

## 2.16 RESEARCH BRIEF

# Average American's cost of living falls

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Low inflation reduces many costs even as education and health-care expenses rise

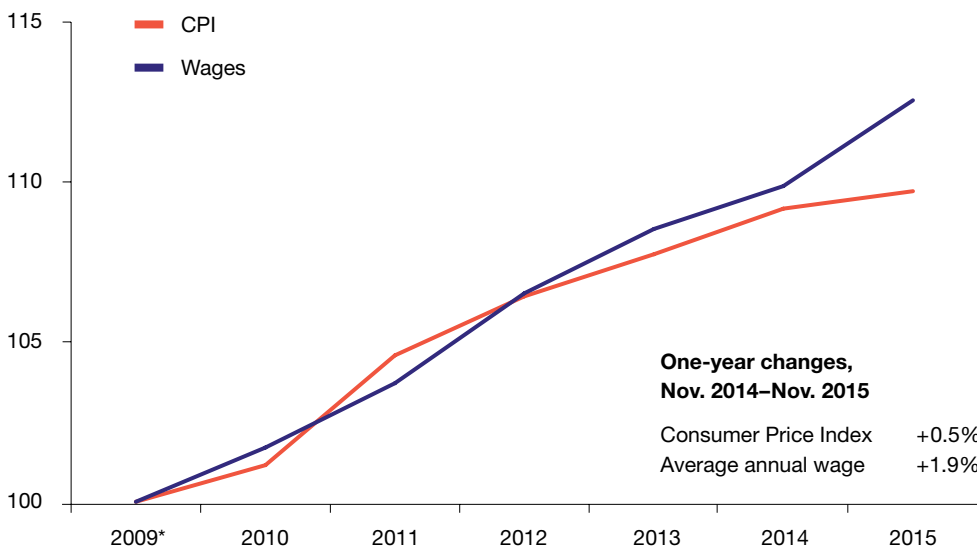
With energy prices and a strong dollar keeping inflation low, the average American's cost of living did not rise in 2015 and in fact fell relative to wages. As this research brief shows, however, some Americans are spending large amounts on services such as education and health care and have seen their cost of living continue to rise.

This research brief examines current trends in American households' cost of living. We begin by looking at trends

in inflation compared with wages. Next, we look at changes in costs faced by households and in product or service categories. Finally, we provide data that allow you to calculate the purchasing power of a dollar over several decades.

Inflation slowed during 2015, with the CPI increasing by only 0.5 percent for the 12 months ending Nov. 30, 2015. This figure actually represents a small year-end uptick, as 12-month changes earlier in the year were zero or even negative (<http://www.usinflationcalculator.com/inflation/current-inflation-rates/>). Low inflation is being driven by cheap oil and a strong U.S. dollar. Officially, the Federal Reserve has expressed confidence that inflation

**Chart 1.** Wages outpaced inflation in 2015, breaking a post-recession pattern



Sources: CPI – Bureau of Labor Statistics. Wages – St. Louis Federal Reserve

Notes: Values for CPI and wages are pegged to 100 in 2009. Values in subsequent years can be interpreted as percent changes from 2009. All variables reported as of end of November for each year. \*Great Recession ended June 2009

**Table 1.** How the cost of living affects three household profiles

Inflation Profile	Description	Total Inflation	
		Nov. 2014– Nov. 2015	Jan. 2000– Nov. 2015
<b>Price Indices</b>			
Consumer Price Index (CPI)	Common inflation measure calculated by Bureau of Labor Statistics	0.9%	45.5%
Everyday Price Index (EPI)	AIER’s measure of inflation for everyday spending	-1.4%	54.8%
<b>Typical household examples</b>			
Urban Renter	Starts with the EPI and removes gas, fuel oil, and propane. Adds shelter (rent) and airfare. Overweights food at a restaurant, alcohol, and public transportation.	2.1%	49.0%
Retired Couple	Starts with the EPI and removes fuel oil and propane. Adds medical-care services. Overweights prescription drugs and medical services. Underweights food at a restaurant and gas.	0.3%	53.2%
Young Family	Starts with the EPI and removes propane, gas service, and tobacco. Adds educational supplies, college tuition, child care, and miscellaneous professional fees. Overweights educational supplies, college tuition, child care, and fuel oil.	-1.0%	73.2%

Total inflation uses constant category weights as of November 2015. For this reason, total inflation figures will differ from published numbers that update category weights over time.

