PURDUE UNIVERSITY

PURDUE AGRICULTURAL ECONOMICS REPORT

JUNE 2007

How Accessible is Health Care in Your County?

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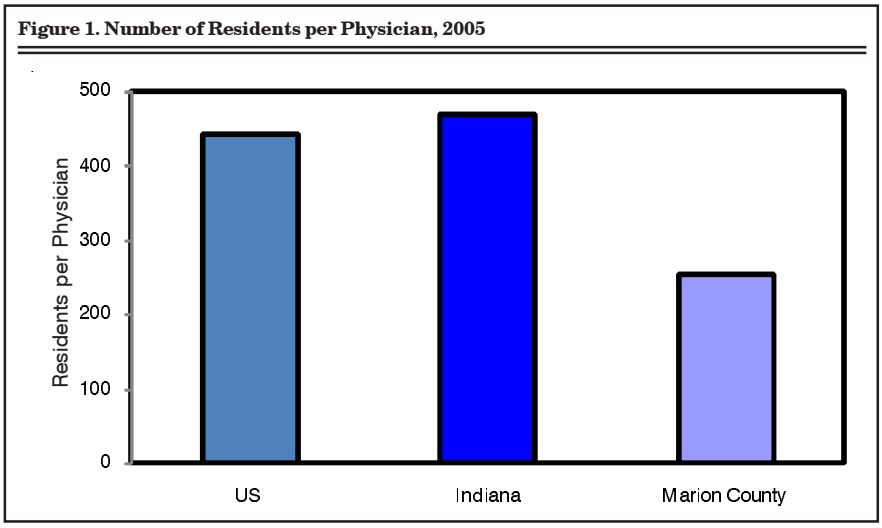
High quality and easily accessible healthcare services are essential for the well-being of Indiana residents. Health care services also influence economic prosperity. Research has shown that availability of health care services does play a role when firms decide where to start a new business. Health care accessibility is a multi-faceted concept. It embraces such diverse issues as whether health care is affordable or covered by health insurance, whether it is available within a reasonable travel distance, and whether it is available at all times to all people. The research reported here focuses on the geographic aspects of accessibility. Does where one lives make a difference in how easily health care facilities and physicians can be reached? In other words, does location matter when it comes to health care accessibility?

In 2005, a total of 13,283 physicians served Indiana's 6.2 million residents. That is, one physician for every 469 Hoosiers. This is slightly worse than for the nation as a whole where one physician is shared by 442 Americans (see Figure 1). Focusing only on Indiana, some counties do much better than the national average. For example, Marion County has one physician for every 254 residents. This does not take into account that Marion County physicians may also serve patients living somewhere else. For example, patients who live close to Marion County may find it relatively easy to access the rich medical care that Marion County offers.

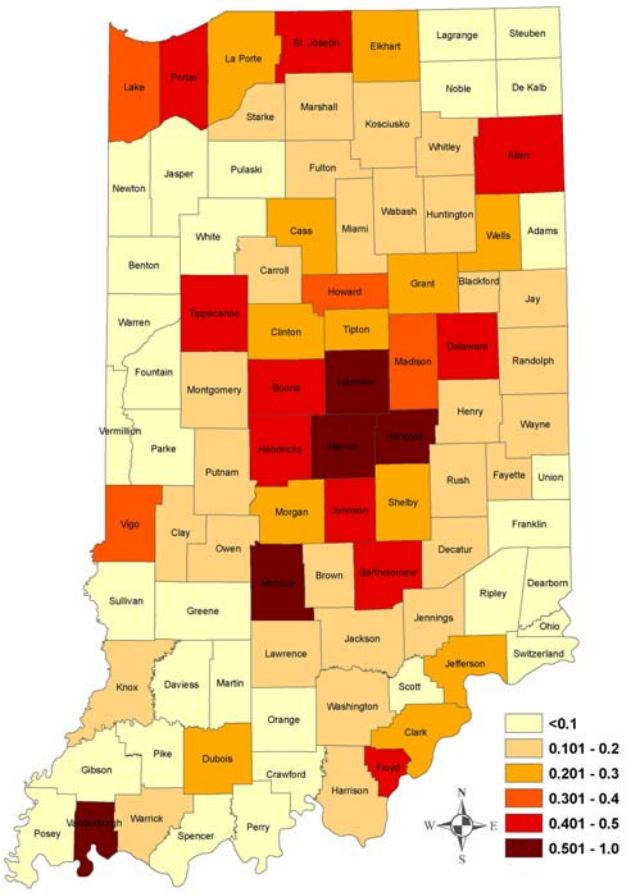
To get a better idea of differences in access to medical care across the state, we calculated how accessible medical care is in each county. The calculations consider the health care services in the county of residence, medical services offered in other Indiana counties, and the distances that residents must travel to reach medical services. In our method of determining how accessible healthcare in a county is the county with the best access to medical care receives a score of one. The county with the worst access to medical care receives a score of zero. Every other county gets a score between zero and one. The closer the score is to one, the better the county's access to health care. We performed the calculations twice: once for access to physician care, the second time for access to hospital care.

