



**California Emerging Technology Fund**  
**Service Area Population Base Data for Broadband Providers in California**  
**to Determine Appropriate, Fair and Comparable Public Benefit Contributions**  
July 2015

## **Purpose**

The purpose of this document is to provide a summary of service area population base data for broadband providers in California to determine appropriate public benefit contributions by companies with pending applications before the Federal Communications Commission (FCC) and the California Public Utilities Commission (CPUC). The data below presents comparable data from common sources to increase transparency in the regulatory review process and to establish a basis for quantifying a reasonable and fair contribution by each company to an independent fund to support outreach, digital literacy and sign-ups by low-income households.

## **Context and Background**

The mission of the California Emerging Technology Fund (CETF) is to close the Digital Divide in California by accelerating broadband deployment and adoption. The state broadband goals are 98% deployment (in all regions) and 80% adoption (with no demographic group or region less than 70%) by 2017. CETF and a coalition of civic groups are urging the FCC and CPUC to secure tangible public benefits from pending corporate consolidations to help meet those goals, including requiring broadband providers to contribute to an independent fund to provide performance-based grants to community-based organizations (CBOs), schools and libraries to increase broadband adoption by low-income households. CETF filed similar recommendations in the applications pertaining to the Comcast Corporation acquisition of Time Warner Cable (TWC) and trade of service areas with Charter Communication and AT&T purchase of DirecTV.

Today in California a significant number of low-income and disadvantaged households remain stuck on the wrong side of the Digital Divide with no high-speed Internet connection at home. Further, of those disadvantaged households that have a home broadband connection, an above average are connected by smart phone only, which is an effective technology for Internet navigation but insufficient for a student to do homework or an adult to acquire workforce skills. Consider the following data about the number of California households that are not connected at home according to the 2015 Annual Survey conducted by the Field Research Corporation:

- 35% Low-Income Households (under \$20,000 annual income): of the 65% connected, 16% by smart phone only.
- 30% Latino Households: of the 70% connected, 14% by smart phone only.
- 37% Spanish-Speaking Households: of the 63% connected, 21% by smart phone only.
- 41% People with Disabilities: of the 59% connected, 8% by smart phone only.
- 43% Seniors (65 years and up): of the 57% connected, 1% by smart phone only.

In the case of the Comcast-TWC-Charter corporate consolidation proposal (FCC MB Docket Number 14-57 and CPUC Application 14-04-013), the CPUC Administrative Law Judge (ALJ) issued a Proposed Decision (PD) that addressed the need for a affordable broadband rate for all low-income households and recommended that the company be obligated to sign up 45% of the households eligible for the new affordable rate and support that effort by dedicating \$275 per household comprising the 45% goal. The 45% goal for broadband in the PD was comparable to the target for the CPUC Telephone Lifeline Program. The figure of \$275 was equal to the recommendation from CETF and partners based on: (a) estimated cost of each sign up at \$250 per household (to cover the costs for outreach, digital literacy training and completion of a subscription) if there was a sincere partnership with the company (to establish a user-friendly sign-up process and do effective advertising); and (b) an allowance of up to an additional 10% (\$25) for management (to be selected by an appropriate state agency through an open competitive process). It should be noted that CETF and partners recommended that an independent fund be constituted by the company with no pre-designated grantees or manager to ensure transparency and accountability. Further, with an affordable broadband subscription offer of around \$10 per month which would generate revenue of \$120 per year from each signed-up household, the investment of \$275 per household by the company would be paid back in less than 3 years (each subscriber would generate \$360 in 3 years). This approach constitutes what economists call a “virtuous circle” because the funds contributed by the company into an independent fund are returned to the company by the customers in a very short period of time and the grantees receive grant payments based on performance (households actually signed up for broadband service). The benefits from such an “investment” also accrue to the overall economy in the form of increased productivity and to society in general as more low-income households and disadvantaged residents can use technology to become self-sufficient.

Therefore, the CPUC ALJ PD approach in the Comcast-TWC-Charter case that would require a public benefit contribution of \$275 per household with a goal to sign up 45% of eligible households provides a reasonable and consistent framework to determine a fair and comparable public benefit contribution for broadband adoption from each company with pending applications for corporate consolidations. In addition to a public benefit for broadband adoption to help achieve the state goal of 80%, each company also should be required to provide a public benefit for broadband deployment to help achieve the state goal of 98%.

### **Corporate Public Benefit Contributions and Relationship to USF Programs**

Public benefits for broadband deployment and adoption should be required as a condition of approving corporate consolidations by both the FCC and CPUC. The FCC administers the Universal Services Fund (USF) and has established several programs to assist with broadband deployment, such as the Connect America Fund (CAF) and Healthcare Connect Fund (HCF). And, the FCC has issued a Notice of Proposed Rule Making (NPRM) for Broadband Lifeline (iBridge). While these FCC efforts and USF resources are welcomed, they are not a substitute for securing public benefits from corporate consolidations for several reasons: not all companies are accepting CAF allocations; there are limitations to federal rules and regulations for rural broadband deployment that won't meet all the needs or achieve the goals in California; too many years have passed while the FCC has pursued broadband lifeline pilots; performance on voluntary commitments made by companies in past corporate consolidations has been lack-luster; and there is no guarantee that the FCC will enact a workable Broadband Lifeline Program.

In addition, there is much power in sincere public-private partnerships that harness the innovation and discipline of the private sector in collaboration with experienced CBOs to reach the target populations. Public-private collaboration to achieve explicit goals for signing up households for affordable subscriptions coupled with sufficient resources to ensure broadband adoption is achieved is a strategy that should be embraced by all policymakers and regulators.

