

2015 Urban Rate Survey –Fixed Voice Service Analysis

Introduction

The form and content of the Urban Rate Survey for fixed voice services was adopted in an Order released in April 2013.¹ That Order concluded that the urban rate survey would be conducted from a statistically valid sample of fixed terrestrial voice providers drawn from 2010 Census urban areas and urban clusters within Metropolitan Statistical Areas.

The 2015 Urban Rate Survey (URS) received 338 responses with monthly rates from 69 different carriers offering fixed voice service in 306 different census tracts. As described more fully below, we estimate an urban average monthly rate of \$21.22 for the rate floor, and a reasonable comparability benchmark for fixed voice services of \$47.48.

Sample Selection

Similar to the process used for the first URS, this year's URS asked for voice service rates from a sample of service providers. To determine which voice providers to sample, the Wireline Competition Bureau (Bureau) relied on data collected via FCC Form 477. The Bureau used the U.S. Census Bureau's definition of urban to determine what areas were eligible for the survey and then defined as the sample pool any fixed terrestrial voice service provider that operated in these areas.

The sample for the survey was divided into two strata: incumbent local exchange carriers (ILECs) and non-incumbent local exchange carriers (non-ILECs).² Both strata used a common frame for the selection of urban census tracts which listed 58,332 urban census tracts (including the number of households) encompassing the 50 states, the District of Columbia, and Puerto Rico.

For each census tract in the ILEC and non-ILEC samples, the ZIP code area which most closely corresponded to the census tract was found and compiled into a list of 397 different ZIP codes for the 404 unique census tracts in the combined census tract sample.³ No ZIP code was identified with more than two census tracts. The sampling process produced a set of 255 unique (census tract, service

¹ *Connect America Fund*, WC Docket No. 10-90, Order, 28 FCC Rcd 4242 (Wireline Comp. Bur. and Wireless Telecom. Bur. 2013).

² Last year, the Bureau determined that the rate floor should be calculated solely based on unlimited or flat rate ILEC rates excluding federal subscriber line charges (SLCs). *Wireline Competition Bureau Announces Results of Urban Rate Survey for Voice Services; Seeks Comment on Petition for Extension of Time to Comply with New Rate Floor*, WC Docket No. 10-90, Public Notice, 29 FCC Rcd 2967, 2968 (Wireline Comp. Bur. 2014) (*2014 Urban Rate Survey for Voice Services PN*). To facilitate this calculation, the 2015 URS was designed with a separate stratum for ILEC service providers which requested responses from all ILEC service providers in each census tract, unlike the 2014 URS which did not stratify the sample. In this way, a more accurate weighting of rates was obtained for purposes of calculating the rate floor.

³ Form 477 December 2013 filings provide information on companies offering voice service by ZIP code area. In order to list companies offering service by census tract, a ZIP code area associated with each census tract in the sample had to be identified. Future Form 477 filings are expected to collect information on voice service providers by census tract, eliminating the need for this step in future Urban Rate Surveys.

provider) pairs from 24 different ILEC companies. The total voice sample (ILEC + non-ILEC strata combined) was limited to 500 (Census tract, service provider) pairs to limit the burden on respondents. Consequently, the non-ILEC stratum sample was reduced to 245 (Census tract, service provider) pairs via random selection using the “RandomSample” function in Mathematica without weighting or replacement. This process produced a set of 245 unique (census tract, service provider) pairs from 81 different non-ILEC companies.

Collection of Data

Notifications that a provider was selected to participate in the 2015 URS were sent via email to each selected provider’s FCC Form 477 contact person and certifying official on or around October 28, 2014. Completed surveys were due on December 17, 2014. The same online survey instrument was used for the 2015 URS as previously had been used for the 2014 URS.⁴

Survey Response

The table below shows the number of responses, the number of different service providers, and the number of different census tracts within each stratum for survey responses requested, received, and received with rates provided.

Stratum	Survey Status	Responses	Service Providers	Census Tracts
ILEC	Requested	255	24	135
	Received	255	24	135
	Rates Provided	165	23	134 ⁵
Non-ILEC	Requested	245	81	244
	Received	242	78	241
	Rates Provided	173	47	172
All	Requested	500	103	379
	Received	497	100	376
	Rates Provided	338	69	306

Each response with service indicated whether each of the following service types was provided:

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

⁴ The only changes were that the Bureau removed all questions regarding non-recurring charges on both the voice and broadband surveys and a question about taxes, surcharges, and TRS charges on the voice survey, although this information may be included in future surveys.

⁵ For census tract 06111005303, neither service provider identified as an ILEC indicated it provided voice service there.

Each response also indicated whether the service type was provided by circuit and/or VoIP technologies. For each technology used, each response provided either a single set of monthly rates or a range of monthly rates.

Rate Estimates for Rate Floor

The Commission specified in the *2011 USF/ICC Transformation Order* that the rate floor should be calculated as the sum of the local end-user rate and state regulated fees (specifically, state subscriber line (SLC) charges, state universal service, and mandatory extended areas service charges).⁶ Consistent with the methodology adopted last year, we computed the average for purposes of the 2015 rate floor using the rates for unlimited or flat-rate local service from the ILEC stratum.⁷ The estimated average rate for the ILEC stratum was the weighted average of rates provided in the ILEC responses. The weights ensured the proper representation of each rate provided with respect to the number of technologies used and the offerings of multiple service providers in the census tract. The estimated standard deviation of rates within the ILEC stratum was the square root of the weighted average of the following values within the stratum:

$$(n/(n-1)) \times (\text{Squared difference of the rate and the estimated average rate}) + (\text{the Rate Spread squared divided by 12})^8$$

where n is the stratum sample size (134 for ILECs).

The table below presents the rate estimates for the rate floor.

Service	Local Rate plus state fees	
	Average	Standard Deviation
Unlimited or Flat-Rate Local Service	\$21.2201	\$3.9983

The rate floor for 2015 therefore is \$21.22.⁹

Reasonable Comparability Benchmark

The Commission specified in the *2011 USF/ICC Transformation Order* that the reasonable comparability benchmark for voice services be set at two standard deviations above the national average based on a survey of urban voice rates.¹⁰ Consistent with the methodology adopted last year,¹¹ the reasonable

⁶ See *Connect America Fund et al.*; WC Docket Nos. 10-90 et al., Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, 17751, para. 238 (2011) (*USF/ICC Transformation Order*) *aff'd sub nom.*, *In re: FCC 11-161*, 753 F.3d 1015 (10th Cir. 2014).

⁷ *2014 Urban Rate Survey for Voice Services PN* at 2968.

⁸ It was assumed that rates with a minimum and maximum followed a uniform distribution between those values. The variance of this uniform distribution is the Rate Spread squared divided by 12.

⁹ The difference between the 2014 rate floor (\$20.46) and the 2015 rate floor is not statistically significant.

¹⁰ *USF/ICC Transformation Order* at 17694, paras. 84-85.

¹¹ *2014 Urban Rate Survey for Voice Services PN*, 29 FCC Rcd at 2968.

comparability benchmark was calculated by taking two standard deviations above the average urban rate for all local flat-rate providers, with federal and state SLCs included in the rates used to compute the urban average.

Service Type	Responses with Rates	Service Providers	Census Tracts	Average Rate	Two Std Devs above the Average Rate
Unlimited or Flat-Rate Local Service	317	58	285	\$29.9284	\$47.4782

The reasonable comparability benchmark for fixed voice services for 2015 therefore is \$47.48.