Mbps upload) spreads across 15 census tract and impacts 69,000 residents.

All residents in Seattle have access to at least a 25 Mbps download/3 Mbps (25/3) upload fixed broadband connection, but the degree of adoption of at least a 10Mbps/1Mbps fixed broadband connection is limited (less than 60% of households) in the following tracts. This impacts about one in ten residents (approximately 69,000 based on 2016 ACS).



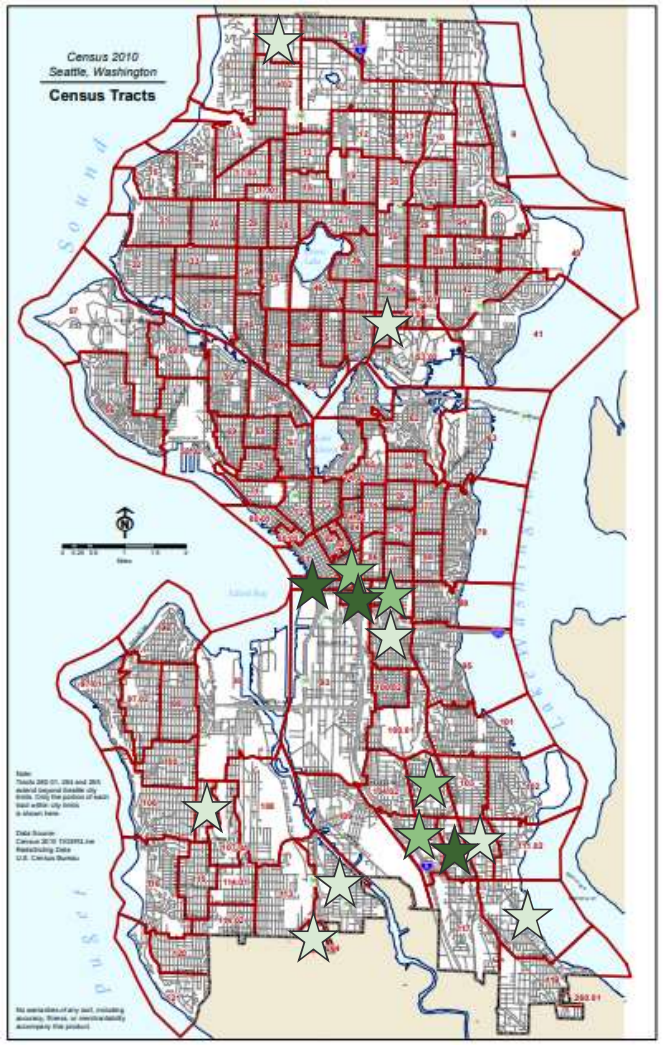
Infrastructure (INFA) Score:			
Census Tract	**Neighborhood**	**Infrastructure (INFA) Score***	**% of residential broadband connections with at least 10/1 speed**
53.02	UW	55.1	0.1% - 19.9%
85	South Central	46.1	20.0% - 39.9%
91	South Central	44.9	20.0% - 39.9%
92	South Central	44.6	20.0% - 39.9%
82	Downtown	37.7	40.0% - 59.9%
83	Downtown	37.4	40.0% - 59.9%
73	S. Lake Union	37.1	40.0% - 59.9%
81	Waterfront	36.6	40.0% - 59.9%
110.01	Holly Park	36.3	40.0% - 59.9%
72	S. Lake Union	35.9	40.0% - 59.9%
80.02	Waterfront	35.3	40.0% - 59.9%
90	South Central	35.2	40.0% - 59.9%
80.01	Waterfront	34.4	40.0% - 59.9%
79	Capital Hill	34.0	40.0% - 59.9%
112	South Park	33.8	40.0% - 59.9%

*Infrastructure (INFA) Score produced as a part of the Digital Divide Index by Dr. Roberto Gallardo, Purdue University Center for Regional Development and Extension Community Development Program; September 2017.

Many of the same census tracts that experience lack of adoption, also have socioeconomic factors (older age, living at or below poverty levels, etc.) that are linked to their inability to access the internet.

South Central Seattle, Rainer Valley, and other areas downtown and south of downtown experience significant impacts on accessing technology based on demographics.

