# **CPI Summary of Calculations**

### **Detroit/Ann Arbor/Flint**

- 2015-2016 (Dec-Dec) = 2.4%;
- 2016-2017 (Dec-Aug) = 1.7%
- Avg = 2.05%

### **Midwest Regional**

- 2015-2016 (Dec-Dec) = 1.8%;
- 2016-2017 (Dec-Aug) = 1.6%
- Avg = 1.7%

### National

- 2015-2016 (Dec-Dec) = 2.1%
- 2016-2017 (Dec-Aug) = 1.7%
- Avg = 1.9%

### Bureau of Labor Statistics

## CPI-All Urban Consumers (Current Series) Original Data Value

Series Id:	CUUR0000SA0
Not Seasonally Adjuste	ed
Series Title:	All items in U.S. city average, all urban
Area:	U.S. city average
Item:	All items
Base Period:	1982-84=100
Years:	2015 to 2017

	Year	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	HALF1	HALF2
2015		233.707	234.722	236.119	236.599	237.805	238.638	238.654	238.316	237.945	237.838	237.336	236.525	236.265	237.769
2016		236.916	237.111	238.132	239.261	240.229	241.018	240.628	240.849	241.428	241.729	241.353	241.432	238.778	241.237
2017		242.839	243.603	243.801	244.524	244.733	244.955	244.786	245.519					244.076	

### CPI-All Urban Consumers (Current Series) Original Data Value

Series Id:CUUR0200SA0Not Seasonally AdjustSeries Title:All items in Midwest urban, all urban consumers,Area:Midwest urbanItem:All itemsBase Period:1982-84=100Years:2015 to 2017

	Year	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	HALF1	HALF2
2015		221.545	222.301	223.550	223.797	224.732	225.946	225.853	225.830	225.184	225.050	224.009	222.722	224.210	223.645	224.775
2016		223.301	223.196	224.621	225.609	226.476	227.835	226.786	227.097	227.636	227.358	226.673	226.794	226.115	225.173	227.057
2017		228.279	228.633	228.824	229.682	229.705	229.780	229.820	230.443						229.151	

## CPI-All Urban

Series Title	All items in Detroit-Ann Arbor-Flint, MI, all urban consumers, not seasonally adjusted
Series ID	CUURA208SA0
Seasonality	Not Seasonally Adjusted
Survey Name	CPI-All Urban Consumers (Current Series)
Measure Data Type	All items
Area	Detroit-Ann Arbor-Flint, MI
Item	All items

Year	Period	Label	Observation Value
2015	M02	2015 Feb	216.488
2015	M04	2015 Apr	219.005
2015	M06	2015 Jun	219.034
2015	M08	2015 Aug	220.249
2015	M10	2015 Oct	220.506
2015	M12	2015 Dec	217.764
2016	M02	2016 Feb	218.360
2016	M04	2016 Apr	221.412
2016	M06	2016 Jun	224.070
2016	M08	2016 Aug	223.894
2016	M10	2016 Oct	224.271
2016	M12	2016 Dec	222.983
2017	M02	2017 Feb	224.957
2017	M04	2017 Apr	226.484
2017	M06	2017 Jun	226.525
2017	M08	2017 Aug	226.759



## **Consumer Price Index**

## How to Use the Consumer Price Index for Escalation

The Consumer Price Index (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 the base payment

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

### Identify which CPI series will be used

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 reference period

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 two-week lag from the reference month to the date on which the index is released (that is, the CPI for May is released in mid-June). The CPIs for most metropolitan areas are not published as frequently as are the data for the U.S. City Average and the four regions. Indexes for the U.S. City Average, the four regions, three city-size classes, ten region-by-size classes, and three major metropolitan areas (Chicago, Los Angeles, and New York) are published monthly. Indexes for the remaining 24 published metropolitan areas are available only on a bimonthly or semiannual basis. Contact BLS for information on the frequency of publication for the 27 metropolitan areas.

### State frequency of adjustment

Adjustments are usually made at fixed intervals, such as quarterly, semiannually, or, most often, annually.

