



University of California, Berkeley
Institute of Governmental Studies
109 Moses Hall, #2370
Berkeley, CA 94720-2370
Tel: 510-642-1473
Fax: 510-642-3020
Email: igs@berkeley.edu

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Disparities Persist in Californians' Access to Broadband Internet at Home

*Poll identifies growing class of "underconnected" households, whose only access to
high speed Internet at home is through a smart phone*

By Mark DiCamillo, Director, Berkeley IGS Poll (o) 510-642-6835 (c) 415-602-5594

The latest *Berkeley IGS Poll* updated a multi-year tracking survey examining Californians access to high speed Internet at home. The poll finds that 87% of California households report having broadband Internet connectivity at home. This is up from 84% who reported this in a similar poll conducted last year. However, for a growing segment of residents (18%) their only means of connecting to high speed Internet at home is through a smartphone. This is more than double the proportion reporting this two years ago (8%).

Household connectivity to high speed Internet varies considerably by a resident's income, education, age, ethnic background and other demographic characteristics. Least likely to report having broadband Internet connectivity are residents living in households with annual incomes of less than \$20,000, non-high school graduates, Spanish-speaking Latinos, first-generation immigrants, adults with a disability, and seniors, especially those age 75 or older. Disparities are also observed by region. For example, residents living in the state's inland counties are less likely to report having access to high speed Internet at their home than those living in California's coastal counties.

These results come from the annual Broadband Adoption Survey of California households sponsored by the California Emerging Technology Fund (CETF), a non-profit foundation that focuses on promoting broadband Internet adoption. This is the tenth year that CETF has commissioned the survey, but the first conducted by the *Berkeley IGS Poll*.

"The Annual Survey details how the lowest-income, least-educated and most-rural Californians are living without an essential tool to access the educational, employment, healthcare and civic engagement opportunities that lead to greater economic opportunities and a better quality of life," said Sunne Wright McPeak, President and CEO of the California Emerging Technology Fund. "We call on the California Legislature to extend the California Advanced Services Fund and to pass the Internet for All Now Act to ensure digital access and digital literacy for all. High-speed Internet access is a 21st century civil right."

About seven in ten households without Internet connectivity (69%) say they don't have access either because of its expense or because they don't have a computing device or smartphone at home. Another 44% offer the reason that it is too difficult for them to set up and learn.

Another question asked the residents in these households whether they felt disadvantaged because of their inability to have Internet access, and significant proportions say they do. For example, 38% say that not being able to gain new career skills or take classes online is a disadvantage for them, and a similar proportion (38%) feels disadvantaged by not being able to get health or medical information online. Greater than one in three also feel disadvantaged by not being able to keep up with the news (36%) or keeping in touch with family and friends (36%).

The survey documents that residential use of the Internet is more limited among the growing proportion of Californians whose only means of broadband connectivity is through a smartphone. For example, in households where a child under age 18 resides, 89% who can access high speed Internet through a computing device go online to assist their child with schoolwork. By contrast, usage is twenty-two points lower (67%) among those whose only access to broadband Internet service at home is through a smartphone.

Even larger differences between the two types of residential users are noted with regard to going online to get health or medical information, or managing money or banking online. In each case, about three in four residents with access to broadband Internet through a computing device go online to do these tasks, while fewer than half report this among those connected through a smartphone only.

Thus, the poll finds that while the proportion of California households reporting broadband connectivity to the Internet continues to expand, increasingly it is being populated by a class of "underconnected" households who use the Internet in more limited ways because their only means of connecting to broadband is through a smartphone.

Note: The attached PowerPoint slides present the findings in graphic form.

About the Survey

The findings in this report come from a telephone survey completed by the Institute of Governmental Studies, at the University of California, Berkeley on behalf of the California Emerging Technology Fund (CETF). This was done by adding CETF's Broadband Adoption Survey questions to the May 2017 *Berkeley IGS Poll*, which conducts periodic surveys of the California public on matters of politics and public policy. The poll is housed with IGS's newly established Jack Citrin Center for Public Opinion Research.

The May 2017 *Berkeley IGS Poll* was conducted by telephone among a statewide sample of 1,628 California adults. To capture the diversity of the state's adult population, the survey was administered in six languages and dialects – English, Spanish, Cantonese, Mandarin, Vietnamese and Korean. Interviewing was completed May 4-29, 2017 by professionally trained and supervised interviewers calling from Davis Research in Calabasas (Los Angeles County), California.

Adults were selected for participation in the poll telephone using a dual frame random digit dial cell and landline sampling methodology. In this survey over 85% of the interviews were conducted with residents on their cell phone. Up to six attempts were made to reach, screen and interview each randomly selected adult on different days and times of day during the interviewing period. After the completion of interviewing, weights were developed to align the statewide sample to a wide range of demographic characteristics of the state's adult population.

The maximum sampling error for results from the overall statewide sample is +/- 2.4 percentage points at the 95% confidence level. Results from the poll's subsamples are subject to somewhat larger margins of sampling error, and depend on its sample size and the percentage distributions being examined.

Questions Asked

Can you or can others in your household connect to the Internet from home? This includes connecting to the Internet from a smart phone or from a desktop, laptop or tablet computer. **(IF YES)** Is that through a smart phone, or through a desktop, laptop, or tablet computer? **(IF COMPUTING DEVICE)** When connecting to the Internet from a computer at home, do you connect through a high speed or broadband connection, such as through DSL, cable, fiber optic, a T-1 line or satellite, or is it through a dial-up modem connection? **(IF SMARTPHONE AND NOT A COMPUTING DEVICE)** Just to confirm, the only way that you (or others in your household) can connect to the Internet at home is through a smartphone. Is that correct?

(IF CONNECTED) Do you or do others in your household use the Internet at home (to learn about or obtain access to government services) (to keep in touch with family or friends) (to find out about job opportunities or to apply for a job) (to manage money, transfer funds or bank online) (to gain new career skills or take a class or training course) (to get health or medical information or communicate with a doctor) (to assist the children in your household to learn or keep up with their schoolwork) (to keep up with the news) (to watch or download TV shows or movies, play games or listen to music) **(EACH ITEM READ ONE AT A TIME IN RANDOM ORDER)?**

(IF NOT CONNECTED) I am going to read some reasons why people do not have Internet service at home. For each, please tell me whether or not this is a reason why your household doesn't have Internet access. (Internet service is too expensive) (don't have a computer or a smart phone) (Internet service is not available or adequate where I live) (not interested) (it's too difficult to set up and learn) (too busy, don't have the time) (can connect to it from another place if needed) (concerns about privacy or computer viruses) **(EACH ITEM READ ONE AT A TIME IN RANDOM ORDER, ASKING:)** Is this a reason why your household doesn't have Internet service? Which of these would you say is the main reason your household doesn't have Internet service?

(IF NOT CONNECTED) Do you feel that you or others in your household are at a disadvantage when you (or they) want to do any of the following but cannot because your household is not connected to the Internet? (to learn about or obtain access to government services) (to keep in touch with family or friends) (to find out about job opportunities or to apply for a job) (to manage money, transfer funds or bank online) (to gain new career skills or take a class or training course) (to get health or medical information or communicate with a doctor) (to assist the children in your household to learn or keep up with their schoolwork) (to keep up with the news) (to watch or download TV shows or movies, play games or listen to music)? **(EACH ITEM READ ONE AT A TIME IN RANDOM ORDER)**

Do you or do others in your household ever connect to the Internet through a high speed or broadband connection outside your home, such as at work, at or near a school, at or near a library or other public building or outdoor space, at or near a store like Starbucks, at the home of a friend or family member, or some other place? **(IF YES)** Is that at work, at or near a school, at or near a library, other public building or outdoor space, at or near a store, at the home of a friend or family member, or from some other place?

About the Institute of Governmental Studies

The Institute of Governmental Studies (IGS) is an interdisciplinary organized research unit that pursues a vigorous program of research, education, publication and public service. A component of the University of California (UC) system's flagship Berkeley campus, it is the oldest organized research unit in the UC system and the oldest public policy research center in the state. It conducts periodic surveys of California public opinion on matters of politics, public policy and public issues through its *Berkeley IGS Poll*, housed within IGS's newly established Jack Citrin Center for Public Opinion Research. A listing of poll stories issued by the *Berkeley IGS Poll* can be found at <https://igs.berkeley.edu/research/berkeley-igs-poll>.

About the California Emerging Technology Fund

The California Emerging Technology Fund (CETF), a non-profit foundation that focuses on promoting broadband Internet adoption in the state of California. It provides leadership to close the "digital divide" by accelerating the deployment and adoption of broadband to unserved and underserved communities and populations and to ensure that California is a global leader in the availability and use of broadband technology. For more information visit www.cetfund.org.

