

## Cost of Living - Consumer Price Index

<i>To compare one area's cost of living to another area, use</i>	<i>To compare costs of consumer purchases over time and adjust for inflation, use</i>
<i>Cost of Living Index (ACCRA)</i>	<i>Consumers Price Index (CPI – Bureau of Labor Statistics)</i>

### Current Statistics:

Cost of Living Index (ACCRA) – C2ER- The Council for Community and Economic Research

To provide a useful measurement of inter-city cost of living difference, the Youngstown/Warren Regional Chamber participates with 314 areas in the (ACCRA) Cost of Living Index produced by the Council for Community and Economic Research (C2ER). The Index, which measures differences in the cost of consumer goods and services, excluding taxes and non-consumer expenditures, is based on 60 items, for which prices are collected quarterly by the Chamber of Commerce in each city. Differences of three or fewer index points are not statistically significant. The following selected city indexes are based on a U.S. average of 100.

ACCRA Cost of Living Index – published November 2007

<b>MSA</b>	<b>TOTAL</b>	<b>FOOD</b>	<b>HOUSING</b>	<b>UTILITIES</b>	<b>TRANSP</b>	<b>HEALTH</b>	<b>MISC. GOODS/ SERVICES</b>
Rochester, NY	101.9	94.0	87.6	131.4	106.4	100.5	106.7
Cleveland, OH	99.6	105.9	90.7	113.1	104.6	101.7	98.8
Buffalo, NY	99.5	103.5	89.8	130.5	103.7	94.1	96.3
Peoria, IL	99.3	98.3	90.6	103.7	107.5	98.8	103.2
Syracuse, NY	98.8	98.5	82.6	122.5	100.8	93.4	105.1
Grand Rapids, MI	98.1	99.4	99.5	111.5	101.3	88.9	92.8
Erie, PA	96.5	99.2	83.6	127.8	99.8	96.3	95.9
Pittsburgh, PA	94.2	97.6	87.0	107.6	101.7	85.9	93.6
Evansville, IN	94.0	92.7	88.6	93.7	98.7	92.0	97.7
Springfield, IL	93.7	95.9	84.5	98.4	112.0	110.8	91.7
Lafayette, IN	93.4	95.3	78.6	104.2	114.4	103.3	94.2
South Bend, IN	93.4	93.1	82.4	98.2	102.0	95.1	98.2
Akron, OH	93.3	96.6	80.9	101.1	106.9	90.9	96.3
Rockford, IL	92.8	89.8	77.7	96.3	109.1	104.0	99.0
Terra Houte, IN	92.3	99.9	82.7	103.3	100.1	92.6	91.7
Dayton, OH	91.9	88.9	75.2	100.2	107.1	94.1	99.3
Muncie, IN	91.1	98.0	77.3	86.8	103.4	93.6	96.9
Charleston, WV	91.0	85.2	85.7	93.9	98.8	95.5	93.8
Youngstown/ Warren, OH	89.6	96.9	76.2	107.8	95.2	86.9	91.0
Fort Wayne, IN	89.0	90.6	84.5	93.8	105.2	95.2	85.3

