



**California Emerging Technology Fund
Testimony to the Select Committee on Increasing the Integration of STEM Education
Assembly Member Susan Bonilla, Chair
Bay Area Regional STEM Education Summit:
Advancing STEM through Public-Private Partnerships
Thursday, October 23, 2014
Mills College, Oakland**

Attachments

- 1. 2014 Annual Survey on Broadband Adoption and Graphs**
- 2. School2Home Overview**
- 3. Neighborhood Transformation Framework**
- 4. California Broadband Council Statement
Regarding Broadband in Schools**
- 5. Testimony to U.S. Senate Subcommittee, October 29, 2013
(Excerpts on Conclusions and Recommendations Regarding
U.S. Department of Education and Public-Private Partnerships)**



Embargoed for media use: Tuesday, July 8, 2014

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California Emerging Technology Fund Calls for National Policy on Affordable Broadband Rate

New Poll Shows Large Disparities in Home Broadband Use in California

San Francisco and Los Angeles, CA – July 8, 2014 – The California Emerging Technology Fund (CETF) in partnership with The Field Poll today released results of a new survey examining the depth of the Digital Divide in California. CETF, a non-profit foundation, was set up by the California Public Utilities Commission in 2005 to break down barriers to broadband deployment and adoption based on statewide goals.

The poll found that home broadband adoption rates have stagnated over the past few years, leaving the hardest-to-reach Californians without an essential tool to access the educational, employment and civic engagement opportunities that lead to self-sufficiency. The statewide goal is to achieve 80% home adoption by 2017, with no single demographic group or region below 70%.

According to The Field Poll, demographic groups with home broadband adoption rates that fall more than 10 percentage points below the 2014 state home broadband adoption* average of 75% include:

Not a high school graduate (32%)	Spanish-speaking Latinos (46%) All Latinos (63%)
65 or older (47%)	Household income of less than \$20,000 (53%)
People with disabilities (59%)	Non-citizens (60%)

“These findings are a sobering reminder that while we live in a state renowned for technology and innovation, the Digital Divide is real and impacting millions of Californians. Fully one-quarter of California households do not have high-speed Internet at home. This is not acceptable,” said Sunne Wright McPeak, President and CEO of the California Emerging Technology Fund.

*This percentage includes adults accessing the Internet at home with a smartphone or through DSL, cable, satellite or fiber optic connections to a home desktop, laptop or tablet computer.

2-2-2-2

“On the brighter side, 6 in 10 of those who do not use the Internet at home suggested they might be interested if they had access to affordable broadband and equipment and the skills to use it. This should serve as a wake-up call to the Federal Communications Commission and elected leaders that the nation needs an affordable broadband rate and sustainable programs to address the literacy needs of low-income residents if we want our country to be competitive,” McPeak said.

Poverty and Broadband Adoption

While progress has been made since initial polling data showed California at 55% home broadband adoption in 2008, the stakes are even higher now. It is nearly impossible to find employment without at having at least basic digital skills, and economic self-sufficiency is the only pathway out of poverty.

“We must recognize that the Digital Divide is both a manifestation of, and driver of, the economic divide. These survey findings indicate that a large swath of Californians, notably Spanish-speakers, low-income residents and those without at least a high school education, exhibit significant disparities in their access and use of the Internet. And because digital connectivity is crucial to gaining economic empowerment in the digital age, this is a recipe for leaving a significant share of Californians behind. In today's world and tomorrow's future, economic and social opportunity are dependent on access to affordable high-speed Internet at home,” said Dr. Manuel Pastor, Professor of Geography and American Studies & Ethnicity at the University of Southern California.

Older Californians and Broadband Adoption

Older Californians are among the least-connected, according to the survey, which raises critical quality-of-life issues for this group.

“Far too many older adults are being left behind. Often, these are our parents and grandparents. This has huge implications for their health and welfare, personal fulfillment and social connectedness,” said CETF Board Secretary Barbara O’Connor. “Businesses, governments and non-profits must work to reduce broadband adoption barriers by implementing affordable high-speed Internet access at home for older adults, integrating technology into the delivery of government services, and providing digital literacy training, particularly in the area of health and financial empowerment.”

Usage Patterns by Smartphones and Computing Devices

With the explosion of smartphones, the survey examined how people use the Internet from home for different activities depending on whether they mostly or only used a computer or whether they only used a smartphone. Higher percentages of poor households, Latinos, African-Americans and non-citizens said they only use the smartphone to connect at home.

3-3-3-3

While both types of users cited entertainment and social media as their top activities, “smartphone only users” were much less likely to visit government or community web sites, bank online or transfer funds to family members, get health or medical information or communicate with their doctor or take a class online.

Education and Broadband Adoption

“While mobile phones are essential devices, they are not enough to help poor Californians access many of the services they need to break out of poverty or close the education Achievement Gap,” McPeak said. For example, California public school students are now required to take assessment tests on a computing device and those without daily experience at home using a desktop, laptop or tablet will be at a disadvantage.

The poll found that parents who have a broadband connection other than a smartphone at home were highly likely to go online at home to help their children learn (84%) and to obtain information about their children’s homework and grades from the school website (75%).

“As technology is integrated in the classroom, poor students who only have smartphone access to the online world when they go home will fall farther behind and we all will be worse off for it. This is a call to action for government, industry and philanthropic groups to work to finally close the Digital Divide in California,” McPeak said.

For full poll results, please go to <http://www.field.com/fieldpollonline/subscribers/RIs2476.pdf>

How to Subscribe to Affordable Broadband at Home

CETF partners with the Stride Contact Center, an independent, non-profit entity that provides free telephone consultations on how to find discount broadband service where you live. For more information, call 1-888-491-5982.

About the California Emerging Technology Fund

The mission of CETF is to close the Digital Divide in California by breaking down barriers to high-speed Internet access at home. The goal is to reach 98% of all residences with broadband infrastructure and to achieve 80% home adoption by 2017. This statewide goal can only be accomplished if the following specific hard-to-reach target communities achieve at least a 70% adoption rate: low-income populations, Latino households, rural communities, and people with disabilities. For more information, please visit www.cetfund.org.

THE FIELD POLL

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DIGITAL DIVIDE PERSISTS IN CALIFORNIA Wide Differences in Internet Use and Broadband Connectivity Across Demographic Subgroups of the State's Adult Population

According to a *Field Poll* conducted on behalf of the California Emerging Technology Fund (CETF), 86% of adult Californians use the Internet at least occasionally. This proportion is unchanged from a similar CETF survey completed last year.

However, Internet use varies significantly across different segments of the state's population. While greater than 95% of Californians age 18 -29, college graduates and those with annual household incomes of \$60,000 or more report being an Internet user, significantly smaller proportions of other California adults do so. Shown below are the subgroups reporting the lowest levels of Internet use:

- Adults who have not graduated from high school (51%)
- Spanish-speaking Latinos (60%)
- Seniors age 65 or older (67%)
- Non-citizens (70%)
- Residents with annual household incomes of less than \$20,000 (71%)
- Disabled adults (73%)
- Naturalized citizens (76%)

When Californians who do not use the Internet at home are asked their reasons for not doing so, 36% say they are not interested or feel they do not need it. However, 60% offer reasons other than a lack of interest or need. This includes 21% who say they don't know how to use it, 12% reporting that computers are too expensive, 10% saying that Internet connectivity is too expensive, 3% volunteering that service is not available in the area where they live and 22% offering a wide assortment of other reasons.

The survey also finds that three in four California adults (75%) live in households with broadband Internet connectivity. The largest component are adults accessing broadband Internet through DSL, cable, satellite or fiber optic connections to a home desktop, laptop or tablet computer (67%). However, a small but significant segment of other adults (8%) are now connecting to broadband Internet at home solely through a smart phone.

The overall proportion of adults with broadband Internet connectivity at home is unchanged from 2013. Prior to this, broadband connectivity at home had been increasing steadily in California, from 55% in 2008 to 62% in 2009, to 70% in 2010 and to 73% in 2012.

There are wide variations in access to broadband Internet at home across different segments of the state's population. While greater than nine in ten Californians age 18-29, college graduates and those with annual household incomes of \$100,000 or more have broadband Internet access at home, significantly smaller proportions of the following populations report this:

- Adults who have not graduated from high school (32%)
- Spanish-speaking Latinos (46%)
- Seniors age 65 or older (47%)
- Residents with annual household incomes of less than \$20,000 (53%)
- Disabled adults (59%)
- Non-citizens (60%)
- Naturalized citizens (63%)

The 8% of California adults using a smart phone as their sole means of connecting to the Internet at home include many of the same subgroups reporting lower than average access to broadband Internet connectivity at home. These include Spanish-speaking Latinos, non-citizens, adults who have not graduated from high school, and residents whose annual household income is less than \$40,000.

This is significant because there are big differences between how Californians with access to broadband through a home computer are using the Internet versus those solely accessing it at home through a smart phone. The following are Internet uses where the differences are particularly large.

- Visiting government or community web sites (74% vs. 57%)
- Banking online or transferring funds to family members (69% vs. 41%)
- Getting health or medical information or communicating with their doctor (61% vs. 41%)
- Taking a class or a training course online (40% vs. 27%)

In addition, the survey finds that large majorities of parents with access to broadband Internet through a home computer use their computer to help their child learn (84%) and obtain information about homework and grades from their child's school website (75%).

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Information About The Survey

Methodological Details

The findings in this report are based on a *Field Poll* completed June 5-22, 2014 on behalf of the California Emerging Technology Fund, a non-profit foundation set up by the California Public Utilities Commission. The survey was conducted among a random sample of 2,013 California adults. To capture the diversity of the California adult population, the survey was administered in six languages and dialects – English, Spanish, Cantonese, Mandarin, Vietnamese and Korean, depending on the preference of the respondent.

The sample was developed using dual frame random digit dial landline and cell phone listings covering the state of California. For this survey, a total of 1,402 interviews were conducted with respondents on their cell phone and 611 were conducted on a landline or other type of phone. The combined landline and cell phone sample was weighted to match demographic, geographic and voter registration estimates of the adult population in California. The weighting process also takes into account the higher probability of reaching respondents who receive calls on both a landline and cell phone.

Sampling error estimates applicable to the results of any probability-based survey depend on sample size and the percentage distributions being examined. The maximum sampling error for results from the overall adult sample is +/- 2.2 percentage points at the 95% confidence level.

The maximum sampling error estimates are based on survey findings in the middle of the sampling distribution (i.e., results at or near 50%). Percentages at either tail of the distributions (i.e., results closer to 10% or 90%) have somewhat smaller margins of error. There are other sources of error in surveys of public opinion besides sampling error. However, the overall design and execution of this survey sought to minimize these other possible errors.

The Field Poll was established in 1947 as *The California Poll* by Mervin Field, who is still an active advisor. The Poll has operated continuously since then as an independent, non-partisan survey of California public opinion. The Poll receives funding from media subscribers, from California foundations and independent not-for-profit organizations, and from the University of California and California State University systems, who receive the data files from each *Field Poll* survey shortly after its completion for teaching and secondary research purposes.

Questions Asked

Do you use the Internet, at least occasionally?

Do you send or receive email, at least occasionally?

Do you or do others in your household use a device that is not a cell phone to access the Internet from home, like a desktop, laptop or tablet computer?

(IF INTERNET USED WITH DEVICE OTHER THAN CELL PHONE): What kind of Internet connection do you have at home? Is it a dial-up telephone line or a high speed Internet connection, such as D-S-L, cable, satellite or fiber optic connections?

(IF INTERNET USER): When you use the Internet at home, do you do that only using a cell phone, mostly using a cell phone, mostly using some other device like a desktop, laptop or tablet computer, only using a desktop, laptop, or tablet computer or other device, or don't you use the Internet at home?

(IF INTERNET USER AT HOME): Do you use the Internet at home, at least occasionally, to (ITEM)?

- a. to visit a government or community web site to obtain information or use public services
- b. to search for jobs
- c. to apply for a job
- d. to take a class or training course online
- e. to get health or medical information or communicate with your doctor
- f. to visit social networking sites, such as Facebook, LinkedIn, Twitter or Instagram
- g. (IF PARENT:) to help your child learn
- h. (IF PARENT:) to obtain information from the web site of your child's school about homework and grades
- i. to bank online or transfer funds to family members
- j. for entertainment, such as listening to music, watching or downloading TV shows or movies, or playing games

(IF DOES NOT USE INTERNET AT HOME): What is the main reason you don't use the Internet at home?