### Determine adjustment formula

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 periods. Consider whether to make an allowance for a "cap" that places an upper limit on 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 for revisions**

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 89 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 is earned from clerical or hourly-wage occupations. The CPI-W represents about 28 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 of 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 (COLAs). Because the CPI-U population coverage is more comprehensive, it is used in most other escalation agreements.

The 27 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 subcomponents of the national indexes (regions, size-classes) often exhibit greater volatility than the national index. BLS recommends that users adopt the U.S. City Average CPI for use in escalator clauses.

The U.S. City Average CPIs 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, holidays, model change-overs, 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 and seasonally adjusted data 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 period. This is calculated by first determining the index point change between the two periods and then determining the percent change. The following example illustrates the computation of a percent change:

CPI for current period	232.945
Less CPI for previous period	229.815
Equals index point change	3.130
Divided by previous period CPI	229.815
Equals	0.0136
Result multiplied by 100	0.0136 x 100
Equals percent change	1.4%

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.

Additional information may be obtained from the Consumer Price Index Information Office at <u>cpi\_info@bls.gov</u> or 202-691-7000. Information on the CPI's overall methodology can be found in <u>Chapter 17</u> of the BLS Handbook of Methods.

Last Modified Date: August 14, 2017

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www.bls.gov/CPI | Telephone: 1-202-691-7000 | Contact CPI

https://data.bls.gov/cgi-bin/print.pl/cpi/factsheets/escalation.htm

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### CPI up 2.1 percent over the 12 months ending December 2016

JANUARY 23, 2017

From December 2015 to December 2016, the Consumer Price Index for All Urban Consumers (CPI-U) all items index rose 2.1 percent. Prices for energy were up 5.4 percent over the year and prices for medical care increased 4.1 percent. Since 1996, the December-to-December change in the all items index has averaged 2.2 percent, while the price change for energy and medical care averaged 3.7 percent and 3.6 percent, respectively.

CHART IMAGE CHART DATA

Year	All items	Energy	Apparel	Education and communication services <sup>(1)</sup>	Food	Housing	Medical care	Recreation	Transportation	Public transportation
1996	3.3%	8.6%	-0.2%		4.3%	2.9%	3.0%	3.0%	4.4%	11.2%
1997	1.7	-3.4	1.0		1.5	2.4	2.8	1.5	-1.4	-2.9
1998	1.6	-8.8	-0.7		2.3	2.3	3.4	1.2	-1.7	2.2
1999	2.7	13.4	-0.5		1.9	2.2	3.7	0.8	5.4	6.8
2000	3.4	14.2	-1.8		2.8	4.3	4.2	1.7	4.1	4.1
2001	1.6	-13.0	-3.2		2.8	2.9	4.7	1.5	-3.8	-2.2
2002	2.4	10.7	-1.8		1.5	2.4	5.0	1.1	3.8	-0.9
2003	1.9	6.9	-2.1		3.6	2.2	3.7	1.1	0.3	1.3
2004	3.3	16.6	-0.2		2.7	3.0	4.2	0.7	6.5	-0.1
2005	3.4	17.1	-1.1		2.3	4.0	4.3	1.1	4.8	5.9
2006	2.5	2.9	0.9		2.1	3.3	3.6	1.0	1.6	0.1
2007	4.1	17.4	0.3		4.9	3.0	5.2	0.8	. 8.3	7.2
2008	0.1	-21.3	-1.0		5.9	2.4	2.6	1.8	-13.3	1.8
2009	2.7	18.2	1.9		-0.5	-0.3	3.4	-0.4	14.4	3.2
2010	1.5	7.7	-1.1	1.7	1.5	0.3	3.3	-0.8	5.3	4.9
2011	3.0	6.6	4.6	2.2	4.7	1.9	3.5	1.0	5.2	3.8
2012	1.7	0.5	1.8	1.9	1.8	1.7	3.2	0.8	1.6	2.4
2013	1.5	0.5	0.6	2.0	1.1	2.2	2.0	0.4	0.5	-0.1
2014	0.8	-10.6	-2.0	0.9	3.4	2.5	3.0	0.0	-6.2	-2.9
2015	0.7	-12.6	-0.9	1.9	0.8	2.1	2.6	0.7	-4.1	-1.0
2016	2.1	5.4	-0.1	0.1	-0.2	3.0	4.1	0.8	2.5	-2.3