Socioeconomic (SE) Score:			
Census Tract	**Neighborhood**	**Socioeconomic (SE) Score***	**Top Socioeconomic Components compared to Gen. Pop.**
91	South Central	42.5	Limited English, 25+ and Less than HS
110.01	Holly Park	39.6	Poverty, 25+ and Less than HS
92	South Central	37.1	Any Disability
85	South Central	34.8	Older Adults (65+), Any Disability
110.02	Holly Park	32.7	25+ and Less than HS, Limited English
104.01	Rainer Valley	30.2	Limited English
90	South Central	30.0	Older Adults (65+), Any Disability
107.02	High Point	29.1	Poverty
265	South Park	28.6	25+ and Less than HS, Limited English
118	Rainier Valley	28.4	Poverty, 25+ and Less than HS
53.01	University District	26.6	Poverty, Limited English
111.01	Rainier Valley	25.6	Any Disability
94	Beacon Hill	25.3	Limited English
112	South Park	25.1	Poverty
4.01	Bitter Lake/ North	24.9	Older Adults (65+), Any Disability



*Socioeconomic (SE) Score produced as a part of the Digital Divide Index by Dr. Roberto Gallardo, Purdue University Center for Regional Development and Extension Community Development Program; September 2017.

Appendix: Access

- Primary Device Used to Access the Internet at Residence

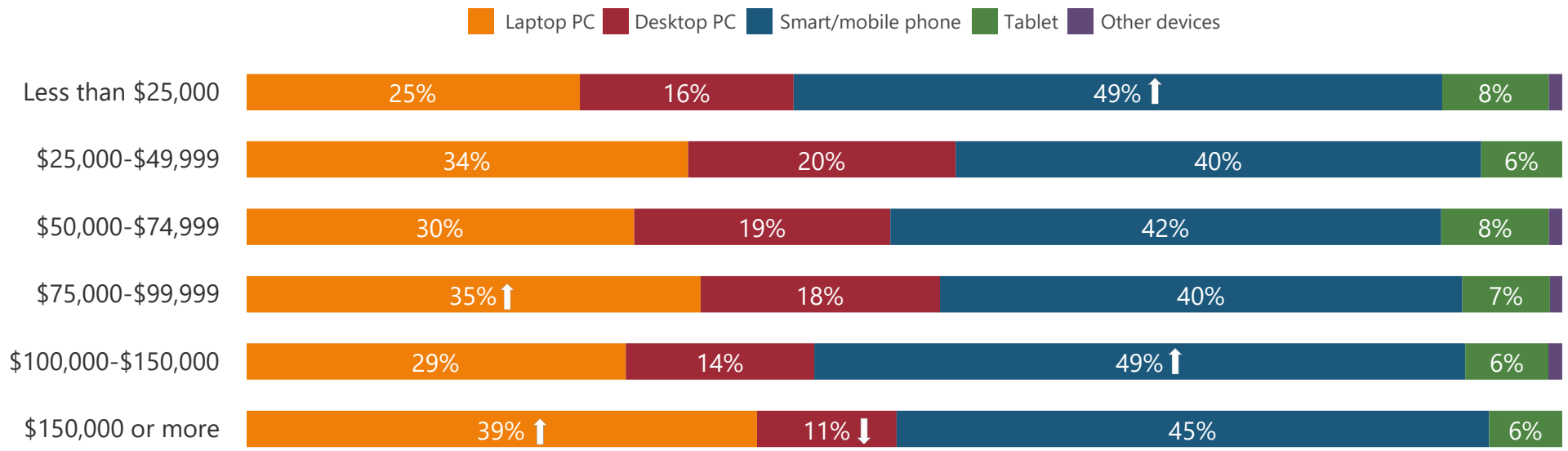
Across income levels, at least two in five use a phone as their primary device to access the internet at their residence.

Those with income under $25K are less likely than others to use a computer as their primary device.

Those with income of $150K or greater favor using a laptop nearly as much as their phone, while those with income between $25K and $100K are more likely than others to use a desktop computer.

Primary Device Used to Access the Internet at Residence: By Income

Values below 3% not shown.