Broadband Internet Connectivity and the “Digital Divide” in California – 2017

- Results from a new statewide survey conducted for -
California Emerging Technology Fund

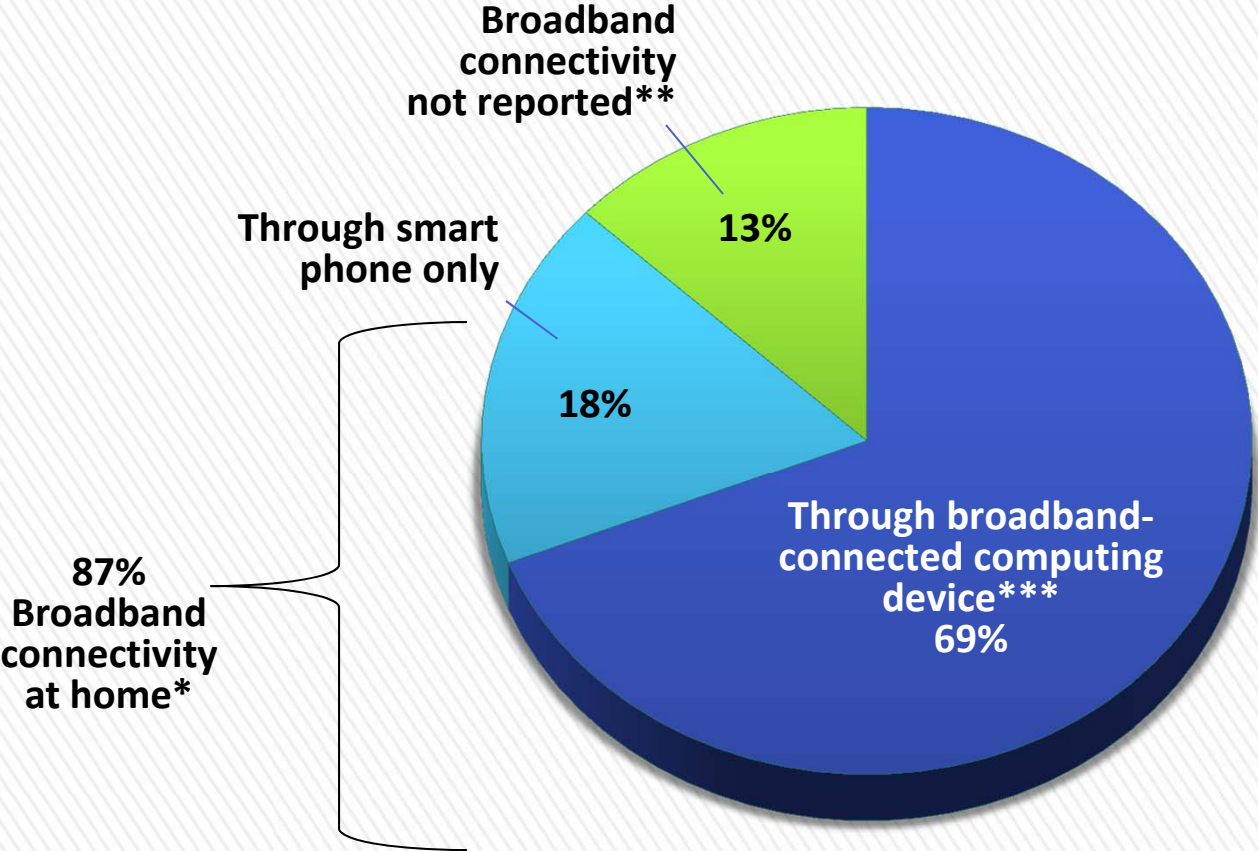
- by the -
Berkeley IGS Poll
Institute of Governmental Studies
University of California, Berkeley

for publication June 27, 2017

About the Survey

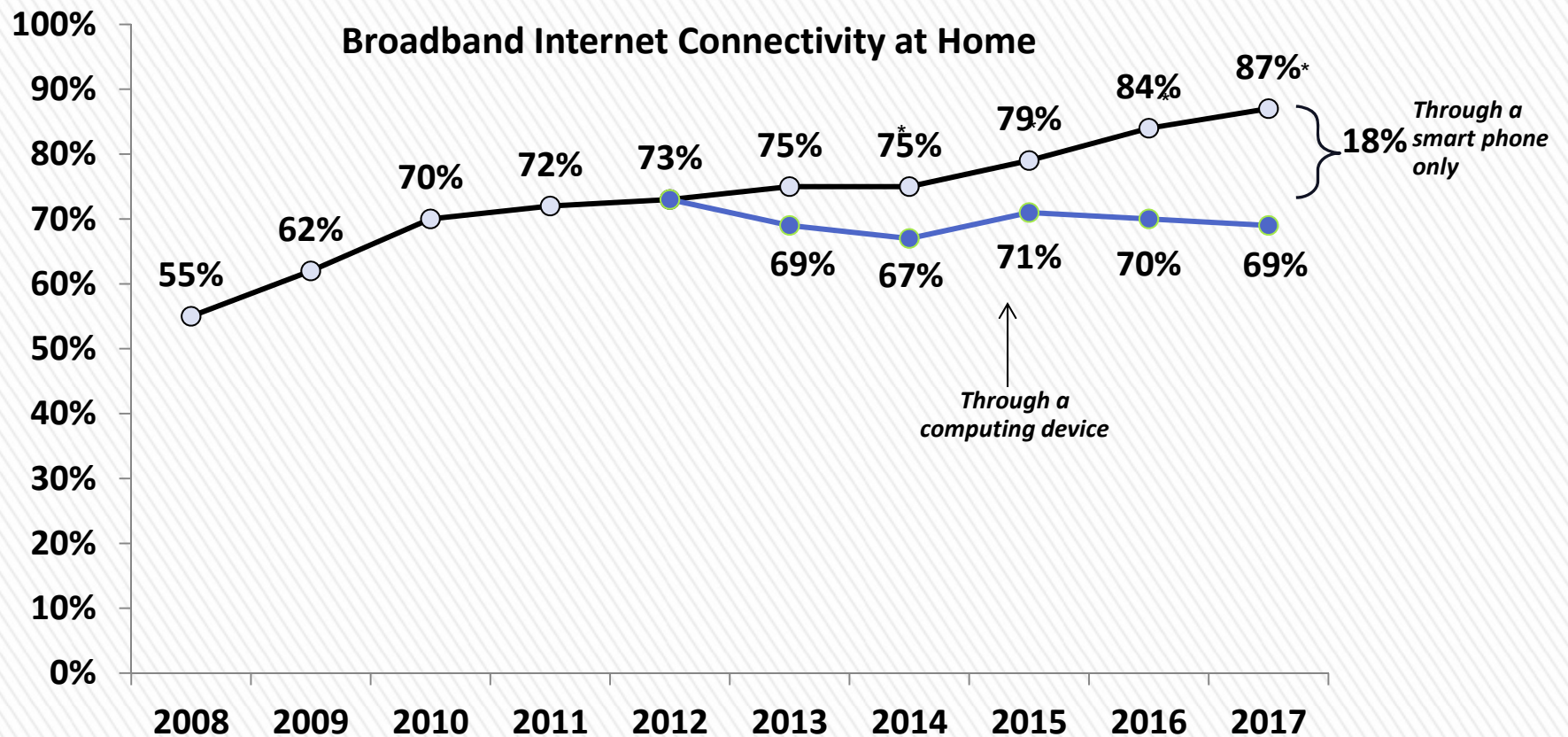
Population surveyed:	California adults age 18 or older
Method of data collection:	Administered by cell and landline telephone by live interviewers
Sampling method:	Samples of adults developed from dual frame random digit-dial cell and landline telephone listings covering California
Languages of administration:	English, Spanish, Cantonese, Mandarin, Korean and Vietnamese
Sample size:	1,628
Interviewing period:	May 4 – 29, 2017

Table 1
Broadband Internet Connectivity in California Households
2017



**Includes connectivity through a high speed broadband connection, such as through DSL, cable, fiber optic, satellite, T-1 line, or smart phone only.*
***Includes don't knows and others not reporting broadband connectivity.*
****Computing devices include a desktop, laptop, or tablet computer.*

Table 2
Trend of California Households with Broadband Internet Connectivity (2008 - 2017)