### December 12-month consumer price index percent change for selected categories, 1996–2016

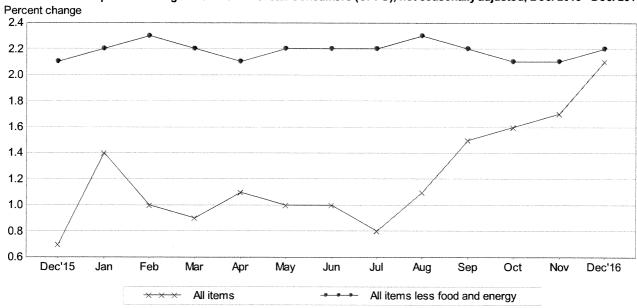


Chart 2. 12-month percent change in CPI for All Urban Consumers (CPI-U), not seasonally adjusted, Dec. 2015 - Dec. 2016

Table A. Percent changes in CPI for All Urban Consumers (CPI-U): U.S. city average

		Season	ally adjusted	changes fro	om preceding	month		Un-
	June 2016	July 2016	Aug. 2016	Sep. 2016	Oct. 2016	Nov. 2016	Dec. 2016	adjusted 12-mos. ended Dec. 2016
All items	.2	.0	.2	.3	.4	.2	.3	2.1
Food	1	.0	.0	.0	.0	.0	.0	2
Food at home	3	2	2	1	2	1	2	-2.0
Food away from home 1	.2	.2	.2	.2	.1	.1	.2	2.3
Energy	1.3	-1.6	.0	2.9	3.5	1.2	1.5	5.4
Energy commodities	3.3	-4.4	9	5.5	6.7	2.5	3.0	9.0
Gasoline (all types)	3.3	-4.7	9	5.8	7.0	2.7	3.0	9.1
Fuel oil 1	3.3	-1.3	-2.5	2.4	5.9	-1.2	6.0	12.7
Energy services	5	1.0	.8	.7	.5	1	1	2.2
Electricity	5	.5	.5	.7	.4	.0	.0	.7
Utility (piped) gas service	4	3.1	2.1	.8	.9	4	4	7.8
All items less food and energy	.2	.1	.3	.1	.1	.2	.2	2.2
Commodities less food and energy								
commodities	3	1	.1	1	.1	3	.0	6
New vehicles	2	.2	.0	1	.2	1	.1	.3
Used cars and trucks	-1.1	-1.0	6	3	1	.3	.5	-3.5
Apparel	4	.0	.2	7	.3	5	7	1
Medical care commodities	.8	.5	1.4	.6	.1	5	.4	4.7
Services less energy services	.3	.2	.3	.2	.2	.3	.3	3.1
Shelter	.3	.2	.3	.4	.4	.3	.3	3.6
Transportation services	.3	2	.1	.0	2	.4	.6	2.8
Medical care services	.2	.5	1.0	.0	.0	.2	.1	3.9

<sup>1</sup> Not seasonally adjusted.

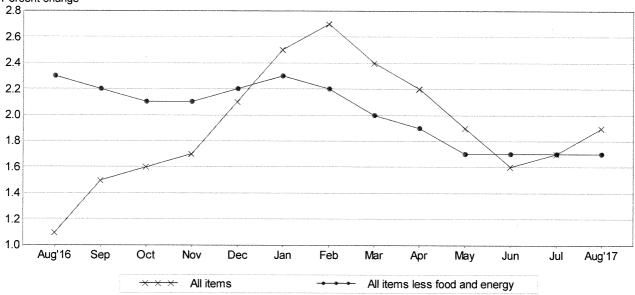


Chart 2. 12-month percent change in CPI for All Urban Consumers (CPI-U), not seasonally adjusted, Aug. 2016 - Aug. 2017 Percent change 2.8