= Sig. Higher than at Least One Other Group Shown

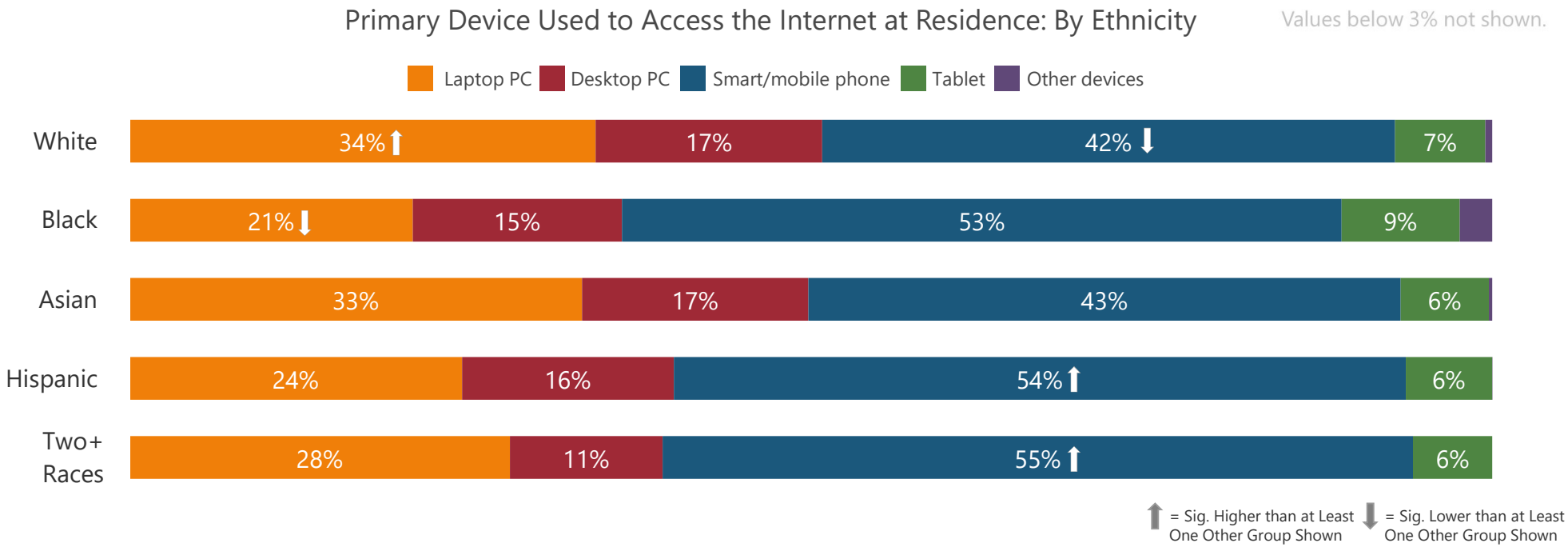
= Sig. Lower than at Least One Other Group Shown

Base: Total Answering, By Income Group – <$25K (n516), $25K-$50K (n487), $50K-$75K (n467), $75K-$100K (n429), $100K-$150K (n693), $150K+ (n900). Individual Weight.

Q3 - Of all of the devices you have access to, which ONE device do you personally rely on or use most to access the internet in the place where you live?

Across race/ethnicity, a phone is most often the primary device used to access the internet.