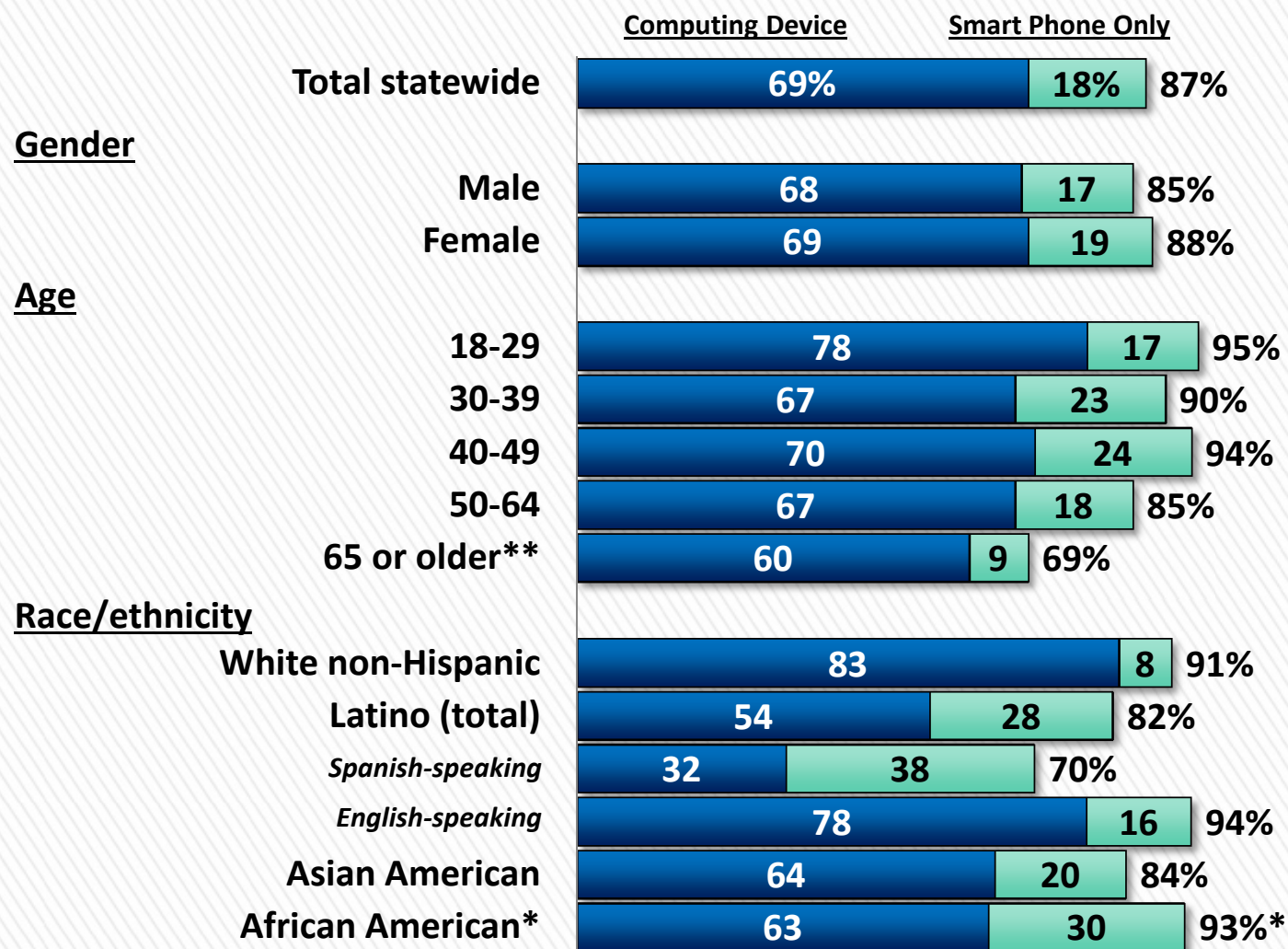


* For all years prior to 2013, broadband Internet connectivity included those accessing the Internet through DSL, cable, satellite or fiber optic connections to a home desktop, laptop or tablet computer. For 2013 and thereafter, this also includes those connecting to the Internet at home solely through a smart phone.

Source: 2017 results from Berkeley IGS Poll. Prior year results as reported by CETF from surveys conducted by The Field Poll (2014-2016) and the Public Policy Institute of California (2008-2013).

Table 3a

Broadband Internet Connectivity at Home (by gender, age and race/ethnicity of householder)



* Results based on small sample size.

** Broadband connectivity among seniors age 75 or older is lower, with 49% connected through a computing device and 9% through a smart phone only, totaling 58%.

Table 3b

Broadband Internet Connectivity at Home *(by nativity status, educational attainment and disability status)*

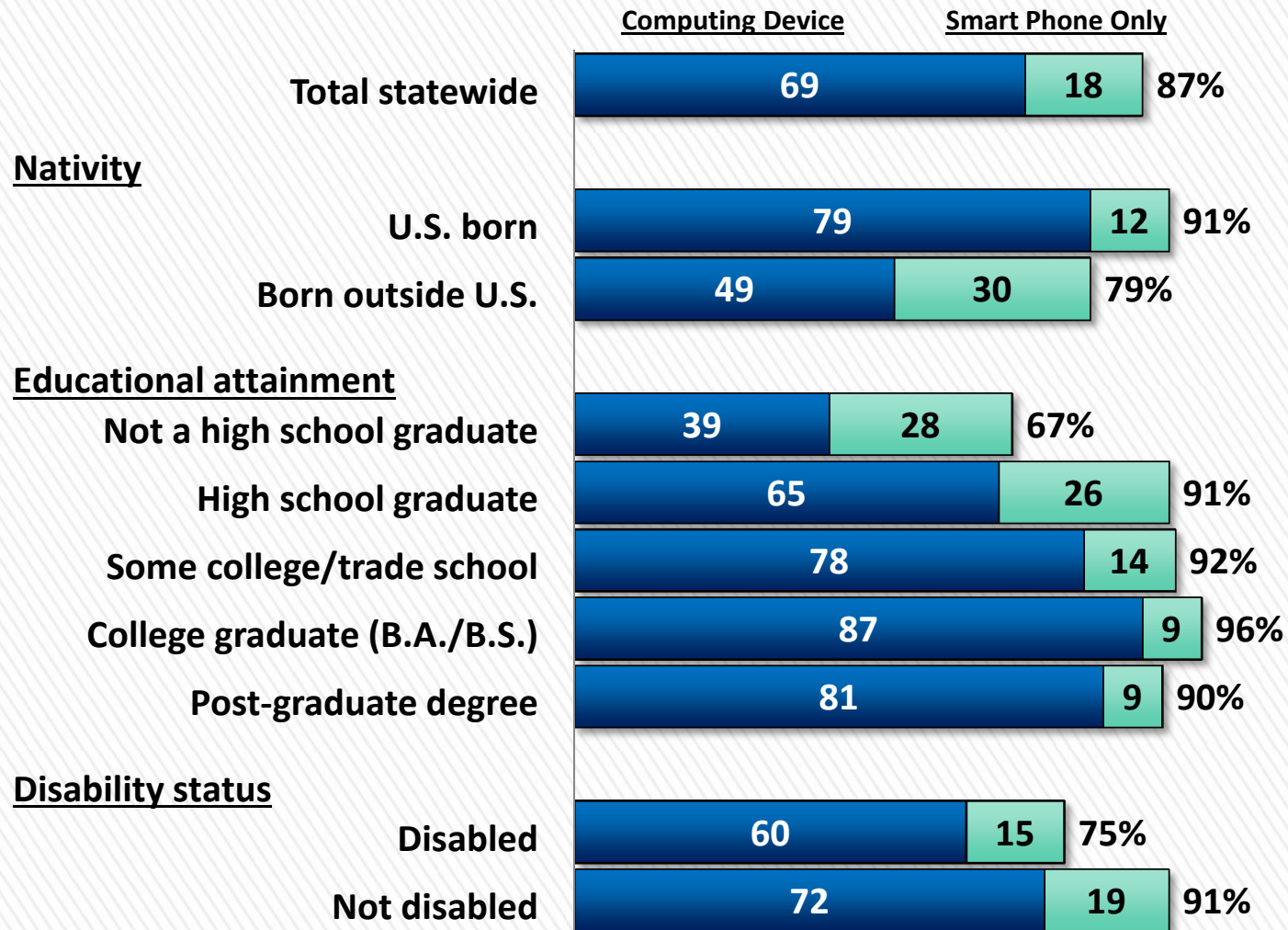


Table 3c

Broadband Internet Connectivity at Home *(by marital and parental status and household income)*