Table A. Percent changes in CPI for All Urban Consumers	(CPI-U	): U.S. city average
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		Season	ally adjuste	d changes fro	om precedin	g month		Un-
	Feb. 2017	Mar. 2017	Apr. 2017	May 2017	June 2017	July 2017	Aug. 2017	adjusted 12-mos. ended Aug. 2017
All items Food at home Food at home Food away from home 1 Energy Energy commodities Gasoline (all types) Fuel oil 1 Energy services Electricity Utility (piped) gas service All items less food and energy Commodities New vehicles Used cars and trucks Apparel Medical care commodities Services less energy services	.3 .2 -1.0 -2.8 -3.0 4 1.0 .8 1.5 .2 .0 2 6	3 .5 .2 -3.2 -6.0 -6.2 8 3 1 3 3 3 7 .2 1	.2 .2 .2 1.1 1.3 1.2 3 .9 .6 2.2 .1 2 3 3 3 .1	1 .2 .1 .2 -2.7 -6.2 -6.4 -2.8 .7 .3 1.9 .1 3 2 8 .4 .2	.0 .0 -1.6 -2.7 -2.8 -3.7 5 6 2 .1 1 1 1 .7 .2	.1 .2 .2 .2 .1 .0 .0 -2.0 -2.0 -2.2 .4 -2.3 .1 1 5 5 .3 1.0 .2	.4 .1 -2 .3 2.8 6.1 6.3 2.9 -1 .0 5 .2 1 .0 5 .2 .1 .0 1 .4	1.9 1.1 .3 2.2 6.4 10.3 10.4 9.4 2.9 2.3 5.4 1.7 9 7 3.8 6 2.4 2.5
Shelter Transportation services Medical care services	.3 .7 .2	.1 .4 .1	.3 2 .0	.2 .3 1	.2 .2 .3	.1 .2 .3	.5 .4 .2	3.3 3.5 1.6

<sup>1</sup> Not seasonally adjusted.

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U.S. City Average <u>Midwest region</u> <sup>(1)</sup> Midwest City Size Class A (over 1.5 million) B/C (50,000-1.5 milli D (less than 50,000) Metropolitan areas <u>Chicago-Gary-Kenosha, I</u> <u>Cincinnati-Hamilton, OH-</u> <u>Cleveland-Akron, OH(4)</u> <u>Detroit-Ann Arbor-Flint, N</u> <u>Milwaukee-Racine, WI(3)</u> <u>Minneapolis-St. Paul, MN</u> Footnotes (1) The Midwest region include	on) <sup>(2)</sup>		226.115 226.632 145.227	229.820 230.957 147.090	230.443 231.441 147.606	0.8 0.9 0.7	1.3 1.7 0.9	1.5 1.7 1.2
Midwest City Size Class A (over 1.5 million) B/C (50,000-1.5 milli D (less than 50,000) Metropolitan areas Chicago-Gary-Kenosha, I Cincinnati-Hamilton, OH- Cleveland-Akron, OH(4) Detroit-Ann Arbor-Flint, M Milwaukee-Racine, WI(3) Minneapolis-St. Paul, MN Footnotes (1) The Midwest region include	on) <sup>(2)</sup>		226.632 145.227	230.957 147.090	231.441 147.606	0.9 0.7	1.7 0.9	1.7
A (over 1.5 million) B/C (50,000-1.5 milli D (less than 50,000) Metropolitan areas Chicago-Gary-Kenosha, I Cincinnati-Hamilton, OH- Cleveland-Akron, OH(4) Detroit-Ann Arbor-Flint, N Milwaukee-Racine, WI(3) Minneapolis-St. Paul, MN Footnotes (1) The Midwest region include	on) <sup>(2)</sup>		145.227	147.090	147.606	0.7	0.9	1.2
B/C (50,000-1.5 milli D (less than 50,000) Metropolitan areas <u>Chicago-Gary-Kenosha, I</u> <u>Cincinnati-Hamilton, OH-</u> <u>Cleveland-Akron, OH(4)</u> <u>Detroit-Ann Arbor-Flint, N</u> <u>Milwaukee-Racine, WI(3)</u> <u>Minneapolis-St. Paul, MN</u> Footnotes (1) The Midwest region include			145.227	147.090	147.606	0.7	0.9	1.2
D (less than 50,000) Metropolitan areas Chicago-Gary-Kenosha, I Cincinnati-Hamilton, OH- Cleveland-Akron, OH <sup>(4)</sup> Detroit-Ann Arbor-Flint, M Milwaukee-Racine, WI <sup>(3)</sup> Minneapolis-St. Paul, MN Footnotes (1) The Midwest region include		Æ						
Metropolitan areas <u>Chicago-Gary-Kenosha, I</u> <u>Cincinnati-Hamilton, OH-</u> <u>Cleveland-Akron, OH(4)</u> <u>Detroit-Ann Arbor-Flint, N</u> <u>Milwaukee-Racine, WI(3)</u> <u>Minneapolis-St. Paul, MN</u> Footnotes ( <u>1</u> ) The Midwest region include	L-IN-WI		223.151	226.194	226.956	0.9	0.9	1 2
Chicago-Gary-Kenosha, I Cincinnati-Hamilton, OH- Cleveland-Akron, OH(4) Detroit-Ann Arbor-Flint, N Milwaukee-Racine, WI(3) Minneapolis-St. Paul, MN Footnotes (1) The Midwest region include	L-IN-WI							1.5
Cincinnati-Hamilton, OH- Cleveland-Akron, OH(4) Detroit-Ann Arbor-Flint, N Milwaukee-Racine, WI(3) Minneapolis-St. Paul, MN Footnotes (1) The Midwest region include	L-IN-WI							
Cleveland-Akron, OH <sup>(4)</sup> Detroit-Ann Arbor-Flint, N Milwaukee-Racine, WI(3) Minneapolis-St. Paul, MN Footnotes (1) The Midwest region include		1	229.302	233.514	234.200	0.7	2.2	2.3
Detroit-Ann Arbor-Flint, M Milwaukee-Racine, WI(3) Minneapolis-St. Paul, MN Footnotes (1) The Midwest region include	<u>KY-IN(3)</u>	JA-	226.399			1.4		
Milwaukee-Racine, WI <sup>(3)</sup> Minneapolis-St. Paul, MN Footnotes (1) The Midwest region include		M	220.896	223.529		0.2	0.7	
Minneapolis-St. Paul, MN Footnotes (1) The Midwest region include	<u>41</u> (4)	M	222.167		226.759	1.6		1.3
Footnotes (1) The Midwest region include		Re la companya de la comp	227.885			0.6		
(1) The Midwest region include	<u>-WI(3)</u>	R	234.145			1.6		
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### Consumer Price Index Overview Table - Midwest