Figure 1. Number of Residents per Physician, 2005



In This Issue

Figure 2. Access to Physician Care in Indiana Counties



Access to Physician Care

Access to physician care is very unequal across Indiana counties (see Figure 2, Table 1). The darkest shading indicates the best access and the lightest colors indicate poor access. Marion County has the most favorable access to physicians. Good access to physician care is also recorded for regional centers, such as Vanderburgh County (Evansville) and Allen County (Fort Wayne), the two counties housing Indiana's major universities (Tippecanoe and Monroe counties), and the fast growing suburban counties of Indianapolis (Boone, Hamilton, Hancock, and Hendricks counties).

At the other end of the spectrum, Posey County in Southern Indiana has the worst access to physicians. It is closely followed by four other rural counties located along the Ohio River, namely Switzerland, Ohio, Perry, and Spencer counties. Only two of the ten counties with the worst physician accessibility, Benton and Newton counties, are located in the northern portion of the state. They are part of a vast rural area along the Illinois border that has also been identified as a Health Professional Shortage Area by the Department of Health and Human Services.

Access to Hospital Care

Five counties that make the top-ten list of best access to physician care also show up on the top-ten list of best access to hospital care: Marion, Vanderburgh, Monroe, St. Joseph, and Allen counties (see Figure 3 and Table 2). New to the top-ten list are some urban counties that serve as regional centers for the surrounding rural areas: Vigo County (Terre Haute), Jefferson County (New Albany), Lake County (Gary), Madison County (Anderson), and Porter County (Portage, Valparaiso). Note that five counties that provide an abundance of physician care do not show up on the top-ten list of best access to hospital care: namely Tippecanoe County and the four suburban counties of Indianapolis (Hamilton, Hancock, Hendricks, and Boone counties).

The most underserved counties with poor access to hospital care are listed on the right-hand side of Table 2. The concentration of poor access to hospital care in the southern rural portion of Indiana —especially along the Ohio River— is extreme. Only one county on the list, Benton County, is located in Northern Indiana. Seven of the top-ten 10 counties with poor access to hospital care also appear on the top-ten list of worst access to physician care, and are thus double-disadvantaged: Benton, Crawford, Ohio, Perry, Posey, Spencer, and Switzerland counties.

Purdue Agricultural Economics Report is a quarterly report published by the Department of Agricultural Economics, Purdue University.

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Who Lives in Counties with Poor Health Care Access?