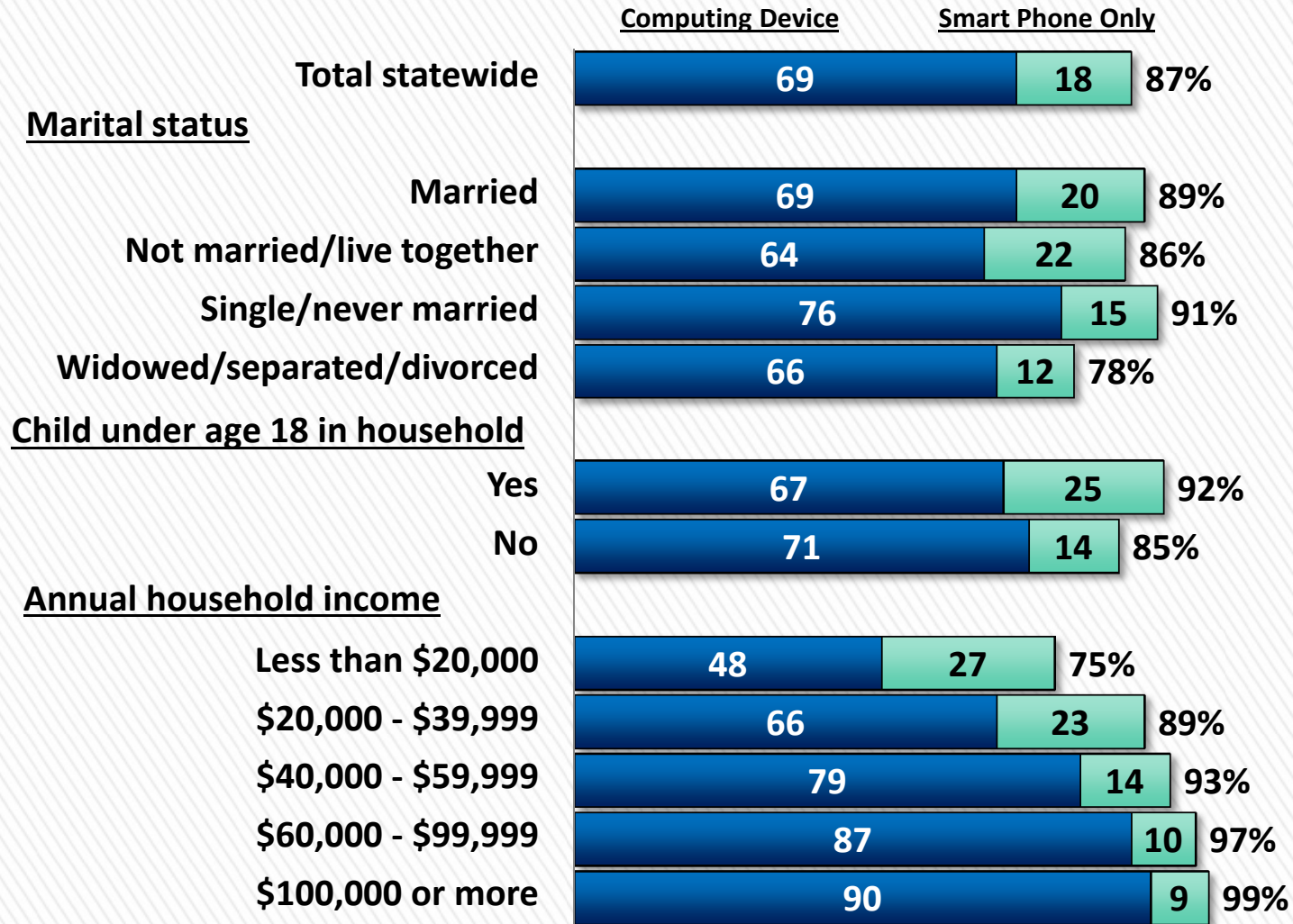


Table 3d
Broadband Internet Connectivity at Home
(by region, area, and tenure)

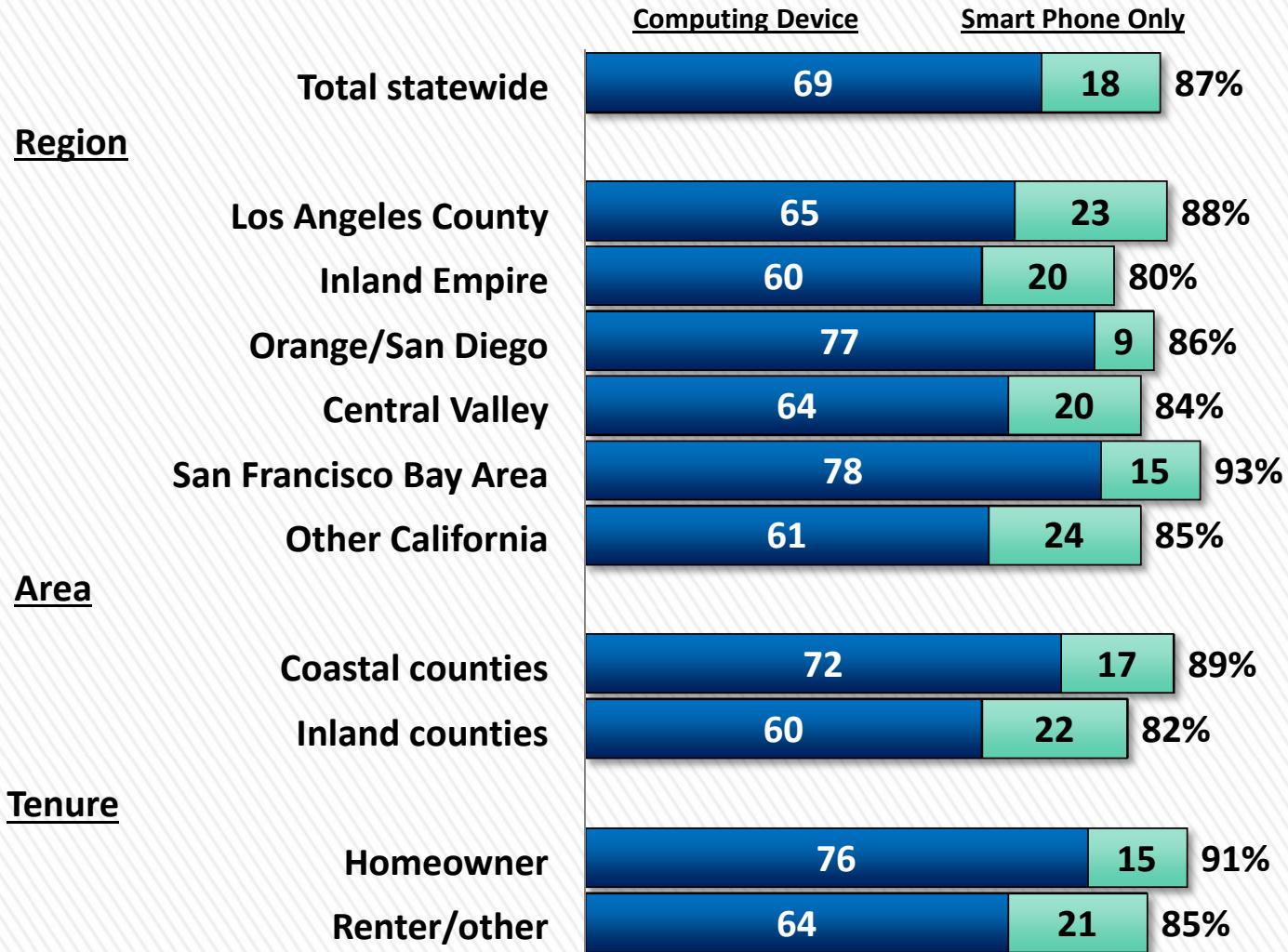


Table 4a

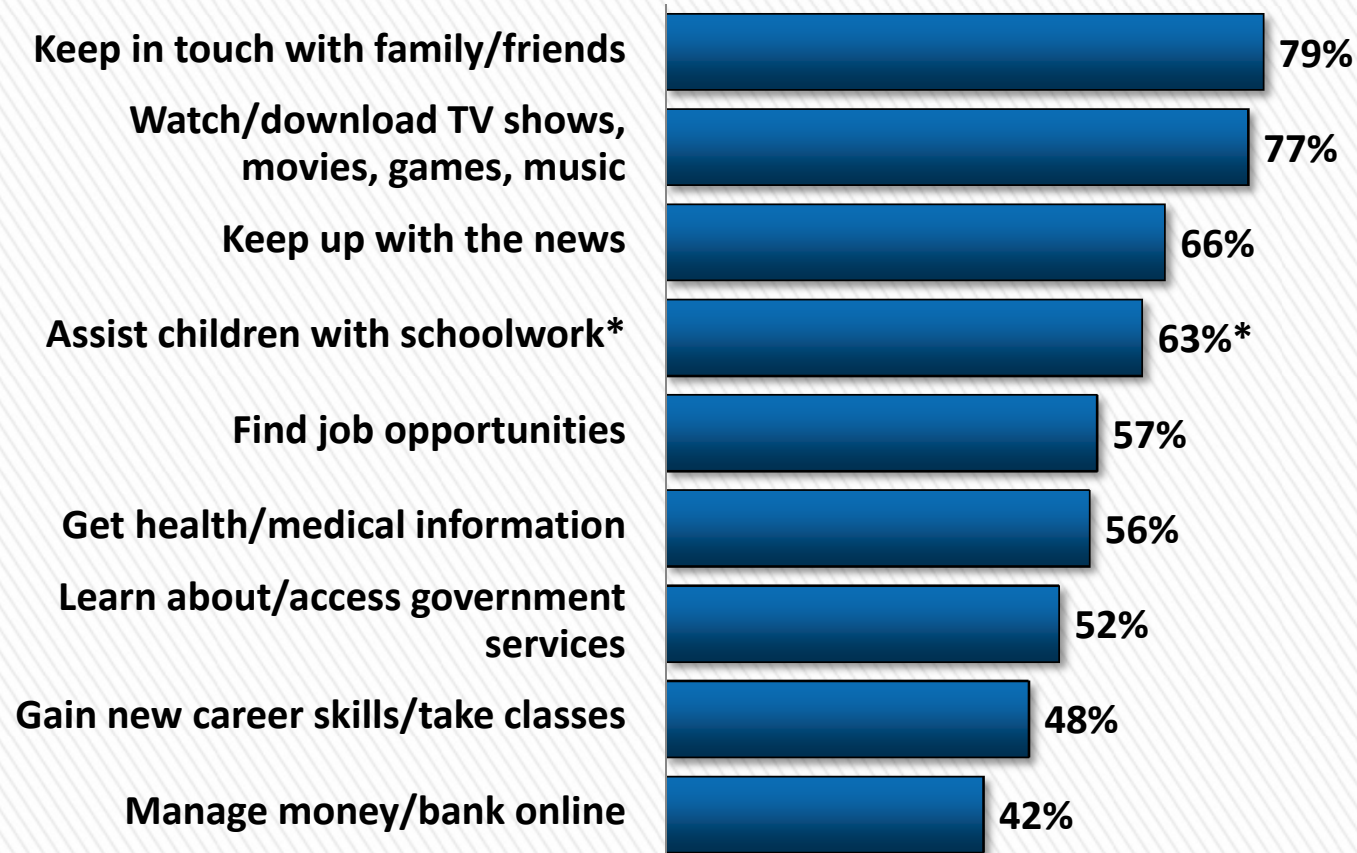
Ways Californians with Broadband Connectivity Use the Internet at Home

		Connect through a...	
		Computing device	Smart phone only
Keep in touch with family/friends	89%	94%	78%
Assist children with schoolwork*	83%	89%	67%
Watch/download TV shows, movies, games, music	83%	89%	67%
Keep up with the news	80%	84%	68%
Manage money/bank online	70%	78%	46%
Get health/medical information	66%	74%	41%
Find job opportunities	61%	65%	52%
Learn about/access government services	57%	63%	40%
Gain new career skills/take classes	51%	57%	35%

* This item was asked only of those living in households where children under age 18 reside.