# Consumer Price Index for All Urban Consumers, all items, in the U.S., Midwest, and selected metropolitan areas, not seasonally adjusted (1982-84=100 unless otherwise noted)

		and the second second			Percent change			
Area		Annual			Annual average	12 months ended		
(Links provide news releases)	Back data	average 2016	Jul 2017	Aug 2017	2015 to 2016	Jul 2017	Aug 2017	
U.S. City Average	at the	240.007	244.786	245.519	1.3	1.7	1.9	
Midwest region <sup>(1)</sup>	1 A	226.115	229.820	230.443	0.8	1.3	1.5	
Midwest City Size Class (population)								
A (over 1.5 million)	W.	226.632	230.957	231.441	0.9	1.7	1.7	
B/C (50,000-1.5 million) <sup>(2)</sup>	M	145.227	147.090	147.606	0.7	0.9	1.2	
D (less than 50,000)	Le C	223.151	226.194	226.956	0.9	0.9	1.3	
Metropolitan areas		······						
Chicago-Gary-Kenosha, IL-IN-WI	6tr	229.302	233.514	234.200	0.7	2.2	2.3	
Cincinnati-Hamilton, OH-KY-IN(3)	store and the store stor	226.399			1.4			
Cleveland-Akron, OH(4)	M	220.896	223.529		0.2	0.7		
Detroit-Ann Arbor-Flint, MI(4)	6M	222.167		226.759	1.6		1.3	
Milwaukee-Racine, WI(3)	æ	227.885			0.6			
Minneapolis-St. Paul, MN-WI(3)	W.	234.145			1.6			

#### Footnotes

(1) The Midwest region includes Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. (2) December 1996=100.

(3) Published only as semi-annual (6-month) average.

(4) Published in alternate months.

Source: Consumer Price Index

The Consumer Price Index (CPI) measures changes in prices of all goods and services purchased for consumption by urban households.

