has 34 percent more income than necessary to qualify for a mortgage on the median priced home. The affordability index dropped to 122 in 2005, is likely to end 2006 at around 106, and should remain at that level during 2007.

There are some risks to the economy if the housing market is not bottoming. Real estate downturns have a way of leading to recessions and stock market slumps. With home values falling, homeowners lose a source of spending money from refinancing, which has fueled consumer spending when home prices were rising. If cash-out refinancing (refi) by homeowners falls back to 2001 levels, it would drain \$300 billion from the economy which would have roughly the same impact as a \$60 jump in the price of a barrel of oil. Cash-out refis were the only reason the economy weathered the gas-price hikes this year and last. The disappearance of cash-out refi money could dampen the economy.

Homebuilder stocks, including KB Home, DH Horton, and Lennar, have all traded at four or five times their earnings for the past twelve months—making homebuilding the cheapest sector in the S&P 500. But, of course, the question is what earnings will be over the next year.

In Indiana, the weakening of the housing market will continue, but to a lesser extent, according to Jerry Conover, director of the Indiana Business Research Center (see page 10).

••If cash-out refinancing by homeowners falls back to 2001 levels, it would drain \$300 billion from the economy—which would have roughly the same impact as a \$60 jump in the price of a barrel of oil.»

# **Indiana Agriculture**

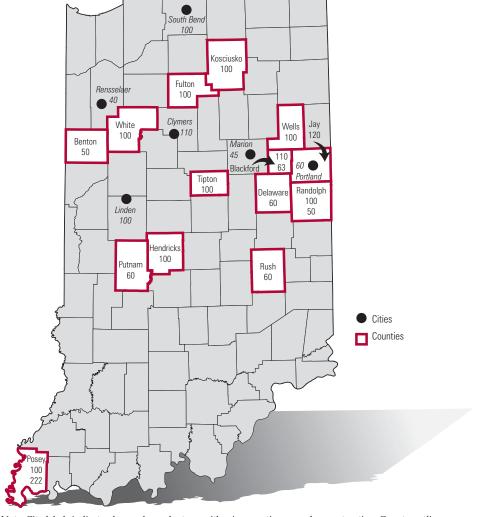
#### **Corinne Alexander**

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ndiana agriculture is undergoing a massive transition and entering the energy business. Going forward, this leap into farming for fuel means that the price of gasoline will have a large impact on Indiana farm incomes and farmland values.

Ethanol produced from corn is leading the way. Right now, there is an existing ethanol plant in South Bend, with an additional four plants at Rensselaer, Marion, Clymers, and Linden that will be on-line in 2007. These four new ethanol plants will utilize about 160 million bushels of corn, equivalent to 12 percent of Indiana's 2006 corn production. The State of Indiana is working with an additional eight plants located in Blackford, Jay, Putnam, Posey, Tipton, Randolph, and Rush counties. The Purdue list indicates at least another ten groups considering plant sites. If all of the proposed plants are built,

#### Figure 1 Ethanol Plant Locations and Plant Size in Millions of Gallons of Ethanol per Year



Note: City labels indicate places where plants are either in operation or under construction. County outlines represent proposed plant locations Source: Professor Chris Hurt, Purdue University, November 2006

the demand for corn for these plants will be the equivalent of 81 percent of Indiana's 2006 corn production. Even if only a fraction of these plants are build, this new usage for corn will dramatically alter Indiana's agriculture (see **Figure 1**).

Biodiesel produced from soybean

*For more information* 

about Indiana farmland

values, see the Purdue

Land Value Survey at:

www.agecon.purdue.edu/

extension/pubs/paer/2006/

august/paer0806.pdf

oil is not developing as quickly as ethanol. The largest facility will be a new soybean crushing facility being built at Claypool in Kosciusko County by Louis Dreyfus, Inc. That plant will process 50 million bushels

of soybeans per year, equivalent to 17 percent of Indiana's 2006 soybean production.

Why has interest in biofuels approached "gold rush" status in the last year? With crude oil prices above \$50 a barrel, biofuels, and ethanol in particular, have become extremely profitable. As recently as 2004, crude oil was well below \$40 a barrel, a point where biofuels are not profitable. In 2006, with crude oil in the \$60 to \$70 a barrel range, the outlook for the ethanol market is rosy. However, profitability in the ethanol market is vulnerable to the price of crude oil.

## **Farm Income and Farmland Values**

How will the development of ethanol and biodiesel plants in Indiana affect farm incomes and farmland values? The answer for farm incomes depends on the enterprise, with grain operations benefiting from the biofuels boom and livestock operations who must buy grain to feed their animals struggling. To highlight this point, between October 12, 2006 (when World Agricultural Supply and Demand Estimates were released), and November 3, 2006, the December 2006 corn futures price had increased about 67 cents from \$2.77 to \$3.44 because U.S. corn production was revised downward. This large increase in the price of corn will

> translate into an additional \$112 per acre of income for the projected 2006 state average corn yield of 167 bushels per acre. However, Dr. Chris Hurt estimates that the typical Indiana hog be profitable if

operation will not be profitable if the price of corn (the primary cost for hog operations) is above \$3.50. For Indiana hog producers, this 67 cent increase in the price of corn means that the profitability in their operations is quickly disappearing.

Farmland value depends on many factors, including long-term interest rates, government price support payments, real estate taxes, and most importantly, on the returns to crop production. Looking to 2007, the biofuels boom can be expected to increase the value of farmland with its large impact on the returns to crop production. Given the current price levels for corn and soybeans, prices are well above the level where government price support payments would be triggered, reducing the influence of government programs. Long-term interest rates can be expected to increase, which would put downward pressure on land prices, but this increase is happening slowly. Overall, the biofuels boom will increase the value of Indiana farmland for 2007 and beyond.

More information about the Indiana agricultural outlook can be found at: www.agecon.purdue.edu/extension/pubs/paer/2006/ october/paer1006.pdf

# Indiana

#### Jerry N. Conover, Ph.D.

Director, Indiana Business Research Center, Kelley School of Business, Indiana University

ith the end of 2006 in sight, the year is shaping up to be one of even tamer growth than we predicted a year ago. As shown in Figure 1, Indiana's total nonfarm payroll employment in 2006 has continued its relatively steady climb that began in July 2003. As of September 2006, nonfarm payrolls accounted for 2,980,200 Indiana jobs. This level is barely 1 percent below the state's all-time employment peak reached in May 2000, and it's almost 100,000 jobs higher than the post-recession low of three years ago.

## Employment

Employment growth began the year at a fairly slow pace of about 20,000 new jobs annually compared to a year earlier. Then the pace picked up to a year-over-year rate of about 25,000 to 30,000 new jobs during the summer, but it slowed substantially in September. This continues a trend of decelerating job growth over the past two years, but at least we're still adding jobs in most months.

Indiana's modest job growth has been shared across most industries. The sectors with the largest contributions to new jobs over the past twelve months have been education and health services (averaging 6,742 new jobs year-overyear); leisure and hospitality (4,718 jobs); trade, transportation, and utilities (3,742 jobs); professional and business services (3,017 jobs); and construction (2,917 jobs).

The traditional bastion of the Hoosier economy, manufacturing, averaged an annual growth rate of only 383 jobs over the past twelve months, and overall factory employment has not budged much for the past two years. Even with this slow growth, however, Indiana is