NO HOME LEFT ©FFLINE

About the Data



Methodology

Sources

The Broadband Affordability Benefit eligible household units were estimated using the Public Use Microdata Sample (PUMS) from the American Community Survey (ACS) via the Census Bureau Data API (2018-2022). PUMS data used included all 50 states, the District of Columbia and Puerto Rico.

Benton Institute's July 2024 Survey, <u>Leaving Money on the</u> <u>Table: The ACP's Expiration Means Billions in Lost Savings</u>, informed our estimate for the number of households that are Likely to be Disconnected.

Data crosswalk files from the <u>Missouri Census Data</u> <u>Center Geocorr Tool</u> were used to apply estimates across geographies (e.g., the portion of Public Use Microdata Areas that are in rural areas).

Internet Service Provider (ISP) Coverage estimates were sourced from the FCC Broadband Serviceable Locations Fabric Version 3 with data updated as of December 31, 2023. This source was used to estimate the number of households who have access to the internet.

USAC's High Cost Funding Disbursement Report, 2024,

From USAC Open Data, was used to estimate the number of locations that have received High Cost funds and what portion of them are eligible for the Broadband Affordability Benefit.

FCC Filings From 2024, Q3 were used to estimate the budgets of various programs within the High Cost Fund.

2023 USAC Annual Report provided the 2023 budgets for E-rate, Lifeline, and Rural Health Care.

Variable	Description	Source	Year
Broadband Affordability Benefit Eligible Households (Broadband Affordability Gap)	Estimated households that are both unconnected and meet at least one eligibility requirement. Eligibility Requirements: Estimated households that meet at least one of the following eligibility requirements: SNAP, Medicaid, Supplemental Security Income, Public Assistance Income, or have a household income at or below 200% of the Federal Poverty Line. Unconnected: Estimated households that have no high-speed broadband connection (i.e., No access to the internet, cell phone access only, or dial-up access only).	PUMS	PUMS 5Y 2018-2022
Households Likely to Disconnect	Households who had received the Affordable Connectivity Program (ACP) benefit who indicated that they would disconnect without the ACP subsidy.	Benton Institute Survey	July 2024
Households Enrolled	Number of households that could be enrolled in the Broadband Affordability Benefit with all available funds from lapsed High Cost programs.	FCC Filings	2024, Q3
Adoption Rate	The number of households enrolled in the Broadband Affordability Benefit divided by the number of households eligible.	FCC Filings PUMS	2024, Q3 PUMS 5Y 2018-2022
Households in High Cost Areas	Locations that have received disbursements from the High Cost Fund by the end of 2023. The number of High Cost deployed locations in each state was used to estimate the percent of eligible households that could receive the \$75 benefit.	USAC Open Data	2024

Calculations

Eligibility Estimates Unconnected Households

The variables used from PUMS to identify unconnected households are:

- ACCESSINET: Access to the Internet
- **DIALUP:** Dial-up service
- **HISPEED:** Broadband (high speed) Internet service such as cable, fiber optic, or DSL service
- **OTHSVCEX:** Other Internet service
- **SATELLITE:** Satellite Internet service

The household weight variable is used to estimate the total number of unconnected households at the PUMA area code.



Variable Name	Value Used	Variable Used to Determine If
ACCESSINET Access to the internet	3 or 1	No internet was at location or there was internet via dial-up or cell only
DIALUP Dial-up service	2 or 1	There was dial-up and nothing else or no dial-up
HISPEED Broadband (high-speed) internet service such as cable, fiber optic, or DSL service	2	There was no high-speed internet
OTHSVCEX Other internet service	2	There was no other unlabeled internet
SATELLITE Satellite internet service	2	There was no satellite internet

Broadband Affordability Benefit Eligible Households

The variables used from PUMS to identify households receiving one or more government benefits are:

- **HINS4:** Medicaid, Medical Assistance, or any kind of government assistance plan for those with low incomes or a disability
- FS: Yearly food stamp/Supplemental Nutrition Assistance Program recipients
- **PAP:** Public assistance income over the past 12 months (any amount)
- **SSIP:** Supplemental Security Income over the past 12 months (any amount)
- **POVPIP:** Household income as a percentage of the Federal Poverty Line. Households with a value at or below 200 were included in this estimate.

