

2025 Urban Rate Survey – Fixed Voice Service

Introduction

Every year, the Wireline Competition Bureau (Bureau) and the Office of Economics and Analytics (OEA) (together, Bureau/OEA) conduct the fixed voice Urban Rate Survey (voice URS) to collect data on rates for standalone telephone service charged by a representative sample of fixed voice providers in urban census tracts in the United States.¹

The main purpose of the voice URS is to produce a national reasonable voice comparability benchmark. This benchmark serves as a rate cap to “help ensure that universal service support recipients offering fixed voice [and broadband] services do so at reasonably comparable rates to those in urban areas.”²

Consistent with the methodology adopted, the Bureau/OEA continued to calculate the reasonable voice comparability benchmark this year by estimating the national average local flat rate, including subscriber line charges (SLCs), and adding to it twice the estimate of its standard deviation.³

For 2025, the reasonable comparability benchmark for fixed voice service is **\$55.55**.

This document describes in detail how this benchmark was calculated based on data from the 2025 voice URS.

Sample Design

Primary sampling unit and sampling frame

The 2025 voice URS retains the same definition of primary sampling unit (PSU, or sampling unit) as used in past survey years. That is, a PSU is a pair consisting of a voice service provider and an urban census tract where the provider offers at least one fixed voice service to residential customers therein.

As was done last year, Bureau/OEA staff developed the sampling frame for the 2025 voice URS based on data from the voice data collected in the Broadband Data Collection (BDC) system. Prior to the 2024 URS, staff collected this information from the FCC Form 477 data collection. The sampling frame uses data as of December of the year prior to data collection. Similar to prior surveys, the frame development process includes information from the incumbent local exchange carrier (ILEC) study area boundary data collection.⁴

As shown in Table 1 below, the 2025 voice URS frame consists of 95,422 sampling units from 360 service providers that offered fixed voice service to residential customers in 55,138 census tracts.

¹ Prior to the 2023 URS, urban census tracts were defined as tracts with at least one populated block located within an urban area or urban cluster that is also located within a county designated as a metropolitan statistical area. Because the Census Bureau has updated the definition of urban areas using the results of the 2020 Census, the Bureau/OEA adopted a new definition of urban tracts: a 2020 tract is urban if at least 80 percent of its housing units are within a 2010 tract Urban Area that has a population of at least 50,000.

² *Connect America Fund*, WC Docket No. 10-90, Order, 28 FCC Rcd 4242 (WCB/WTB 2013).

³ See 2014 Urban Rate Survey Methodology available at https://apps.fcc.gov/edocs_public/attachmatch/DA-14-520A3.pdf. In April 2019, the Commission eliminated the rate floor requirement. See *Connect America Fund*, WC Docket No. 10-90, Report and Order, 34 FCC Rcd 2621 (2019).

⁴ We excluded census tracts without residential households.

Stratification

The voice URS uses a stratified sample design. Stratification is the division of a heterogeneous population (represented by the sampling frame) into subpopulations called strata, each of which is internally homogeneous with respect to the population characteristic(s) of interest. This commonly used sample design element can produce gains in precision in the estimates of characteristics of the whole population.⁵

As was done in the last two years, the Bureau/OEA created a stratum for AT&T because historical data suggest there is little variation in the rates charged by AT&T. This year, staff analyzed Charter's historical data and determined that a separate stratum should also be created for this holding company because it has similar voice rates throughout the continental United States. Thus, the 2025 voice URS has four strata:

- AT&T;
- Charter;
- ILEC; and
- Non-ILEC

Sample Allocation

Consistent with sampling procedures used in prior voice URS, the Bureau/OEA applied proportional allocation to determine how many of the fixed sample size 500 units to select from each stratum.⁶

Based on Bureau/OEA staff analysis, 40 were apportioned to AT&T, 30 to Charter, 232 to ILEC units, and 198 units to non-ILEC units, as shown in Table 1.