Updating the “Digital Divide” In California

- A statewide survey conducted for -
California Emerging Technology Fund

- by -
The Field Poll

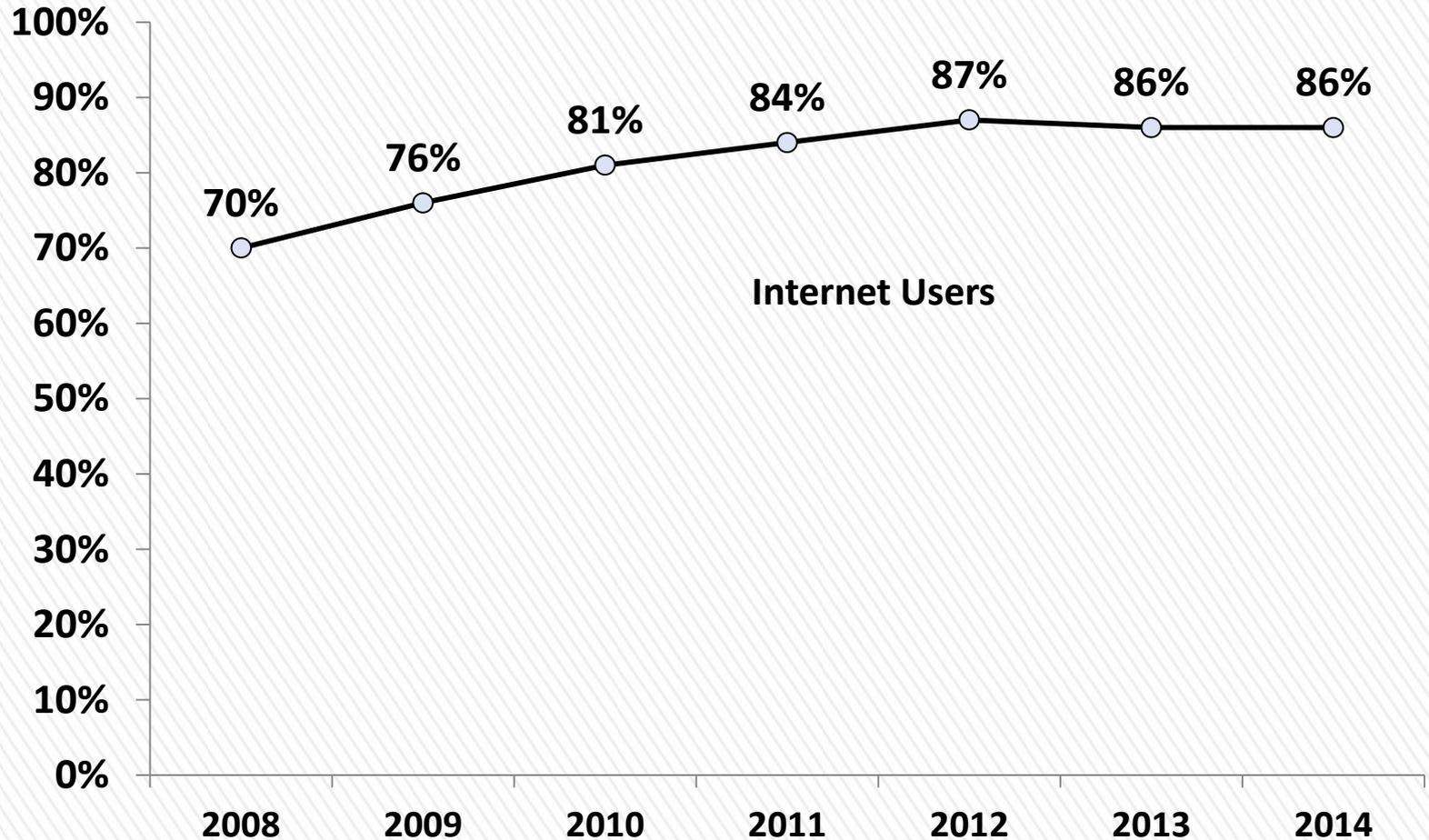
June 2014

About the Survey

Population surveyed:	California adults age 18 or older
Method of data collection:	Interviews conducted by means of computer-assisted telephone interviewing by live interviewers
Sampling method:	Random sample of adults developed from random digit dial landline and cell phone listings
Sample size:	2,013
Languages of administration:	English, Spanish, Cantonese, Mandarin, Korean and Vietnamese
Interviewing period:	June 5-22, 2014

Table 1

Trend of Internet use among California adults (2008 - 2014)

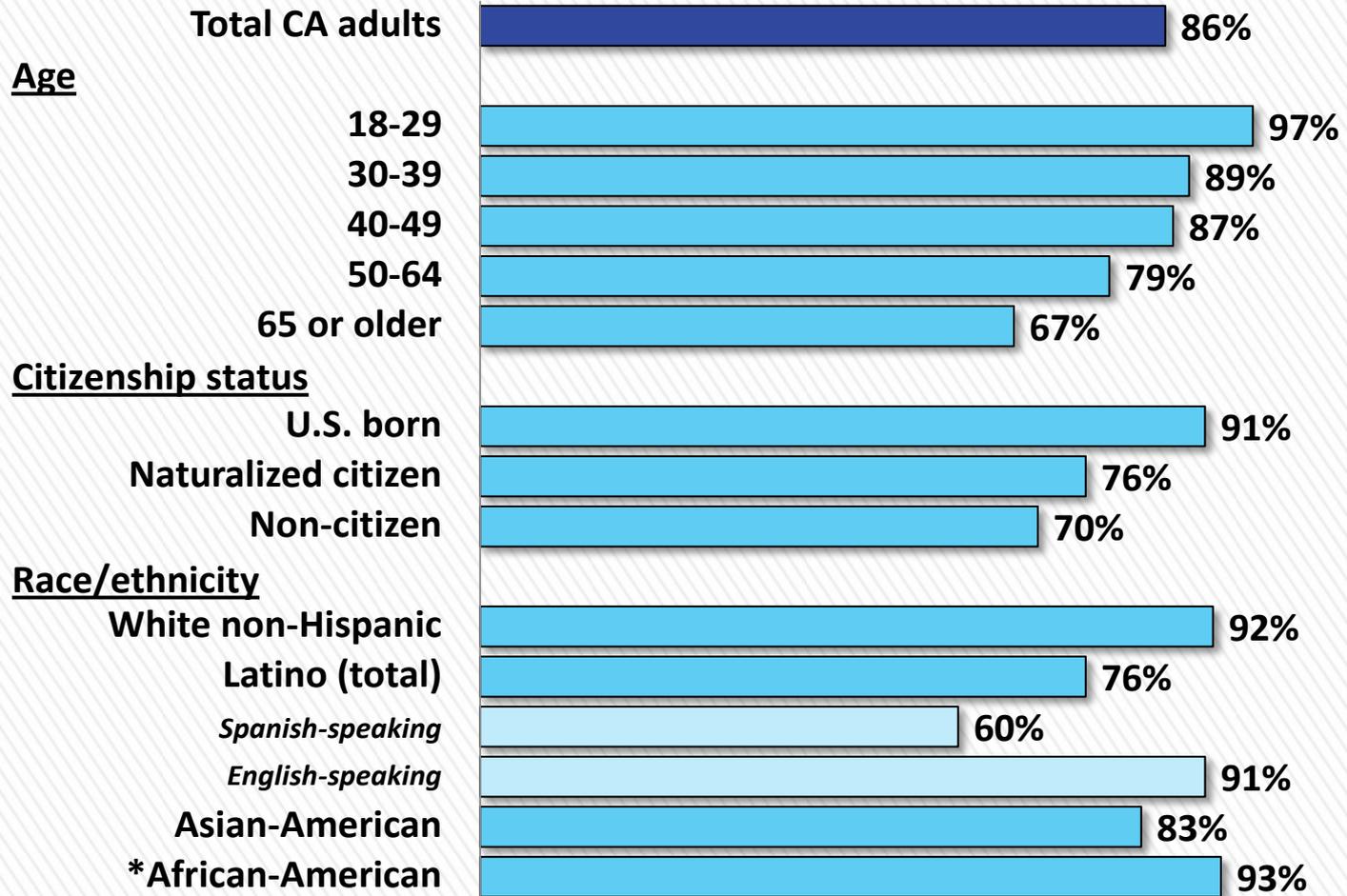


Note: Internet users during each year include those who report using the Internet or email at least occasionally.

Surveys prior to 2014 conducted for the California Emerging Technology Fund by the Public Policy Institute of California.

Table 2a

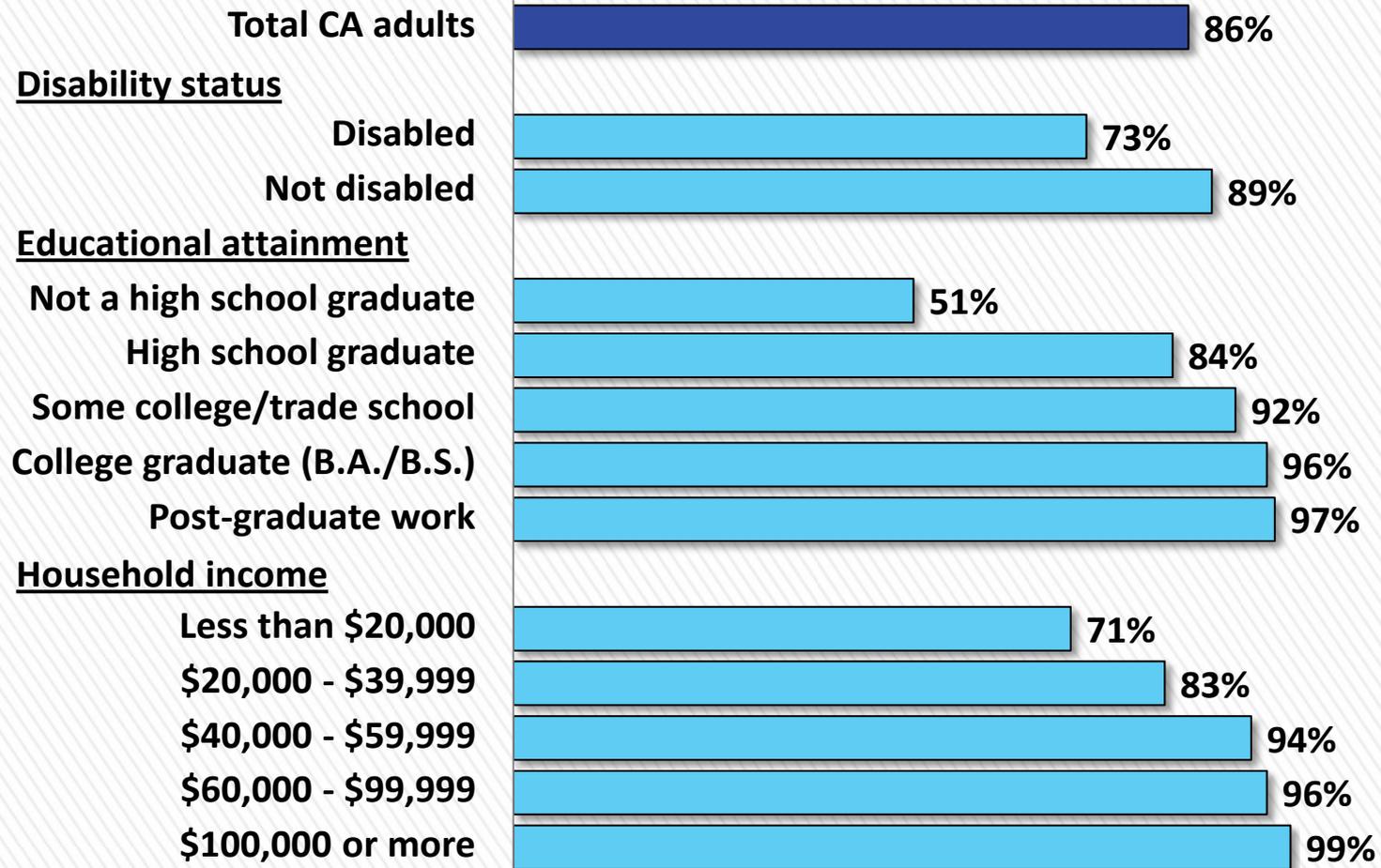
Internet use in California varies by age, citizenship status and race/ethnicity



* Findings from this subgroup have a smaller sample base and are subject to larger margins of sampling error.

Table 2b

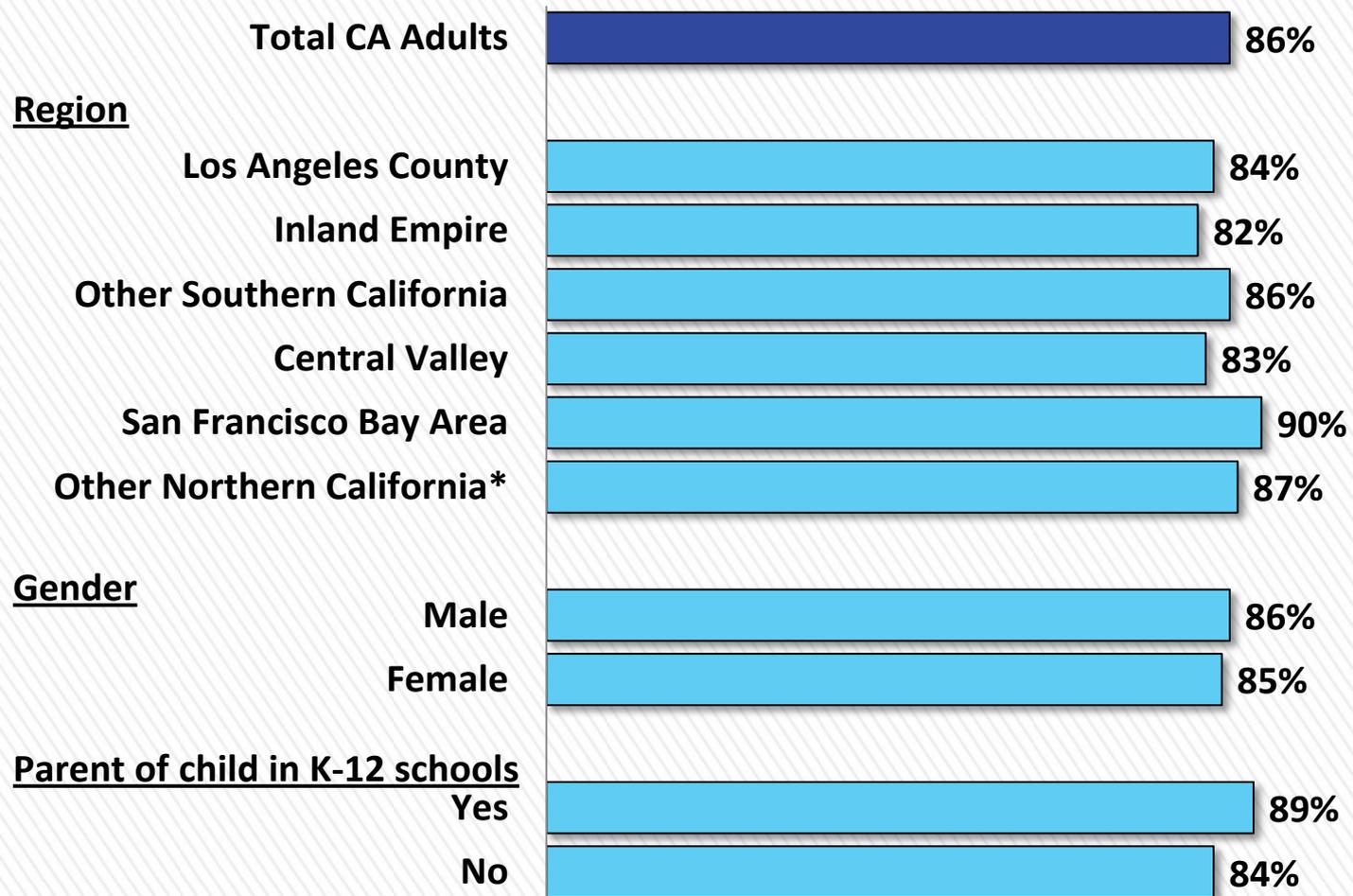
Internet use also varies by disability status, educational attainment and household income



Note: Disabled adults include those who report having an impairment or illness that prevents them from fully participating at work, school, or in performing domestic chores or other activities, or who have trouble seeing, hearing, speaking or walking.