## **Consumers Price Index (CPI – Bureau of Labor Statistics)**

### US City Average CPI-U

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	HALF1	HALF2
1993	142.6	143.1	143.6	144.0	144.2	144.4	144.4	144.8	145.1	145.7	145.8	145.8	144.5	143.7	145.3
1994	146.2	146.7	147.2	147.4	147.5	148.0	148.4	149.0	149.4	149.5	149.7	149.7	148.2	147.2	149.3
1995	150.3	150.9	151.4	151.9	152.2	152.5	152.5	152.9	153.2	153.7	153.6	153.5	152.4	151.5	153.2
1996	154.4	154.9	155.7	156.3	156.6	156.7	157.0	157.3	157.8	158.3	158.6	158.6	156.9	155.8	157.9
1997	159.1	159.6	160.0	160.2	160.1	160.3	160.5	160.8	161.2	161.6	161.5	161.3	160.5	159.9	161.2
1998	161.6	161.9	162.2	162.5	162.8	163.0	163.2	163.4	163.6	164.0	164.0	163.9	163.0	162.3	163.7
1999	164.3	164.5	165.0	166.2	166.2	166.2	166.7	167.1	167.9	168.2	168.3	168.3	166.6	165.4	167.8
2000	168.8	169.8	171.2	171.3	171.5	172.4	172.8	172.8	173.7	174.0	174.1	174.0	172.2	170.8	173.6
2001	175.1	175.8	176.2	176.9	177.7	178.0	177.5	177.5	178.3	177.7	177.4	176.7	177.1	176.6	177.5
2002	177.1	177.8	178.8	179.8	179.8	179.9	180.1	180.7	181.0	181.3	181.3	180.9	179.9	178.9	180.9
2003	181.7	183.1	184.2	183.8	183.5	183.7	183.9	184.6	185.2	185.0	184.5	184.3	184.0	183.3	184.6
2004	185.2	186.2	187.4	188.0	189.1	189.7	189.4	189.5	189.9	190.9	191.0	190.3	189.9	187.6	190.2
2005	190.7	191.8	193.3	194.6	194.4	194.5	195.4	196.4	198.8	199.2	197.6	196.8	195.3	193.2	197.4
2006	198.3	198.7	199.8	201.5	202.5	202.9	203.5	203.9	202.9	201.8	201.5	20.18	201.6	200.6	202.6
2007	202.416	203.499	205.352	206.686	207.949	208.352	208.299	207.917	208.490	208.936	210.177	210.036	207.342	205.709	208.976
2008	211.080	211.693	213.538	214.823	216.632	218.815	219.964	219.086	218.783						

### Cleveland CPI-U

Year	Jan	Mar	May	Jul	Sep	Nov	Annual	HALF1	HALF2
1993	137.5	138.8	139.6	140.9	141.7	142.1	140.3	138.9	141.7
1994	142.4	143.3	143.7	143.7	146.3	146.0	144.4	143.2	145.6
1995	146.6	147.3	147.4	148.1	149.0	148.2	147.9	147.2	148.5
1996	149.0	150.9	151.8	152.1	153.5	153.8	152.0	150.8	153.3
1997	153.8	155.4	155.6	156.3	157.3	157.1	156.1	155.1	157.0
1998	158.2	158.6	159.2	159.9	161.5	160.8	159.8	158.8	160.8
1999	160.6	161.2	161.5	162.8	164.2	163.8	162.5	161.3	163.7
2000	164.5	166.9	166.6	168.3	170.5	169.4	168.0	166.3	169.6
2001	171.3	172.3	173.7	173.4	174.6	172.3	172.9	172.6	173.3
2002	171.4	173.7	173.0	173.4	174.6	173.4	173.3	172.9	173.8
2003	173.5	175.4	175.1	176.0	178.5	177.6	176.2	174.9	177.6
2004	178.4	180.0	181.3	181.7	183.8	183.2	181.6	180.2	183.0
2005	183.3	186.3	186.8	187.8	191.6	189.9	187.9	185.8	190.0
2006	190.3	190.7	192.4	193.1	190.7	189.4	191.1	191.4	190.9
2007	191.610	194.244	196.216	197.010	197.000	197.726	195.970	194.472	197.467
2008	199.686	202.500	204.882	206.941	206.219				

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## Frequently Asked Questions

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## What is the Cost of Living Index?

C2ER-the Council for Community and Economic Research produces the *ACCRA Cost of Living Index* to provide a useful and reasonably accurate measure of living cost differences among urban areas. Items on which the Index is based have been carefully chosen to reflect the different categories of consumer expenditures. Weights assigned to relative costs are based on government survey data on expenditure patterns for midmanagement households. All items are priced in each place at a specified time and according to standardized specifications.

## How do I interpret the Index?

The *ACCRA Cost of Living Index* measures relative price levels for consumer goods and services in participating areas. The average for all participating places in each

quarter equals 100, and each participant's index is read as a percentage of the average for all participating places.

## **Is the Cost of Living Index the same thing as inflation?**

No. Inflation measures price change over time within a single geographic area, but provides no gauge of how prices compare among areas. The *ACCRA Cost of Living Index* measures differences in prices among areas at a single point in time, but provides no information about how rapidly prices are changing within any area.

For additional information about the ACCRA Cost of Living Survey, contact  
ACCRA COLI Orders  
P.O. Box 100127  
Arlington, VA 22210  
703-522-4980  
Fax 703-522-4985

Source: C2ER: Accra Cost of Living Index website <http://www.coli.org/>

What is the Consumer Price Index (CPI)?