Table 4b

Ways in Which Low Income Adults with Broadband Connectivity Use the Internet at Home

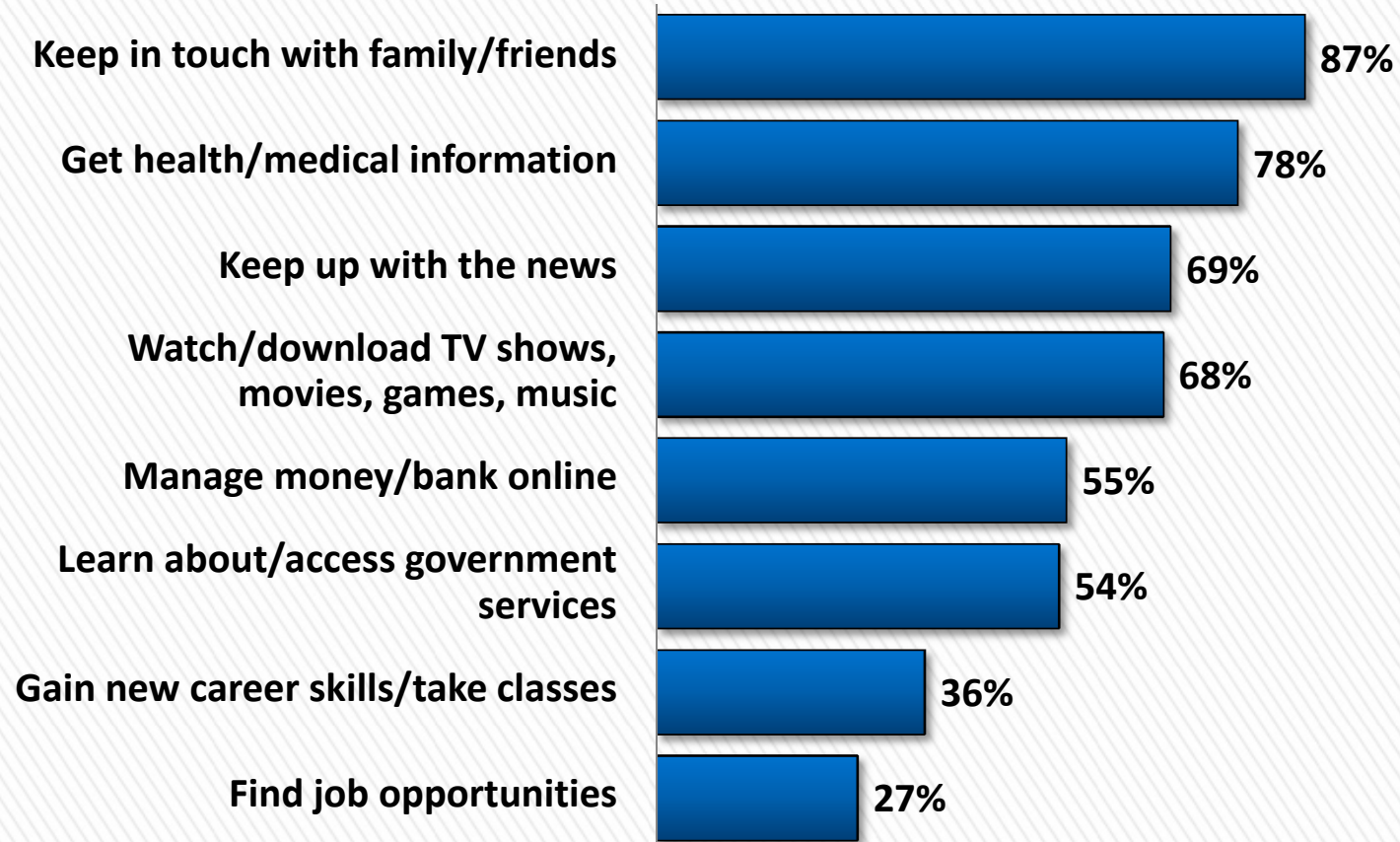


* This item was asked only of those living in households where children under age 18 reside and is based on a small sample size

Note: Low-income adults are defined as those whose annual household income is less than \$20,000.

Table 4c

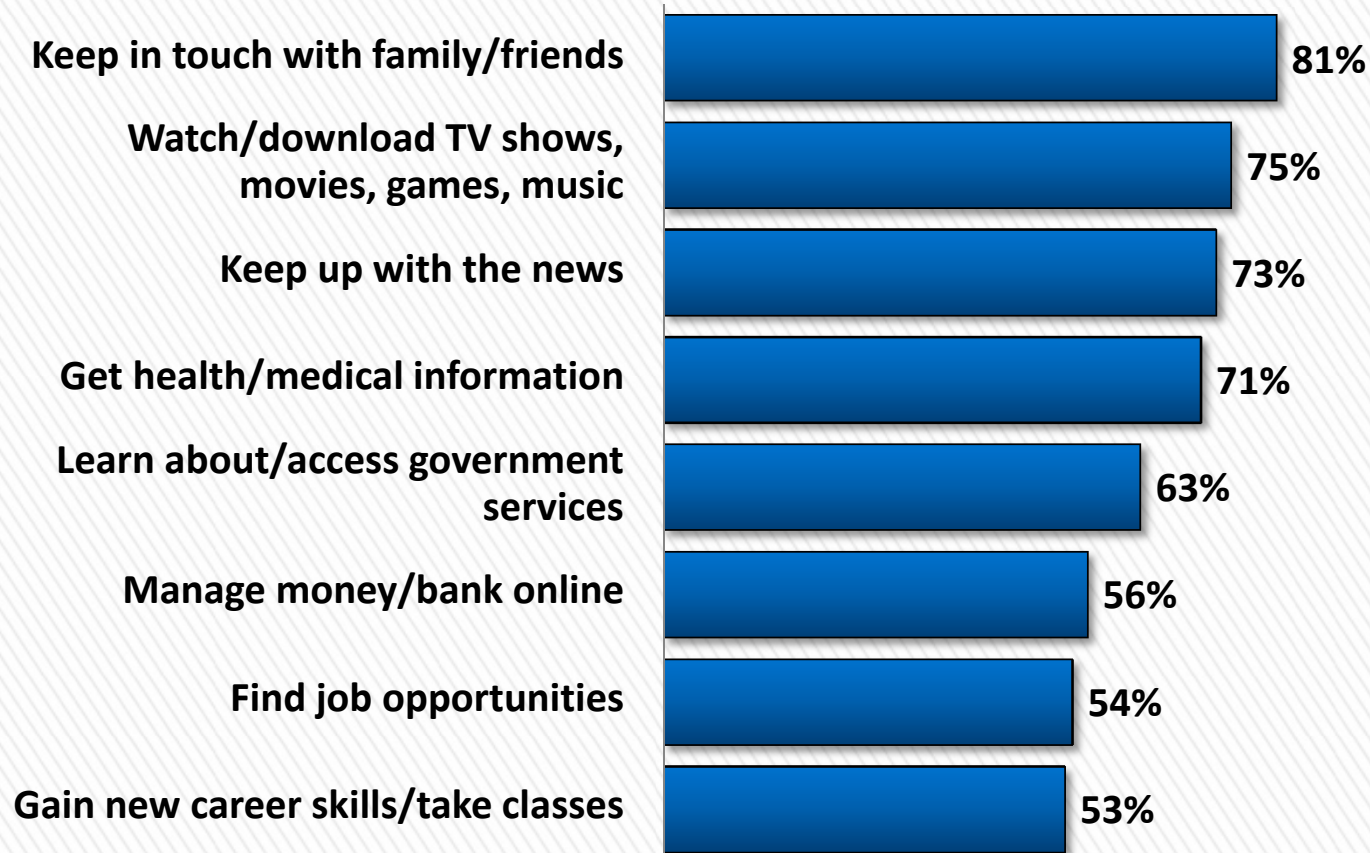
Ways in Which Seniors Age 65 or Older with Broadband Connectivity Use the Internet at Home



Note: "Assisting children with schoolwork" not reported because of its very small sample base among seniors.

Table 4d

Ways in Which Disabled Adults with Broadband Connectivity Use the Internet at Home



Note: "Assisting children with schoolwork" not reported because of its very small sample base among disabled adults.

