

Federal Construction Summary Measures

Type of Construction	O	CI	I	C	IC	M7	Q2	F
Total Federal Construction	13.37	4.57	4.38	0.90	4.85	0.22	0.58	122.80
Residential	15.78	6.84	6.33	1.95	3.24	0.32	0.59	70.89
Nonresidential	13.25	4.58	4.39	0.94	4.66	0.22	0.55	120.41
Office	14.45	6.44	5.95	2.21	2.69	0.32	0.41	50.34
Commercial	15.86	7.15	6.61	2.41	2.75	0.33	0.42	50.29
Health	15.44	7.09	6.72	1.97	3.42	0.33	0.67	46.64
Education	15.62	7.30	6.57	2.75	2.39	0.29	0.42	49.72
Public Safety	15.92	8.74	7.54	3.00	2.51	0.39	0.54	33.30
Amusement and Recreation	18.78	10.67	10.11	3.35	3.01	0.41	0.54	36.81
Transportation	15.49	7.22	6.78	1.68	4.03	0.30	0.64	65.91
Power	21.58	13.67	11.68	6.16	1.90	0.56	0.62	22.10
Highway and Street	21.46	8.76	7.77	2.63	2.96	0.63	0.57	38.29
Conservation and Development	16.28	5.93	5.39	1.64	3.28	0.26	0.53	82.11

NA = Not Applicable

Definitions of Summary Measures

Summary measures of the seasonal, cyclical, and irregular components of the construction put in place series provide a rough for use in interpreting current percentage changes in the seasonally adjusted data. Detailed explanations of the basic method and definitions of the measures used appear in Electronic Computers and Business Indicators, Occasional Paper 57, National Bureau of Economic Research, New York, 1957.

The following are brief descriptions of the measures shown in the table above:

Average percent change of the original series

Header: **O**

Description: The average month-to-month percentage change, without regard to sign, of the original (not seasonally adjusted) series.

Average percent change of the seasonally adjusted series

Header: **CI**

Description: The average month-to-month percentage change, without regard to sign, of the seasonally adjusted series.

Average percent change of the irregular component.

Header: **I**

Description: The average month-to-month percentage change of the irregular component. This component is obtained by dividing the trend-cycle component into the seasonally adjusted series.

Average percent change of the trend-cycle component

Header: **C**

Description: The average month-to-month percentage change of the trend-cycle component. This component is a smoothed version of the seasonally adjusted series obtained by means of a moving average.

Ratio of the irregular component to trend-cycle component

Header: **I/C**

Description: Average relative month-to-month change, without regard to sign, of the irregular component divided by the average relative month-to-month change, without regard to sign, of the trend-cycle component. The ratio serves as an indication of the series' relative smoothness (small values) or irregularity (large values).

Measure of the amount of moving seasonality present relative to the amount of stable seasonality

Header: **M7**

Description: A function of the F-test assessing the significance of stable seasonality and the F-test assessing the significance of moving seasonality. It is one of the 11 quality monitoring statistics that X-12-ARIMA produces. M7 may range from 0 to 3 with an acceptance range from 0 to 1.

Q2 statistic

Header: **Q2**

Description: This statistic is a weighted average of M1-M11, excluding M2. It is a simplified quality indicator. M2 values can be misleading if the trend shows several changes of direction.

F-test statistic for stable seasonality

Header: **F**

Description: An F-test measure of the presence of stable seasonality. It is the quotient of two variances: (1) the between-months (between-quarters) variance and (2) the residual variance.