Identifying the counties that have poor health care access is very important to ensure that resources are directed where they are needed. It is equally important to identify vulnerable population groups who live in areas with insufficient health care access. Comparing the population in the counties with best health care access to the population in the counties with worst access, our study shows that:

- The elderly are slightly over-represented in areas with poor access to health care.
- Children under five are slightly over-represented in areas with good access to health care.
- The population in areas with poor access to health care is almost exclusively white. In contrast, the population in areas with good health care access is much more diverse, with about 20% of the population being non-white.*
- Farm employment in the area with poor health care access makes up almost 8% of total employment, but is nearly absent from areas with good health care access.
- The average per capita income is substantially lower in the area with poor health care access than in the area with good health care access. The difference amounts to more than $5,000.
- Residents in the area with poor access to health care are, on average, less educated than the residents of the area with good health care access. The percentage of residents with a college degree is more than twice as high in good compared to poor health care accessibility areas. At the other end of the educational attainment scale, persons without a high school degree are strongly over-represented in the area with poor health care access.

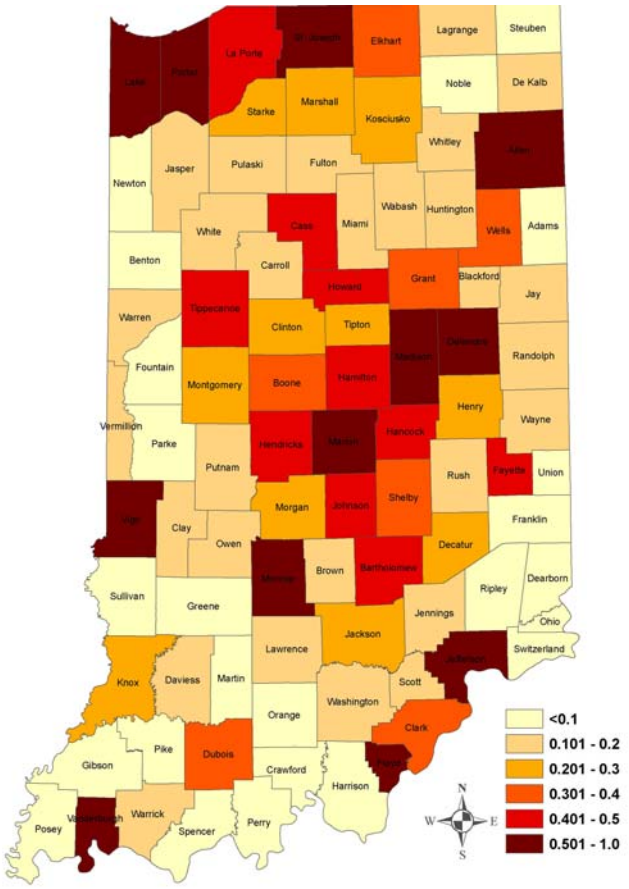
Table 1. Indiana Counties with Best and Worst Access to Physician Care

The Best:			The Worst:		
Rank	County	Score	Rank	County	Score
1	Marion	1.00	1	Posey	0.00
2	Vanderburgh	0.64	2	Switzerland	0.01
3	Hamilton	0.63	3	Ohio	0.01
4	Monroe	0.54	4	Perry	0.02
5	Hancock	0.53	5	Spencer	0.02
6	St. Joseph	0.50	6	Crawford	0.02
7	Allen	0.48	7	Newton	0.04
8	Boone	0.47	8	Sullivan	0.05
9	Hendricks	0.46	9	Benton	0.05
10	Tippecanoe	0.46	10	Ripley	0.05

Concluding Remarks

Equal provision of healthcare services for all people in all parts of Indiana is a challenge to policymakers. Our research shows that Indiana's rural

Figure 3. Access to Hospital Care in Indiana Counties



** This does not imply that the non-white population has better access to medical care than the white population. For example, the U.S. Department of Health and Human Services has designated a portion of Marion County as a Health Professional Shortage Area. In that area, the population is predominantly non-white.*

