

Response Rates for the Consumer Price Indexes, 2016

This article and the accompanying tables update articles previously published on response rates in the *CPI Detailed Report* for March 1991, and in the January issues of 1993 through 2016.

In an effort to measure the outcome of data collection for the CPI, the BLS calculates response rates. Response rates measure the proportion of completed surveys to those issued and help measure the accuracy of the CPI. Failure of a data unit to respond at either the data collection stage or estimation stage represents a loss of statistical information which dilutes the accuracy of the sample. The BLS publishes response rates annually to assist the data user in judging the accuracy of CPI data.

The BLS calculates response rates for the CPI-U at the data collection and data estimation phases for pricing. The response rate at the data collection phase is the number of responding sample units divided by the number of eligible sample units. A sample unit is eligible if it belongs to the defined target population and if it should provide information for one or more items. The percent of the sample used at estimation is defined as the number of sample units used in estimation divided by the number of eligible sample units.¹

Response rates for 2016 are presented in tables R-1 through R-17. Table R-1 shows response rates for all data included in the CPI-U, U.S. city average, by major group, for all of 2016. Tables R-2 through R-17 show rates for current data collection in selected areas for which indexes are published monthly, bimonthly, or semiannually.

The response rates in tables R-1 through R-17 are separated into commodities and services, and the shelter portion of housing. Commodities and services are further broken down into outlets and quotes. An "outlet" is a generic term that designates the place where prices are collected. A "quote" is a specific item to be priced in a specific outlet. There may be from 1 to more than 50 quotes priced in each outlet.

In table R-1, it is important to note the relatively low percentages of quotes reported, collected and used in estimation for apparel. Low rates for these items can be partially attributed to the design of the apparel sample. Because seasonal apparel items commonly are in stores only during certain times of the year, most of the apparel sample is doubled, with each half of the sample designated for pricing during part of the year. Thus, at any particular time of the year, a large number of apparel quotes, although eligible, are designated out of season and are not collected.

The response rates at the data collection phase for shelter are separated into three categories. If useable information is obtained, the unit is designated *data reported*. If the assigned unit is located but is unoccupied, the unit is designated *found vacant*. In instances where the unit is eligible but no data are available (for example, refusals or no one at home) the unit is designated *other*.

For additional information on response rates, please contact the Consumer Price Index Information Office at (202) 691-7000, or email cpi_info@bls.gov.

¹ Imputed prices, when used in estimation, are counted in this estimate. Beginning in July 2010, the BLS began using rent prices imputed by a non-interview adjustment technique in estimation.

Therefore, nearly all eligible sample units have prices, collected or imputed, that are used in estimation.

Table R-1. Response rates for the CPLU, U.S. city average, by major group and shelter, 2016

Commodities and Services	Outlets	Quotes									
		Total	Food and Beverages	Housing (excluding shelter)	Apparel	Transportation	Medical Care	Recreation	Education and Communication	Other Goods and Services	
Eligible	285,925	1,144,695	468,738	135,580	129,711	137,495	75,066	85,713	72,911	39,481	
Collected											
Number	267,524	936,837	414,737	118,247	78,708	124,145	35,591	68,432	62,412	34,565	
Percent	93.6	81.8	88.5	87.2	60.7	90.3	47.4	79.8	85.6	87.5	
Used in Estimation											
Number	258,610	930,693	413,449	117,821	77,631	123,958	33,155	68,151	62,167	34,361	
Percent	90.4	81.3	88.2	86.9	59.8	90.2	44.2	79.5	85.3	87.0	
Shelter	All Units										
Eligible	96,999										
Number	100.0										
Percent											
Collected											
Data Reported	67,884										
Number	70.0										
Percent											
Found Vacant											
Number	6,405										
Percent	6.6										
Other											
Number	22,710										
Percent	23.4										
Used in Estimation											
Number	96,999										
Percent	100.0										

Table R-2. Response rates for the CPI-U, Chicago-Gary-Kenosha, IL-IN-WI, 2016

Commodities and Services	Total		Shelter	All Units
	Outlets	Quotes		
Eligible	15,103	51,143	Eligible	
Collected			Number	3,555
Number	14,027	39,289	Percent	100.0
Percent	92.9	76.8	Collected	
Used in Estimation			Data Reported	
Number	13,578	39,082	Number	2,227
Percent	89.9	76.4	Percent	62.6
			Found Vacant	
			Number	203
			Percent	5.7
			Other	
			Number	1,125
			Percent	31.6
			Used in Estimation	
			Number	3,555
			Percent	100.0

Table R-3. Response rates for the CPI-U, Los Angeles-Riverside-Orange County, CA, 2016

