

Ohio Leading Indicators

Frequently Asked Questions

1. *What is a leading economic indicator?*

Leading economic indicators are statistics that tend to anticipate future economic conditions. They move or change direction prior to a change in the overall economy.

2. *What are some examples of leading economic indicators?*

Bond yields have been used as a leading economic indicator, as have new housing starts. Some other examples: Manufacturers' new orders, jobless claims for unemployment insurance, stock market returns.

3. *How are leading economic indicators used?*

Leading indicators can be helpful in short-term, 3 to 6 months, forecasting of the economy. Because these indicators have the potential to forecast the economy, policymakers make use of them to implement or alter programs in anticipation of economic change. The reports are also used by higher education, workforce development areas, banks, economic development professionals, and private firms.

4. *Who reports leading economic indicators for the United States?*

An index of leading economic indicators is published monthly by The Conference Board, a non-governmental organization. See <https://www.conference-board.org/data/bcicountry.cfm?cid=1>

5. *How was the Ohio leading indicator derived?*

The Bureau of Labor Market Information began producing a leading economic indicator report in 1989. Regional economic data time series were analyzed and mathematical models were employed to determine the optimal forecasting technique. The model underwent periodic revisions, the most recent occurring in 2017. The Bureau of Labor Market Information worked with Kent State University to evaluate the previous the leading economic indicator model and update it for current conditions.

6. *What geographical areas do you forecast?*

The Ohio Leading Indicators report covers the State of Ohio, as well as its eight largest Metropolitan Statistical Areas:

- a. Akron Metropolitan Statistical Area
- b. Canton-Massillon Metropolitan Statistical Area
- c. Cincinnati Metropolitan Statistical Area
- d. Columbus Metropolitan Statistical Area
- e. Cleveland-Elyria Metropolitan Statistical Area
- f. Dayton Metropolitan Statistical Area
- g. Toledo Metropolitan Statistical Area
- h. Youngstown-Warren-Boardman Metropolitan Statistical Area

7. *What economic variables do you use in the Ohio leading indicator report?*

There are five inputs used in the model (see below). The inputs are statistically significant predictors of Ohio total nonfarm growth rates at the 90 percent confidence level.

- a. *U.S. Leading Indicator (Source: The Conference Board)*
- b. *U.S. Industrial Production in the Manufacturing Sector (Source: Federal Reserve Bank of St. Louis)*
- c. *Unemployment Insurance Claims (Source: Ohio Department of Job and Family Services)*
- d. *Housing Valuations (Source: U.S. Census Bureau)*
- e. *Manufacturing Hours (Source: Current Employment Statistics)*

8. *When and how often is the report published?*

The Bureau of Labor Market Information produces the report monthly. The report will typically be available on the first Friday of the month.

9. *What exactly are you forecasting?*

The leading economic indicators report is designed to forecast changes in total nonfarm employment levels for Ohio and its eight largest MSAs for the next one to six months.

10. *What future time frame does this report forecast?*

The models forecast growth rates for six time-horizons (one to six months); the published forecast is an annualized average of those forecasts.

11. *Do you have any longer-range forecasts?*

The Bureau of Labor Market Information produces two-year industry and occupational projections annually for the state of Ohio (insert link) and ten-year industry and occupational projections for the state of Ohio, the eight largest Metropolitan Statistical Areas, and the six JobsOhio regions (<http://ohiolmi.com/proj/OhioJobOutlook.htm>).

12. *What do you mean by a forecasted 'growth rate'?*

The new leading indicator is designed to provide a growth rate as an annualized percent. For example, "total employment is predicted to increase at an annual rate of 1.5 percent for the next six months."

13. *How did you choose these five variables?*

The model was limited to economic variables that are publicly available, produced at a regional level, and published monthly in a timely fashion. Several variables were examined during a rigorous evaluation and these five were found to be predictive: U.S. Leading Indicator; U.S. Industrial Production in the Manufacturing Sector; Unemployment Insurance Claims; Housing Valuations; and, Manufacturing Hours.

14. *Can I compile several monthly leading indicator growth rates to build a timeseries?*

The forecasting models for the Ohio leading indicators are 'real time' processes that do not build on previous forecasts. For this reason, the Ohio leading indicators should not be used as a time series.

15. *Does your statistical model account for data revisions in the variables?*

Yes, each monthly report is built from the most current 120 months of data available. While data series may produce preliminary results, and later revise that data, the data inputs for each report are the most current available.

16. *What time period is used for the historical data in the model?*

The model uses a rolling 120-month window of data. Each month, a new month of data is added (the most current available) and the oldest month is dropped.