Table 2c

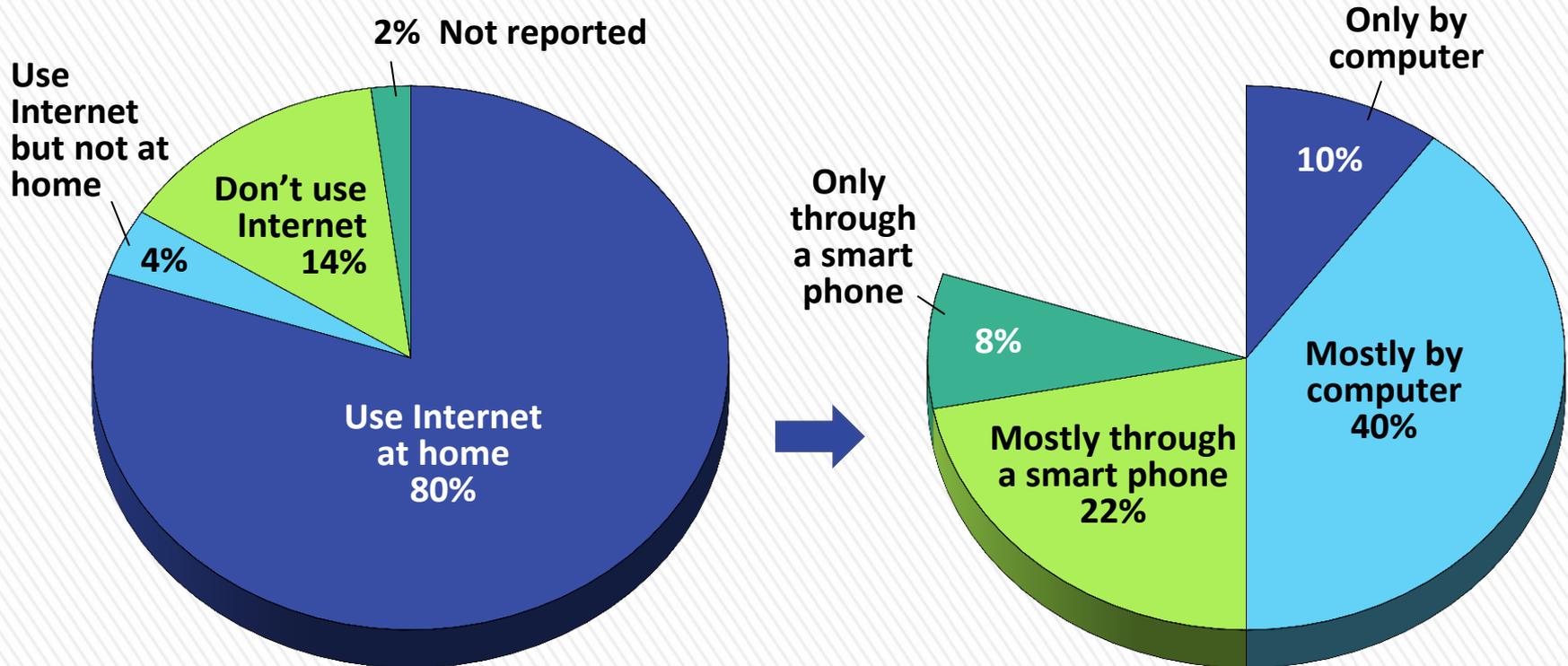
There is not much variation in Internet use across regions of the state, by gender or among parents



* Findings from this subgroup have a smaller sample base and are subject to larger margins of sampling error.

Table 3

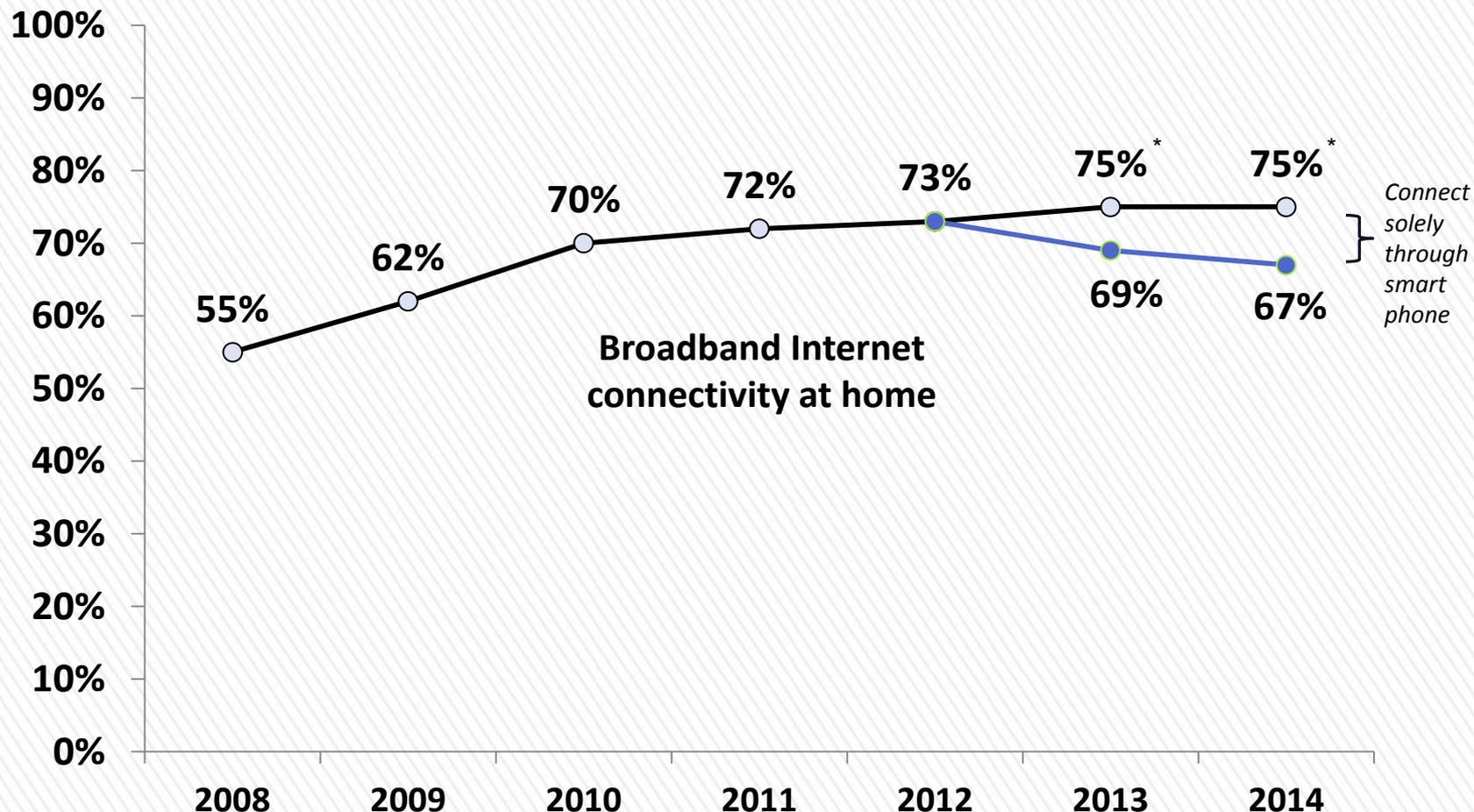
How California adults access the Internet at home



Note: Computer access includes access through a desktop, laptop or tablet computer.

Table 4

Trend of California adults with broadband Internet connectivity at home (2008 - 2014)

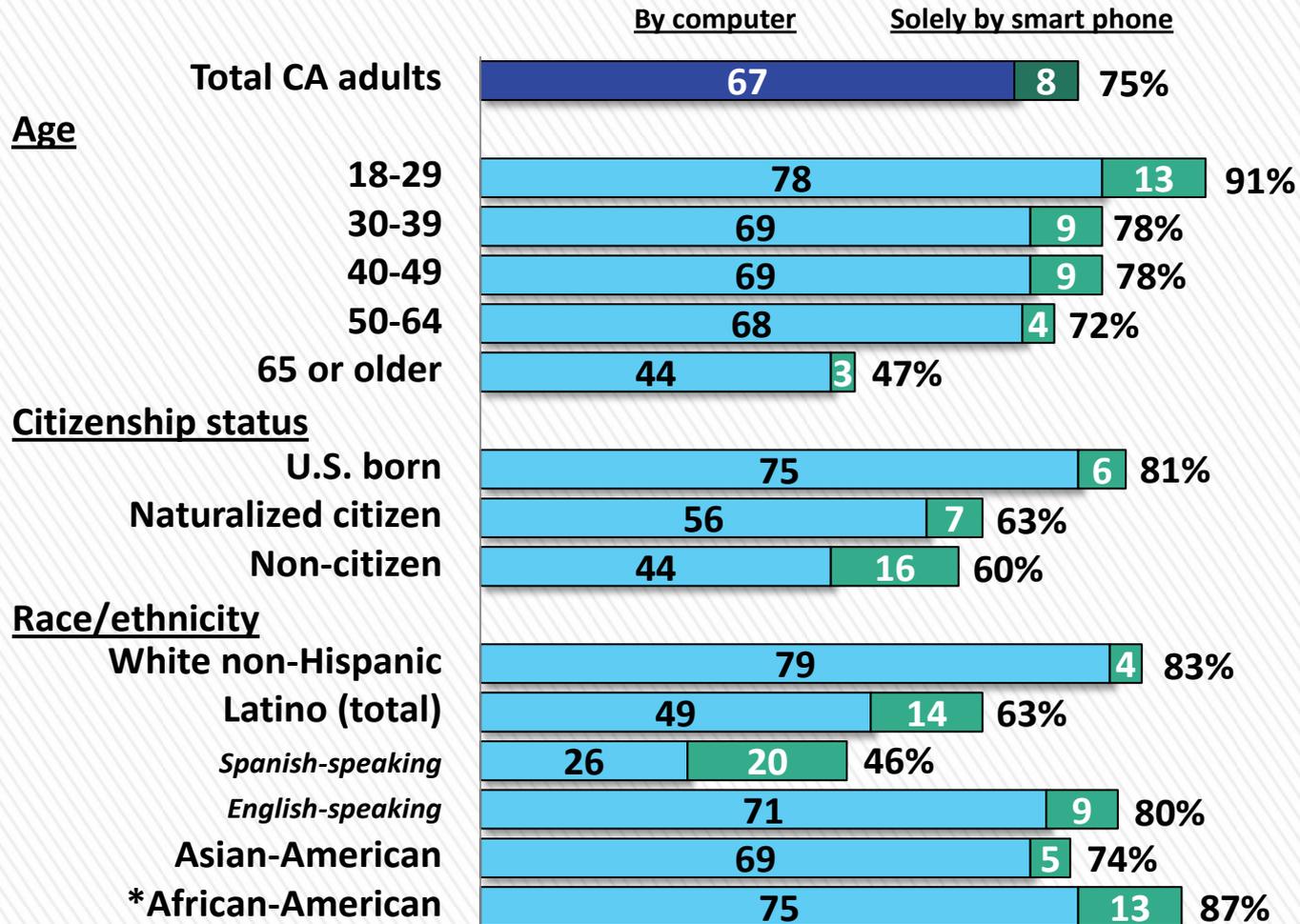


* For all years prior to 2013, broadband Internet connectivity included those accessing the Internet through DSL, cable, satellite or fiber optic connections to a home desktop, laptop or tablet computer. For years 2013 and 2014, this also includes those connecting to the Internet at home solely through a smart phone.

Surveys prior to 2014 conducted for the California Emerging Technology Fund by the Public Policy Institute of California.

Table 5a

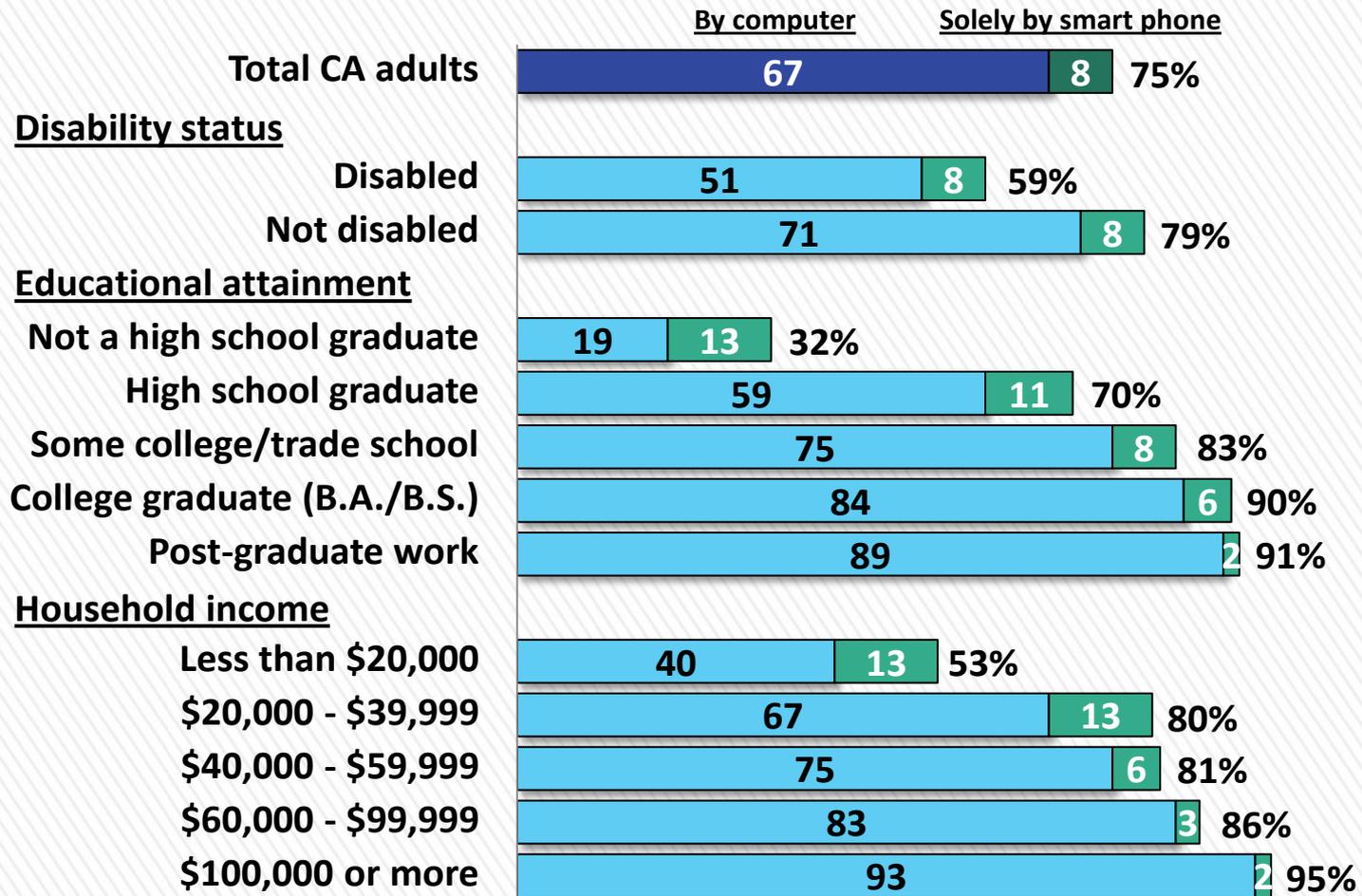
Broadband Internet connectivity at home is related to age, race/ethnicity, English proficiency, and citizenship status



* Findings from this subgroup have a smaller sample base and are subject to larger margins of sampling error.