Table 2. Indiana Counties with Best and Worst Access to Hospital Care

The Best:			The Worst:		
Rank	County	Score	Rank	County	Score
1	Marion	1.000	1	Ohio	0.000
2	Vanderburgh	0.936	2	Switzerland	0.001
3	Vigo	0.706	3	Posey	0.001
4	Jefferson	0.662	4	Perry	0.006
5	Allen	0.640	5	Spencer	0.006
6	Lake	0.628	6	Crawford	0.009
7	St. Joseph	0.550	7	Franklin	0.047
8	Madison	0.541	8	Benton	0.047
9	Monroe	0.536	9	Martin	0.049
10	Porter	0.517	10	Pike	0.053

counties turn out to be the most poorly served places when it comes to health care. This is an inconvenience for everybody living in these areas. It is also a heavy burden for the elderly, those who are suffering from chronic disease such as diabetes, and pregnant women needing pre-natal care. Insufficient access to health care can be fatal in cases where patients need immediate medical attention. For example, patients suffering a heart attack require medical care within an hour to increase survival chances and to avoid permanent damage to the heart. Insufficient access to care can also deter people from seeking preventive care resulting in more expensive treatments in the long run.

Health care services in remote rural areas can certainly be improved by increasing the number of physicians in the affected counties, along with increasing the number of Rural Health Clinics and extending their services. But we also recommend strategies that make it easier for rural residents to access excellent health care services in urban areas in Indiana. Extending the ambulance service, including airlifting patients needing emergency care, is just one example. However, we may also look to new technologies allowing remote access to the expertise of physicians and hospitals in urban centers.

Taxes, the Budget, and the 2007 Session of the Indiana General Assembly

Larry DeBoer, Professor*

The 2007 session of the Indiana General Assembly finished its chores on time. Legislators passed a balanced budget with significant increases in education funding. They provided property tax relief for homeowners, and provided new revenue options for local governments.

This article asks some questions, and attempts some answers, about the budget and tax policies passed by the 2007 Indiana General Assembly. Has the state's budget climbed back to fiscal health? Will Indiana be ready if another recession comes sooner rather than later? And, did the legislature make substantial changes in Indiana local finance, or was the property tax relief a mere short-term fix?

The State Budget as a Checking Account

It's useful to look at the state budget as if it were a checking account. Table 1 takes budget figures from various sources and arranges them in checking account form. The state starts the fiscal year (every July 1) with money in the bank, the Start of Year Balances. During the fiscal year, revenues arrive from the state's taxes and other sources. Appropriations are authorized by the state's budget, and the money is spent. The state can make adjustments to revenues and spending, by transferring money from other accounts, by spending less than the budget authorizes (reversions), or delaying payments to future fiscal years. Start of year balances, plus revenues, less expenditures, plus adjustments, equal End of Year Balances. Balances are kept in several different funds, including the general fund and the rainy day fund. The total is shown here. A measure of fiscal health is balances as a percent of revenues, or of budget size. Ten percent is a prudent level; 5% is the recommended rock-bottom-minimum. The state keeps track of the total payments it has delayed as part of adjustments, in the Payment Delay Liability.

Data are combined from several sources to make this table. The revenue figures are from the state's April forecast. The 2007 revenues will change slightly at the July closeout. The 2008 and 2009 revenue figures are good until the December revenue forecast. The appropriations figures are from the Legislative Services Agency's fiscal note, prepared after the session ended. Balance and payment delay figures require some guesswork. It appears that more of the payment delays will be reversed in 2007 than had been estimated at the beginning of the fiscal year. The next official balance data will be available at the July closeout. The balance figures here are preliminary tabulations from the State Budget Agency.

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* *Larry DeBoer is a leading expert on Indiana taxation issues. He routinely assists the Indiana Legislative Services on Indiana tax matters.*

Revenues and Appropriations

The state's checking account shows that sales, individual income and gaming tax revenue are expected to grow faster in 2008 and 2009 than they did in the current biennium. Corporate income tax revenue is expected to grow more slowly. All Other revenue is expected to drop slightly. One reason for this is that added earnings from higher interest rates, and the tax amnesty program, increased other revenues in 2006 and 2007. These will not add to other revenues in 2008 and 2009.