Table 1 2025 Voice URS Sample Design

Strata	Frame			Sample		
	Sampling Units	Providers	Census Tracts	Sampling Units	Providers	Census Tracts
AT&T	28,601	9	28,601	40	9	40
Charter	20,910	1	20,910	30	1	30
ILEC	25,666	173	25,049	232	34	232
Non-ILEC	20,245	187	17,907	198	53	198
Overall	95,422	360	55,138	500	95	500

Measure of Size and Sample Selection

The voice URS implements probability sampling, which means that every sampling unit has some chance of being selected in the sample, but not equal probability sampling, where every sampling unit has an equal chance of selection. Instead, the voice URS sample design calculates a measure of size (MOS) for every sampling unit in the frame and selects the sample independently within each stratum based on this MOS. Thus, for example, if sampling unit A has a MOS that is twice that of sampling unit B, then A is twice as likely to be selected in the sample compared to B. This type of unequal probability selection is called probability proportional to size (PPS) sampling.⁷

As in the 2024 voice URS, the Bureau/OEA defined the MOS for the 2025 voice URS sampling units (which, as described above, are pairs of provider-census tract) as the number of residential subscribers of fixed voice service that the provider reported for the tract in its December 2023 BDC filing.

⁵ William G. Cochran, *Sampling Techniques* ch. 5 (3rd ed. 1977).

⁶ *Id.* at 91.

⁷ *Id.* at 251.

After completing the stratification, sample allocation, and measure of size calculation steps, the Bureau/OEA selected the final sample using a standard algorithm for PPS sampling.⁸

Survey Response

Table 2 below shows the number of responses, the number of different service providers, and the number of different census tracts within each stratum and overall, for survey responses requested, received, and received indicating service was provided.

Table 2 2025 Voice URS Survey Response Tabulation

Stratum	Survey Status	Responses	Providers	Tracts
AT&T	Requested	40	9	40
	Received	40	9	40
	Service Provided	40	9	40
Charter	Requested	30	1	30
	Received	30	1	30
	Service Provided	30	1	30
ILEC	Requested	232	34	232
	Received	232	34	232
	Service Provided	231	34	231
Non-ILEC	Requested	198	53	198
	Received	182	50	182
	Service Provided	175	46	175
Overall	Requested	500	95	500
	Received	484	92	484
	Service Provided	476	88	476

Of the 500 sampled units, 16 either did not respond to the survey or responded with an indication that (1) the provider either no longer provides telephone service to the tract they had to report for or (2) it provides telephone service only to non-residential customers (i.e., not eligible for the survey).

Of the 484 units that did respond and are eligible for the survey, eight of the responses did not have valid price data (i.e., did not respond properly to the survey).

Therefore, the overall response rate for the 2025 voice URS is $(500 - [16+8]) / (500 - 4) = 476/496 = 96\%$.

Each response stating that service was provided indicated whether each of the following service types was offered:

- Unlimited or Flat-Rate Local Service
- Unlimited All-Distance Service
- Measured or Messaged Local Voice Service

Table 3 provides the number of responses with rates for each service type in each stratum.

⁸ *Id.* at 265-266.

Table 3 2025 Voice URS Responses by Service Type

Stratum	Unlimited/ Flat Rate	Unlimited All-Distance	Measured/ Messaged Local
AT&T	70	160	38
Charter	10	30	0
ILEC	365	163	163
Non-ILEC	89	223	2
Overall	534	576	203

Monthly Rates

For each service provider-census tract pair, separate monthly rates were calculated for each of the two service technologies: circuit and interconnected voice over internet protocol (iVoIP).

If the provider reported multiple rates in a tract (because it had separate sets of prices for different parts of the tract), the following average monthly rates were calculated:

- Average RSC⁹ = (Minimum RSC + Maximum RSC)/2
- Average StSLC¹⁰ = (Minimum StSLC + Maximum StSLC)/2
- Average StUSF¹¹ = (Minimum StUSF + Maximum StUSF)/2
- Average ManEAS¹² = (Minimum ManEAS + Maximum ManEAS)/2
- Average FSLC¹³ = (Minimum FSLC + Maximum FSLC)/2

If the service provider indicated that multiple rates were not offered in the census tract, then the average monthly rates above were set equal to the minimum¹⁴ monthly rate provided in the response.

For the reasonable comparability benchmark (CB), the following average monthly rate was used if the service provider offered multiple rates in the census tract:

- Minimum Rate CB = Minimum Rate + Minimum FSLC
- Maximum Rate CB = Maximum Rate + Maximum FSLC
- Average Rate CB = (Minimum Rate CB + Maximum Rate CB)/2

The following average monthly rate was used if the service provider did not offer multiple rates in the census tract:

$$\text{Average Rate CB} = \text{Minimum Rate} + \text{Minimum FSLC}$$

⁹ RSC is Recurring Service Charge.