EPI includes non-prescription drugs, and data exist only back to 2010. For data prior to 2010, prescription drug price changes are used.

Sources: Bureau of Labor Statistics, author’s calculations.

will approach its 2 percent target in 2016, although some Fed policy makers have expressed concern that inflation may stay below that level.

Chart 1 compares changes in the CPI with wages over one year and since 2009. Wages outpaced inflation in 2015, after moving largely in tandem since the end of the Great Recession in June 2009.

Overall, the past decade has seen very limited inflation, which has not significantly reduced the purchasing power of typical earnings and investments.

Table 1 compares the Consumer Price Index, which is the broad price index issued by the Bureau of Labor Statistics, with AIER’s Everyday Price Index, a narrower index of the most common everyday expenses. It

provides examples of costs of living for three types of typical American households, which we are calling Urban Renter, Retired Couple, and Young Family. These examples show how different mixes of goods and services interact to yield different changes in the cost of living over time.

**How the EPI and CPI compare**

The EPI excludes big-ticket items such as housing, cars, appliances, and electronics as well as simpler, infrequent purchases such as clothing and professional services (e.g., legal and financial).

Since the EPI weights gas more heavily than the CPI, it shows higher inflation over this period. Even with recent declines, the price of gas has increased 70 percent since January 2000, a higher rate than the overall CPI.

Utilities, gas, prescription drugs, cable, and tobacco prices all act to buoy everyday prices as measured by the EPI. By excluding items with lower-than-average inflation (apparel, electronics, and appliances) and overweighting items with higher-than-average inflation, the EPI's inflation measure has outpaced the CPI since 2000.

### **Urban Renter**

The Urban Renter profile shows modestly higher inflation than the CPI and lower inflation than the EPI. This category starts with the EPI profile but excludes gasoline and certain utilities. The Urban Renter profile adds shelter (rent) and airfare. It over-weights food purchased at restaurants, alcohol, and public transportation. Lower expenditures on energy mean that the Urban Renter saw higher inflation in 2015 than our other examples.

Since 2000, the Urban Renter has faced about 49 percent inflation, driven largely by rents (+48 percent since January 2000). Urban Renter inflation is pushed higher by spending more on food in restaurants, a category that has increased 55 percent since January 2000, and on intracity public transportation, which has increased in price 77 percent since January 2000.

### **Retired Couple**

The Retired Couple profile shows higher inflation than reported in the CPI but lower than the EPI. This profile assigns less weight to expenses for food at a restaurant and gas and greater weight to prescription drugs and medical-care services. The heavier-than-normal weight on medical services is the largest driver of inflation for the Retired Couple.

Prescription drug prices have increased 72 percent since January 2000, while prices of medical-care services have increased 85 percent. These increases have become burdensome for families that spend an outsize portion of their budgets on health care. In this example the Retired Couple uses gas for heating and utilities, which has helped keep inflation in check, as gas heating prices increased less than oil or kerosene during this period.

### **Young Family**

The Young Family has experienced much higher inflation than shown in the CPI and EPI over the past 15 years, despite a falling cost of living in 2015 due to lower gasoline prices. The profile for the Young Family may be indicative of the price pressures that many middle class Americans have felt.

The Young Family profile starts with the EPI but excludes certain utilities and tobacco. In this profile we assign a greater weight to purchases of educational supplies, college tuition, child care, and fuel oil. This profile is meant to represent a family with young or teenage children—one that has been saving for college.

There are several extraordinary price increases that have caused the Young Family to experience high aggregate inflation. Prices of educational books and supplies have increased 141 percent, and college tuition and fees have increased 146 percent since January 2000. Child care and nursery school prices have increased 83 percent over this time.

Imagine parents that started saving for college and paying for child care in 2000 when their child was young. Even if they are not yet paying for college, they must incorporate the extraordinary price increases for education into their budgeting. Inflation has severely affected families that need to assign a disproportionate amount of their income to child care and college tuition or college savings.

As Table 2 shows, prices of many CPI components (as in other indices) fell in 2015, led by price drops for products related to petroleum and electronics. Products and services related to education had some of the year's largest price increases.