The two big revenue changes during this past session don't show up in this table, because they aren't included in the general fund. The cigarette tax increase from 55.5 cents per pack to 99.5 cents per pack will raise an additional $200 million a year. This revenue will go mostly for health insurance for low income people, which is not a general fund appropriation. The two "racinos" (that's the State House name for the horse tracks with slot machines) are expected to pay $500 million in fees over the next two calendar years. That revenue will be devoted to property tax relief, in a program not included in the general fund or property tax replacement funds shown here.

Overall, revenue is expected to continue to grow in the next two years as it has during the current biennium. This was a disappointment, because the December forecast had predicted more rapid sales and income tax growth. The April forecast revision reduced the revenue forecast by about $150 million over the three forecast years, 2007, 2008 and 2009. The Indiana economy is growing more slowly than expected.

Appropriations for K-12 and higher education will grow faster in the 2008-09 budget. Increases are 4.3% annually for K-12 education in 2008 and 2009, and 5.7% for higher education. This compares to 1.4% and 2%, respectively, in the tight budgets of 2006 and 2007. General fund spending on property tax relief is expected to decline in 2008 and 2009 from past levels. This is because this budget's property tax relief program is funded outside the general fund budget. Appropriations for the new insurance program for low income people also are not included in the general fund. Other appropriations increases were in line with the current budget. The All Other category has grown so rapidly in the past two biennia in part because of rising insurance costs for state employees.

Total appropriations are scheduled to increase 3.5% per year during the coming biennium. This is more than in the current biennium, but still slower than during the previous three budget cycles. Once again, this slower growth is due partly to the exclusion of the health insurance and property tax relief programs from this budget. All-in-all, the coming fiscal years will be more like past than the 2006-07 budgets.

Balances and Fiscal Health

The budget is balanced in both 2008 and 2009. This is shown by the positive numbers on the "Current Year Surplus/Deficit" line. This table sums the numbers somewhat differently than the Budget Agency does, but the claims of a balanced budget get no argument here. If these projections come true, Indiana will have had a balanced budget four years in a row, after many years of deficits before that.

Table 1. Preliminary Indiana State Budget Summary, FY 2006-2009 (millions of dollars)

	Actual 2006	Budget 2007	Budget 2008	Budget 2009	Avg. Annual Change 2000-05	2005-07	2007-09
Start of Year Balances	750	1,089	863	799			
Revenues							
Sales Tax	5,226	5,341	5,578	5,827	6.3%	3.8%	4.4%
Individual Income Tax	4,322	4,477	4,681	4,934	2.3%	3.1%	5.0%
Corporate Income Tax	925	908	924	947	-3.5%	4.9%	2.1%
Gaming	590	625	647	678		3.4%	4.1%
All Other	1,370	1,099	1,079	1,071	2.3%	10.1%	-1.3%
Total	12,434	12,450	12,909	13,456	4.5%	4.1%	4.0%
Appropriations							
K-12 Education	4,582	4,639	4,831	5,048	2.9%	1.4%	4.3%
Higher Education	1,544	1,588	1,686	1,774	2.8%	2.0%	5.7%
Medicaid	1,455	1,525	1,587	1,664	5.8%	5.0%	4.4%
Property Tax Relief	2,153	2,228	2,143	2,134	15.2%	2.0%	-2.1%
Health & Social Services	836	860	943	957	0.3%	5.9%	5.5%
Public Safety	718	718	726	736	2.3%	1.5%	1.2%
All Other	787	854	953	987	-6.5%	9.0%	7.5%
Total	12,075	12,413	12,867	13,299	3.9%	2.8%	3.5%
Current Year Surplus/Deficit	359	38	42	158			
Transfers from (to) Other Funds	12	(58)	15	19			
Reversions	125	134	25	25			
Payment Delays (Reversals)	(156)	(340)	(145)	(137)			
Total Adjustments	(20)	(264)	(105)	(92)			
End of Year Balances	1,089	863	799	865			
Total Balances % of Revenue	8.8%	6.9%	6.2%	6.4%			
Payment Delay Liability	622	282	137				

Based on partial information on balances. Subject to revision at closeout in July, 2007.