Table 5b

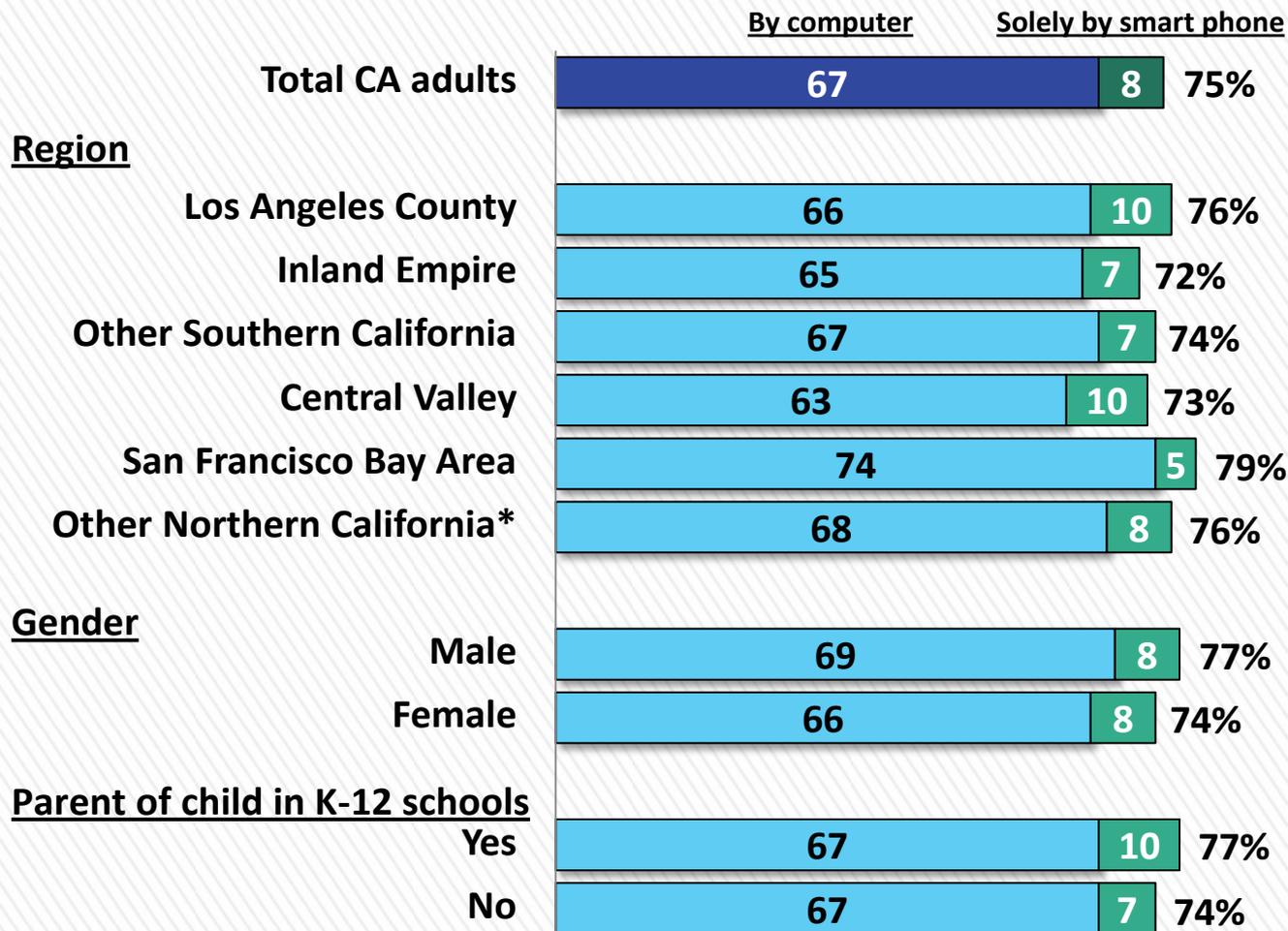
Broadband Internet connectivity at home is also related to disability status, educational attainment and household income



Disabled adults include those who report having an impairment or illness that prevents them from fully participating at work, school, or in performing domestic chores or other activities, or who have trouble seeing, hearing, speaking or walking.

Table 5c

Not much difference in broadband Internet connectivity at home by gender, among parents or by region of the state

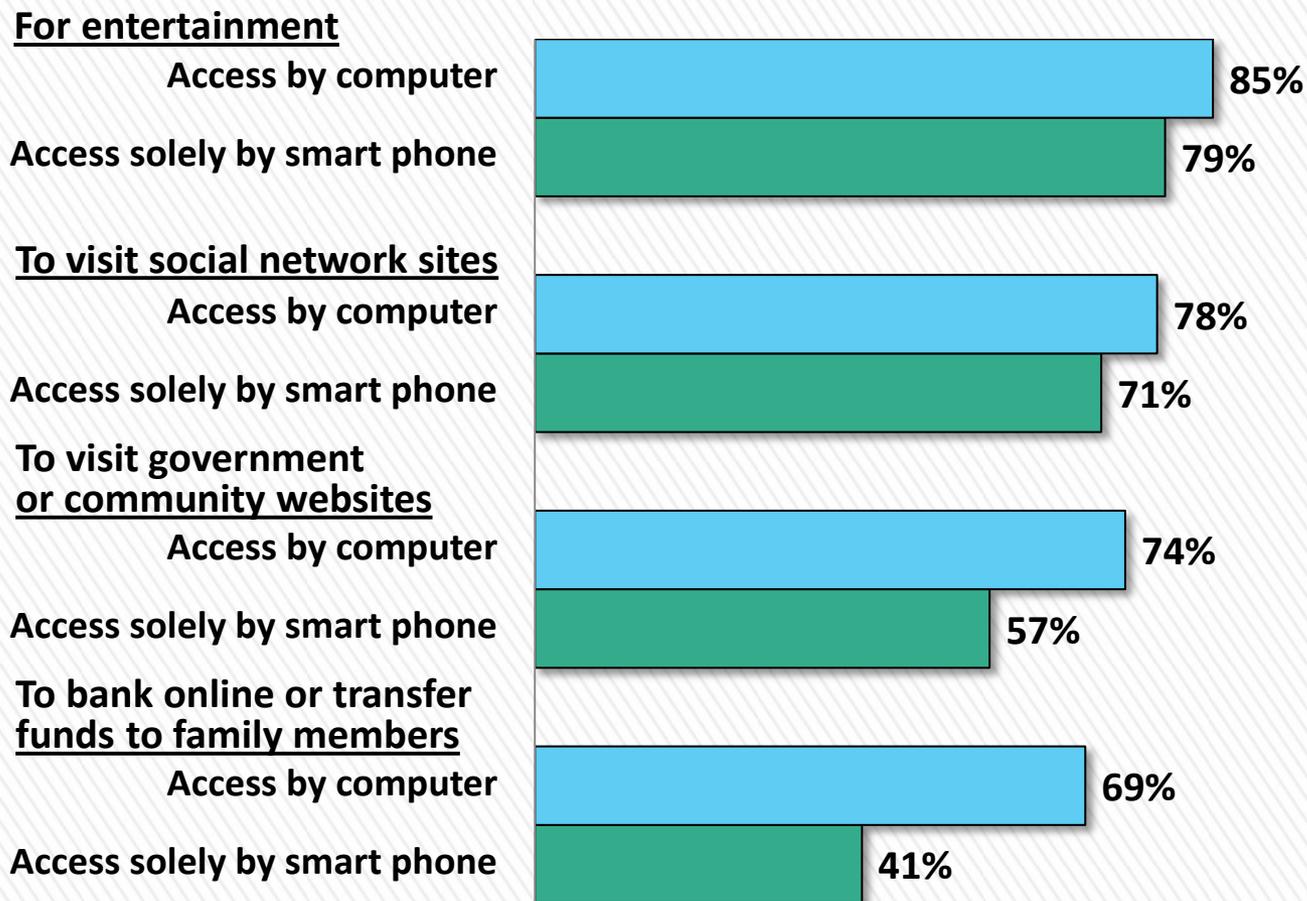


* Findings from this subgroup have a smaller sample base and are subject to larger margins of sampling error.

Table 6a

Selected ways that California adults use the Internet at home ^(1 of 2)

(among adults with broadband Internet access at home)



Note: Entertainment includes listening to music, watching or downloading TV shows or movies, or playing games.

Table 6b

Selected ways that California adults use the Internet at home ^(2 of 2)

(among adults with broadband Internet access at home)

To get health or medical information or to communicate with your doctor

Access by computer



Access solely by smart phone



To search for jobs

Access by computer



Access solely by smart phone



To apply for a job

Access by computer



Access solely by smart phone



To take a class or training course online

Access by computer

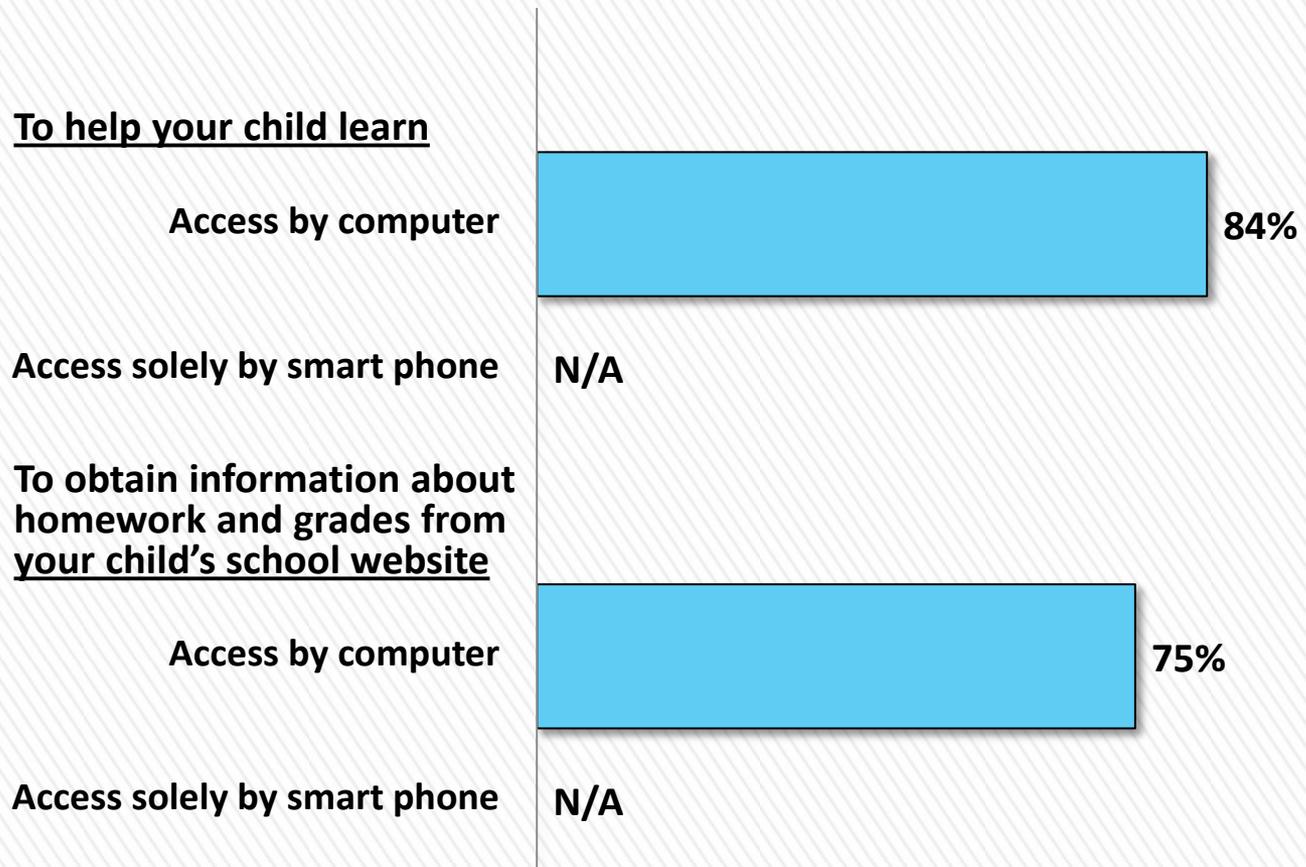


Access solely by smart phone



Table 7

Selected ways that California parents use the Internet at home to further their child's education (among parents of children in school with broadband Internet access at home)