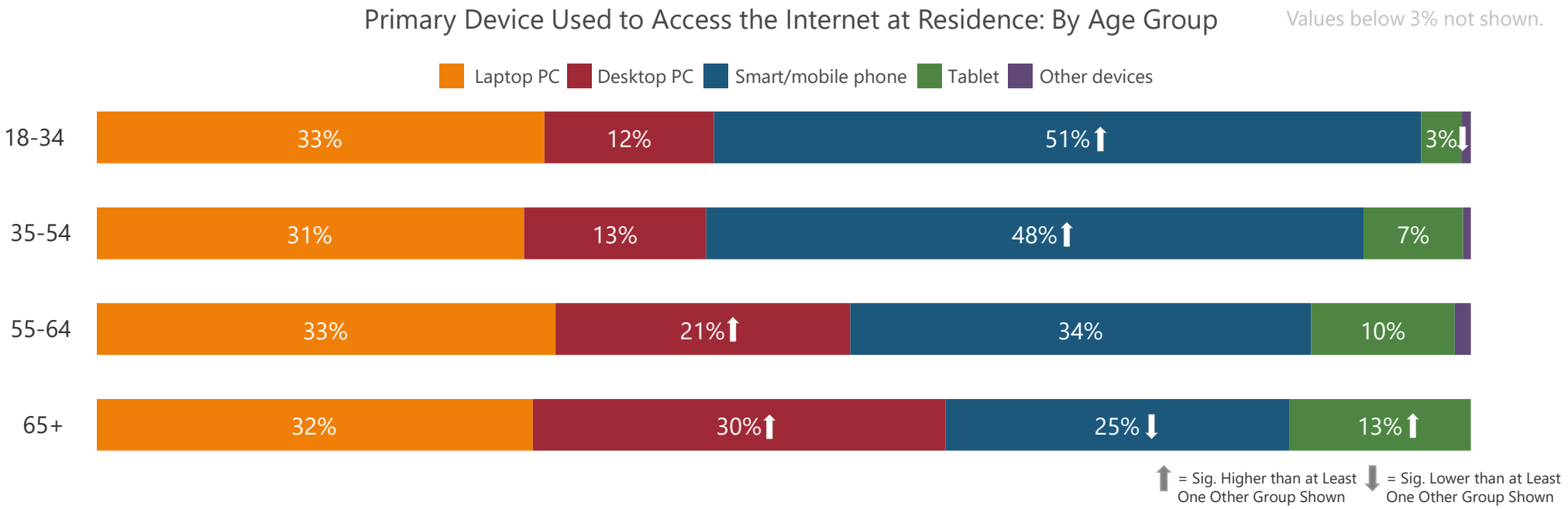
However, White residents are more likely than Black residents to use a laptop computer as their primary way to access the internet when home.



Base: Total Answering, By Ethnicity – White (n2974), Black (n148), Asian (n401), Hispanic (n161), 2+ Race (n146). Individual Weight.
Q3 - Of all of the devices you have access to, which ONE device do you personally rely on or use most to access the internet in the place where you live?

Younger residents (under 55 years of age) rely on their phone the most to access the internet.

Older residents are more evenly distributed among various devices as the one they rely on the most often for internet access: laptop, phone, or desktop computer.



Base: Total Answering, By Age Group – 18-34 (n628), 35-54 (n1494), 55-64 (n609), 65+ (n810). Individual Weight.
Q3 - Of all of the devices you have access to, which ONE device do you personally rely on or use most to access the internet in the place where you live?

