



**NOTICE:** The Iowa Leading Indicators Index (ILII) underwent an annual update between the release of the June and July 2013 reports. As part of that update, the calculations of two components were altered, decreasing the level of the ILII for the most recent months of the index.

The first change was made to the Iowa stock market index, a capitalization-weighted index of Iowa-based or Iowa-concentrated publicly-traded companies. During the last year, one manufacturing company was purchased by a foreign company and another has effectively eliminated its Iowa presence, so both were dropped from the index. Another manufacturing company that has recently expanded its Iowa presence was added. The stock market index is now comprised of 33 companies, down from 34 last year.

The second change was made to the agricultural futures profits index (AFPI) where newly released annual Iowa cash receipts data from the prior calendar year were incorporated. The weights on the commodities in the index, based on the distribution of cash receipts between the four commodities, were updated accordingly. In addition, large changes in the estimated break-even costs per bushel were incorporated for the 2012 crop year in order to reflect the effect of the drought on crop yields.

To read more about the changes to the ILII, please refer to the following report [\*Iowa Leading Indicators Index: Seventh Annual Assessment and Update\*](#) available on the Department's web site.

A revised historical series for the ILII and its components are also available on the Department's web site. Please select the link entitled [\*Historical ILII Series\*](#).

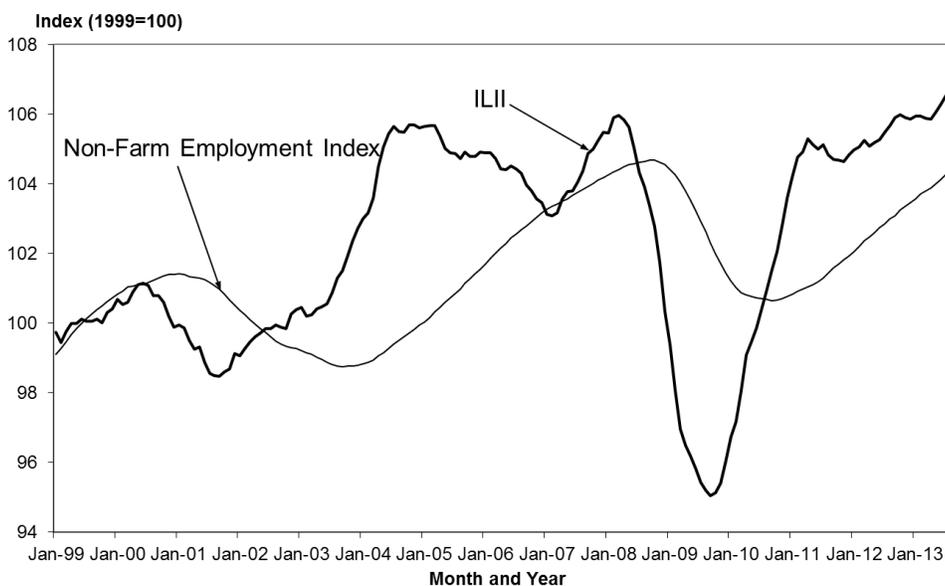


The Iowa Leading Indicators Index (ILII) increased to 106.6 (100=1999) in July 2013. The Iowa non-farm employment coincident index recorded a 0.14 percent rise in July, which extends the streak of employment gains to thirty-four consecutive months.

The ILII's value rose 0.2 percent in July for a third consecutive month based on revised June and May values. During the six-month span through July, the ILII increased 0.6 percent (an annualized rate of 1.1 percent). The six-month diffusion index was 87.5 with only one of the eight components (agricultural futures profits index) experiencing an increase of less than 0.05 percent over the last half a year.

In July, five of eight Iowa Leading Indicators Index components contributed positively. The positive contributors were residential building permits, the national yield spread, the Iowa stock market index, average weekly manufacturing hours, and the new orders index. The agricultural futures profits index, average weekly unemployment claims (inverted), and diesel fuel consumption contributed to the index negatively.

**Figure 1. Iowa Leading Indicators Index and Iowa Non-Farm Employment Coincident Index: January 1999-July 2013**



**Table 1. Iowa Leading Indicators Index: Six Month Overview**

Monthly Values	2013					
	February	March	April	May	June	July
ILII	105.9	105.9	105.9	106.1	106.3	106.6
Percentage Change <sup>a</sup>	0.0%	0.0%	0.0%	0.2%	0.2%	0.2%
Diffusion Index <sup>b</sup>	56.3	56.3	62.5	62.5	87.5	68.8
Six-Month Values	Aug to February	Sept to March	Oct to April	Nov to May	Dec to June	Jan to July
ILII						
Percentage Change	0.3%	0.0%	-0.1%	0.2%	0.4%	0.6%
Annualized Percentage Change	0.5%	0.0%	-0.2%	0.3%	0.8%	1.1%
Diffusion Index	62.5	62.5	56.3	62.5	75.0	87.5

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced August 28, 2013.