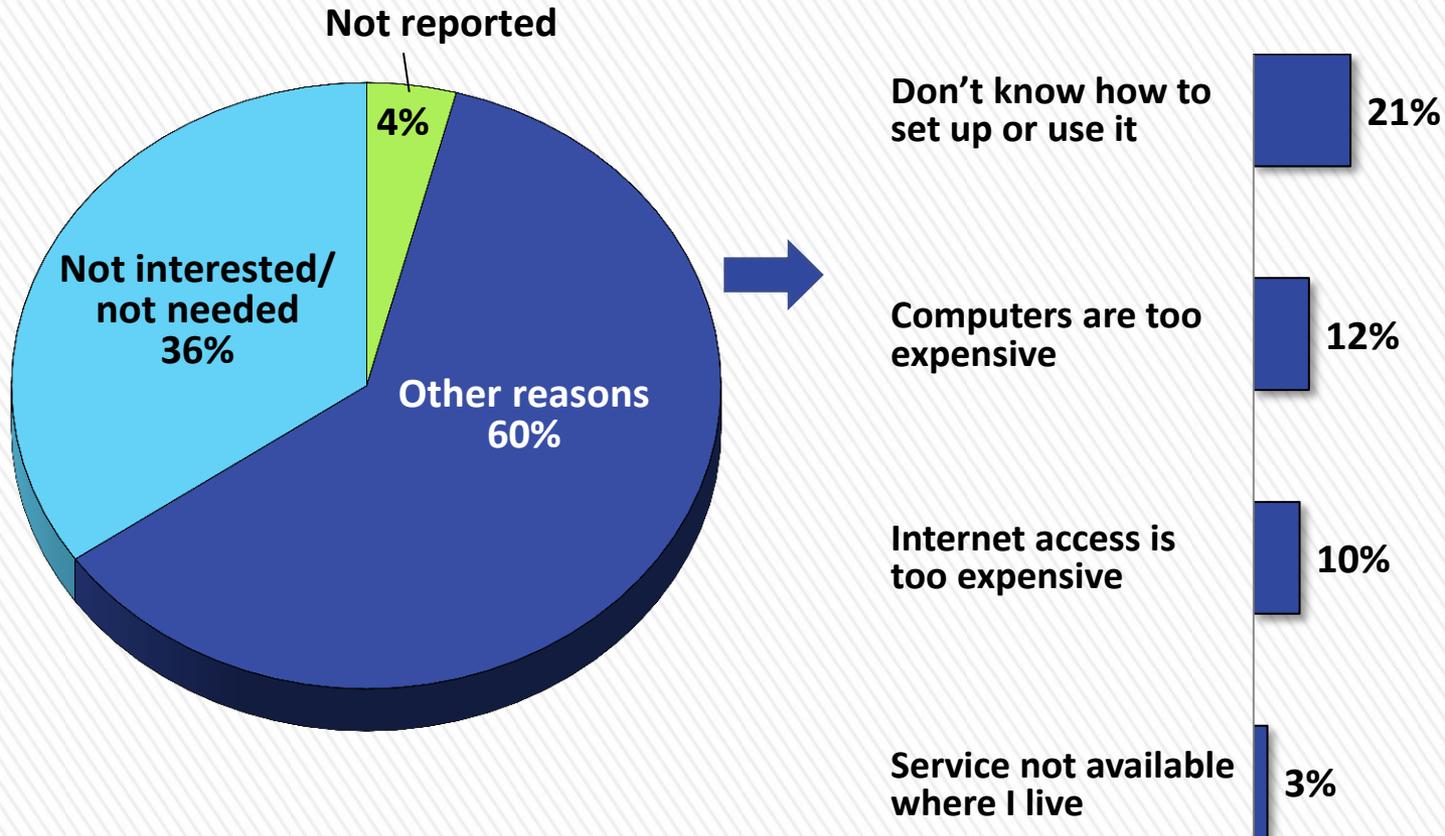


N/A: Sample sizes too small to report reliable results for this subgroup.

Table 8

Reasons that non-users give for not using the Internet at home

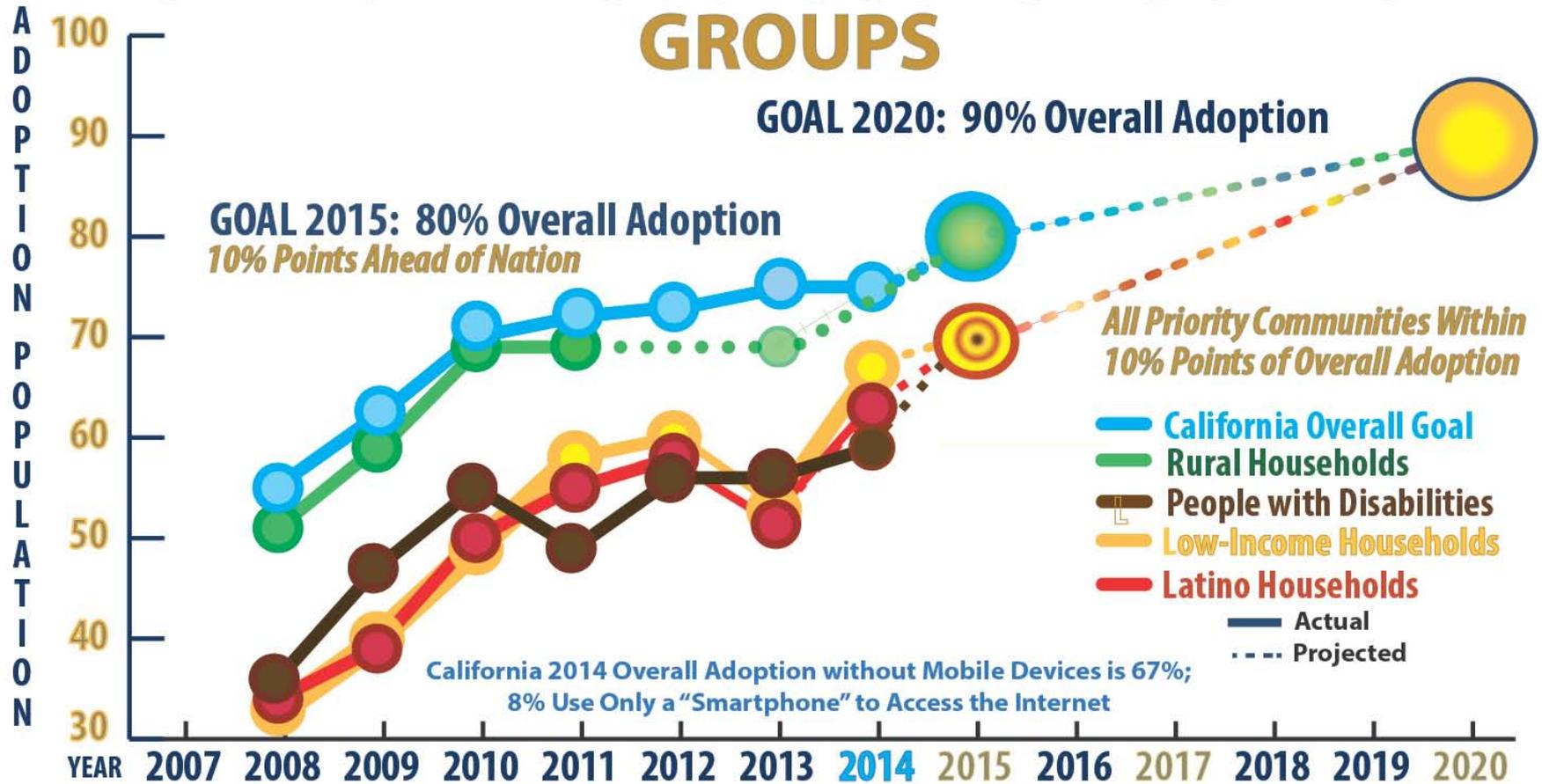
(among California adults who don't use the Internet at home)



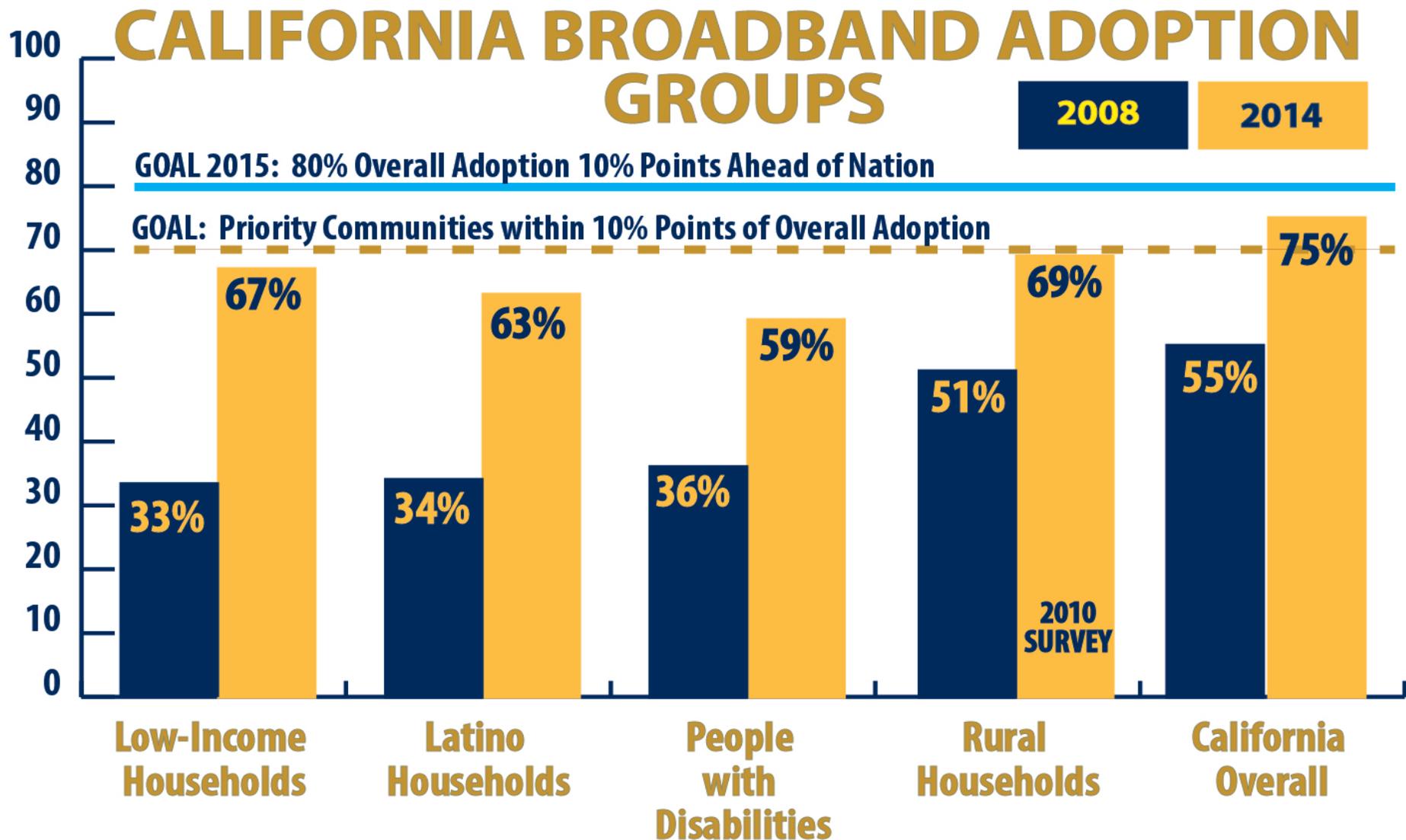
*Note: A wide range of reasons other than those listed above are cited by another 22%.
The sum of all reasons offered adds to more than 100% due to multiple mentions.*

2014 Statewide Survey Results

CALIFORNIA BROADBAND ADOPTION GROUPS



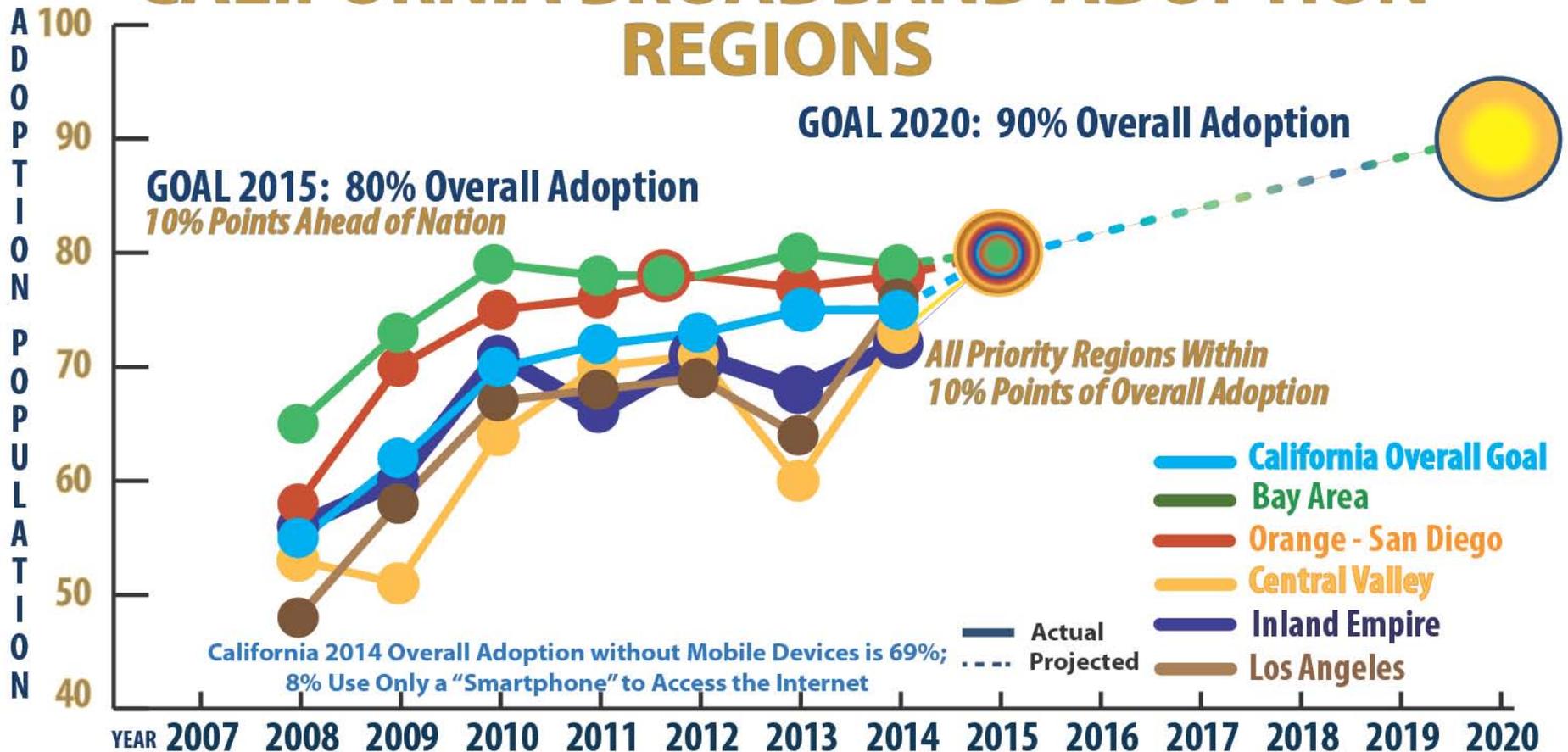
2014 Statewide Survey Results



California 2014 Overall Adoption without Mobile Devices is 69%; 8% Use Only a "Smartphone" to Access the Internet.

