Consumer Price Index (CPI) Conversion Factors to Convert to 2017 Dollars

Using the CPI-U-RS series, which starts 1947, an experimental CPI measure (see explanation below), AND the CPI-U-X1, which applies the post-1982 CPI to the period 1950-1982

(either can be used when exact comparisons are needed between years during the period starting 1947 or 1950)

To convert dollars of a year to 2017 dollars, DIVIDE the dollar amount of that year by the conversion factor (CF) for that year
For example, for CPI-U-RS $1000 dollars of 1955 = $7812 dollars of 2017 ($1000 / 0.128); suggest rounding to $7810.
For example, for CPI-U-X1 $1000 dollars of 1955 = $8403 dollars of 2017 ($1000 / 0.119); suggest rounding to $8400.

Note: To reverse the process, that is, to determine what a 2017-dollar amount would be in the dollars of another year, simply **MULTIPLY** the 2017 amount by the conversion factor of that year. For example, $1000 2017 dollars would be about $106 in 1947 ($1000 x 0.106), using CPI-U-RS.

As illustrated, ROUNDING to no more than three significant digits is recommended. ALMOST ALWAYS, ROUNDING TO DOLLARS AND CENTS SUGGESTS MORE PRECISION THAN THE DATA ALLOW.

Year	CF RS	CF X1	Year	CF RS	CF X1	Year	CF RS	CF X1	Year	CF RS	CF X1
1947	0.106		1968	0.165	0.154	1989	0.522	0.506	2010	0.888	0.890
1948	0.115		1969	0.173	0.161	1990	0.548	0.533	2011	0.916	0.918
1949	0.113		1970	0.181	0.168	1991	0.568	0.556	2012	0.935	0.937
1950	0.115	0.107	1971	0.189	0.176	1992	0.582	0.572	2013	0.949	0.950
1951	0.124	0.115	1972	0.195	0.181	1993	0.597	0.590	2014	0.965	0.966
1952	0.126	0.117	1973	0.207	0.193	1994	0.609	0.605	2015	0.966	0.967
1953	0.127	0.118	1974	0.227	0.212	1995	0.624	0.622	2016	0.979	0.979
1954	0.128	0.119	1975	0.246	0.229	1996	0.641	0.640	2017	**1.000**	1.000
1955	0.128	0.119	1976	0.260	0.242	1997	0.655	0.655	2018		1.020
1956	0.129	0.121	1977	0.277	0.258	1998	0.664	0.665	2019		1.042
1957	0.134	0.124	1978	0.289	0.275	1999	0.678	0.680	2020		1.066
1958	0.138	0.128	1979	0.317	0.302	2000	0.701	0.703	2021		1.092
1959	0.139	0.129	1980	0.352	0.336	2001	0.720	0.723	2022		1.118
1960	0.141	0.131	1981	0.386	0.368	2002	0.732	0.734	2023		1.144
1961	0.142	0.133	1982	0.409	0.390	2003	0.749	0.751	2024		1.171
1962	0.144	0.134	1983	0.426	0.406	2004	0.769	0.771	2025		1.199
1963	0.146	0.136	1984	0.444	0.424	2005	0.795	0.797	2026		1.227
1964	0.148	0.137	1985	0.459	0.439	2006	0.820	0.822	2027		1.256
1965	0.150	0.140	1986	0.468	0.447	2007	0.844	0.846	2028		1.285
1966	0.154	0.144	1987	0.483	0.463	2008	0.876	0.878			
1967	0.159	0.148	1988	0.501	0.483	2009	0.873	0.875			

Revised August 7, 2018, using final 2017 CPI (CPI = 2.45120) and the average of OMB and CBO inflation estimates for 2018 and later years as of early 2018. For inflation assumptions for 2018 and later years, see the shaded box below. Important: for the RS series, "all data are subject to revision annually."

CPI is CPI-U-X1, which applies the post-1982 CPI methods to the period 1950 to 1982. By definition, CPI-U-X1 equals CPI-U starting in 1983, so the conversion factors are the same.