Balanced budgets put Indiana on the road to "fiscal health." How will we know when we get there? Here's a two-part definition of fiscal health for Indiana.

The state keeps balances to help it pay its bills on time, and to guard against unexpected revenue shortfalls. Payments go out on one schedule, revenues come in on another. A rule of thumb is that a state needs a minimum of 5% of its budget in balances for this "cash flow" reason. Balances also help when recessions hit. The state can maintain services and avoid tax hikes by drawing on balances. The State Budget Agency would like to see balances at ten to twelve percent of the budget to cover revenue shortfalls.

Another way of handling a recession is to use payment delays, which should rightfully be called a "fiscal gimmick." It's a useful gimmick, though. The state pays billions of dollars a year to local governments for property tax relief, and to schools in state aid. It pays monthly or bi-monthly. The gimmick works because the state runs on a July through June fiscal year, while the local governments use a calendar year. The state can reduce its appropriations by delaying payments to locals from one fiscal year to the next, while still paying locals the full amount promised during their fiscal year.

In fiscal 2002 and 2003, the state postponed a bit more than $700 million in local aid payments. Fiscal health requires that past delays be paid in full so that the payment delay gimmick can be used in the next recession. As of the end of fiscal 2007 (this June), the state will still have $282 million to re-set.

A simple definition of fiscal health is to have balances equal to ten percent of the budget, and to have the payment delays reset.

The legislature intends that the payment delays will be re-set by the end of fiscal 2009. Unfortunately, the other part of the fiscal health prescription will not be met. By the end of fiscal 2009 Indiana is expected to have balances of $865 million, only 6.4% of the budget (see Figure 1). Ten percent would be $1.35 billion in 2009. Balances in 2009 will be more than $450 million short of ten percent.

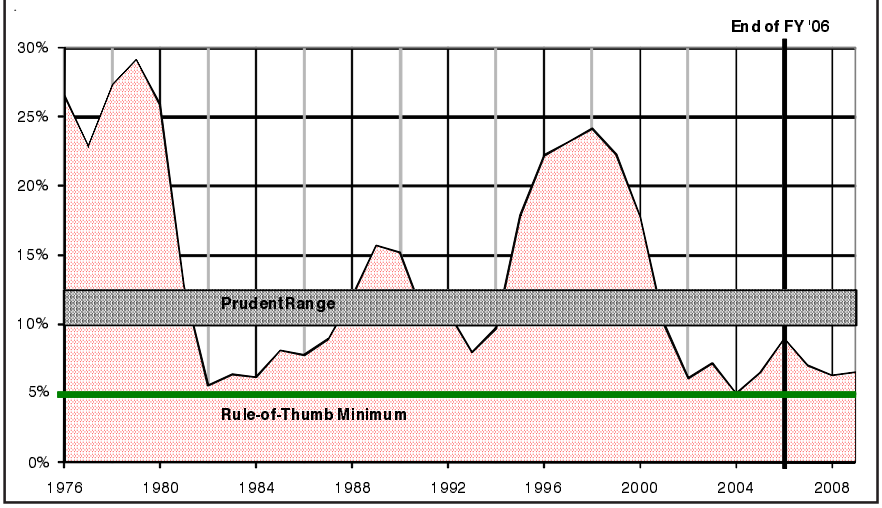
This is an improvement over 2007. Balances are expected to fall short of ten percent by about $380 million at the end of fiscal 2007. Add the payment delay liability, and that's more than $650 million. We'll move $200 million closer to fiscal health by the end of 2009, if all the estimates pan out.

Should a recession occur before 2010, however, Indiana will not be ready. At the start of the last recession the state had balances of almost two billion dollars. This reduced the need for tax hikes and budget cuts. If a recession occurs before 2010, tax hikes and budget cuts will have to be considered right away.