Table 5a

Reasons Why Californians Without Internet Connectivity Say their Household Doesn't Have It

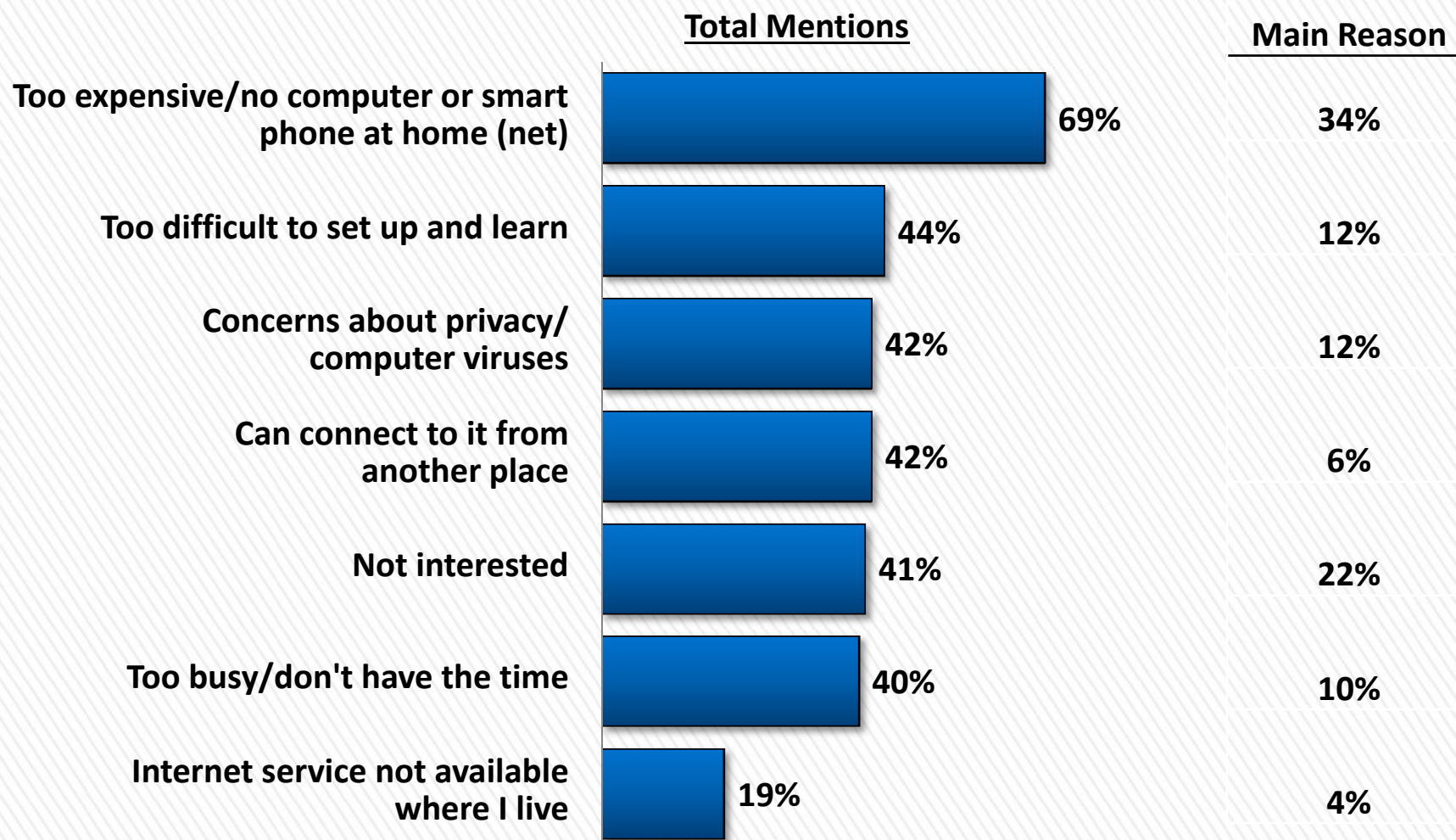
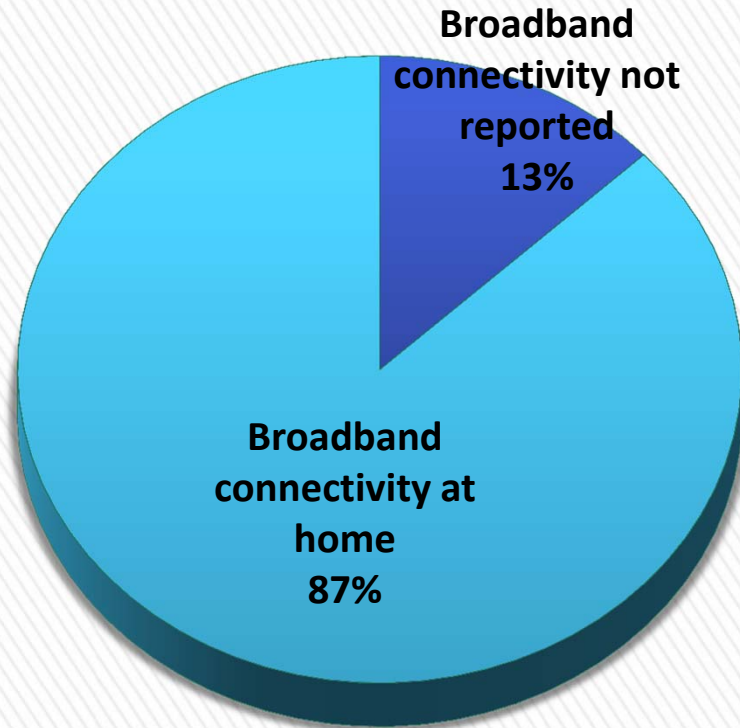


Table 5b

Main Reason Californians Without Broadband Connectivity at Home Aren't Connected, as a Percentage of all Households*

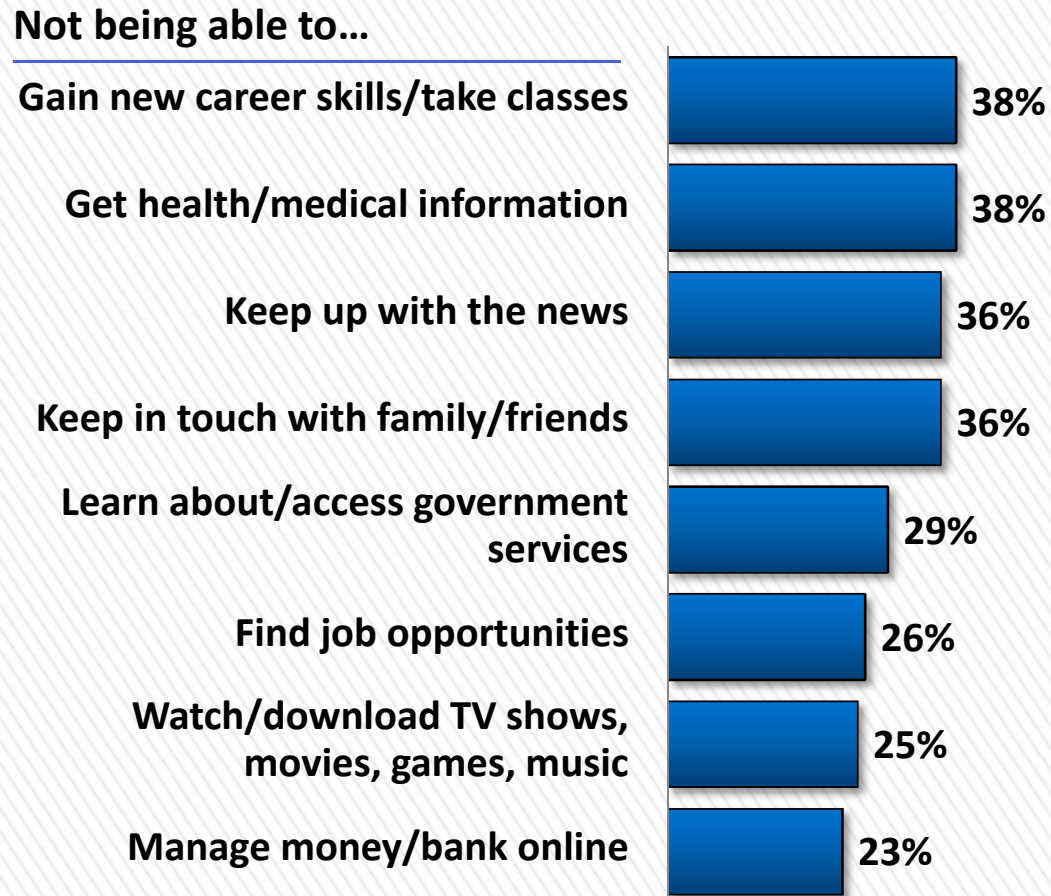


Too expensive/no computing device or smart phone	<u>13%</u>
Not interested	4%
Too difficult to set up and learn	3
Concerns about privacy/computer viruses	2
Too busy/don't have time	2
Can connect from another place	1
	1

* Calculated by multiplying the main reason percentages reported in Table 5a by the 13% not reporting broadband connectivity at home. Categories with 0.5% or less not shown.