CPI is CPI-U, the broader measure for all urban consumers, using year-to-year averages, not December to December.

Conversion factors for the experimental CPI [CPI-U-RS] are supplied for the years 1947 to 2017. These can be used in place of CPI-U-X1 for careful comparison over years starting in 1947. However, there are limits as well as strengths to this experimental measure (see link below for additional information).

Note: Historical CPI-U-RS is revised each year, so earlier-year data can change with yearly revision. CPI-U-RS reflects estimated CPI-U-RS data (see below), re-based here from 1977 as the base year to 2017 as the base year. See additional information on the CPI-U-RS conversion factors available elsewhere on this site.

INFLATION ASSUMPTIONS: Inflation conversion factors for 2018 and later assume 2.05% inflation in 2018, 2.15% in 2019, 2.30% in 2020, 2.40% in 2021-2022, and 2.35% each year 2023-2028. These are averages of OMB and CBO inflation estimates as of January (CBO) and May (OMB) 2018.

CPI-U-RS and CPI-U-X1 updated from sources identified below.

Discussion of the CPI-U-RS and its strengths and limits can be found at http://www.bls.gov/cpi/cpirsdc.htm. The CPI-U-RS data are from the Bureau of Labor Statistics site: http://www.bls.gov/cpi/cpiurs.htm. Two additional sources of information about the CPI-U-RS are http://www.bls.gov/cpi/cpirsqa.pdf and http://www.bls.gov/opub/mlr/1999/06/art4full.pdf.

CF denominated in dollars of years 1995 to estimated 2018 in Excel and pdf formats for 1774 to estimated 2028 are available at the online address stated below.

Prior to the 2008 revision, a different data base was used for the period starting 1665 and ending 1913. See the main inflation conversion factor page for details.

The address of the inflation conversion factor web page is http://liberalarts.oregonstate.edu/spp/polisci/research/inflation-conversion-factors.

See also the important notes on the reverse side about the limits of the CPI-U-RS. Because of the method of extrapolation of the CPI-U-RS for the years before 1978, CPI-U-RS conversion factors for those years must be used with special caution.

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For details about CPI-U-RS, see the materials available at http://stats.bls.gov/cpi/cpirsdc.htm. Note also the points below, from http://www.bls.gov/cpi/cpirsinfo.pdf.

Updated CPI-U-RS, All Items and All items less food and energy, 1978-2010

BLS Statement on the Use of the CPI-U-RS

The Bureau of Labor Statistics (BLS) has made numerous improvements to the Consumer Price Index (CPI) over the past thirty-plus years. While these improvements make the present and future CPI more accurate, historical price index series are not adjusted to reflect the improvements. Many researchers, however, expressed an interest in having a historical series that was measured consistently over the entire period. Accordingly, the Consumer Price Index research series using current methods (CPI-U-RS) presents an estimate of the CPI for all Urban Consumers (CPI-U) from 1978 to present that incorporates most of the improvements made over that time span into the entire series.

The CPI-U-RS is in some ways an extension of the CPI-U-X1, an experimental series that shows what the inflation rate in the CPI-U might have been, if the current rental equivalence method of measuring the cost of homeownership had been in place prior to 1983.

The CPI-U-RS has some limitations. First, most estimates are based on BLS research covering a short period of time and extrapolated to a longer period. Therefore, there is considerable uncertainty surrounding the magnitude of the adjustments. Second, there have been several improvements in the CPI not incorporated into the CPI-U-RS, either because they do not represent changes in methodology, because they had negligible impacts on the CPI's growth rate, or because it was impossible to systematically estimate the impacts of the new methods in past years.

Nonetheless, the CPI-U-RS can serve as a valuable proxy for researchers needing a historical estimate of inflation using current methods. The direct adjustment of individual CPI index series makes this the most detailed and systematic estimate available of a consistent CPI series.