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U.S. Bureau of Labor Statistics | Midwest Information Office, Suite 960, 230 South Dearborn Street, Chicago, IL 60604 <u>www.bls.gov/regions/midwest</u> | Telephone: 1-312-353-1880 | <u>Contact Midwest Region</u>

	2012		2013		2014		2015		2016	
Month	1-month	12- month								
March	1.0	2.8	0.2	1.4	0.9	1.5	0.6	-0.9	0.6	0.5
April	0.2	2.3	-0.1	1.2	0.3	1.9	0.1	-1.1	0.4	0.8
Мау	-0.1	1.5	0.5	1.8	0.2	1.6	0.4	-0.8	0.4	0.8
June	-0.1	1.4	0.3	2.2	0.5	1.7	0.5	-0.7	0.6	0.8
July	0.0	1.3	-0.4	1.8	-0.3	1.8	0.0	-0.5	-0.5	0.4
August	0.7	1.8	0.1	1.2	-0.2	1.6	0.0	-0.3	0.1	0.6
September	0.3	1.9	0.1	1.0	0.1	1.6	-0.3	-0.8	0.2	1.1
October	-0.3	2.2	-0.5	0.8	-0.5	1.6	-0.1	-0.3	-0.1	1.0
November	-0.4	1.8	-0.2	1.0	-0.6	1.2	-0.5	-0.2	-0.3	1.2
December	-0.2	1.8	-0.2	1.0	-0.7	0.7	-0.6	0.0	0.1	1.8

## Table A. Midwest region CPI-U 1-month and 12-month percent changes, all items index, not seasonally adjusted - Continued

# The January 2017 Consumer Price Index for the Midwest region is scheduled to be released on Wednesday, February 15, 2017.

## **Technical Note**

The Consumer Price Index (CPI) is a measure of the average change in prices over time in a fixed market basket of goods and services. The Bureau of Labor Statistics publishes CPIs for two population groups: (1) a CPI for All Urban Consumers (CPI-U) which covers approximately 89 percent of the total population and (2) a CPI for Urban Wage Earners and Clerical Workers (CPI-W) which covers approximately 28 percent of the total population. The CPI-U includes, in addition to wage earners and clerical workers, groups such as professional, managerial, and technical workers, the self-employed, short-term workers, the unemployed, and retirees and others not in the labor force.

The CPI is based on prices of food, clothing, shelter, and fuels, transportation fares, charges for doctors' and dentists' services, drugs, and the other goods and services that people buy for day-to-day living. Each month, prices are collected in 87 urban areas across the country from about 6,000 housing units and approximately 24,000 retail establishments--department stores, supermarkets, hospitals, filling stations, and other types of stores and service establishments. All taxes directly associated with the purchase and use of items are included in the index.

The index measures price changes from a designated reference date (1982-84) that equals 100.0. An increase of 16.5 percent, for example, is shown as 116.5. This change can also be expressed in dollars as follows: the price of a base period "market basket" of goods and services in the CPI has risen from \$10 in 1982-84 to \$11.65. For further details see the CPI home page on the Internet at www.bls.gov/cpi and the BLS Handbook of Methods, Chapter 17, The Consumer Price Index, available on the Internet at www.bls.gov/opub/hom/homch17\_a.htm.

In calculating the index, price changes for the various items in each location are averaged together with weights that represent their importance in the spending of the appropriate population group. Local data are then combined to obtain a U.S. city average. Because the sample size of a local area is smaller, the local area index is subject to substantially more sampling and other measurement error than the national index. In addition, local indexes are not adjusted for seasonal influences. As a result, local area indexes show greater