The Consumer Price Index (CPI) is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services.

## **How is the Consumer Price Index (CPI) used?**

The [CPI](#) affects nearly all Americans because of the many ways it is used. Three major uses are:

*As an economic indicator:* The CPI is the most widely used measure of inflation and is sometimes viewed as an indicator of the effectiveness of government economic policy. It provides information about price changes in the nation's economy to government, business, labor, and other private citizens, and is used by them as a guide to making economic decisions. In addition, the President, Congress, and the Federal Reserve Board use trends in the CPI to aid in formulating fiscal and monetary policies.

*As a deflator of other economic series:* The CPI and its components are used to adjust other economic series for price changes and to translate these series into inflation-free dollars. Examples of series adjusted by the CPI include retail sales, hourly and weekly earnings, and components of the national income and product accounts. An interesting example of this is the use of the CPI as a deflator of the value of the consumer's dollar to find its purchasing power. The purchasing power of the consumer's dollar measures the change in the value to the consumer of goods and services that a dollar will buy at different dates. In other words, as prices increase, the purchasing power of the consumer's dollar declines.

*As a means of adjusting dollar values:* The CPI is often used to adjust consumers' income payments, (for example, Social Security); to adjust income eligibility levels for government assistance; and to automatically provide cost-of-living wage adjustments to millions of American workers. The CPI affects the income of about 80 million persons as a result of statutory action: 48.4 million Social Security beneficiaries, about 19.8 million food stamp recipients, and about 4.2 million military and federal Civil Service retirees and survivors. Changes in the CPI also affect the cost of lunches for 26.5 million children who eat lunch at school, while collective bargaining agreements that tie wages to the CPI cover over 2 million workers. Another example of how dollar values may be adjusted is the use of the CPI to adjust the federal income tax structure. These adjustments prevent inflation-induced increases in tax rates, an effect called "bracket creep".

## **Is the Consumer Price Index (CPI) a cost-of-living index?**

The [CPI](#) frequently is called a cost-of-living index, but it differs in important ways from a complete cost-of-living measure. The Bureau of Labor Statistics (BLS) has for some time used a cost-of-living framework in making practical decisions about

questions that arise in constructing the CPI. A cost-of-living index is a conceptual measurement goal, however, not a straightforward alternative to the CPI. A cost-of-living index would measure changes over time in the amount that consumers need to spend to reach a certain "utility level" or "standard of living." Both the CPI and a cost-of-living index would reflect changes in the prices of goods and services, such as food and clothing, that are directly purchased in the marketplace; but a complete cost-of-living index would go beyond this to also take into account changes in other governmental or environmental factors that affect consumers' well-being. It is very difficult to determine the proper treatment of public goods, such as safety and education, and other broad concerns, such as health, water quality, and crime that would comprise a complete cost-of-living framework.

Traditionally, the CPI was considered an upper bound to a cost-of-living index in that the CPI did not reflect the changes in buying or consumption patterns that consumers would make to adjust to relative price changes. The ability to substitute means that the increase in the cost to consumers of maintaining their level of well-being tends to be somewhat less than the increase in the cost of the mix of goods and services they previously purchased.

Since January 1999, a geometric mean formula has been used to calculate most basic indexes within the CPI; in other words, the prices within most item categories (e.g., apples) are averaged using a geometric mean formula. This improvement moves the CPI somewhat closer to a cost-of-living measure, as the geometric mean formula allows for a modest amount of consumer substitution as relative prices within item categories change.

Since the geometric mean formula is used only to average prices within item categories, it does not account for consumer substitution taking place between item categories. For example, if the price of pork increases compared to those of other meats, shoppers might shift their purchases away from pork to beef, poultry, or fish. The CPI formula does not reflect this type of consumer response to changing relative prices. In 2002, as a complement to the CPI-U and CPI-W, BLS began producing a new index intended to more closely approximate a cost-of-living index by reflecting substitution among item categories. It is unlikely, however, that the difficult problems of defining living standards and measuring changes in the cost of their attainment over time will ever be resolved completely.

