

Annex 1. How to Calculate the “Real” Wage

You can compare the purchasing power of wages from year to year, if you figure out the real wage – wages adjusted to take inflation into account.

You can calculate your real income or real wage by using the Consumer Price Index (CPI). The CPI shows overall changes in prices of all goods and services bought for use by urban households. User fees (such as water and sewer service) and sales and excise taxes paid by the consumer are included also. The index does not include income taxes and investment items, like stocks, bonds, and life insurance. If you are a retiree, use the CPI-U to calculate any changes in your income; if you’re a wage-earner, use the CPI-W. The CPI-U includes spending by urban wage earners and clerical workers, professional, managerial, and technical workers, the self-employed, short-term workers, the unemployed, retirees, and others not in the labor force. The CPI-W includes spending only by those in hourly clerical or wage-earning jobs.

If you are a wage earner and you know your wage in two different years and the consumer price index for those years, you can see how much ground (if any) has been gained or lost from the first year to the later one. (The index with the most up-to-date figures is available from the Bureau of Labor Statistics, at 202-691-7000 or at <http://www.bls.gov/cpi/home.htm>) For instance, if you know this:

| Year and Month | Your wage | CPI-W |
|----------------|-----------|--------|
| April 1985 | \$11.90 | 106.40 |
| April 2005 | \$20.06 | 189.50 |

You can figure out your real wage in April 1985 in terms of April 2005 prices:

- **Multiply:** Old wage times new price index
 $11.90 \times 189.50 = 2255.05$
- **Divide:** Previous answer by the old price index
 $2255.05 / 106.4 = 21.19$

\$21.19 is your purchasing power – how much the April 1985 wage (\$11.90) can buy in April 2005.

To find out how much purchasing power you gained or lost during the 20 years:

- **Subtract:** Purchasing power in April 2005 of the old wage *minus* the new wage
 $21.19 - 20.06 = 1.13$
- **Divide:** Previous answer by purchasing power in April 2005 of the old wage
 $1.13 / 21.19 = 0.0533 \approx 5.3\%$
(Move the decimal point two places to the right to get a percentage).

Your real wage has fallen by 5.3% in 20 years. In April 2005, you are earning 94.7% of what you earned 20 years ago, in terms of purchasing power.

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You can use the “Inflation Calculator” on the BLS website to show any change in purchasing power between different years.

1. Go to www.bls.gov
2. Click “Inflation Calculator” under “Inflation and Consumer Spending.” Then a little box will show on the screen.
3. Fill the dollar value in the blank (such as, \$10), and choose the year you want to use (such as, 1985)
4. Click “calculate”; you will see that \$10 in 1985 has \$18.15 buying power in 2005. (The index used for the calculation is CPI-U).