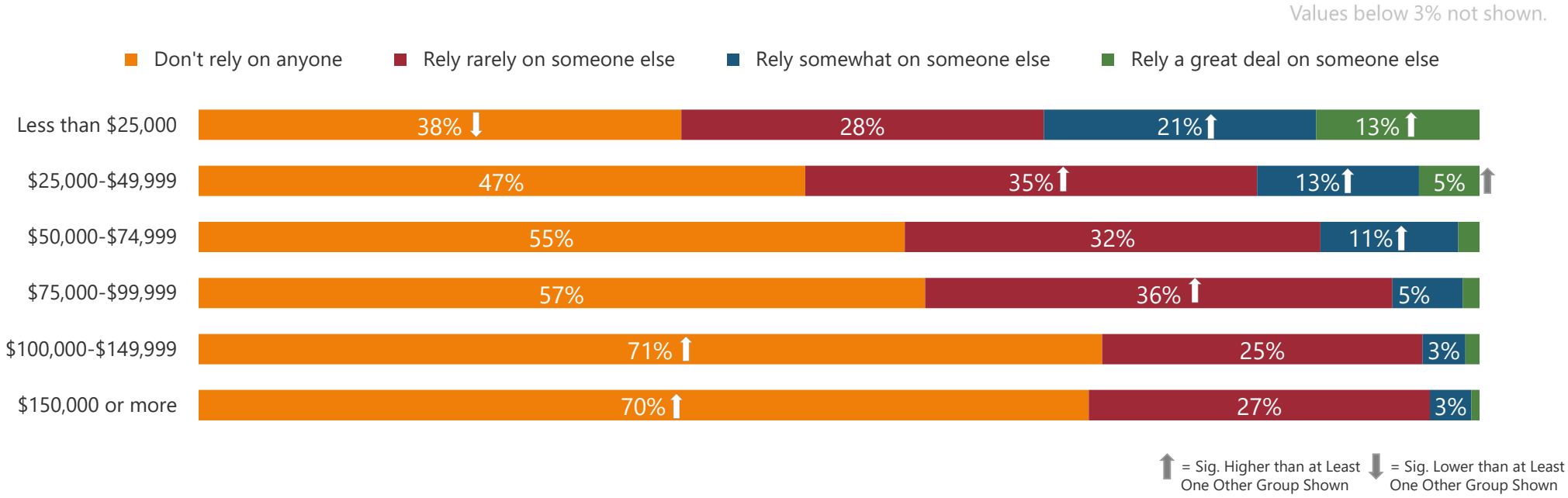
Appendix: Digital Skills

- Reliance on Others to Help with Access and Navigation of the Internet

Residents with more household income are less likely to need assistance to access and navigate the internet.

Only one third (38%) of respondents with less than $25,000 in household income are able to use the internet independently and are significantly more likely than any other income group to need a “great deal” of help from someone else to access and navigate the internet.

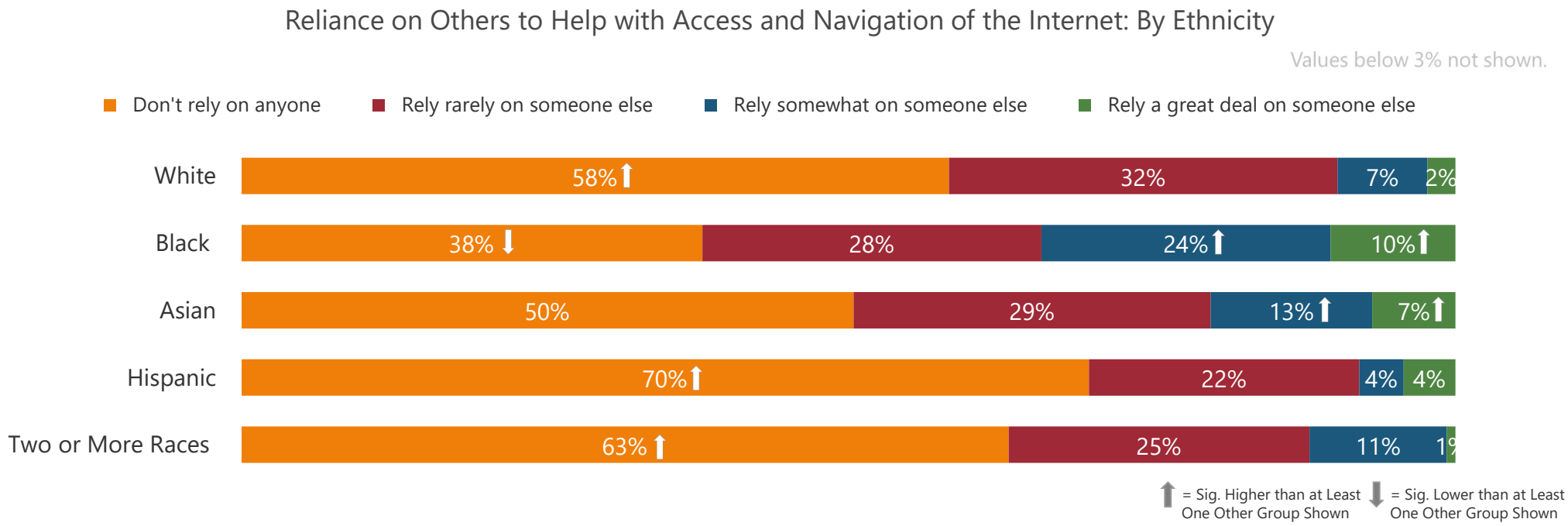
Reliance on Others to Help with Access and Navigation of the Internet: By Income



Base: Total Answering – <$25K (n534), $25K-$50K (n486), $50K-$75K (n468), $75K-$100K (n431), $100K-$150K (n693), $150K+ (n901). Individual Weight.
Q18 - How much do you rely on others to help you with the skills needed to access and navigate the internet?

Reliance on others for help accessing or navigating the internet is highest among Black residents.

At least half of respondents who are White, Asian, Hispanic, or Mixed (two or more races) can use the internet without any help from others, while just over one third (38%) of Black respondents use the internet independently.