Commodities and Services	Total		Shelter	All Units
	Outlets	Quotes		
Eligible	21,424	73,816	Eligible	
Collected			Number	5,906
Number	20,078	58,488	Percent	100.0
Percent	93.7	79.2	Collected	
Used in Estimation			Data Reported	
Number	19,283	58,245	Number	4,099
Percent	90.0	78.9	Percent	69.4
			Found Vacant	
			Number	202
			Percent	3.4
			Other	
			Number	1,605
			Percent	27.2
			Used in Estimation	
			Number	5,906
			Percent	100.0

Table R-4. Response rates for the CPI-U, NY-Northern NJ-Long Island, NY-NJ-CT-PA, 2016

Commodities and Services	Total		Shelter	All Units
	Outlets	Quotes		
Eligible	30,293	110,719	Eligible	
Collected			Number	8,049
Number	28,035	87,554	Percent	100.0
Percent	92.5	79.1	Collected	
Used in Estimation			Data Reported	
Number	27,120	86,952	Number	5,459
Percent	89.5	78.5	Percent	67.8
			Found Vacant	
			Number	431
			Percent	5.4
			Other	
			Number	2,159
			Percent	26.8
			Used in Estimation	
			Number	8,049
			Percent	100.0

Table R-5. Response rates for the CPI-U, Phil.-Wilmington-Atlantic City, PA-NJ-DE-MD, 2016

Commodities and Services	Total		Shelter	All Units
	Outlets	Quotes		
Eligible	5,026	18,765	Eligible	
Collected			Number	2,673
Number	4,800	15,734	Percent	100.0
Percent	95.5	83.8	Collected	
Used in Estimation			Data Reported	
Number	4,640	15,594	Number	1,997
Percent	92.3	83.1	Percent	74.7
			Found Vacant	
			Number	215
			Percent	8.0
			Other	
			Number	461
			Percent	17.2
			Used in Estimation	
			Number	2,673
			Percent	100.0

Table R-6. Response rates for the CPI-U, San Francisco-Oakland-San Jose, CA, 2016

Commodities and Services	Total		Shelter	All Units
	Outlets	Quotes		
Eligible	4,473	18,678	Eligible	
Collected			Number	4,063
Number	3,945	14,466	Percent	100.0
Percent	88.2	77.4	Collected	
Used in Estimation			Data Reported	
Number	3,803	14,355	Number	2,729
Percent	85.0	76.9	Percent	67.2
			Found Vacant	
			Number	198
			Percent	4.9
			Other	
			Number	1,136
			Percent	28.0
			Used in Estimation	
			Number	4,063
			Percent	100.0

Table R-7. Response rates for the CPI-U, Washington-Baltimore, DC-MD-VA-WV, 2016

Commodities and Services	Total		Shelter	All Units
	Outlets	Quotes		
Eligible	6,804	25,114	Eligible	
Collected			Number	3,501
Number	6,468	20,528	Percent	100.0
Percent	95.1	81.7	Collected	
Used in Estimation			Data Reported	
Number	6,246	20,388	Number	2,472
Percent	91.8	81.2	Percent	70.6
			Found Vacant	
			Number	251
			Percent	7.2
			Other	
			Number	778
			Percent	22.2
			Used in Estimation	
			Number	3,501
			Percent	100.0

Table R-8. Response rates for the CPI-U, Boston-Brockton-Nashua, MA-NH-ME-CT, 2016

Commodities and Services	Total		Shelter	All Units
	Outlets	Quotes		
Eligible	4,620	18263	Eligible	
Collected			Number	2,789
Number	4,244	14,089	Percent	100.0
Percent	91.9	77.1	Collected	
Used in Estimation			Data Reported	
Number	4,067	13,867	Number	1,933
Percent	88.0	75.9	Percent	69.3
			Found Vacant	
			Number	139
			Percent	5.0
			Other	
			Number	717
			Percent	25.7
			Used in Estimation	
			Number	2,789
			Percent	100.0

Table R-9. Response rates for the CPI-U, Cleveland-Akron, OH, 2016

Commodities and Services	Total		Shelter	All Units
	Outlets	Quotes		
Eligible	3,596	14,115	Eligible	
Collected			Number	987
Number	3,378	11,324	Percent	100.0
Percent	93.9	80.2	Collected	
Used in Estimation			Data Reported	
Number	3,276	11,266	Number	750
Percent	91.1	79.8	Percent	76.0
			Found Vacant	
			Number	82
			Percent	8.3
			Other	
			Number	155
			Percent	15.7
			Used in Estimation	
			Number	987
			Percent	100.0

Table R-10. Response rates for the CPI-U, Miami-Fort Lauderdale, FL, 2016

Commodities and Services	Total		Shelter	All Units
	Outlets	Quotes		
Eligible	1,039	5,581	Eligible	
Collected			Number	1,373
Number	1,011	5,038	Percent	100.0
Percent	97.3	90.3	Collected	
Used in Estimation			Data Reported	
Number	989	5,029	Number	1,124
Percent	95.2	90.1	Percent	81.9
			Found Vacant	
			Number	94
			Percent	6.8
			Other	
			Number	155
			Percent	11.3
			Used in Estimation	
			Number	1,373
			Percent	100.0