Since 2000, prices for tobacco and education-related products and services have more than doubled. Among other items logging the largest price increases in the past decade-and-a-half are water and sewer utilities, propane and kerosene, and gasoline and car insurance. As is commonly the case with technology goods over time, those prices have decreased dramatically since 2000.

Table 2. Price Changes of Individual Products and Services

Expenditure Category	Nov. 2014– Nov. 2015	Jan. 2000– Nov. 2015	Expenditure Category	Nov. 2014– Nov. 2015	Jan. 2000– Nov. 2015
<b>Shelter costs</b>	3.2%	48.3%	<b>Medical care</b>		
<b>Food and drink</b>			Prescriptions, medical supplies	3.4%	71.7%
Food at home	0.3%	45.7%	Medical-care services	3.1%	85.3%
Food at a restaurant	2.7%	54.8%	Non-prescription drugs, vitamins	-0.2%	n/a
Alcoholic beverages	0.4%	39.5%	<b>Recreation</b>		
<b>Utilities</b>			TVs	-12.0%	-93.9%
Home heating fuel oil	-31.4%	99.1%	Cable, satellite TV and radio	1.9%	62.9%
Propane, kerosene, firewood	-12.6%	112.2%	Other video equipment	-5.3%	-85.5%
Electricity	-0.2%	64.6%	Video, including rentals	-0.1%	-20.1%
Gas service	-11.7%	34.4%	Audio equipment	-1.3%	-54.3%
Water and sewer	4.6%	123.2%	Audio discs, tapes, media	0.8%	-12.7%
Trash collection	2.0%	63.3%	Pets, products and services	0.4%	60.4%
<b>Household furnishings, operations</b>			Sporting goods	-1.4%	-4.1%
Window and floor coverings	-4.1%	-39.9%	Photography	-2.9%	-23.7%
Furniture and bedding	-0.6%	-15.2%	Other recreation	-4.3%	-48.2%
Appliances	-4.2%	-20.8%	Club memberships	0.2%	20.8%
Tools, hardware, outdoor equip.	-3.1%	-40.3%	Admissions to movies, etc.	4.7%	58.8%
Housekeeping supplies	-0.4%	-7.6%	Fees for lessons	2.9%	55.5%
Other household furnishings	-0.2%	24.9%	Reading materials	1.8%	29.6%
Household operations	2.6%	56.9%	<b>Education and communication</b>		
<b>Apparel</b>			Books and supplies	4.6%	141.2%
Men	-1.4%	-6.7%	College tuition, fees	3.5%	145.6%
Boys	3.6%	-6.7%	K–12 tuition, fees	3.8%	125.3%
Women	-2.7%	-0.1%	Child care and nursery school	4.2%	82.8%
Girls	-5.8%	-16.7%	Technical school tuition, fees	1.1%	106.7%
Footwear	-0.5%	13.2%	Postage and delivery services	0.0%	69.2%
Infants and toddlers	4.9%	-6.2%	Telephone services	0.6%	-0.6%
Jewelry and watches	-2.3%	14.0%	Personal computers, equipment	-7.0%	-91.0%
<b>Transportation</b>			Computer software, accessories	-1.7%	-58.3%
New and used cars	-0.1%	-1.0%	Internet	-1.9%	-20.0%
Motor fuel (gas)	-24.2%	70.3%	Consumer information items	-13.4%	-71.8%
Car parts and equipment	-0.1%	42.8%	<b>Other goods and services</b>		
Car maintenance and repair	1.4%	55.8%	Tobacco and smoking products	3.7%	151.5%
Car insurance	5.5%	84.6%	Personal-care products	-0.1%	6.8%
Motor vehicle fees	2.5%	69.3%	Personal-care services	3.1%	43.3%
Airfare	-3.8%	32.6%	Misc. personal services	2.9%	63.0%
Other Intercity transportation	1.2%	-3.4%	Misc. personal goods	-3.7%	-17.2%
Intracity public transportation	2.5%	77.1%			

**Table 3. Purchasing Power Conversion Factors**

To convert past dollars into 2015 dollars use Multiplier A.  
 To convert 2015 dollars to past dollars use Multiplier B.