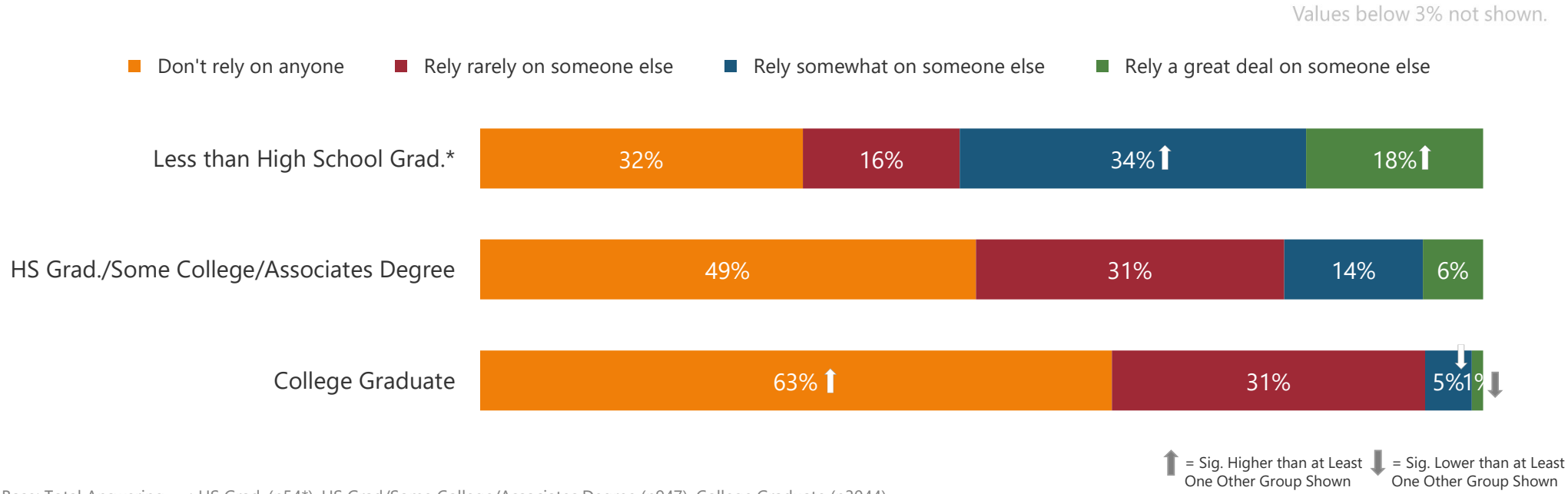


Base: Total Answering – White (n3018), Black (n146), Asian (n384), Hispanic (n161), Two or More Races (n145). Individual Weight.
Q18 - How much do you rely on others to help you with the skills needed to access and navigate the internet?

The reliance for help accessing and navigating the internet decreases among those with further education.

Residents that have not received a high school diploma or equivalent are the most likely to need at least some assistance to use the internet.

Reliance on Others to Help with Access and Navigation of the Internet: By Education



Base: Total Answering – < HS Grad, (n54*), HS Grad/Some College/Associates Degree (n947), College Graduate (n3044)
Individual Weight. *Limited sample size. Sub-segment analysis warrants further research and/or a large sample size.
Q18 - How much do you rely on others to help you with the skills needed to access and navigate the internet?

Appendix: Methodology

- Responses by Zip Codes

Responses by Zip Codes

Zip Code	n*=	
98101	58	1.3%
98102	136	3.2%
98103	355	8.2%
98104	118	2.7%
98105	218	5.1%
98106	122	2.8%
98107	159	3.7%
98108	155	3.6%
98109	115	2.7%
98112	132	3.1%
98115	380	8.8%
98116	183	4.2%
98117	241	5.6%
98118	274	6.3%
98119	128	3.0%
98121	64	1.5%

Zip Code	n*=	
98122	183	4.2%
98125	329	7.6%
98126	143	3.3%
98133	226	5.2%
98134	3	0.1%
98136	127	2.9%
98144	162	3.8%
98146	27	0.6%
98155	1	0.0%
98164	1	0.0%
98177	65	1.5%
98178	31	0.7%
98199	115	2.7%
Unknown	64	1.5%
Total	4315	

*Unweighted values