¹⁰ StSLC is State Subscriber Line Charge.

¹¹ StUSF is State Universal Service Fund.

¹² ManEAS is Mandatory Extended Area Service.

¹³ FSLC is Federal Subscriber Line Charge.

¹⁴ The term “minimum” is used for consistency with the naming convention in the survey data. For census tracts where the service provider submitted only a single rate, the rates are recorded in the survey dataset as the “minimum” value.

Weights

Weights are required to ensure the contributions of each response properly represent voice service plans that are available nationwide. Weights are also used to ensure that a service provider's rates do not exert extra influence on the estimate only because the provider offers service using two technologies instead of one.

The 2025 voice URS weight calculation method is the same as what had been used in past survey cycles. Each rate was assigned a weight according to the following equation:

$$\text{Final Weight} = \text{Sampling Weight} \times \text{Nonresponse Weight} \times \text{Rate Weight} \times \text{FVRez}$$

Sampling Weight is the inverse of the selection probability for each sample unit. The selection probability is determined by the total number of units in each stratum, the sample size in each stratum, and the units' number of potential subscribers described in the sample selection section earlier. Each sample is assigned a sampling weight to reflect its selection probability.

Nonresponse Weight is assigned to each stratum to compensate for unit nonresponse in each stratum. It is the total number of potential subscribers sampled over the total number of potential subscribers in the sampled census tracts of a given provider who has provided rate responses in each stratum.

Rate Weight is assigned to circuit and iVoIP rates when the provider reported providing both in a census tract. A service provider that offers a service via circuit and iVoIP technologies is given a weight of ½ for its rates for each service. Otherwise, the rates have a weight of 1.

FVRez is the number of residential subscribers of fixed voice service that the provider reported for the tract in its December 2023 BDC filing.

The final weight is the product of *Sampling Weight*, *Nonresponse Weight*, *Rate Weight*, and *FVRez*.

Rate Estimates for Unlimited or Flat-Rate Local Service

The average rate used for developing the reasonable CB is calculated using only the rates for unlimited or flat-rate local service and is estimated using the following formula:

$$\text{average rate} = \frac{\sum_{i=1}^N w_i \times \text{Rate}_i}{\sum_{i=1}^N w_i}$$

where N = total number of rate responses for unlimited or flat-rate local service and w_i is the final weight, as just described.

The standard deviation of rates for the purpose of calculating the reasonable CB is given by

$$\text{standard deviation} = \frac{\sqrt{\sum_{i=1}^N w_i (\text{Rate}_i - \text{average rate})^2}}{(\sum_{i=1}^N w_i) - 1}$$

Table 4 presents the calculated average rate and standard deviation for each stratum and overall, with and without the federal subscriber line charge (FSLC).

Table 4 2025 Voice URS Rate Estimates With and Without FSLC

Stratum	Without FSLC (\$)		With FSLC (\$)	
	Average	Standard Deviation	Average	Standard Deviation
AT&T	46.33	6.33	52.53	6.66
Charter	22.68	1.94	22.68	1.94
ILEC	24.56	9.08	30.79	9.25
Non-ILEC	26.35	16.91	29.18	18.57
Overall	26.53	11.21	30.67	12.44

Reasonable Comparability Benchmark

The reasonable comparability benchmark was calculated by taking two standard deviations above the average urban rate for all local flat-rate providers, with FSLCs included in the rates. Table 5 shows the calculation.

Table 5 2025 Voice URS Rate Estimates for Comparability Benchmark

Service Type	Responses with Rates	Service Providers	Census Tracts	Average Rate	Two Std Devs above the Average Rate
Unlimited or Flat-Rate Local Service	534	68	337	\$30.67	\$55.55

The reasonable comparability benchmark for voice service is based on the average monthly rate plus two standard deviations (including FSLC) for unlimited or flat-rate local service.¹⁵ This value is **\$55.55**.

¹⁵ See *Connect America Fund et al.*, WC Docket No. 10-90 et al., Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, 17694, para. 84 (2011), *aff'd sub nom* In re FCC 11-161, 753 F.3d 1015 (10th Cir. 2014).