March 2025 Report

May 5, 2025

The Iowa Leading Indicators Index (ILII) decreased to 106.8 (100=1999) in March from 107.0 in February (-0.2 percent). The monthly diffusion index decreased to 50.0 in March from 62.5 in February. The Iowa nonfarm employment coincident index recorded a 0.07 percent decrease in March. The Iowa nonfarm employment coincident index has experienced decreases in six of the last eight months. However, long term trends in the ILII suggest that nonfarm employment will increase over the next three to six months.

During the six-month span through March 2025, the ILII increased 1.3 percent (an annualized rate of 2.6 percent). The six-month diffusion index remained unchanged at 62.5 in March relative to February, January, and December 2024. The ILII was constructed to signal economic turning points with two key metrics that when seen together are considered a signal of a coming contraction: a six-month annualized change in the index below -2.0 percent and a six-month diffusion index below 50.0. Five of the eight component indicators increased more than 0.05 percent over the last half-year: average manufacturing hours, the Iowa Stock Market index, the national yield spread, the new orders index, and residential building permits. The agricultural futures profits index (AFPI) and diesel fuel consumption, initial unemployment insurance claims were the components to decrease by more than 0.05 percent over the last six months.

Four of the eight components increased month-over-month in March 2025: residential building permits, average weekly manufacturing hours, the new orders index, and the AFPI. Diesel fuel consumption, the Iowa Stock Market Index, the national yield spread, and average weekly unemployment claims (inverted) were the four components that detracted from the Index.

Figure 1. Iowa Leading Indicators Index and Iowa Nonfarm Employment Coincident Index: January 1999 - March 2025