Any household that meets the criteria listed above and households receiving government benefits are included in this estimate.

Variable Name	Value Used	Variable Used to Determine If
HINS4 HINS4	1	An individual is using Medicaid
FS Food Stamp/SNAP	1	An individual is receiving food stamps or SNAP
PAP Public Assistance Income	>0	An individual is receiving any dollars of public assistance income
SSIP Supplemental Security Income	>0	An individual is receiving any dollars of supplemental security income
POVPIP Income to Poverty Ratio	<=200	An individual is earning income at or below 200% of the poverty line

Broadband Affordability Benefit Eligible and Unconnected

Any household included in the estimates for Broadband Affordability Benefiteligible and unconnected were included in this estimate.

Households Likely to Disconnect

We estimate that 3 million households would qualify for the Broadband Affordability Benefit because they are "Likely to Disconnect." This is based on the <u>Benton Report</u> that found that "13 percent of ACP households said they would disconnect their home service without ACP subsidies. That is approximately 3 million households."

Households Currently Lacking Broadband Infrastructure

For each state, the percentage of households considered "underserved" or "unserved" by the FCC Broadband Serviceable Locations Fabric Version 3 was taken.

That percentage was multiplied by the number of households that are Broadband Affordability Benefit-eligible and unconnected to estimate the number of households being kept offline by both affordability and infrastructure. The national total was 1.3 million.

Market Opportunity for Internet Service Providers (ISPs)

ISPs' annual market opportunity is the total amount of money ISPs stand to gain collectively by enrolling all eligible households in the Broadband Affordability Benefit.

This was calculated by multiplying \$360 (12 monthly payments of \$30) by the number of households that would be eligible for the \$30 benefit. Households in High Cost Areas were not included because ISPs serving such households would be exempt from paying into the Outreach and Awareness Fund.

Outreach & Awareness Fund

The outreach and awareness fund is funded by ISPs paying a \$100 finder's fee for every new customer they get through the portal. ISPs serving households in High Cost Locations are exempt.

The annual size of the O&A fund is determined by the number of eligible households that sign up each year through the end-to-end online marketplace. To model this, we ran a logistic regression based on the number of households that would enroll in Broadband Affordability Benefit each year at maximum utilization of available high cost funding. The year-over-year difference in enrolled households gave an estimate of the number of new households that would enroll each year. This estimate was multiplied by three percentages to estimate the number of enrollments that would result in an ISP paying into the O&A fund:

- The percentage of households that were previously unconnected (84%)
- The percentage of households outside of High Cost Locations (93%),
- The estimated percentage of households that enroll through the Portal (60%)

The average annual size of the O&A Fund through 16 years was \$21.1M. The maximum size of the fund using the logistic regression model was \$43M in 2028-2029.

Eligibility Estimates by Demographic

The following demographic estimates for the number of households that are Broadband Affordability Benefit eligible and unconnected were determined using PUMS 5Y 2018-2022 data for Broadband Affordability Benefit eligible and unconnected (see above) in conjunction with the variables detailed below:

- VPS: Veteran Period of Service
- **RACBLK:** Black or African American recode (Black alone or in combination with one or more other races)
- HISP: Recoded detailed Hispanic origin
- **R65:** Presence of persons 65 years and over in the household
- SCHG: Grade level attending
- Number of rural households was calculated using Geocorr crosswalk files to determine the percentage of each PUMA in rural areas

Projected Budget Compared to Affordable Connectivity Program (ACP)

The annual cost of the ACP was calculated by summing the ACP disbursements for the last 12-month period for which adoption data was available (Feb '23 - Jan '24). This figure totaled \$7.59 billion.