## **What goods and services does the Consumer Price Index (CPI) cover?**

The [CPI](#) represents all goods and services purchased for consumption by the reference population (Consumer Price Index for All Urban Consumers or Consumer Price Index for Urban Wage Earners and Clerical Workers). The Bureau of Labor Statistics (BLS) has classified all expenditure items into more than 200 categories, arranged into eight major groups. Major groups and examples of categories in each are as follows:

- **FOOD AND BEVERAGES** (breakfast cereal, milk, coffee, chicken, wine, full service meals and snacks);

- HOUSING (rent of primary residence, owners' equivalent rent, fuel oil, bedroom furniture);
- APPAREL (men's shirts and sweaters, women's dresses, jewelry);
- TRANSPORTATION (new vehicles, airline fares, gasoline, motor vehicle insurance);
- MEDICAL CARE (prescription drugs and medical supplies, physicians' services, eyeglasses and eye care, hospital services);
- RECREATION (televisions, cable television, pets and pet products, sports equipment, admissions);
- EDUCATION AND COMMUNICATION (college tuition, postage, telephone services, computer software and accessories);
- OTHER GOODS AND SERVICES (tobacco and smoking products, haircuts and other personal services, funeral expenses).

Also included within these major groups are various government-charged user fees, such as water and sewerage charges, auto registration fees, and vehicle tolls. The CPI also includes taxes, such as sales and excise taxes, that are directly associated with the prices of specific goods and services. However, the CPI excludes taxes, such as income and Social Security taxes, not directly associated with the purchase of consumer goods and services.

The CPI does not include investment items, such as stocks, bonds, real estate, and life insurance. (These items relate to savings and not to day-to-day consumption expenses.)

For each of the more than 200 item categories, BLS has chosen samples of several hundred specific items within selected business establishments frequented by consumers, using scientific statistical procedures, to represent the thousands of varieties available in the marketplace. For example, in a given supermarket, BLS may choose a plastic bag of golden delicious apples, U.S. extra fancy grade, weighing 4.4 pounds to represent the "Apples" category.

## **Can the Consumer Price Index (CPI) for individual areas be used to compare living costs among the areas?**

No, an individual area index measures how much prices have changed over a specific time period in that particular area. It does not show whether prices or living costs are higher or lower in that area relative to another. In general, the composition of the market basket and relative prices of goods and services in the market basket during the expenditure base period vary substantially across areas.

## Is the Consumer Price Index (CPI) the best measure of inflation?

Inflation has been defined as a process of continuously rising prices, or equivalently, of a continuously falling value of money.

Various indexes have been devised to measure different aspects of inflation. The [CPI](#) measures inflation as experienced by consumers in their day-to-day living expenses; the [Producer Price Index \(PPI\)](#) measures inflation at earlier stages of the production and marketing process; the [Employment Cost Index \(ECI\)](#) measures it in the labor market; the Bureau of Labor Statistics' [International Price Program](#) measures it for imports and exports; and the Gross Domestic Product Deflator (GDP-Deflator) measures combine the experience with inflation of governments (Federal, State and local), businesses, and consumers. Finally, there are specialized measures, such as measures of interest rates and measures of consumers' and business executives' inflation expectations.

The "best" measure of inflation for a given application depends on the intended use of the data. The CPI is generally the best measure for adjusting payments to consumers when the intent is to allow consumers to purchase, at today's prices, a market basket of goods and services equivalent to one that they could purchase in an earlier period. It is also the best measure to use to translate retail sales and hourly or weekly earnings into real or inflation-free dollars.

## How do I use the Consumer Price Index (CPI) for escalating contracts?

The [CPI](#) measures the average change in the prices paid for a market basket of goods and services. These items are purchased for consumption by the two groups covered by the index: All Urban Consumers (CPI-U) and Urban Wage Earners and Clerical Workers, (CPI-W).

Escalation agreements often use the CPI—the most widely used measure of price change—to adjust payments for changes in prices. The most frequently used escalation applications are in private sector collective bargaining agreements, rental contracts, insurance policies with automatic inflation protection, and alimony and child support payments.

The following are general guidelines to consider when developing an escalation agreement using the CPI:

DEFINE clearly the base payment (rent, wage rate, alimony, child support, or other value) that is subject to escalation.

IDENTIFY precisely which CPI index series will be used to escalate the base payment. This should include: The population coverage (CPI-U or CPI-W), area coverage (U.S. City Average, West Region, Chicago, etc.), series title (all items, rent of primary residence, etc.), and index base period (1982-84=100).