Table 6

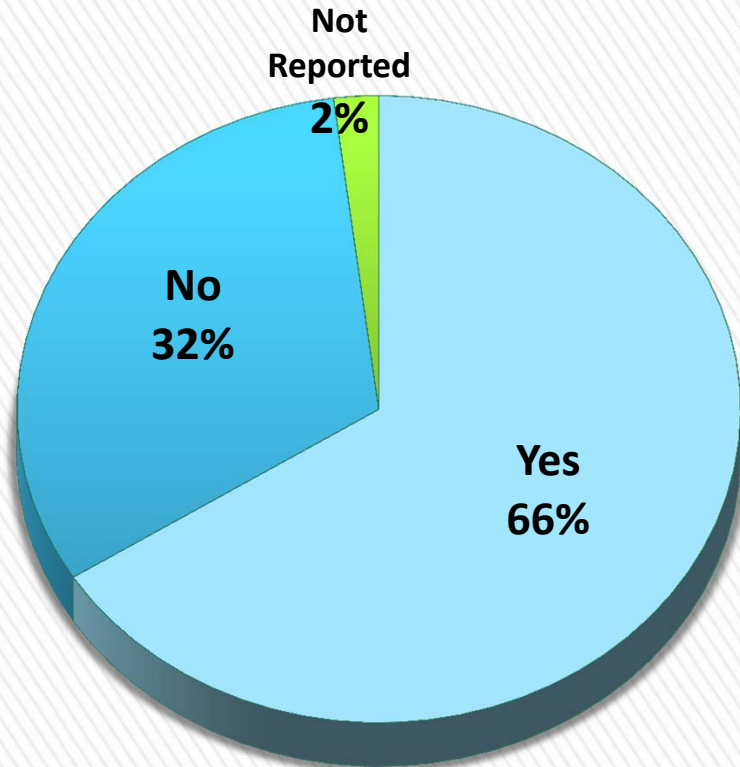
Ways in Which Californians Without Internet Connectivity Feel Disadvantaged Because They are Unable to Access the Internet at Home



Note: "Assisting children with schoolwork" cannot be reliably reported because of small sample sizes.

Table 7

Broadband Internet Connectivity Through a Computing Device Outside the Home



Where?

At work	44%
Home of friend/family	39
At/near a store	32
At/near a school	30
Public building (other than library)	29
At/near a library	24
Other place	5

Note: Sum of places where adults have broadband Internet access outside the home adds to more than 66% subtotal due to multiple mentions.

Table 8

Broadband Internet Connectivity Through a Computing Device Either at Home or Outside the Home

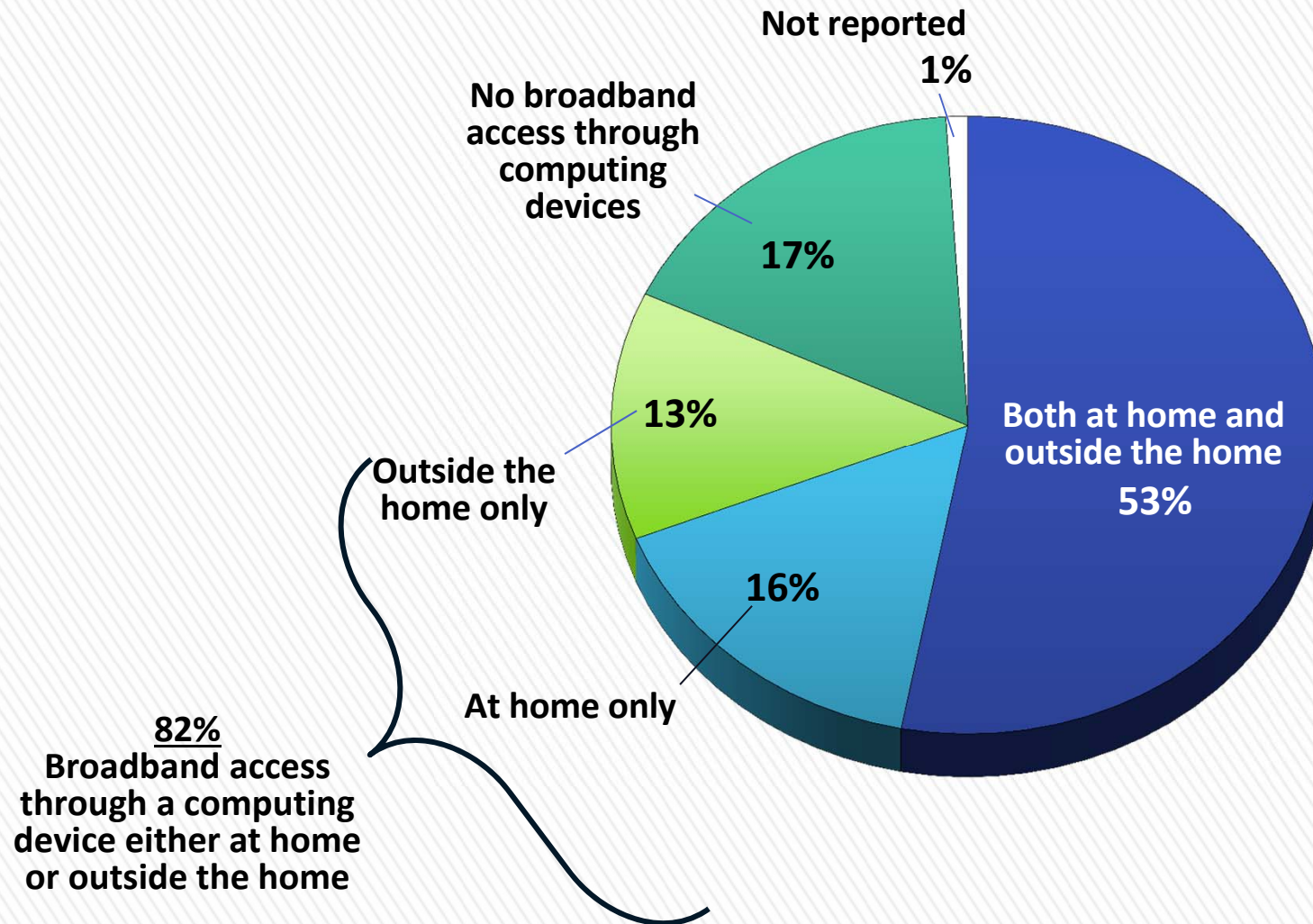
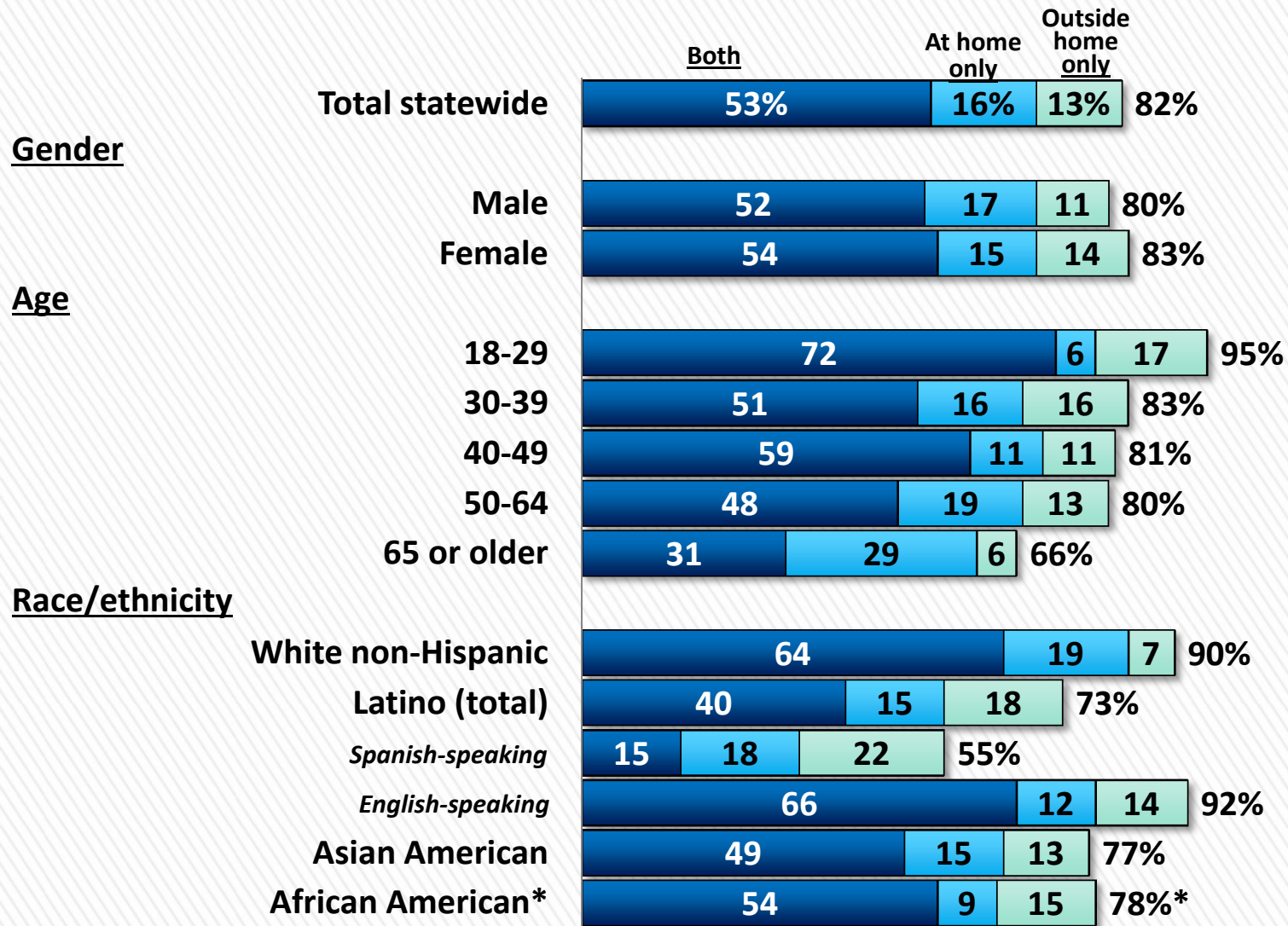


Table 9a

Broadband Internet Connectivity through a Computing Device Either at Home or Outside the Home (by gender, age and race/ethnicity)



* Results based on small sample base.