To project enrollments for the Broadband Affordability Benefit, we applied the same adoption rates as ACP for the same period (Feb '23 - Jan '24) to the eligibility pool of 19.3 million.

The annual cost of Broadband Affordability Benefit if reduced from 200% of the Federal Poverty Level (FPL) to 135% of the FPL was calculated using the same methodology as above, but starting with the Broadband Affordability Benefit eligibility pool at 135% of the FPL (16.7 million households).

Impact of Reducing Eligibility to 135%

The impact of reducing the Broadband Affordability Benefit eligibility criteria from 200% FPL to 135% FPL on various states and demographic groups was calculated using PUMS 2022 5Y estimates. For Rural households, areas were designated as urban or rural using <u>Geocorr's 2022 Zip to Urban-Rural Portion table</u>.

The percentages for each demographic group are taken as the portion of each group that would no longer be eligible for the Broadband Affordability Benefit at 135% out of the total number of households in that group that are Broadband Affordability Benefit-eligible and unconnected at 200%.

Universal Service Fund (USF) Budget Breakdown

The Breakdown of the USF budget between E-rate, Lifeline, RHC, and High Cost is taken from USAC's 2023 annual report.

Households in High Cost Areas

The number of Broadband Affordability Benefit-eligible households in High Cost Areas was estimated by applying the percentage of households in each state that are eligible for the Broadband Affordability Benefit by the number of High Cost Deployed Locations as of the end of 2023. This total number of Broadband Affordability Benefit Eligible High Cost Deployed Locations (1.18 million nationally) represents 6.85% of the total Broadband Affordability Benefit Eligible/ Unconnected households.

High Cost Available Funding Estimates

The model assumes High Cost funds collect the same amount of total funding per year (\$4.6 billion) after its existing commitments have lapsed. Instead of renewing these programs, USF would transition those funds to the Broadband Affordability Benefit. The High Cost programs' annual funds are based on USAC's <u>2024 Q3 projections</u>. Each year past 2024, the funding that had been previously allocated for now-lapsed programs was transitioned to Broadband Affordability Benefit. See table right for details on when each program's funds are set to expire.

Estimated Households Enrolled in the Broadband Affordability Benefit

The annual enrollment assumes all available funds from lapsed High Cost programs are used towards the Broadband Affordability Benefit. Enrollment assumes households in high cost areas receive \$75 per month, and all other households receive \$30 per month. It also accounts for administrative costs equal to 2% of total disbursements.

Affordability Gap as a Percentage of the Digital Divide

The overall affordability gap (households that have infrastructure but are offline due to affordability) is 16.3M households. The Digital Divide (all unconnected households) is 26.9 million households. So, the affordability gap accounts for 61% of the digital divide.

In states where the rural population exceeds the national average (19.5%), the affordability gap accounts for 59% of the digital divide. Data on rural population is sourced from the 2020 decennial Census.

Program	End Year	Funds Transitioned to the Broadband Affordability Benefit
Connect America Fund Phase II	2021	\$20M
CAF BLS Support	2024	\$955M
Alaska Plan	2026	\$128M
Alternative Connect America Model (ACAM)	2026	\$283M
Alternative Cost America Model II	2026	\$290M
Connect America Fund Phase II Auction	2028	\$143M
USVI Mobile	2030	\$567K
USVI Fixed	2030	\$8M
Uniendo Puerto Rico Fixed	2030	\$13M
Uniendo Puerto Rico Mobile	2030	\$33M
Rural Digital Opportunity Fund	2030	\$585M
Enhanced Alternative Cost America Model	2038	\$1.3B
SVS Support	N/A	\$251K
Rural Broadband Experiments	N/A	\$2M
Frozen Price Cap Support	N/A	\$11M
High Cost Loop (HCL) Support	N/A	\$251M
Connect America Fund ICC	N/A	\$290M
Frozen CETC Support	N/A	\$357M
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