The new state budget is balanced in both fiscal years, 2008 and 2009. It increases appropriations for K-12 and higher education by a lot more than during the 2006 and 2007 fiscal years. It resets the local government payment delays, so they'll be ready to use in the next recession (whenever that is). But it falls well short of the prudent range for balances as a percentage of the budget, by more than $450 million.

We'll have more education spending over the next two years. But this budget will be in big trouble if a recession comes sooner rather than later.

Figure 1. Indiana State Fund Balances as Share of Operating Revenues, FY 1976-2006 and Budgeted 2007-09.



Property Taxes in 2007

Estimates prepared in March 2006 showed that 2007 property tax bills for Indiana homeowners would increase a lot. Late in the legislative session revised estimates showed that homeowner taxes would increase even more. The General Assembly responded to this problem with a short term fix, but also with more substantive changes in local finance which could have far-reaching effects.

Tables 2 and 3 show a breakdown of estimated property tax bill changes for owners of various classes of property, for 2007 and 2008 respectively. These estimates are produced with an elaborate model of the Indiana property tax, based on assessment data from millions of property parcels and tax levy and rate data from thousands of Indiana local governments. Assessed values and levies are extrapolated to the future based on past trends, and then the effects of policy changes are simulated.

The Agricultural column shows the estimated statewide average tax bill change for owners of agricultural residences, and agricultural land, buildings and equipment. The All Residential column includes owner-occupied primary residences, known as homesteads, along with rentals and second homes. The Commercial, Industrial and Utility

columns show tax bill changes for classes of business property.

The last column in Tables 2 and 3, Average Homestead, shows the effect of each policy on an average homestead, an owner-occupied primary residence with a market value of $122,000 in 2006, using the homestead deduction and the mortgage deduction. After trending in 2007 and 2008 its assessed value is $156,000. It differs from the Residential Homestead column because the average homestead is assumed to be unchanged between 2006 and 2007. The Residential Homestead column includes the value of new construction, as well as the effects of several smaller homeowner deductions. Legislators were particularly interested in the effects of policies on the average homestead.

The baseline tax change estimates include the effects of annual tax levy increases by local governments, the effects of new construction and other changes in the property tax base, and the combined effects of a host of smaller tax policy changes. In 2006 and 2007 the General Assembly allowed school corporations to increase their property tax levies, to offset the smaller than usual increase in the state aid. Bigger than usual increases in welfare and juvenile detention levies were also projected. New deductions for business equipment shifted taxes from businesses to other taxpayers. The baseline estimates show larger-than-usual increases in property tax payments for all classes of property in 2007.

Three major policy changes enacted prior to the 2007 session made the estimated 2007 tax bill increase for homeowners particularly large. Two more changes had big effects, but they offset one another. The policy effects are shown in Table 2. Each of these policy changes was modeled separately, to show its individual effect on tax bills. The individual effects do not always sum to the total change because some of these policies interact when used together.

- In 2007 51 counties will exempt inventories from property taxes for the first time, joining 41 counties that had exempted inventories earlier. Taxes formerly paid by owners of inventories will shift to owners of other kinds of taxable property, including homeowners. Inventory tax elimination is projected to add 3.7 percentage points to the homeowner tax bill increase statewide. It provides a significant tax break to owners of commercial and industrial property.

- In 2007 assessors will adjust real property assessments for changes in market values from 1999 to 2005. Trending data now available for 41 counties show that in many counties residential real property assessments are being trended upward much more than non-residential real property assessments. This creates a tax shift from non-residential property owners to residential property owners. Trending is estimated to add 10.5% to the homeowner tax bills statewide.

- In 2007 state property tax relief payments will be capped at just over two billion dollars. Tax relief has become the second largest item in the state budget, after K-12 education (see Table 1). In 2006 the General Assembly placed an upper limit on these credit payments. The cap will reduce tax credit rates by about 8%, so taxpayers will pay more. The cap is expected to add 3.7% to the average homeowner tax bill increase, statewide.