Table 9b

Broadband Internet Connectivity Through a Computing Device Either at Home or Outside the Home *(by nativity, educational attainment and disability status)*

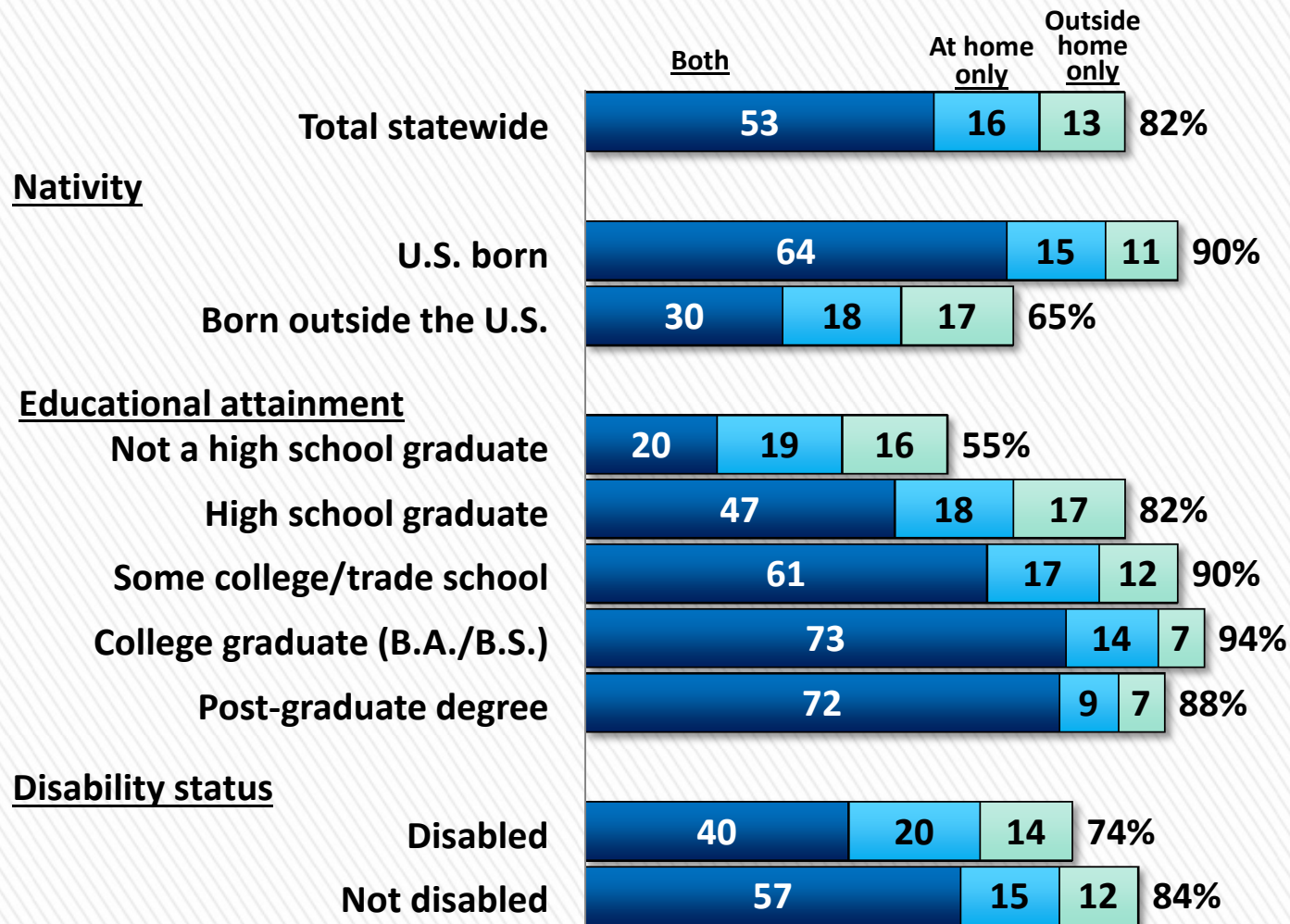


Table 9c

Broadband Internet Connectivity Through a Computing Device Either at Home or Outside the Home *(by marital and parental status and household income)*

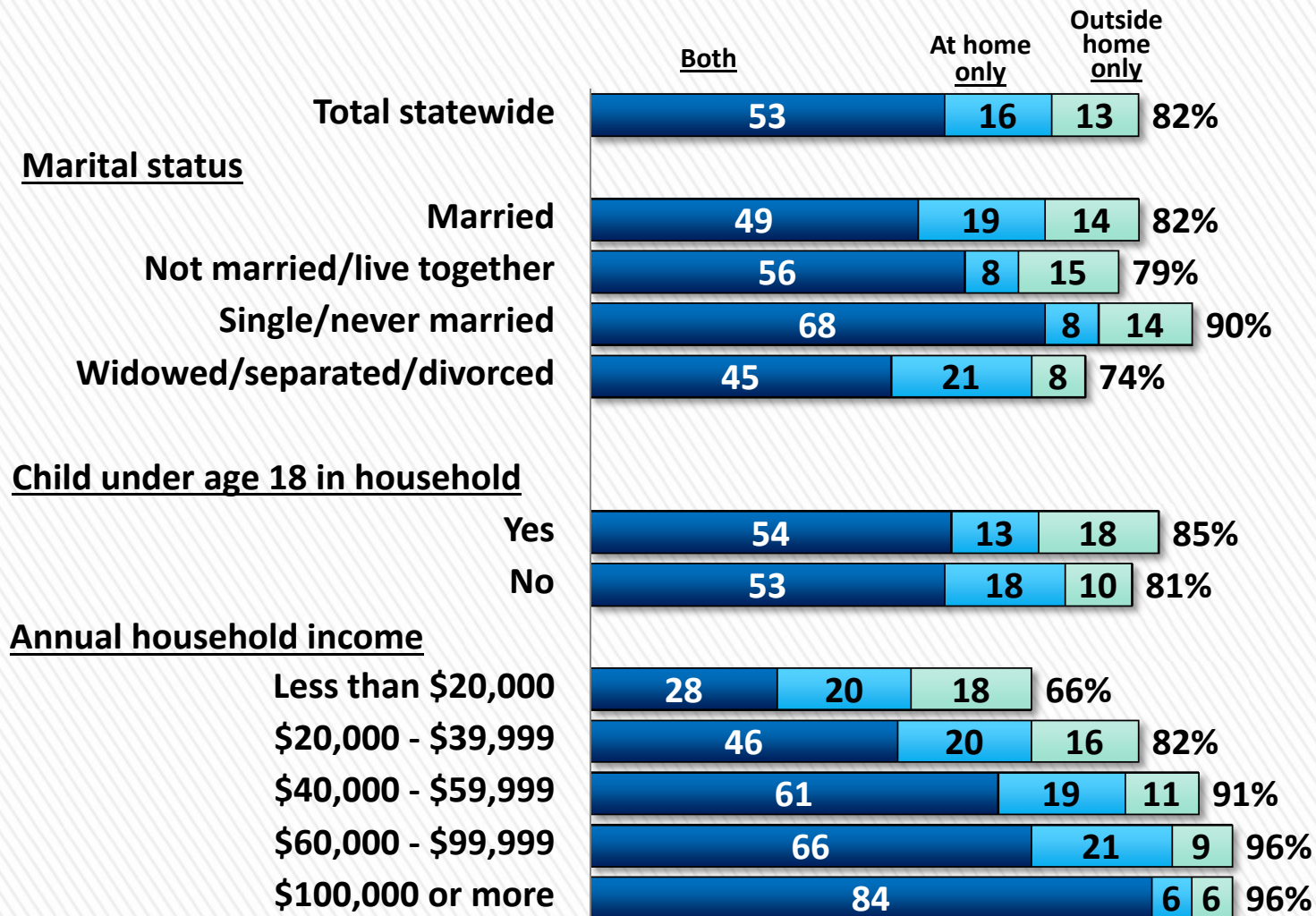


Table 8e

Broadband Internet Connectivity Through a Computing Device Either at Home or Outside the Home *(by region, area, and tenure)*