Table R-11. Response rates for the CPI-U, St. Louis, MO-IL, 2016

Commodities and Services	Total		Shelter	All Units
	Outlets	Quotes		
Eligible	947	4,927	Eligible	
Collected			Number	724
Number	933	4,444	Percent	100.0
Percent	98.5	90.2	Collected	
Used in Estimation			Data Reported	
Number	924	4,392	Number	565
Percent	97.6	89.1	Percent	78.0
			Found Vacant	
			Number	36
			Percent	5.0
			Other	
			Number	123
			Percent	17.0
			Used in Estimation	
			Number	724
			Percent	100.0

Table R-12. Response rates for the CPI-U, Dallas-Fort Worth, TX, 2016

Commodities and Services	Total		Shelter	All Units
	Outlets	Quotes		
Eligible	1,476	6,083	Eligible	
Collected			Number	1,700
Number	1,439	5,476	Percent	100.0
Percent	97.5	90.0	Collected	
Used in Estimation			Data Reported	
Number	1,414	5,472	Number	1,058
Percent	95.8	90.0	Percent	62.2
			Found Vacant	
			Number	85
			Percent	5.0
			Other	
			Number	557
			Percent	32.8
			Used in Estimation	
			Number	1,700
			Percent	100.0

Table R-13. Response rates for the CPI-U, Detroit-Ann Arbor-Flint, MI, 2016

Commodities and Services	Total		Shelter	All Units
	Outlets	Quotes		
Eligible	3,936	15,939	Eligible	
Collected			Number	1,952
Number	3,546	12,852	Percent	100.0
Percent	90.1	80.6	Collected	
Used in Estimation			Data Reported	
Number	3,429	12,683	Number	1,039
Percent	87.1	79.6	Percent	53.2
			Found Vacant	
			Number	127
			Percent	6.5
			Other	
			Number	786
			Percent	40.3
			Used in Estimation	
			Number	1,952
			Percent	100.0

Table R-14. Response rates for the CPI-U, Houston-Galveston-Brazoria, TX, 2016

Commodities and Services	Total		Shelter	All Units
	Outlets	Quotes		
Eligible	3,869	13,540	Eligible	
Collected			Number	1,390
Number	3,407	10,078	Percent	100.0
Percent	88.1	74.4	Collected	
Used in Estimation			Data Reported	
Number	3,264	10,026	Number	941
Percent	84.4	74.0	Percent	67.7
			Found Vacant	
			Number	112
			Percent	8.1
			Other	
			Number	337
			Percent	24.2
			Used in Estimation	
			Number	1,390
			Percent	100.0

Table R-15. Response rates for the CPI-U, Pittsburgh, PA, 2016

Commodities and Services	Total		Shelter	All Units
	Outlets	Quotes		
Eligible	2,945	10,636	Eligible	
Collected			Number	876
Number	2,871	9,322	Percent	100.0
Percent	97.5	87.6	Collected	
Used in Estimation			Data Reported	
Number	2,791	9,277	Number	701
Percent	94.8	87.2	Percent	80.0
			Found Vacant	
			Number	66
			Percent	7.5
			Other	
			Number	109
			Percent	12.4
			Used in Estimation	
			Number	876
			Percent	100.0

Table R-16. Response rates for the CPI-U, Phoenix-Mesa, AZ., 2016

Commodities and Services	Total		Shelter	All Units
	Outlets	Quotes		
Eligible	2,897	11,016	Eligible	
Collected			Number	1,331
Number	2,776	9,390	Percent	100.0
Percent	95.8	85.2	Collected	
Used in Estimation			Data Reported	
Number	2,702	9,329	Number	896
Percent	93.3	84.7	Percent	67.3
			Found Vacant	
			Number	83
			Percent	6.2
			Other	
			Number	352
			Percent	26.4
			Used in Estimation	
			Number	1,331
			Percent	100.0

Table R-17. Response rates for the CPI-U, Atlanta, GA., 2016

Commodities and Services	Total		Shelter	All Units
	Outlets	Quotes		
Eligible	4,148	14,652	Eligible	
Collected			Number	1,828
Number	3,952	11,497	Percent	100.0
Percent	95.3	78.5	Collected	
Used in Estimation			Data Reported	
Number	3,787	11,413	Number	1,305
Percent	91.3	77.9	Percent	71.4
			Found Vacant	
			Number	111
			Percent	6.1
			Other	
			Number	412
			Percent	22.5
			Used in Estimation	
			Number	1,828
			Percent	100.0