2014 Statewide Survey Results

CALIFORNIA BROADBAND ADOPTION REGIONS



2014 Statewide Survey Results

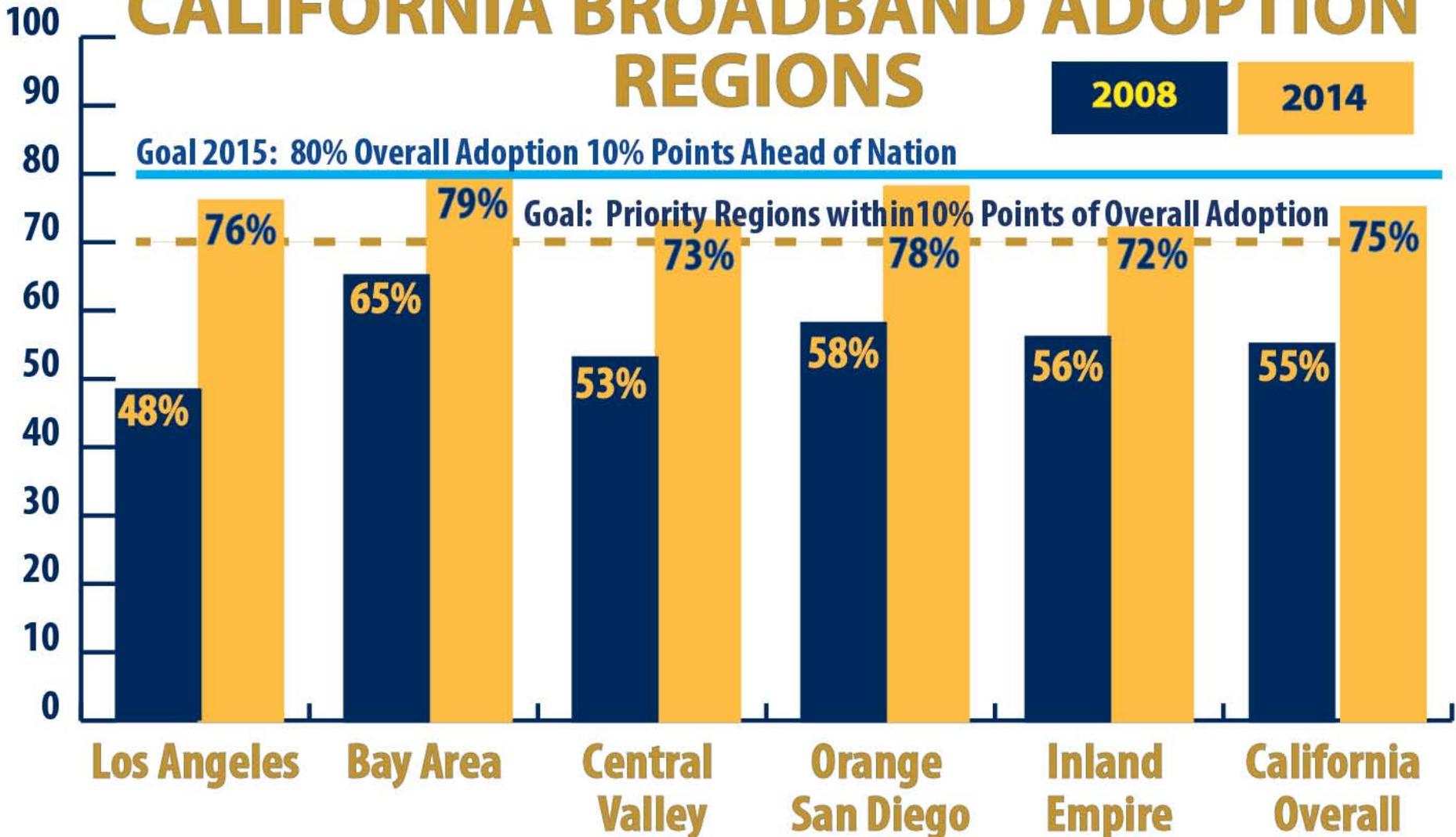
CALIFORNIA BROADBAND ADOPTION REGIONS

2008

2014

Goal 2015: 80% Overall Adoption 10% Points Ahead of Nation

Goal: Priority Regions within 10% Points of Overall Adoption



California 2014 Overall Adoption without Mobile Devices is 69%; 8% Use Only a "Smartphone" to Access the Internet.

CALIFORNIA BROADBAND COUNCIL

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*President and CEO,
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Statement Regarding Broadband in Schools

The California Broadband Council (CBC) was established by legislation in 2010 to marshal the state's resources to increase broadband network deployment and eliminate the Digital Divide by expanding broadband accessibility, literacy, adoption, and usage. During the August 14, 2012 meeting of the CBC, a panel comprised of Napa County Superintendent of Schools Dr. Barbara Nemko and Children Now President Director Ted Lempert presented testimony on the need to increase broadband capacity at school and home and remove barriers that hold educators back from taking full advantage of digital learning, including adoption of online textbooks.

Following the August CBC meeting, the California State Superintendent of Education, Tom Torlakson, accepted the recommendations of his Education Technology Task Force. The recommendations focused on the future role of technology in learning, assessment, teaching and school infrastructure.

As a result of accepting the testimony, reviewing the recommendations of Superintendent Torlakson's Task Force, and sharing the expertise of the CBC members, the CBC prepared the following policy statement for recommendation to the Administration, Legislature, education leaders, broadband providers, and all policymakers in California.

Our schools today are antiquated in many ways: one teacher, many students, heavy textbooks, large classrooms, and assigned homework. If we were to start fresh and design schools again now, they would look very different. This is because the availability of information through technology is changing the way students learn.

Today, we have the opportunity to re-think public education, and access to broadband is central to that notion. Knowing how to use, and having access to affordable broadband plays an ever increasingly vital role in student readiness for life after graduation. The "always-on" nature of the Internet, combined with the increased use of mobile devices, provides students with the ability to learn any time, any place, at any pace.

Traditional textbook-based learning is giving way to digital media-based learning, but significant challenges exist in California. Access to broadband devices as well as connections must be available at both schools and homes in order for this transition to digital media to occur. But many of our schools still lack adequate access to devices and internet connections in order to adopt electronic textbooks.¹ Furthermore, a gap in home internet connections persists among Latinos and Blacks compared to Whites.² Finally, the Williams Case³, in its current form, poses a challenge to introducing digital

¹ 2012 California County Scorecard of Children's Well-Being, Children Now, October 2012 (http://www.childrennow.org/index.php/learn/reports_and_research/article/1197)

² Just the Facts: Digital Divide, report by the Public Policy Institute of California, August 2012 Latinos (50%) and Blacks (70%) compared to Whites (82%) (http://www.ppic.org/content/pubs/jtf/JTF_DigitalDivideJTF.pdf)

textbooks because of the requirement that all children have devices and access at home as a pre-condition for introducing digital media.

To deal with these challenges, the CBC makes the following recommendations:

1. **Devices:** Adopt a state-wide goal of 1:1 student to computer ratio for all students, recognizing the importance of Digital Literacy to succeed in today's connected world and the value of information technology in helping close the Achievement Gap as well as the Digital Divide.
2. **Access:** Implement strategies and policies to ensure schools have enough per-student bandwidth to support all E-learning activities with campus-wide, "anywhere" access, (such as: (a) allowing the California education Instruction and Materials Fund to be used for computing devices and digital curriculum materials; and (b) expanding the federal E-rate program to extend affordable broadband service to families whose children attend low-performing schools in low-income neighborhoods).
3. **Resources –** Support legislation requiring textbook publishers of state-adopted instructional materials to offer their products (a) in digital formats, (b) "unbundled," so districts only need to purchase what they need, and (c) at a price equal or less than their print version.
4. **Focus and Partnerships:** Encourage schools and broadband providers to collaborate in public-private partnerships that offer affordable broadband service from providers to augment programs that integrate computing and broadband technology into teaching and learning in low-performing schools.
5. **Barriers and Enablers:** Pave the way to roll out digital textbooks while preserving the principles outlined in the Williams Case.

California still has a way to go to meet these recommendations, and now is the time to make changes that will accelerate broadband adoption in schools and the home to better address diverse learning requirements as well as prepare our children for the 21st Century.

³ The Williams Case was a class action suit in San Francisco that alleged the State of California failed to provide public school students with equal access to instructional materials, safe and decent school facilities, and qualified teachers. The case was settled in 2004, and one of the outcomes was a requirement that all schools ensure that each pupil has access to standards aligned textbooks and/or instructional materials to use in class and to take home. This poses a barrier to schools introducing electronic textbooks because there is no equivalent "textbook" to send home, making the new materials ineligible for district adoption.



School2Home Empowering Students – Transforming Lives



School2Home is a statewide cost-effective initiative to close both the Achievement Gap and Digital Divide by integrating computing and broadband technologies into the teaching and learning in low-performing middle schools in California with an intense focus on parent engagement and education. School2Home provides the essential framework anchored in best practices to turn around low-performing schools and the requisite platform to support Common Core Standards, innovative pedagogy, or other school-improvement initiatives. School2Home is a partnership planned with purpose in collaboration with districts and schools.

Once School2Home has been fully implemented into all grades such that the culture of using technology to engage parents and drive education improvement has been “rooted”, participating schools are showing significant gains in academic performance that outpace comparable schools and exceed district and statewide averages. Further, this true partnership to optimize parent engagement results in the computing devices being used daily by teachers and students, valued by families, and conscientiously cared for to minimize loss (usually no more than with textbooks).



Closing the Achievement Gap and the Digital Divide in California

School2Home is an innovative statewide program to close both the Achievement Gap and the Digital Divide by integrating the use of broadband-enabled computing technologies into the teaching and learning processes coupled with significant parent engagement at low-performing middle schools throughout California. School2Home has two major goals:

- To increase student achievement at low-performing middle schools in California to help close the Achievement Gap.
- To increase the adoption of computing skills and broadband service by the families of underserved middle school students to help close the Digital Divide.

Essential Framework to Turn Around Low-Performing Schools: 10 Core Components

School2Home supports school districts, administrators, principals, teachers, parents, and community leaders who are committed to improving the academic performance for all students and ensuring they have the essential skills to succeed in a digital economy. It is anchored in extensive analysis of successful technology programs, research on effective parent engagement, and best practices to improve schools. School2Home has 10 Core Components:

- **Planning, Assessment, and School Leadership:** A School Leadership Team is formed to develop a work plan and oversee implementation of School2Home.
- **Technology Bundles for Students and Teachers:** All students receive a computing device to use in the classroom and at home with their families. All teachers receive a device as well.
- **Teacher Professional Development:** Teachers receive 24 hours of professional development on integrating technology and project-based learning into classroom instruction and homework, and using the technology to engage parents and sustain their involvement in education.
- **Teacher Coaching and Mentoring:** Technology coaches and subject-focused champions are designated and supported to provide embedded professional development to their peers.
- **Parent Engagement and Education:** Parents receive 6 hours of training on basic digital literacy, online safety, communicating with the school, and supporting their child's education.
- **Student Tech Expert Development:** Students are recruited and trained to help provide basic school-site technical support to other students, teachers, and families.
- **On-Line Resources:** The School2Home website provides support and assistance to teachers for lesson preparation and to parents to engage with schools and acquire digital skills.
- **Learning Academies:** Principals and teachers participate in workshops and online learning communities to share best practices and learn from one another.
- **Affordable Home Internet Access:** Information about affordable broadband service offers and availability of public broadband access centers is shared with the parents.
- **Evaluation:** A comprehensive annual evaluation process provides feedback schools for accountability and input to program managers for continuous improvement of School2Home.

Requisite Platform for Innovative Pedagogy and Common Core Standards

All school-improvement initiatives and innovative pedagogy—project-based learning, blended learning, online courses, and individualized learning—as well as implementation of Common Core Standards and Smarter Balanced Assessments are supported and optimized with School2Home.

Effective Strategy to Increase Broadband Adoption in Low-Income Neighborhoods

School2Home not only is improving academic performance above district and statewide gains, but it also is driving broadband adoption: Spanish-speaking parents increased broadband adoption at home from 48% to 76% (a 58% increase) and English-speaking parents increased broadband adoption from 84% to 94% (a 12% increase). School2Home permanently closes the Digital Divide.

A Strategic and Wise Investment in the Future

The California Emerging Technology Fund (CETF) committed \$7 million to develop and implement School2Home, currently in 10 schools and planning to implement in 12 more. CETF provides 20% funding and works with schools to secure the balance. CETF seeks strategic investment partners.



Evaluation Report for 2012-2013 Executive Summary

Introduction

School2Home is an innovative statewide program designed to close both the Achievement Gap and the Digital Divide by integrating the use of computing and broadband technologies into teaching and learning at low-performing middle schools throughout California. By focusing on these schools, School2Home reaches students who are statistically less likely to perform well in school and more likely to lack access to digital tools than their peers in high-performing schools. School2Home is sponsored and managed by the California Emerging Technology Fund (CETF) and is implemented in collaboration with local district and school leadership. School2Home provides a systemic approach to improve education that builds on principal leadership with teacher professional development to infuse technology into the classroom as well as increase parent engagement in low-income communities where the majority of parents have not been involved in the school-life of their children and have not had access to broadband.

Problem and Significance

Research has shown that increased parent involvement is largely a function of the extent to which administrators and teachers know how to involve parents and how to provide families with easy access to student information with an improved understanding about instruction and assessment. Therefore, effective family and community engagement requires a two-pronged approach to partnering with districts and schools: (a) training and coaching of principals and teachers to involve parents effectively and consistently in supporting student learning and engagement in school; and (b) direct digital literacy training with follow-up for parents on how to collaborate with teachers, find instructionally-relevant online resources, access student assessment information, and utilize technology applications in support of their child's learning.

Approach and Goals

School2Home is the only initiative in California with a major focus on such extensive parent engagement coupled to the use of educational technology to turn around low-performing schools. An exceptional aspect of School2Home is the focus on using current and emerging technology as a tool for augmenting and enabling increased parent involvement with their child's education. Linking parent and community engagement with technology tools in the learning environment is an essential strategy for turning around low-performing schools. The primary goals are:

- To increase student achievement at low-performing middle schools in California to help close the Achievement Gap.
- To increase the adoption of computing skills and broadband service by the families of underserved middle school students to help close the Digital Divide.