SPECIFY a reference period from which changes in the CPI will be measured. This is usually a single month (the CPI does not correspond to a specific day or week of the month) or an annual average. There is about a 2-week lag from the reference month to the date on which the index is released (e.g., the CPI for May is released in mid-June). The CPI's for most metropolitan areas are not published as frequently as are the data for the U.S. City Average and the 4 regions. Indexes for the U.S. City Average, the 4 regions, 3 city-size classes, 10 region-by-size classes, and 3 major metropolitan areas (Chicago, Los Angeles, and New York) are published monthly. Indexes for the remaining 23 published metropolitan areas are available only on a bimonthly or semiannual basis. Contact the BLS address at the end of this fact sheet for information on the frequency of publication for the 26 metropolitan areas.

STATE the frequency of adjustment. Adjustments are usually made at fixed time intervals, such as quarterly, semiannually, or, most often, annually.

DETERMINE the formula for the adjustment calculation. Usually the change in payments is directly proportional to the percent change in the CPI index between two specified time periods. Consider whether to make an allowance for a "cap" that places an upper limit to the increase in wages, rents, etc., or a "floor" that promises a minimum increase regardless of the percent change (up or down) in the CPI.

PROVIDE a built-in method for handling situations that may arise because of major CPI revisions or changes in the CPI index base period. The Bureau always provides timely notification of upcoming revisions or changes in the index base.

#### **The CPI and escalation: Some points to consider**

The CPI is calculated for two population groups: All Urban Consumers (CPI-U) and Urban Wage Earners and Clerical Workers (CPI-W). The CPI-U represents about 87 percent of the total U.S. population and is based on the expenditures of *all* families living in urban areas. The CPI-W is a subset of the CPI-U and is based on the expenditures of families living in urban areas who meet additional requirements related to employment: more than one-half of the family's income has to be earned from clerical or hourly-wage occupations. The CPI-W represents about 32 percent of the total U.S. population.

There can be small differences in movement of the two indexes over short periods of time because differences in the spending habits of the two population groups result in slightly different weighting. The long-term movements in the indexes are similar. CPI-U and CPI-W indexes are calculated using measurement of price changes for goods and services with the same specifications and from the same retail outlets. The CPI-W is used for escalation primarily in blue-collar cost-of-living adjustments (COLA's). Because the CPI-U population coverage is more comprehensive, it is used in most other escalation agreements.

The 26 metropolitan areas for which BLS publishes separate index series are by-products of the U.S. City Average index. Metropolitan area indexes have a relatively small sample size and, therefore, are subject to substantially larger sampling errors. Metropolitan area and other sub-components of the national indexes (regions, size-classes) often exhibit greater volatility than the national index. BLS strongly recommends that users adopt the U.S. City Average CPI for use in escalator clauses.

The U.S. City Average CPI's are published on a seasonally adjusted basis as well as on an unadjusted basis. The purpose of seasonal adjustment is to remove the estimated effect of price changes that normally occur at the same time and in about the same magnitude every year (e.g., price movements due to the change in weather patterns, model change-overs, holidays, end-of-season sales, etc.). The primary use of seasonally adjusted data is for current economic analysis. In addition, the factors that are used to seasonally adjust the data are updated annually. Also, seasonally adjusted data that have been published earlier are subject to revision for up to 5 years after their original release. For these reasons, the use of seasonally adjusted data in escalation agreements is inappropriate.

Escalation agreements using the CPI usually involve changing the base payment by the percent change in the level of the CPI between the reference period and a subsequent time period. This is calculated by first determining the index point change between the two periods and then the percent change. The following example illustrates the computation of percent change:

CPI for current period	136.0
Less CPI for previous period	129.9
Equals index point change	6.1
Divided by previous period CPI	129.9
Equals	0.047
Result multiplied by 100	0.047 x 100
Equals percent change	4.7

The Bureau of Labor Statistics neither encourages nor discourages the use of price adjustment measures in contractual agreements. Also, while BLS can provide technical and statistical assistance to parties developing escalation agreements, we can neither develop specific wording for contracts nor mediate legal or interpretive disputes which might arise between the parties to the agreement.

For any additional information about the CPI, please call (202) 691-7000, or write to:

Bureau of Labor Statistics, Office of Prices and Living Conditions  
 2 Massachusetts Avenue, NE., Room 3615  
 Washington, DC 20212-0001

Source: Bureau of Labor Statistics – Frequently Asked Questions - <http://www.bls.gov/dolfaq/blsfaqtoc.htm>