

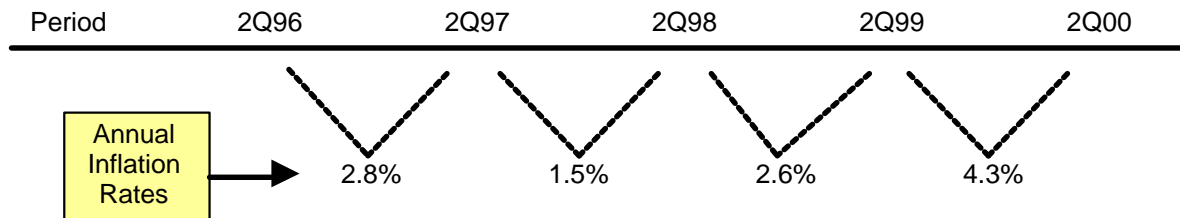
How to Use Inflation Rates and Index Numbers.

Introduction:

The following three tables contain yearly inflation rates and index numbers. **Table 1** contains numbers generated from the Wyoming Cost of Living Index (WCLI) for the second quarter (2Q) of the year. All inflation rates and index numbers in this table are on a 2Q basis meaning that the inflation rate of 4.3% in the year 2000 is actually the rate of inflation calculated for the period from the 2Q of 1999 to the 2Q of 2000. **Table 2** also contains numbers from the WCLI but on a fourth quarter (4Q) basis. **Table 3** consists of U.S. consumer price index (CPI) numbers compiled by the Bureau of Economic Analysis. The time basis for this table represents a December-to-December change. For ease of demonstration, **Table 1** will be used in the examples below. However, the following examples can be answered using any of the three tables.

Solving for cumulative inflation:

Find the cumulative rate of inflation from 1996 through 2000. The period of time involved would look like this:



To find the cumulative inflation rate for this four-year period using **Table 1**, choose 1996 as the base year (this would be the column choice) and then choose 2000 as the calendar year (this would be the row choice). The corresponding index number is 1.117, which means that the cumulative inflation rate for the period 2Q96 – 2Q00 was 11.7%.

Converting dollars:

Suppose that your annual salary in 1985 was \$24,000. What does your salary have to be in the year 2000 to have kept pace with inflation? Again using **Table 1**, choose 1985 as the base year (the column choice) and then choose 2000 as the calendar year (the row choice). The corresponding index number is 1.543. To convert your 1985 salary into year 2000 dollars, multiply:

$$\$24,000 \times 1.543 = \$37,032$$

EAD

Table 4: Wyoming Cost of Living Index - Annual Inflation Rates (3Q79 - 2Q18)