## U.S. Department of Labor Bureau of Labor Statistics Washington, D.C. 20212

AA 2016

## Consumer Price Index All Urban Consumers (CPI-U) Detroit-Ann Arbor-Flint, Mich. All Items 1982-84=100

				1902-04-100					_	-
										Change
Year	Jan	Apr	May Jun	Jul Aug	Sep Oct	Nov	Dec	Avg	DecDec.	and the second se
1995	147.3	148.1	148.3	148.8	149.8		150.3	148.6	3.3	3.2
1996	151.3	152.3	151.9	152.7	153.8		154.3	152.5	2.7	2.6
1997	155.4	156.0	155.0	156.9	157.9		157.1	156.3	1.8	2.5
1998	158.5	159.1	159.4	160.5	161.0		161.2	159.8	2.6	2.2
1999	161.2	164.1	163.8	164.2	165.9		165.6	163.9	2.7	2.6
2000	167.3	168.3	170.9	170.1	171.9		171.7	169.8	3.7	3.6
2001	173.2	174.5	175.8	175.1	174.8		173.5	174.4	1.0	2.7
2002	176.2	179.0	179.0	180.9	180.4		179.7	178.9	3.6	2.6
2003	182.4	182.2	182.8	183.6	183.3		181.3	182.5	0.9	2.0
2004	183.4	184.7	185.8	186.8	187.6		185.3	185.4	2.2	1.6
2005	187.8	189.8	189.6	192.2	195.1		192.4	190.8	3.8	2.9
2006	194.8	197.2	196.8	198.6	196.6		196.4	196.6	2.1	3.0
2007	198.064	200.418	201.585	199.679	201.786		200.201	200.129	1.9	1.8
2008	202.378	205.281	207.593	209.484	205.238		197.991	204.748	-1.1	2.3
2009	201.913	202.373	204.537	204.673	205.079		203.880	203.496	3.0	-0.6
2010	203.380	205.248	204.891	205.412	205.824		206.384	205.085	1.2	0.8
2011	206.816	211.673	213.506	213.924	212.927		213.505	211.760	3.5	3.3
2012	214.836	216.194	214.464	217.098	218.104		216.569	216.082	1.4	2.0
2013	218.893	218.904	221.607	220.000	219.685		218.217	219.481	0.8	1.6
2014	220.516	223.326	224.482	222.284	221.988	ł	218.083	221.784	-0.1	1.0
2015	216.488	219.005	219.034	220.249	220.506	i	217.764	218.706	-0.1	-1.4
2016	218.360	221.412	224.070	(r)223.894	224.271		222.983	222.167	2.4	1.5
2017	224.957	226.484	226.525	226.759						
(r) Revised	d.									

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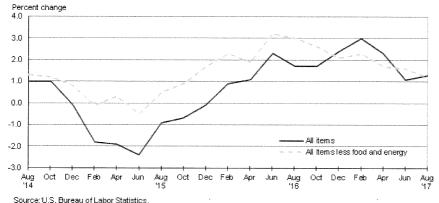
## Consumer Price Index, Detroit-Ann Arbor-Flint — August 2017

### Local prices rose 1.3 percent over the year

The Consumer Price Index for All Urban Consumers (CPI-U) in the Detroit-Ann Arbor-Flint area rose 0.1 percent from June to August, the U.S. Bureau of Labor Statistics reported today. Assistant Commissioner for Regional Operations Charlene Peiffer noted that the energy and food indexes increased 0.6 percent and 0.1 percent, respectively, over the bi-monthly period. The index for all items less food and energy increased 0.1 percent from June to August. Among the indexes within the all items less food and energy category, prices were higher for other goods and services, recreation, and shelter. (Data in this report are not seasonally adjusted. Accordingly, month-to-month changes may reflect the impact of seasonal influences.)

Over the past 12 months, the Detroit all items CPI-U increased 1.3 percent. (See <u>chart 1</u> and <u>table A</u>.) The food index decreased 0.2 percent, while the energy index rose 4.0 percent over the year, primarily due to increases in gasoline prices. The index for all items less food and energy rose 1.2 percent over the year. (See <u>table 1</u>.)

## Chart 1. Over-the-year percent change in CPI-U, Detroit, August 2014–August 2017



17-1239-CHI Thursday, September 14, 2017 Contacts Technical information: (312) 353-1880 BLSInfoChicago@bls.gov www.bls.gov/regions/midwest Media contact:

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Food

Food prices rose 0.1 percent from June to August. Of the two components within the food index, prices for food at home (groceries) fell 0.8 percent and prices for food away from home (restaurant, cafeteria, and vending purchases) rose 1.4 percent.

Over the year, food prices in the Detroit area declined 0.2 percent. Grocery prices fell 1.7 percent, while prices for food away from home rose 2.2 percent from August 2016.