Significant Results to Date

School2Home was implemented in 7 schools in 2012-2013: 3 schools in the Los Angeles Unified School District (LAUSD); 2 schools in Oakland Unified School District (OUSD); and 2 schools in Riverside Unified School District (RUSD). Among the 7 schools, approximately 160 teachers and 3,800 students and families participated. The schools each have high levels of poverty among their families and are primarily serving ethnic minority populations. All schools have been in Program Improvement status for five years or longer.

Expanded Use of Technology for Learning

Responses from 1,410 students to the annual School2Home Student Survey showed:

- 76% increased computer and Internet access at home to support learning.
- 76% use the technology for writing assignments, up from 60% in 2011-2012.
- 86% access the Internet for research related to school work, up from 68% in 2011-2012.

Increased Home Access to the Internet

Responses to the annual School2Home Parent Survey (504 English and 66 Spanish) showed:

- School2Home is narrowing the gap for Internet access in the home between English-speaking and Spanish-speaking families, from 36 percentage points to 18 percentage points.
- Spanish-speaking parents showed a 58% increase in home broadband adoption in one year.
- Broadband adoption grew for English-speaking families from 84% to 94% (a 12% increase) and for Spanish speaking families from 48% to 76% (a 58% increase).
- 78% of the parents are communicating with their schools about student performance and supporting their child's learning at home.

Improved Academic Performance

- Three schools (Melrose in OUSD, Stevenson and Muir in LAUSD) met or exceeded their Academic Performance Index (API) target for 2013.
- A major success at Stevenson, which was one of the lowest-performing schools in LAUSD when School2Home began, was the API gain of 35 points in 2011-2012. Progress continued in 2012-2013, with a 17-point gain, outperforming the LAUSD average (3 points API growth).
- Three schools (Melrose and Frick in OUSD, Muir in LAUSD) showed gains in Language Arts on the California Standards Test (CST) while comparable schools in the state showed significant declines in CST Language Arts.
- Two schools (Chemawa and Central in RUSD) both saw slight declines in 8th grade CST Language Arts, while comparable schools saw significant declines in their scores. However, Chemawa and Central were among the highest performing middle schools in the county.

School administrators participating in School2Home praise the parent component. One principal stated, *"The parent program is one of the distinguishing features because no other program offers such a comprehensive training so closely integrated to other activities in the school."*

School2Home is a Cost-Effective Investment

Implementation costs for School2Home are about \$1,000 per student. This is in contrast to other middle school turn-around programs funded through federal School Improvement Grants (SIG) which average \$1,710 per student (Source: U.S. Department of Education, Institute of Education Sciences). Once School2Home is fully implemented in all grades in a school and the culture of using technology is "rooted" to engage parents and drive improvement in academic achievement, School2Home is sustainable from existing school resources. Further, this true partnership with local districts and schools to optimize parent engagement results in the computing devices being used daily in classrooms by teachers and students, valued by families, and conscientiously cared for to minimize loss (usually no more than for actual textbooks). Thus, School2Home is a very cost-effective investment to help close both the Achievement Gap and Digital Divide.

School2Home Supports Implementation of Common Core Standards

California's implementation of the Common Core Standards includes participation in the Smarter Balanced Assessment Consortium (SBAC), a national initiative involving students taking academic assessments online with results available to parents. This requires that students have access to computing devices and that all schools (and all classrooms) are broadband-enabled with the kind of framework provided by School2Home. An important opportunity as a result of SBAC is teaching parents how to get to and interpret student assessment data, grades, assignments, and other information about their child online. School2Home is the platform for accomplishing that objective. Finally, the rapid increase in parent and child access to and use of mobile technologies connected to the Internet adds more opportunities for involvement of parents in schools with the support and training offered by CETF and School2Home.

School2Home evaluation is conducted by independent professional evaluators Education Support Systems. The complete Evaluation Report is available upon request and online (www.School2Home).



School2Home

An Important Resource in Implementation of Common Core State Standards

Student academic achievement is greatly increased when parents are able to support their children during their educational process and can actively participate in the various programs offered at each school. This is especially true when planning and implementing a new major initiative such as the *Common Core State Standards* (CCSS) and related computer assisted assessment system planned and initiated by the *Smarter Balanced Assessment Consortium* (SBAC). The parents and community at large must have an appreciation and understanding of the new program to be able to support teachers in their efforts to implement changes in student work assignments, expectations, and new student performance assessments resulting from CCSS implementation.

Research has shown that parent involvement is one of the most important variables that effects the implementation and success of any school program. Due to challenging work schedules, lack of familiarity with the educational system and language barriers, effective parent engagement is especially challenging at the numerous low-performing schools often located in underserved communities. For the past five years, School2Home has been developed and funded by the California Emerging Technology Fund (CETF) as well as matching funds from school districts and a variety of other grant programs with the purpose of closing both the Achievement Gap and the Digital Divide by integrating the use of technology into teaching and learning at low-performing middle schools throughout California. School2Home provides the essential framework anchored in best practices to turn around low-performing schools and the requisite platform to support Common Core Standards, innovative pedagogy, or other school-improvement initiatives. School2Home focuses on increasing parent engagement in student learning, improving teacher to parent communications, increasing student achievement motivation, and helping parents to understand student academic and behavioral performance assessments and to learn how the use of technology at home and school supports learning. School2Home is planned in collaboration with districts and schools.

The following is a brief description of the major School2Home activities that could directly and indirectly support the planning and implementation of CCSS and the related computer assisted assessment system:

- **Inform parents about the Common Core Standards:** School2Home can incorporate into its parent training program information from the *CCSS Leadership Planning Guide*, recently developed with input from the California State PTA, California School Boards Association, Californians Together, California State Board of Education, California Department of Education and the Common Core Guide for Parents.
- **Help parents understand the new Smarter Balanced Assessments:** School2Home can provide training and follow-up assistance for parents on understanding the new computer-based formative and summative student performance assessments and the implications for ways that parents can help students with home assignments.
- **Facilitate parents getting involved with their children's school program:** School2Home can provide information for parents on how to work with the school as a volunteer in ways that keep them connected the most educationally relevant school activities and how to connect on-line to school and teacher website.
- **Involve parents in school level planning for CCSS:** School2Home can assist schools establish a core leadership team that includes parents to participate in CCSS related site planning. School2Home can work with the school leadership team and help facilitate the planning process. The facilitation of forming and leading a school leadership team is a core component of School2Home.
- **Help schools plan for technology use to support CCSS:** School2Home can support the school leadership team in planning to incorporate the use of computers, netbooks or tablets to support teaching and learning aligned with CCSS.
- **Help parents judge student performance beyond test scores:** School2Home can assist schools in introducing parents to the assessment process. A major objective for CCSS is to move to assessing student work according to their capacity to apply learning to the completion of projects and higher order problem solving. Parents need training to understand this approach and its value.

- **Provide ongoing updates for parents:** School2Home can provide updates on new and emerging CCSS developments, especially as updates are relevant to actions that parents can take.
- **Provide information about digital resources appropriate to home use:** School2Home can inform and support home use of electronic learning resources and online courses appropriate for home use that support CCSS. Parent workshops provide information about affordable Internet access and teach them how to find information in Spanish and English on the School2Home website.
- **Have parents share home-based instructional activities:** School2Home can facilitate workshops for parents to share information and activities they find useful in supporting student learning and motivation.
- **Use the technology to facilitate school to home communication:** School2Home can provide the training and support to enable increased and ongoing communications between teachers and parents with examples of effective practices. A component of the School2Home parent workshops teaches parents how to access attendance and progress information about their child through the district's parent portal. The School2Home professional development encourages teachers to leverage the access to technology to increase their level of communication with parents who would otherwise not be able to meet with teachers due to restrictive work schedules.
- **Provide teachers with professional development and coaching:** School2Home can provide training and ongoing support for teachers on instructional use of CCSS aligned digital resources and how to adapt such resources to meet local needs of their students. The 24 hours of School2Home professional development prepares teachers to engage students in a technology-rich environment during and after school hours with a focus on increased academic achievement.
- **Provide support and resources to enable students to acquire 21st century skills:** School2Home can help schools engage students in the program to develop deeper technology expertise and problem solving skills. They will be more competent and comfortable using computers and more prepared to use computers during the SBAC testing.
- **Identify CCSS aligned technology applications and instructional resources with documented promise of effectiveness:** School2Home collaborates with other services that review instructional resources such as the California Learning Resource Network (CLRN) and links to the best resources through the School2Home website.
- **Provide parents and teachers with information regarding appropriate safe use of the Internet:** School2Home has a component of professional development that relates to Internet safety for students with advice to parents and teachers. School2Home parent workshops address Internet safety and the promotion of good digital citizenship.
- **Assist parents in using the new CCSS student performance report cards:** School2Home can work with the district to communicate to parents about how to interpret the new CCSS reports, which may contain over 30 categories of information about their children's learning and school behavior related to the new standards.
- **Serve as a partner agency with the school district:** School2Home can be the primary resource to the school district in facilitating and helping maintain the technology and parent involvement component of the Local Control Funding Formula (LCFF) and CCSS implementation plans.
- **Provide School2Home Learning Academies:** School2Home emphasizes peer support through learning communities and has developed Learning Academies and online learning for leadership teams to share best CCSS and parent engagement practices and learn from one another.
- **Provide for external evaluation to document implementation:** School2Home provides for an external evaluation to determine level of implementation of program components, level of use of each component, impact of School2Home on parent involvement, use of technology to support instruction and learning, and to inform changes needed to potentially improve effectiveness.



California Emerging Technology Fund Neighborhood Transformation to Achieve Digital Inclusion

The Importance of a Neighborhood Transformation Strategy

The Digital Divide is another manifestation of the Economic Divide and the Opportunity Divide. Therefore, an effective Digital Inclusion initiative must reflect the factors and dimensions that comprise the Economic Divide. While California has made significant progress in closing the Digital Divide, the statewide median average for broadband adoption at home is 75% (with 6% being smart phones only)—leaving a full one-quarter (25%) of Californians out of the Digital Age and farther and farther behind. Most of those residents on the other side of the Digital Divide are low-income households. Thus, in order to successfully close the Digital Divide and achieve the goals of 80% statewide broadband adoption by 2015 (with no one demographic group or region below 70%) and 90% adoption by 2020, the challenges of concentrated, persistent poverty must be addressed in a Digital Inclusion strategy to have optimal impact and sustained success. Hence, CETF is pursuing a Neighborhood Transformation Strategy in a “critical mass” of pacesetting jurisdictions to demonstrate the viability and impact of this approach.

Characteristics and Components of a Neighborhood Transformation Strategy

- Values Rooted in the “3 Es”: Prosperous Economy; Quality Environment; Community Equity
- Asset Model (not “Deficit”): People Focused, Place Based, Linked to Regional Economy
- Focus on Outcomes (from Perspective of People as “Customers”):
 - Digital Inclusion
 - 5 Big Outcomes
- Collaboration Among Key Stakeholders on Strategies and Implementation of an Action Plan
- Public-Private Partnership: Alignment of Major Public and Private Efforts and Resources
- Education Improvement with Parent Engagement (School2Home) as the Centerpiece
- Engagement of County and City Services to Achieve 5 Big Outcomes and Digital Inclusion
- Human Services Integration Teams Held Accountable for 5 Big Outcomes
- Accountability Mechanisms and Regular Public Reporting
- Evaluation and Celebration of Progress

Key Steps to Develop a Neighborhood Transformation Strategic Action Plan

- Identify low-income priority neighborhood(s) (jurisdiction) with low broadband adoption coupled with dedicated government and civic leaders (leadership is pivotal and essential).
- Secure commitments from school district to implement a school-improvement initiative that integrates technology into the teaching and learning with an emphasis on parent engagement and education (such as School2Home).
- Identify and engage community partners (CBOs) to achieve goals for broadband adoption. Schedule and conduct briefing meetings to document interest and prospective contribution.
- Brief county and city elected officials and other policymakers to secure their commitments and obtain agreements on target timeframes (including collection of data on case loads).
- Gather county, city and school data and information on case loads in neighborhood.
- Document and memorialize all the contacts and commitments in written communications.
- Formulate a framework for an Action Plan and get concurrence, collaboration for a work plan.
- Incorporate CETF contribution: (a) promote broadband adoption and engage CBO partner; (b) establish School2Home program; and (c) facilitate formation of Integrated Services Teams.
- Establish a Steering Committee to oversee implementation of the Action Plan with regular meetings to drive progress (at least quarterly).
- Launch implementation (complement with triple bottom-line investments if possible).

Of course, the order of the above Key Steps can begin with city and/or county leadership that then engages the school district or by convening by a state or federal elected official or prominent civic leader / civic leadership organization. Data gathering also can be a first step to ensure that all prospective partners are on the same page. However, it is essential that all partners and participants understand and embrace at the beginning of the process the imperative for action and the focus on tangible, measureable results.

Overall Neighborhood Transformation Outcomes

Implementing a Neighborhood Transformation Strategy to promote Digital Inclusion and close the Digital Divide requires a focus on key overall outcomes that can be augmented by whatever else are the priority issues for a particular neighborhood and/or jurisdiction. The following are the key overall outcomes for Neighborhood Transformation to support Digital Inclusion:

- Leadership: Establishment of an explicit leadership organization to drive outcomes that includes neighborhood participation.
- Digital Inclusion: Achieve at least 80% broadband adoption (an “input” to the 5 Big Outcomes); a neighborhood or jurisdiction may set a higher goal. Note: “sustainable adoption” must address 3 primary challenges: cost; relevance; and digital literacy.
- School2Home: Successful implementation of School2Home (accelerated academic performance above district and statewide averages for cohort schools).
- Smart Infrastructure: Promote high-speed broadband infrastructure throughout the neighborhood with public facilities serving as “digital hubs” (digital “hot spots”).
- 5 Big Outcomes: Increasing Employment; Improving Education; Decreasing Crime; Decreasing Poverty; Improving Health

Data Gathering

The Neighborhood Transformation Strategy needs to be informed and driven by data to establish a baseline and measure progress. The following data is needed to establish the baseline.