Quarter	U.S. CPI	WCLI All Items	Inflation Rate by Category (All Items):						Rec & Pers Care	Inflation Rate by Region (All Items):				
			Food	Housing	Apparel	Trans	Medical	SE		SW	CEN	NE	NW	
3Q79	12.1	13.2	10.2	11.7	19.2	25.8	8.5	6.3	13.4	13.0	11.8	14.1	16.3	
4Q79	13.3	13.6	9.0	15.4	23.1	17.7	10.5	7.1	14.8	14.2	13.1	13.7	12.1	
1Q80	14.7	15.5	8.3	20.4	8.6	19.1	12.6	7.2	14.1	16.5	18.6	13.5	13.7	
2Q80	14.3	12.3	10.7	11.8	14.4	15.7	11.8	11.0	13.1	12.4	10.6	14.3	12.9	
3Q80	12.7	12.5	13.4	12.2	11.3	12.7	16.3	10.7	12.9	15.3	12.2	12.5	10.3	
4Q80	12.4	12.5	12.1	16.8	11.5	5.4	11.3	9.1	11.6	14.8	12.9	10.8	14.7	
1Q81	10.6	9.9	9.8	11.7	10.0	6.8	8.2	8.6	10.7	16.2	7.7	9.8	8.7	
2Q81	9.6	10.7	7.2	15.1	8.1	6.7	9.3	7.6	8.6	12.4	13.0	11.7	9.1	
3Q81	11.0	11.8	5.6	18.5	5.2	7.1	7.1	8.0	11.1	11.1	13.3	13.1	11.3	
4Q81	8.9	7.0	3.2	8.1	5.3	7.7	9.2	7.4	6.7	10.2	7.7	4.7	6.7	
1Q82	6.8	7.4	5.2	10.8	4.8	2.0	9.2	7.1	5.6	6.6	8.9	8.9	8.8	
2Q82	7.1	5.2	4.4	6.6	6.9	1.7	7.4	4.4	4.1	7.2	4.3	6.8	6.0	
3Q82	5.0	1.5	1.9	-2.0	10.6	1.6	9.5	5.7	0.1	3.2	0.0	3.0	4.8	
4Q82	3.9	1.6	1.8	-1.1	5.3	1.1	8.0	7.5	0.7	1.5	0.5	5.1	3.5	
1Q83	3.6	0.0	0.2	-4.7	5.2	3.6	7.0	6.5	0.7	1.7	-2.3	0.6	1.3	
2Q83	2.6	1.1	-1.4	-2.8	2.3	3.7	8.4	7.9	3.8	-0.9	-1.6	2.1	3.7	
3Q83	2.9	1.2	0.4	-1.1	-0.8	2.8	6.5	5.1	4.5	-0.6	-0.7	2.2	2.6	
4Q83	3.8	1.4	1.9	-1.5	5.6	2.7	7.4	2.4	4.4	-1.3	1.1	2.2	2.8	
1Q84	4.7	3.1	3.1	1.9	2.7	5.0	5.2	2.7	3.9	1.0	1.3	6.5	4.6	
2Q84	4.2	3.5	4.6	2.2	1.0	5.1	3.7	3.3	5.6	2.1	2.0	4.4	4.0	
3Q84	4.2	3.2	3.4	3.1	2.9	4.7	3.1	0.5	4.8	4.7	2.2	2.6	4.3	
4Q84	4.0	2.9	3.2	3.4	-1.8	3.0	3.9	2.6	3.4	2.9	1.4	4.0	4.3	
1Q85	3.7	2.6	3.3	1.6	1.9	3.3	4.8	2.4	3.3	2.3	1.8	3.2	2.8	
2Q85	3.8	0.8	-0.6	-0.7	0.9	3.1	5.0	1.3	1.9	2.7	0.4	-1.0	0.7	
3Q85	3.2	1.7	-1.2	1.3	0.7	3.6	5.8	2.4	1.4	3.5	1.3	1.1	2.0	
4Q85	3.8	1.8	0.4	0.7	3.9	3.3	5.4	2.0	2.7	3.6	1.0	1.0	1.3	
1Q86	2.3	-0.9	-2.1	-0.4	0.5	-5.0	5.9	2.7	-0.5	0.1	-1.9	-2.0	0.6	
2Q86	1.8	-0.4	2.0	-0.7	1.6	-6.1	6.4	2.9	0.9	0.7	-1.5	-2.2	0.4	
3Q86	1.8	0.1	3.9	-0.2	3.6	-6.8	5.5	3.0	1.8	0.5	-1.0	-0.7	-0.5	
4Q86	1.1	-1.5	1.5	-2.7	-0.6	-7.7	5.9	4.9	-0.2	-3.0	-1.9	-2.2	-1.4	
1Q87	3.0	-0.2	2.5	-2.8	2.7	-2.1	5.6	3.2	1.3	-2.4	0.1	-0.7	0.1	
2Q87	3.7	-0.3	1.8	-3.2	1.7	0.3	5.7	2.3	0.1	-2.0	0.2	0.2	-0.1	
3Q87	4.3	-0.2	0.0	-2.7	-0.2	2.8	4.0	1.5	1.4	-2.9	0.3	-0.8	1.1	
4Q87	4.4	0.4	0.3	-2.1	2.3	3.7	3.2	2.5	1.6	-0.9	-0.5	1.8	0.6	
1Q88	3.9	0.3	-0.6	-2.4	1.2	3.7	4.1	2.9	1.6	0.0	-0.6	1.8	0.0	
2Q88	4.0	1.8	-0.2	-1.3	3.3	8.1	5.0	3.4	4.3	0.1	0.4	3.1	2.5	
4Q88	4.4	0.5	3.4	-3.0	2.8	2.5	4.9	2.1	1.0	-0.6	1.9	0.2	1.5	
2Q89	5.2	3.7	6.0	2.0	2.3	6.3	4.2	3.3	3.7	4.4	3.4	3.8	4.6	
4Q89	4.6	4.4	6.0	2.6	1.0	8.2	5.8	4.0	5.0	4.2	3.4	5.1	5.9	
2Q90	4.7	3.7	5.5	3.3	4.5	1.2	6.0	4.6	3.5	3.8	3.3	3.0	6.7	
4Q90	6.2	5.1	5.8	4.9	4.7	4.2	6.2	5.9	4.5	6.0	5.2	4.0	7.0	
2Q91	4.7	4.1	3.8	4.0	1.8	3.6	6.3	5.5	3.5	5.4	4.1	4.2	4.3	
4Q91	3.0	2.8	-0.7	5.1	1.9	-1.7	6.5	5.2	2.3	2.7	3.6	3.0	3.8	
2Q92	3.1	3.2	-1.5	5.2	0.3	2.8	8.6	2.0	3.1	3.9	3.4	2.7	3.4	
4Q92	3.0	3.7	1.9	3.2	-1.8	7.8	5.5	3.7	5.5	2.8	3.4	2.8	3.4	
2Q93	3.0	3.3	2.7	3.5	-2.4	5.7	5.9	1.8	4.8	2.2	3.7	2.4	3.2	
4Q93	2.7	4.0	3.8	6.7	-0.5	0.8	7.8	-0.1	4.2	2.7	4.4	5.0	4.6	
2Q94	2.5	4.5	3.4	6.7	2.5	2.5	6.6	1.2	4.3	4.1	4.4	4.6	6.7	