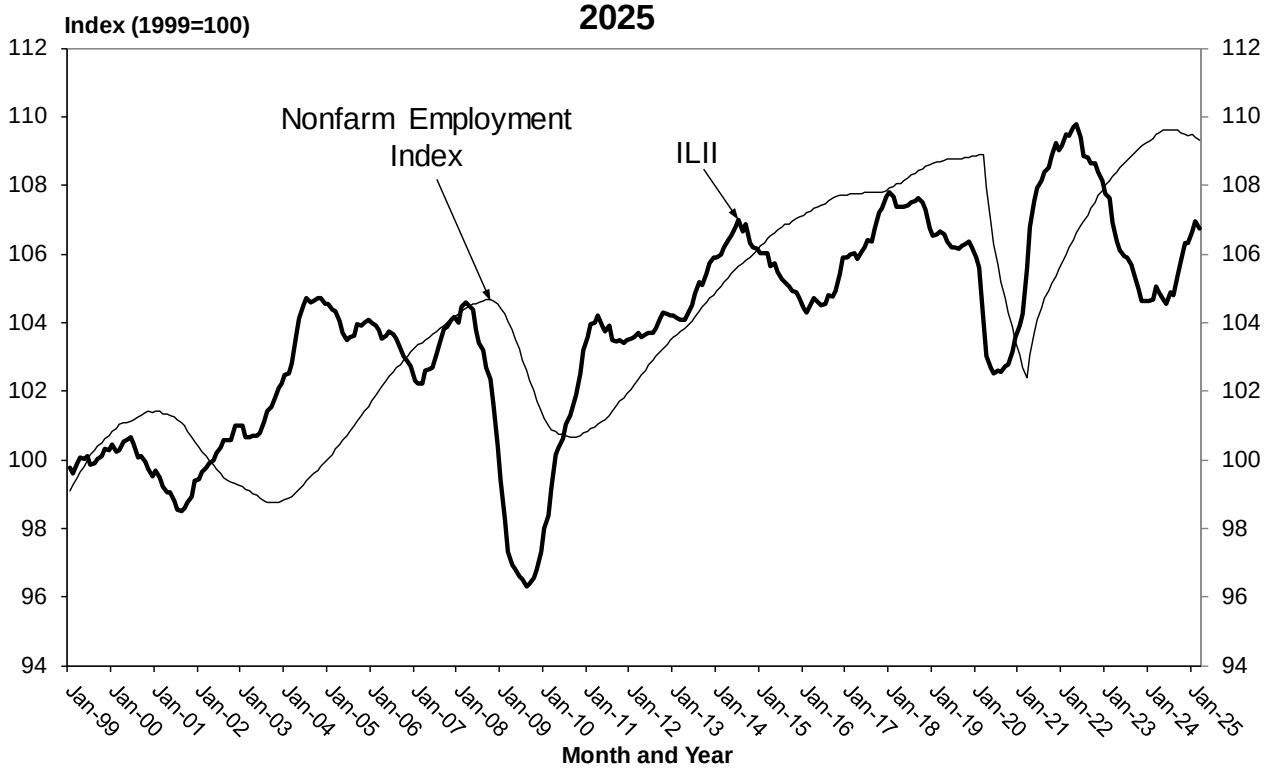

Table 1. Iowa Leading Indicators Index: Six Month Overview

Monthly Values	2024 Oct	Nov	Dec	2025 Jan	Feb	Mar
ILII	105.8	106.3	106.3	106.7	107.0	106.8
Percentage Change[a]	0.4%	0.5%	0.0%	0.3%	0.3%	-0.2%
Diffusion Index[b]	62.5	75.0	37.5	62.5	62.5	50.0

Six-Month Values	May to Oct	Jun to Nov	Jul to Dec	Aug to Jan	Sep to Feb	Oct to Mar
ILII						
Percentage Change	0.9%	1.6%	1.7%	1.7%	2.1%	1.3%
Annualized Percentage Change	1.7%	3.1%	3.4%	3.4%	4.1%	2.6%
Diffusion Index	68.8	75.0	62.5	62.5	62.5	62.5

Source: Tax Research Bureau, Iowa Department of Revenue, produced April 30, 2025.

a. Percentage changes in the ILII do not always equal changes in the level of the ILII due to rounding.

b. A diffusion index measures the proportion of components that are rising based on the actual changes (not the standardized contributions to the ILII). Components experiencing increases greater than 0.05 percent are assigned a value of 1.0, components that experience changes less than an absolute value of 0.05 percent are assigned a value of 0.5, and components experiencing decreases greater than 0.05 percent are assigned a value of 0.0.

Table 2. Iowa Leading Indicators Index Components: Six Month Overview

Component Series Monthly Values[a]		2024 Oct	Nov	Dec	2025 Jan	Feb	Mar
AFPI[b]	↑[c]						
Corn Profits (cents per bushel)		-20.1	-22.4	-26.5	-27.6	-25.8	-26.1
Soybean Profits (cents per bushel)		-82.3	-94.3	-105.3	-107.7	-104.6	-106.8
Hog Profits (cents per pound)		30.6	32.0	31.2	29.6	30.2	31.0
Cattle Profits (cents per pound)		16.7	15.7	12.4	10.5	9.5	8.6
Iowa Stock Market Index (10=1984-86)	↓	141.57	154.12	153.55	156.77	163.24	155.22
Yield Spread (10-year less 3-month)	↓	-0.62	-0.26	0.00	0.29	0.12	-0.06
Residential Building Permits	↑	971	1,015	998	1,019	1,039	1,069
Average Weekly Unemployment Claims[d]	↓	2,549	2,561	2,609	2,553	2,591	2,600
Average Weekly Manufacturing Hours	↑	40.54	40.63	40.73	40.97	40.99	41.07
New Orders Index (percent)	↑	48.9	48.8	48.7	48.5	48.4	49.0
Diesel Fuel Consumption (mil gallons)	↓	65.04	65.12	65.26	65.18	65.99	65.08

Source: Tax Research Bureau, Iowa Department of Revenue, produced April 30, 2025.

a. For all component series except for the yield spread and the Iowa stock market index, the values represent 12-month backward moving averages.

b. The agricultural futures profits index is computed as the sum of the standardized symmetric percent changes in the four series, each weighted by the commodity's annual share of Iowa cash farm income (updated September 12, 2024).

c. Arrows indicate the direction of the series' contribution to the ILII for the latest month.

d. Changes in average weekly initial unemployment insurance claims are inverted when added to the ILII, thus a negative change in the series contributes positively to the index.