### Energy

The energy index for Detroit increased 0.6 percent from June to August, primarily due to gasoline prices rising 1.7 percent. In contrast, utility (piped) gas service costs and electricity costs fell 0.6 percent and 0.1 percent, respectively.

From August 2016 to August 2017, overall energy prices rose 4.0 percent. Gasoline prices increased 9.1 percent over the year. The utility (piped) gas service index rose 4.6 percent, while the electricity index fell 3.0 percent.

### All items less food and energy

The index for all items less food and energy increased 0.1 percent from June to August. Among the index's components, prices were higher for other goods and services (2.6 percent), recreation (1.3 percent), and shelter (0.3 percent).

Over the year, the index for all items less food and energy rose 1.2 percent. Increases in the indexes for shelter (5.2 percent) and medical care (2.5 percent) were major contributing factors.

Month	2013		2014		2015		2016		2017	
	2-month	12-month								
February	1.1	1.9	1.1	0.7	-0.7	-1.8	0.3	0.9	0.9	3.0
April	0.0	1.3	1.3	2.0	1.2	-1.9	1.4	1.1	0.7	2.3
June	1.2	3.3	0.5	1.3	0.0	-2.4	1.2	2.3	0.0	1.1
August	-0.7	1.3	-1.0	1.0	0.6	-0.9	-0.1	1.7	0.1	1.3
October	-0.1	0.7	-0.1	1.0	0.1	-0.7	0.2	1.7		
December	-0.7	0.8	-1.8	-0.1	-1.2	-0.1	-0.6	2.4		

#### Table A. Detroit CPI-U 2-month and 12-month percent changes, all items index, not seasonally adjusted

#### The October 2017 Consumer Price Index for Detroit is scheduled to be released on Wednesday, November 15, 2017.

### Consumer Price Index Geographic Revision for 2018

In January 2018, BLS will introduce a new geographic area sample for the Consumer Price Index (CPI). As part of the new sample, the index for this area will be renamed. The first indexes using the new structure will be published in February 2018. Additional information on the geographic revision is available at: <a href="https://www.bls.gov/cpi/georevision2018.htm">www.bls.gov/cpi/georevision2018.htm</a>.

### **Technical Note**

The Consumer Price Index (CPI) is a measure of the average change in prices over time in a fixed market basket of goods and services. The Bureau of Labor Statistics publishes CPIs for two population groups: (1) a CPI for All Urban Consumers (CPI-U) which covers approximately 89 percent of the total population and (2) a CPI for Urban Wage Earners and Clerical Workers (CPI-W) which covers 28 percent of the total population. The CPI-U includes, in addition to wage earners and clerical workers, groups such as professional, managerial, and technical workers, the self-employed, short-term workers, the unemployed, and retirees and others not in the labor force..

The CPI is based on prices of food, clothing, shelter, and fuels, transportation fares, charges for doctors' and dentists' services, drugs, and the other goods and services that people buy for day-to-day living. Each month, prices are collected in 87 urban areas across the country from about 6,000 housing units and approximately 24,000 retail establishments--department stores, supermarkets, hospitals, filling stations, and other types of stores and service establishments. All taxes directly associated with the purchase and use of items are included in the index.

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In calculating the index, price changes for the various items in each location are averaged together with weights that represent their importance in the spending of the appropriate population group. Local data are then combined to obtain a U.S. city average. Because the sample size of a local area is smaller, the local area index is subject to substantially more sampling and other measurement error than the national index. In addition, local indexes are not adjusted for seasonal influences. As a result, local area indexes show greater volatility than the national index, although their long-term trends are quite similar. **Note: Area indexes do not measure differences in the level of prices between cities; they only measure the average change in prices for each area since the base period.** 

The **Detroit-Ann Arbor-Flint, Mich.** consolidated area covered in this release is comprised of Genesee, Lapeer, Lenawee, Livingston, Macomb, Monroe, Oakland, St. Clair, Washtenaw, and Wayne Counties in Michigan.

Information in this release will be made available to sensory impaired individuals upon request. Voice phone: (202) 691-5200; Federal Relay Service: (800) 877-8339.

Table 1. Consumer Price Index for All Urban Consumers (CPI-U): Indexes and percent changes for selected periods Detroit-Ann Arbor-Flint, MI (1982-84=100 unless otherwise noted)