Table 4: Wyoming Cost of Living Index - Annual Inflation Rates (3Q79 - 2Q18)

Quarter	U.S. CPI	WCLI All Items	Inflation Rate by Category (All Items):						Rec & Pers Care	Inflation Rate by Region (All Items):				
			Food	Housing	Apparel	Trans	Medical	SE		SW	CEN	NE	NW	
4Q94	2.7	4.6	4.1	5.6	-0.1	5.4	7.9	1.8	3.9	3.4	5.6	6.7	6.4	
2Q95	3.0	4.7	3.1	5.4	4.7	5.2	4.4	3.8	1.1	3.6	5.7	5.0	4.4	
4Q95	2.5	3.0	2.8	1.7	12.0	1.7	4.1	4.5	2.1	3.9	3.8	1.4	4.4	
2Q96	2.8	4.7	7.2	3.4	9.1	4.3	7.1	3.5	5.1	5.3	3.8	5.7	4.2	
4Q96	3.3	4.8	9.3	2.4	7.0	7.0	4.1	2.9	5.2	4.0	5.0	4.2	4.9	
2Q97	2.3	2.8	4.9	2.1	2.8	2.4	3.3	2.8	3.6	2.8	3.1	1.0	2.6	
4Q97	1.7	2.9	4.5	2.5	-0.6	0.9	4.7	5.0	3.3	4.0	1.9	3.0	2.2	
2Q98	1.7	1.5	2.6	0.9	3.6	0.0	0.2	3.7	1.3	2.6	0.3	2.1	2.5	
4Q98	1.6	2.2	2.8	2.6	4.0	-2.2	0.7	6.2	2.7	2.8	1.4	2.0	2.4	
2Q99	2.0	2.6	3.7	3.2	1.1	0.7	3.0	2.3	3.8	3.4	1.5	2.6	0.9	
4Q99	2.7	3.1	4.7	2.5	-0.2	4.5	3.4	3.1	3.6	2.6	2.8	3.4	3.0	
2Q00	3.7	4.3	4.9	3.6	-1.2	7.9	5.2	3.3	3.9	2.3	4.4	7.4	4.0	
4Q00	3.4	3.2	1.8	3.9	-0.4	2.9	4.0	3.9	2.8	2.6	3.4	6.9	3.8	
2Q01	3.2	4.3	3.0	6.6	3.1	1.6	4.0	2.0	4.1	3.1	5.0	4.8	4.6	
4Q01	1.6	3.5	5.0	4.5	1.8	-0.1	7.3	2.3	4.9	2.3	2.9	4.0	2.6	
2Q02	1.1	2.5	1.9	3.1	0.5	-0.4	5.9	4.3	2.6	1.4	2.8	3.1	2.2	
4Q02	2.4	3.7	3.3	3.1	4.5	4.7	6.0	3.9	3.0	2.5	5.1	5.1	2.7	
2Q03	2.1	2.9	4.2	3.0	3.6	1.2	4.3	1.8	3.0	3.5	2.1	3.1	3.0	
4Q03	1.9	3.6	5.1	5.7	2.2	-1.2	3.0	1.4	4.1	4.3	2.6	3.4	3.9	
2Q04	3.3	4.9	5.2	6.3	1.8	4.8	5.0	-0.4	4.4	4.6	5.1	6.4	4.4	
4Q04	3.3	4.3	4.2	4.8	0.4	5.9	5.5	0.4	4.0	4.8	4.8	4.3	3.3	
2Q05	2.5	4.5	3.1	5.1	1.0	6.2	5.0	1.5	4.4	6.6	4.6	3.2	3.5	