ILII Components

- **Residential building permits:** Number of total permits issued in Iowa for the construction of residential housing units. Changes are calculated based on a 12-month moving average. In March, permits were 1,273, up from 917 in March 2024. This component contributed 0.09 to the March 2025 ILII with the 12-month moving average increasing to 1,069 in March from 1,039 in February. March 2025 permits were 38.8 percent above March 2024, and 20.1 percent above the monthly historical average (1998-2024).
- **Average weekly manufacturing hours:** Weekly average of hours worked in the manufacturing sector in Iowa. Changes are calculated based on a 12-month moving average. For March, this component contributed 0.06 to the ILII with the 12-month moving average increasing to 41.07 in March from a revised 40.99 in February. In March, average hours were 41.0, almost a quarter hour above the historical monthly average (1996-2024).
- **New orders index:** Diffusion index measuring the share of purchasing managers in Iowa reporting increases in orders received for manufacturing output. Changes are calculated based on a 12-month moving average. The new orders index in March increased to 55.9 from 48.1 in February. Likewise, the 12-month moving average of the new orders index has increased to 49.0 from 48.4 in February, and contributed 0.04 to the ILII.
- **Agricultural futures profits index:** Composite measure of corn and soybean expected profits, measured as the 12-month moving average of the futures price less estimated breakeven costs, and cattle and hog expected profits, measured as the average of the crush margin for the next 12 months, weighted by the respective share of Iowa annual cash receipts averaged over the prior ten calendar years. During March 2025, this component contributed 0.01 to the ILII despite expected profit decreases in both crop commodities and cattle, hogs was the only commodity to show an expected profit increase. Compared to last year, new crop corn prices were 4.2 percent lower while soybean prices were 13.8 percent lower. The March crush margin for cattle decreased 9.9 percent from February while the crush margin for hogs increased 2.7 percent from February.
- **Average weekly unemployment claims:** Weekly average of initial claims for unemployment insurance in Iowa. Changes are calculated based on a 12-month moving average and are inverted when added to the ILII. This component detracted 0.01 from the ILII value, with the 12-month moving average of claims increasing from 2,591 to 2,600. Unemployment claims were 5.2 percent above March 2024 claims, yet 49.6 percent below average historical claims for March (1988-2024).
- **Yield spread:** Difference between the yield on 10-year Treasury bonds and 3-month Treasury bills. During March, the yield spread returned to inversion territory (below 0.00 percent), down from 0.12 percent in February to -0.06 in March. March was the first month since November 2024 that the yield spread was inverted. The long-term rate decreased 17 basis points while the short-term rate increased by 1 basis point. For the month, the yield spread detracted 0.06 from the ILII value.
- **Iowa stock market index:** Capitalization-weighted index of 27 Iowa-based or Iowa-concentrated publicly-traded companies. During March, only 5 of the 27 companies gained value, and 1 of the 9 financial-sector companies increased in value. With nearly all of the stocks experiencing losses, the index decreased to 155.22 in March from 163.24 in February, detracting 0.06 from the ILII.
- **Diesel fuel consumption:** Number of taxable gallons of diesel fuel sold in Iowa. Changes are calculated based on a 12-month moving average. Diesel fuel consumption decreased 17.3 percent between March 2024 and March 2025. The 12-month moving average decreased to 65.09 million gallons in March from 65.99 million in February, detracting 0.23 from the ILII value.

Table 3. ILII Components and Standardization Factors for FY 2024

Iowa Leading Indicator Index Components	Standardization Factor
Agricultural Futures Profits Index	0.035
Iowa Stock Market Index	0.016
Yield Spread	0.349
Residential Building Permits	0.032
Average Weekly Unemployment Claims	0.014
Average Weekly Manufacturing Hours	0.325
New Orders Index	0.064
Diesel Fuel Consumption	0.166

Source: Tax Research Bureau, Iowa Department of Revenue, produced September 12, 2024

The standardization factors are the inverse of the standard deviation of the month-to-month changes in each component over the January 1999 to June 2024 period. These factors equalize the volatility of the contribution from each component and are normalized to one. The month-to-month changes are based on 12-month backward moving averages for all components except the agricultural futures profits index, the Iowa stock market index, and yield spread. The yield spread and new orders index changes are simple arithmetic changes; month-to-month changes for the rest of the components are computed as symmetric percentage changes.

The factors are updated annually during August.

Comments

The Iowa Leading Indicators Index (ILII) is designed to forecast the future direction of economic activity in the state of Iowa. The techniques used to build the ILII follow those used by The Conference Board to construct the national Leading Economics Index (LEI) prior to the 2001 revisions. A one-month movement in such an index does not produce a clear signal, rather it is necessary to consider the direction of the index over several consecutive months. A contraction signal in the ILII is considered reliable when two conditions are met: 1. The index declines by at least two percent over a six-month period (using an annualized rate); and, 2. A majority of the individual components decline over those six months (the six-month diffusion index less than 50.0).

The Iowa nonfarm employment coincident index measures the change in non-seasonally adjusted, total nonfarm employment in the state of Iowa. Changes are based on a 12-month moving average of employment and are computed as symmetric percentage changes. The index is a representation of overall economic activity in Iowa.

The employment index and the ILII are constructed to have a value of 100 in the year 1999.