	Multiplier A	Multiplier B		Multiplier A	Multiplier B		Multiplier A	Multiplier B
<b>1925</b>	13.1853	0.0758	1956	8.6304	0.1159	1987	2.0566	0.4862
1926	13.4088	0.0746	1957	8.3569	0.1197	1988	1.9729	0.5069
1927	13.7188	0.0729	1958	8.1840	0.1222	1989	1.8851	0.5305
1928	13.7986	0.0725	1959	8.0727	0.1239	<b>1990</b>	1.7738	0.5638
1929	13.7188	0.0729	<b>1960</b>	7.9643	0.1256	1991	1.7223	0.5806
<b>1930</b>	14.4717	0.0691	1961	7.9112	0.1264	1992	1.6714	0.5983
1931	16.1453	0.0619	1962	7.8071	0.1281	1993	1.6278	0.6143
1932	17.9800	0.0556	1963	7.7057	0.1298	1994	1.5854	0.6308
1933	17.9800	0.0556	1964	7.6069	0.1315	<b>1995</b>	1.5452	0.6472
1934	17.5804	0.0569	<b>1965</b>	7.4869	0.1336	1996	1.4964	0.6683
<b>1935</b>	17.1983	0.0581	1966	7.2139	0.1386	1997	1.4696	0.6805
1936	16.9526	0.0590	1967	7.0218	0.1424	1998	1.4472	0.6910
1937	16.3680	0.0611	1968	6.7044	0.1492	1999	1.4102	0.7091
1938	16.9526	0.0590	1969	6.3290	0.1580	<b>2000</b>	1.3632	0.7336
1939	16.9526	0.0590	<b>1970</b>	5.9933	0.1669	2001	1.3379	0.7475
<b>1940</b>	16.9526	0.0590	1971	5.8028	0.1723	2002	1.3091	0.7639
1941	15.4114	0.0649	1972	5.5975	0.1786	2003	1.2864	0.7774
1942	14.1271	0.0708	1973	5.1707	0.1934	2004	1.2426	0.8048
1943	13.6400	0.0733	1974	4.6085	0.2170	<b>2005</b>	1.2011	0.8326
1944	13.4088	0.0746	<b>1975</b>	4.2918	0.2330	2006	1.1778	0.8490
<b>1945</b>	13.1125	0.0763	1976	4.0920	0.2444	2007	1.1292	0.8856
1946	11.1425	0.0897	1977	3.8342	0.2608	2008	1.1173	0.8950
1947	10.2743	0.0973	1978	3.5213	0.2840	2009	1.0971	0.9115
1948	9.8073	0.1020	1979	3.1270	0.3198	<b>2010</b>	1.0847	0.9219
1949	9.9721	0.1003	<b>1980</b>	2.7759	0.3602	2011	1.0491	0.9532
<b>1950</b>	9.6087	0.1041	1981	2.5329	0.3948	2012	1.0309	0.9700
1951	8.9900	0.1112	1982	2.4218	0.4129	2013	1.0183	0.9820
1952	8.8890	0.1125	1983	2.3452	0.4264	2014	1.0050	0.9950
1953	8.8229	0.1133	1984	2.2539	0.4437	<b>2015</b>	1.0000	1.0000
1954	8.8558	0.1129	<b>1985</b>	2.1774	0.4593			
<b>1955</b>	8.8229	0.1133	1986	2.1498	0.4652			

Table 3 provides a simple way to convert values from the past into their equivalent value today (or vice versa). To convert a value from a particular year to its 2015 equivalent, multiply the original price by the conversion factor, Multiplier A shown in the table for the appropriate year.

For instance, if you want to know whether the value of your house has kept pace with inflation, multiply the price of the house by the Multiplier A factor shown for the year you purchased it.

**Example:** A house was purchased in 1965 for \$25,000. Adjusting for price inflation, this price in terms of 2015

dollars is  $\$25,000 \times 7.4869 = \$187,173$ . This is approximately how much the house would have to sell for today just to keep up with price inflation.

To convert 2015 dollars into past dollars, multiply today's dollar amount by the conversion factor, Multiplier B shown in the table for the appropriate year.

**Example:** If the price of a movie ticket is about \$10 today, what was the constant-dollar equivalent in 1974? Today's \$10 purchase price in terms of 1974 dollars is  $\$10 \times 0.2170 = \$2.17$ .

## Learn more at aier.org

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