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 <sup>a</sup>		2013					
		February	March	April	May	June	July
AFPI <sup>b</sup>	↓ <sup>c</sup>						
Corn Profits (cents per bushel)		274.9	271.2	263.6	259.7	264.9	249.4
Soybean Profits (cents per bushel)		527.4	517.1	495.1	480.7	485.3	467.8
Hog Profits (cents per pound)		16.2	15.2	14.6	14.6	14.5	14.7
Cattle Profits (cents per pound)		-13.1	-13.9	-14.9	-15.9	-16.6	-17.0
Iowa Stock Market Index (10=1984-86)	↑	79.85	82.02	82.64	86.62	86.76	89.93
Yield Spread (10-year less 3-month)	↑	1.88	1.87	1.70	1.89	2.25	2.54
Residential Building Permits	↑	832	824	840	837	830	855
Average Weekly Unemployment Claims <sup>d</sup>	↓	3,315	3,311	3,293	3,297	3,284	3,296
Average Weekly Manufacturing Hours	↑	40.63	40.66	40.65	40.69	40.72	40.79
New Orders Index (percent)	↑	65.0	64.5	65.3	65.7	66.1	66.7
Diesel Fuel Consumption (mil gallons)	↓	55.29	55.37	55.34	55.57	55.73	55.71

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced August 28, 2013.

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 August 27, 2013).

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. For July, this component contributed 0.10 to the ILII with the 12-month moving average increasing to 855. July 2013 permits were 35.9 percent above the number of permits issued in July 2012, and only 6.0 percent below the historical average for July (1998-2008).
- **Yield spread:** Difference between the yield on 10-year Treasury bonds and 3-month Treasury bills. During July, the yield spread increased to 2.54 percent as the long-term rate rose 28 basis points while the short-term rate slipped 1 basis point. For the month, the yield spread contributed 0.10 to the ILII.
- **Iowa stock market index:** Capitalization-weighted index of 33 Iowa-based or Iowa-concentrated publicly-traded companies. During July 2013, 28 of the 33 companies gained value, including 9 of the 11 financial-sector companies. The stock market index rose to 89.93, contributing 0.06 to the ILII value.
- **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 July 2013, this component contributed 0.05 to the ILII value after increasing to 40.79 from 40.72 in July. July 2013 hours were 41.0, well above 40.1 hours in July 2012, but slightly below the historical average of 41.3 (1996-2008).
- **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. Although the monthly value of the index fell to 72.9 in July from 77.7 in June, it was up from 65.0 a year ago. The 12-month moving average of the new orders index rose to 66.7, contributing 0.04 to the ILII.
- **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 contributed -0.01 to the ILII value. The 12-month moving average of claims rose to 3,296 with unemployment claims for the month 5.7 percent above July 2012 claims, but 9.0 percent below average historical claims for July (1987-2008).
- **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 0.4 percent between July 2012 and 2013, causing the 12-month moving average to slip to 55.71 million gallons from a revised 55.73 in June, and contributing -0.01 to the ILII value.
- **Agricultural futures profits index:** Composite measure of corn, soybean, hog, and cattle expected profits, measured as the futures price less estimated breakeven costs, weighted by the respective share of Iowa annual cash receipts. Changes are calculated based on a 12-month moving average. During July, this component contributed -0.11 to the ILII value. Expected profits fell for corn and soybeans with sharp drops in prices during the month; corn prices fell 33.9 percent and soybean prices fell 20.3 percent compared to last year. Expected profits increased moderately for hogs, but continued to fall for cattle even though hog prices rose 4.6 percent and cattle prices rose 3.0 percent over last year.

**Table 3. ILII Components and Standardization Factors for FY 2014**

Iowa Leading Indicator Index Components	Standardization Factor
Agricultural Futures Profits Index	0.048
Iowa Stock Market Index	0.018
Yield Spread	0.328
Residential Building Permits	0.035
Average Weekly Unemployment Claims	0.033
Average Weekly Manufacturing Hours	0.286
New Orders Index	0.063
Diesel Fuel Consumption	0.189

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced August 28, 2013  
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 2013 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 yield spread and the Iowa stock market index. 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 non-farm employment coincident index measures the change in non-seasonally adjusted, total non-farm 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.

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