- Broadband Adoption Rates (Statewide Survey and CPUC Maps which can be augmented by community surveys)
- School and Student Performance Data (data and used from the school district)
- Data on 5 Big Outcomes (for a geographic area closest to the neighborhood level)
- Human Services Caseloads for the Neighborhood (county and city)
- Other Neighborhood Priority Data

Community Scan and Assessment

The purpose of the Community Scan and Assessment is to both “inform” neighborhood stakeholders about the Neighborhood Transformation Strategy to promote Digital Inclusion and to “listen” to feedback to learn about the perceptions of the neighborhood and foster engagement by stakeholders and residents. It also is to identify or verify who are the respected community leaders and “trusted messengers” (community-based organizations—CBOs) to engage. The documentation of the process with a summary of the input and an assessment to formulate working conclusions is a discipline to ensure focus and performance. The following is the “critical mass” of activity for the Community Scan and Assessment.

- Interview at least 25 people brief them and ask: (a) How important is broadband and computing technologies to their neighborhood and why (just a baseline response question to engage a conversation)? Who are the top 3-5 community leaders they most respect and why? Who are the 3-5 community organizations that they think are the most effective and why?
- Identify 10-15 highly respected community leaders.
- Identify up to 5 most trusted CBOs (as “trusted messengers”).

Community Assets Mapping

Community Assets Mapping involves identifying key community facilities and significant broadband infrastructure that serves or impacts the neighborhood in order to visualize spatially how they can be coordinated and/or leveraged to achieve the overall outcomes. The process includes using the CPUC Maps with broadband adoption data and overlaying other the location of the schools participating in School2Home and key community facilities.

- Schools in School2Home
- Government Services and Public Safety Buildings
- Libraries
- Public Computing Centers
- Community Centers (Recreation and Seniors)
- Broadband Infrastructure with High Bandwidth (backbone and backhaul)
- WiFi Hot Spots
- Major Planned Transportation or Other Infrastructure Projects (where ROW will be trenched)
- Major Economic Development Projects (industrial, commercial, residential)
- Public Buildings or Other Assets Available to Support Deployment

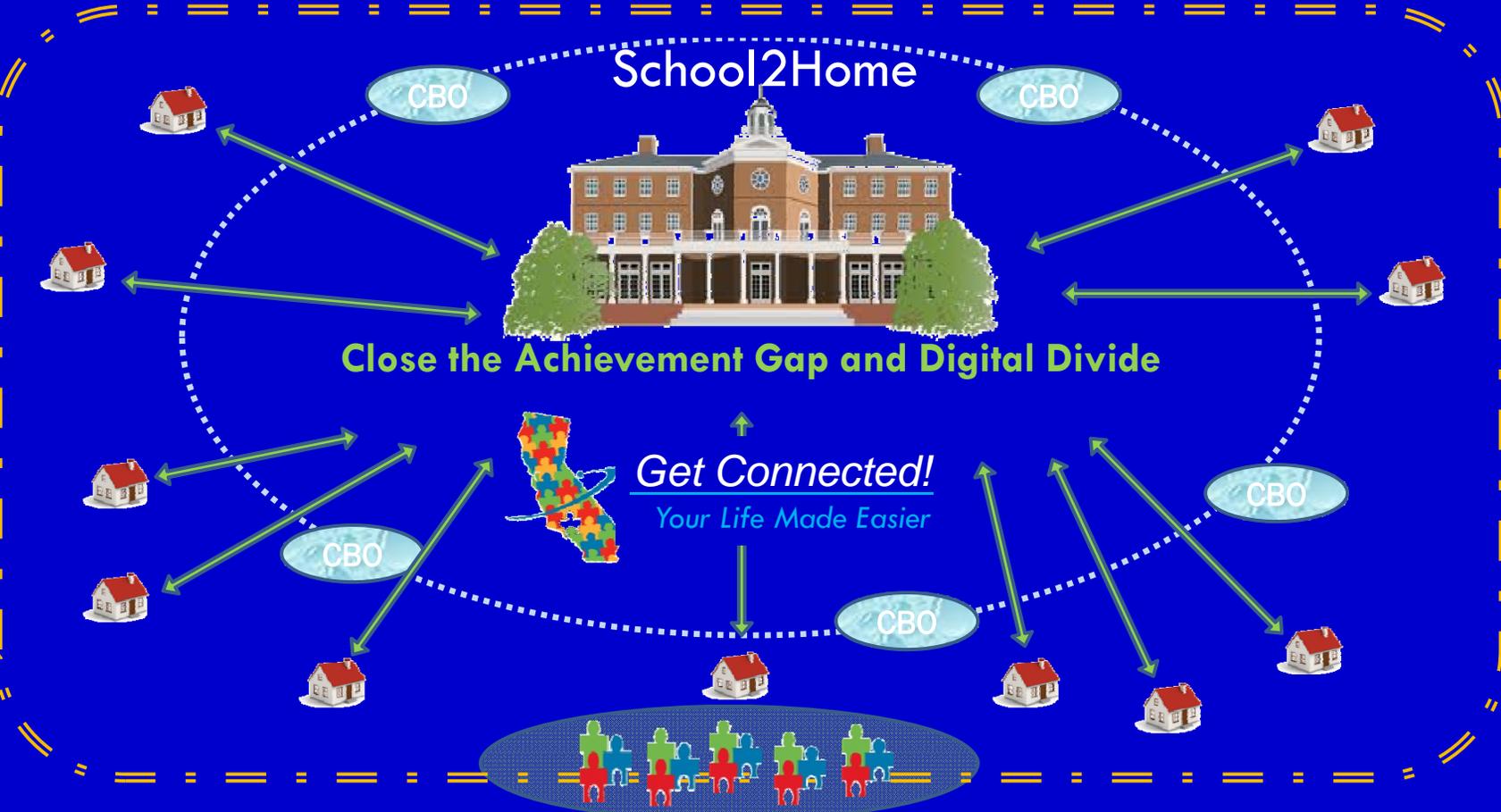
3 “Es” of Sustainable Growth

Framework for Governance Reform and Action



School2Home

Centerpiece of Neighborhood Transformation



County-City Integrated Human Services Teams

State-Local Restructuring

5 Big Outcomes: Employment↑ Education↑ Poverty↓ Crime↓ Health↑





**Testimony to the United States Senate
Senate Subcommittee on Communications, Technology and the Internet
“Broadband Adoption: The Next Mile”
Tuesday, October 29, 2013
Sunne Wright McPeak
President and CEO
California Emerging Technology Fund**

EXCERPTS ON CONCLUSIONS AND RECOMMENDATIONS

[See Highlighted Sections Relevant for Education and Public-Private Partnerships]

Conclusions for Closing the Digital Divide and Accelerating Broadband Adoption

Although there has been a steady rise in the number of people adopting and using broadband at home, it is becoming increasingly harder to reach those who remain off-line because they are remote rural residents without access and urban poor residents without digital literacy skills or the means to afford market prices. However, all the data and experience indicates that the vast majority of people who do not have or use broadband at home want to adopt the technology when they understand the value proposition and have access. Thus, it is very important to understand what actually works to reach these consumers who should be regarded as “prospective customers in emerging markets.”

Dr. John Horrigan (who helped develop the National Broadband Plan and has worked for the Pew Charitable Trusts and Joint Center for Political and Economic Studies) concludes that the cost of digital exclusion is real and rising and that the broadband adoption challenge has three primary dimensions: cost, relevance, and digital literacy. He further finds increasing broadband adoption requires sustaining capacity and scale of strategic initiatives with states and local communities involved in the “ground game” to focus on “digital readiness” in unserved and disadvantaged communities. He provides valuable insights to guide the work in accelerating broadband adoption.

The following are the major conclusions from the experience of the California Emerging Technology Fund and our community-based partners who have been on the ground in unserved rural communities and disadvantaged urban neighborhoods.

- It is essential to set goals with quantified metrics and accountability for performance in order to drive broadband deployment and adoption to close the Digital Divide and to regularly report to the public and stakeholders to ensure continued focus on the goals.

- Optimizing impact of any investment requires engaging public officials at all levels of government and civic leaders in regional consortia and local communities. There is no substitute for leadership, but leaders need to be involved in developing the strategies and supported in systematically implementing a coherent, integrated plan.
- Broadband adoption will succeed by working in partnership with community-based organizations that are the “trusted messengers” and “honest brokers” for the unserved and disadvantaged populations.
- Affordable broadband offers are required to increase adoption among low-income households. This is likely to require an Affordable Broadband Lifeline Rate Program given that voluntary efforts to date have had modest market penetration for a variety of reasons, with the most extensive program reaching less than 10% of eligible participants.
- Sustainable broadband adoption requires a comprehensive approach that targets and aligns resources in low-income communities with an integrated, comprehensive “neighborhood transformation” strategy that incorporates broadband adoption into other services, such as education, workforce preparation, and healthcare.

Recommendations for Continued Federal Government Leadership in Broadband Adoption

There is a foundation of leadership and expertise in the federal government on which to launch the next generation of work to accelerate broadband adoption to close the Digital Divide in America. In particular, the powers and resources of the FCC coupled with the experience and relationships of NTIA in collaboration with the other federal departments is a solid platform for action. Congress can greatly augment this foundation by the following actions:

- Set national goals and performance metrics for broadband deployment and adoption along with a timetable and assigned responsibilities for achieving them to encourage implementation of the National Broadband Plan and utilization of the NTIA Took Kit. Institute regular Congressional oversight proceedings to ensure performance and accountability.
- Integrate broadband and information technologies into all federal policies and programs through funding incentives to align efforts across departments. There is a need to “connect the dots” with a set of coherent strategies that transcend “bureaucratic silos” to optimize access to and use of the Internet with high-speed connections. For example:
 - U.S. Department of Health and Human Services (HHS) should build upon the ARRA Health Information Technology for Economic and Clinical Health Act (HITECH) framework to encourage stronger linkages and purposeful collaboration of health exchanges and “meaningful use” to the telehealth networks funded by the FCC Rural Health Care Pilots and/or the new Healthcare Connect Fund. HHS and the FCC should

make a concerted joint effort to connect all state and local government public health services, federally-qualified health centers (FQHCs), critical care hospitals, tribal healthcare facilities (if desired by Tribal Leaders) to these telehealth-telemedicine networks. This kind of an effort will need to be coordinated with other departments and programs, such as the U.S. Department of Agriculture's Distance Learning, Telemedicine and Broadband Program to ensure rural communities are connected.

- U.S. Department of Education should aggressively encourage the integration of broadband and computing technologies into the teaching and learning processes in all federal grants to improve education, particularly to turn around low-performing schools because of the ability of the technology to engage and involve low-income parents with an approach similar to School2Home. Implementation nationwide of Common Core Standards will require a major effort on a scale not yet contemplated by educators and policymakers. Promise Neighborhoods grantees should be encouraged to promote "smart communities" by incorporating broadband adoption strategies into their programs.
 - U.S. Department of Labor should encourage integration of digital literacy and ICT skills training into all existing workforce preparation programs through Workforce Investment Act allocations to states and all other grants.
 - U.S. Department of Housing and Urban Development should promote "smart housing" in all publicly-subsidized multi-unit complexes by allowing the installation of an advanced communications system with broadband connectivity in each residence to be included in construction costs and the maintenance of such a system to be included in operating budgets. Choice Neighborhoods grantees should be encouraged to incorporate broadband adoption strategies into their programs.
 - U.S. Department of Agriculture (Rural Utility Service and all other rural economic development programs) should encourage larger-scale integrated proposals for existing grant funds that combine broadband deployment and adoption. There should be consideration of easements for broadband deployment in National Forests to support public safety, emergency response, and homeland security.
 - U.S. Department of Interior should identify all resources to assist Tribal Leaders (who request such assistance) in providing broadband service to Tribal Lands. There should be consideration of easements for broadband deployment in National Parks to support public safety, emergency response, and homeland security.
 - U.S. Department of Homeland Security should become a proactive partner in FirstNet to accelerate broadband deployment and adoption to support public safety, emergency response, and homeland security.
- Request and support the FCC to accelerate reform of the Universal Services Fund (USF) and incorporate best practices for sustainable broadband adoption. With limited resources, priority consideration for funding and/or subsidies to broadband providers should be given to companies that: (a) have a coherent, explicit program with quantified goals and metrics to increase broadband adoption; (b) partner with CBOs that have a proven track record as the "trusted messenger and honest broker" in broadband adoption; and (c) target low-income communities in collaboration with other stakeholders pursuing "digital inclusion"

and “neighborhood transformation” strategies (such as digital literacy in schools, workforce training, or publicly-subsidized housing).

- An Affordable Broadband Lifeline Rate Program should be established within the next year and made available to residents in low-income census tracts in which there is a coherent “digital inclusion” component of a “neighborhood transformation” initiative with responsible local governments, key stakeholders, and respected CBOs.
 - Renewal and reform of eRate should prioritize low-performing schools and libraries in low-income neighborhoods that have established a coherent program with quantified goals and accountability to increase broadband adoption, especially as part of an overall “neighborhood transformation” initiative.
 - Connect America Fund and other programs to subsidize broadband infrastructure should give priority funding to deployment projects with plans and partners to promote broadband adoption.
- Provide additional funding to NTIA as a prudent investment in global competitiveness to establish the “next generation” broadband adoption program that builds upon the ARRA BTOP experience, aligns with other existing efforts, and leverages federal resources through partnerships to achieve explicit adoption goals and outcomes by 2020.
- Encourage states to adopt broadband adoption strategies and plans by giving priority consideration for funding to projects that align with and complement state programs that have explicit adoption goals with accountability for performance.
 - Facilitate collaboration among successful BTOP grantees to join forces with state governments to develop broadband adoption strategies and plans.
 - Request assistance from the National Association of Regulatory Utility Commissioners (NARUC) to engage states and convene information forums on development of broadband adoption strategies and plans.
- Foster public-private partnerships to accelerate broadband deployment and adoption. There is no substitute for the innovation and efficiency of the private sector when engaged as sincere partners motivated to achieve explicit goals. Public-private partnerships can significantly leverage public resources for a higher return on investment to taxpayers and ratepayers.
- Request the FCC and NTIA to engage broadband providers in helping design the “next generation” broadband adoption program to achieve explicit goals and outcomes.
 - Encourage providers to partner with EveryoneOn (formerly Connect-to-Compete) by setting adoption targets coupled with affordable broadband offers that can be made available without undermining profitability. There needs to be market competition for low-income consumers to become sustainable broadband customers.
 - Request the FCC to structure USF reforms for a Broadband Lifeline Rate Program and eRate to encourage and reward providers who partner with non-profit intermediaries (such as EveryoneOn) and trusted CBOs with a proven track record and align with state plans. Reimbursement and subsidies from the USF should reward public-private partnerships that drive to and achieve explicit broadband adoption goals.