**Appropriate, Fair and Comparable Public Benefit Contributions**

In the Comcast-TWC-Charter case, the CPUC ALJ PD recommended an affordable broadband rate for all low-income households, a very important breakthrough in public policy. Attached are tables that present data from common sources about major broadband providers in California regarding the population, households, low-income households, and students eligible for the National School Lunch Program or Free-or-Reduced Lunch Program (FRLP). Also set forth is the amount of public benefit contribution that would be appropriate, fair and comparable based on the CPUC ALJ PD for the Comcast-TWC-Charter corporate consolidation.

CETF and partners strongly support an affordable broadband rate for all low-income households and have demonstrated solid public sentiment through *Internet For All Now*. However, given that some companies have focused only on FRLP students, the data below also present that information for a public benefit contribution as a subset of the total number of all low-income households. It is important to underscore that no company proposing corporate consolidations has yet stepped up to embrace a public benefit that approaches the scale of the CPUC ALJ PD, which is an indication of the need for proactive approaches by regulatory bodies.

The following summarizes the appropriate, fair and comparable public benefit for two pending corporate consolidations comparable to the CPUC ALJ PD in the Comcast-TWC-Charter case. These figures are rounded to the nearest \$1,000,000 for simplification.

Pending Applications for Corporate Consolidations	Total Public Benefit to Reach 45% of Eligible Low-Income Households @ \$275 Per HH	Public Benefit to Reach 45% of FRLP Households @ \$275 per HH (Subset of Total)
Frontier-Verizon	\$122,000,000	\$63,000,000
Charter-TWC-Bright House	\$285,000,000	\$133,000,000

**Methodology for Assessing Broadband Coverage of Low-Income Households and Students in California Service Areas**

There are no publicly-available sources of complete data regarding the population in the service areas of broadband companies. CETF has requested data from official sources and has not received it. CETF and partners invite and encourage the FCC and CPUC to generate a publicly-available data base with comparable population data from common sources. In the meantime, CETF generated the data in the attached tables using the methodology delineated below. CETF engaged the City of Watsonville to align and overlay GIS maps and shapefiles to generate the base population data.

#### Source 1: CPUC California Broadband Service Area Round 10

<http://www.cpuc.ca.gov/PUC/Telco/Information+for+providing+service/Broadband+Availability+Maps.htm>

This data set was released as shapefiles from the California Public Utilities Commission (CPUC) as of June 30, 2014. It includes the Internet provider name, Census Block Group, and maximum reported speeds. The data set also includes geographic location and shape identifying information.

#### Source 2: U.S. Census American Community Survey 2013 5-Year Estimates

Tables:

- B19001 Household Income in the Past 12 Months (in 2013 Inflation-Adjusted Dollars)
- C17002 Ratio of Income to Poverty Level in the Past 12 Months

The data from each of these Census tables was parsed by Census Block Group (CBG). The number of Households per CBG was also included in these tables. They were then cross-tabulated with the data from the California Broadband Service Area Round 10.

#### Source 3: National Center for Education Statistics (NCES) 2010 Census STP2 Files

<http://nces.ed.gov/surveys/sdds/ed/index.asp>

The NCES provides downloadable shapefiles of school district boundaries in the United States.

- The geographic location identifiers from the NCES shapefiles were cross-tabulated with the California Broadband Service Area Round 10 shapefile data.
- The percentage of populated service territory that each broadband service provider covers in each school district was tabulated.

#### Source 4: California Longitudinal Pupil Achievement Data System (CALPADS) Free and Reduced Lunch Program 2014-15

<http://www.cde.ca.gov/ds/sd/sd/files.asp>

Each year the California Department of Education releases a list schools and districts in California with their total number of eligible students for the Free and Reduced Lunch Program (FRLP).

- The percentage of broadband provider service territory in a school district was applied to the numbers of students eligible for FRLP per district.

#### Source 5: U.S. Census American Community Survey 2013 1-Year Estimates

[http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_13\\_1YR\\_DP02&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_13_1YR_DP02&prodType=table)

Table:

- DP02 Selected Social Characteristics

This table was used to determine the number of school-aged students per household that has students. The estimated numbers of students enrolled in kindergarten through high-school grades were added. The total enrollment was divided by the estimated number of households with children under the age of 18. This resulted in the ratio of an average of 1.51 school-age student per household (with students) in California.



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Broadband Provider	Population in Broadband Service Area (a,b)	Population Under 200% Poverty Level in Broadband Service Area (a, c)	Households in Broadband Service Area (a,b)	Households Under \$40K Income in Broadband Service Area (a,b)	Students Eligible for FRLP in Broadband Service Area (a,d,e)
AT&T	27,794,735	9,993,586	9,541,106	3,230,501	1,794,672
Bright House	708,931	345,934	214,253	91,671	42,115
Charter	4,620,227	1,693,581	1,518,657	529,956	345,389
Comcast	12,482,541	4,044,793	4,445,831	1,400,179	1,092,347
Frontier	535,885	190,570	180,651	54,399	41,481
Time Warner	14,962,800	5,725,637	4,864,363	1,680,827	1,243,546
Verizon	8,814,026	3,106,356	2,874,940	928,926	731,143
<i>*Table includes data from providers offering broadband service under other names.</i>					
<i>*Some households and individuals are located within the service area of more than one provider.</i>					
<sup>a</sup> California Public Utilities Commission (CPUC) California Broadband Service Area Round 10					
<sup>b</sup> Census ACS_2013_5yr_B19001					
<sup>c</sup> Census ACS_2013_5yr_C17002					
<sup>d</sup> National Center for Education Statistics (NCES) 2010 Census STP2 Files					
<sup>e</sup> California Longitudinal Pupil Achievement Data System (CALPADS) 2014-2015					
for Students on National School Lunch Program or Free-or-Reduced Lunch Program (FRLP)					