4Q05	3.4	5.0	5.3	5.3	4.4	6.6	5.8	0.4	3.8	8.3	5.1	5.5	3.4	
2Q06	4.3	5.6	2.0	6.9	3.7	7.9	4.3	2.0	5.3	7.6	5.2	6.2	4.0	
4Q06	2.5	4.4	0.4	7.2	3.6	1.2	3.8	2.3	3.5	4.8	4.7	5.6	3.8	
2Q07	2.7	4.7	6.5	6.1	3.5	1.2	5.0	2.2	2.1	6.2	6.0	6.4	4.6	
4Q07	4.1	6.1	6.8	5.2	2.9	9.9	5.9	4.6	3.4	8.1	8.0	6.6	5.9	
2Q08	5.0	7.9	7.4	7.2	2.3	15.0	5.5	3.4	6.9	8.1	9.1	8.4	7.4	
4Q08	0.1	2.6	7.0	6.5	2.3	-15.1	5.6	7.5	1.8	2.1	3.0	3.7	2.7	
2Q09	-1.4	0.0	1.7	1.1	2.4	-11.2	5.3	5.2	0.2	-0.2	0.1	0.1	-0.5	
4Q09	2.7	2.7	-0.8	-0.6	1.7	16.9	2.8	2.6	3.4	1.5	2.7	3.0	2.1	
2Q10	1.1	1.9	1.5	0.8	0.1	5.4	4.0	1.5	2.6	1.6	1.9	1.0	2.1	
4Q10	1.5	2.9	4.2	2.1	1.0	5.0	5.4	0.7	3.2	2.1	3.4	1.7	3.8	
2Q11	3.6	4.5	6.9	2.2	5.4	11.5	5.4	-0.8	5.0	3.6	4.7	4.5	4.5	
4Q11	3.0	3.9	7.0	3.1	5.4	5.1	5.8	-0.4	4.1	3.3	4.8	2.7	4.2	
2Q12	1.7	2.4	2.6	3.4	2.3	0.3	3.1	0.7	2.0	2.8	2.5	1.5	3.8	
4Q12	1.7	2.1	1.3	3.1	4.5	-1.0	3.9	0.6	3.4	1.6	1.8	0.3	2.1	
2Q13	1.8	3.1	1.6	4.0	5.4	1.8	4.3	1.1	4.5	2.8	4.1	0.3	2.3	
4Q13	1.5	2.9	0.4	3.6	2.9	3.3	4.9	0.7	3.4	1.9	2.9	2.7	3.0	
2Q14	2.1	2.7	3.0	3.9	7.8	-2.1	4.2	1.1	3.2	0.8	2.8	3.8	2.7	
4Q14	0.8	1.1	4.1	3.7	3.7	-11.5	4.7	0.9	0.3	-0.9	3.1	1.9	0.8	
2Q15	0.1	0.9	1.7	1.9	2.5	-4.4	4.7	0.0	0.8	-1.1	0.7	2.4	2.3	
4Q15	0.7	0.5	2.2	-0.3	5.9	-1.4	5.0	-0.5	1.1	1.1	-2.1	0.9	2.7	
2Q16	1.0	-0.6	0.1	-0.6	-2.0	-2.7	4.3	-1.6	1.0	-0.1	-3.2	-2.2	2.2	
4Q16	2.1	0.6	1.4	-1.2	3.2	4.5	3.7	-1.5	3.1	-0.5	-1.3	-1.2	1.9	
2Q17	1.6	1.1	3.8	-0.3	5.4	1.1	3.3	1.3	1.7	1.1	0.2	0.4	2.7	
4Q17	2.1	2.3	3.5	1.7	1.9	2.8	3.2	2.1	2.2	2.9	1.9	1.2	3.9	
2Q18	2.9	3.3	2.1	2.1	6.6	8.7	3.6	-0.3	3.2	1.8	3.6	4.1	3.2	