Table 2. Estimated Property Tax Bill Changes 2006-2007

	Agricultural	All Residential	Residential Homestead	Commercial	Industrial	Utility	All Property	Average Homestead[2]
Baseline	9.3%	8.8%	8.8%	7.1%	7.7%	6.7%	8.1%	6.1%
Effects of Individual Policy Changes, added to baseline								
Assessment, Deduction and Exemption Changes								
Homestead Deduction to $45,000 in 2007	2.8%	-4.1%	-8.3%	5.6%	5.5%	5.8%	0.8%	-5.1%
County Inventory Exemptions	1.8%	4.0%	4.0%	-6.8%	-8.9%	4.0%	-0.9%	3.7%
Trending	-4.7%	8.7%	11.8%	-10.3%	-10.7%	-16.8%	-1.3%	10.5%
Levy and Credit Changes								
Homestead Credit 28% in 2006; 20% in 2007	1.2%	3.8%	5.4%	0.0%	0.0%	0.0%	1.9%	5.5%
State Property Tax Relief Cap	3.3%	3.7%	4.0%	2.1%	1.7%	1.3%	2.8%	3.7%
Total Change, Prior to 2007 session[1]	*12.3%*	*26.8%*	*29.3%*	*-4.1%*	*-6.0%*	*-3.0%*	*11.5%*	*23.6%*
State Policy Changes, 2007 session								
$300 million Homestead Credit rebate	-3.3%	-10.8%	-15.3%	0.0%	0.0%	0.0%	-5.3%	-15.3%
Total Change, After 2007 session	*9.0%*	*16.0%*	*14.0%*	*-4.1%*	*-6.0%*	*-3.0%*	*6.1%*	*8.3%*

1 *Individual policy effects may not add to total changes because of interactions among policies*

2 *Average homestead with market value of $122,000 in 2006 and $156,000 in 2008, after trending. Assumes mortgage and standard deductions only. Results differ from Residential Homestead column because average homestead does not include effects of new construction, nor the effects of other residential deductions.*

- To reduce homeowner tax increases in 2006, the General Assembly passed an increase in the homestead credit from 20% to 28% of eligible levies. This cost the state budget about $100 million. In 2007 the credit was scheduled to drop back to 20%, and this would add about 5.5% to homeowner tax bills. It has no effect on taxes paid by businesses, because the credit reduces homeowner tax payments after tax rates are calculated.

- To offset this decrease in the homestead credit, for 2007 taxes the homestead deduction was increased from $35,000 to $45,000. This cuts 5.1% off the baseline tax bill increase of the average home. It adds to the tax bill increases of agricultural and business property, because the added deduction subtracts from the assessed value of homestead property. Tax rates must increase to raise the authorized tax levy. Non-homestead taxpayers pay more.

Combined, the baseline tax bill increase and the five major policy changes are expected to increase the average homeowner's tax bill by 23.6%. The legislature had been advised in March 2006 that the increase would be large (the estimate was 15%). New data on trending became available by the last week of the session, and the homeowner tax bill estimate increased to nearly 24%.

Property Taxes in 2008

Estimated tax changes for 2008 are much smaller than in 2007, but still larger than usual (see Table 3). The baseline changes are smaller because most of the policy effects that raise the baseline in 2007 will have run their course. Trending and the state property tax relief cap add to homeowner tax bills, but less than in 2007. Trending has a much smaller effect because assessors will be advancing values by one year instead of six. Two policy changes have big effects in 2008.

The homestead deduction was scheduled to drop back to $35,000 in 2008. This would have increased the share of homestead property in the tax base, adding 5.3% to homeowner tax bills, but subtracting similar amounts from non-homeowner tax bills.

In 2008 the base rate assessment of a farm land acre will increase 30% from $880 to $1,140. This number is the starting point for the assessment of farm land. Land assessments are then adjusted for soil type and other features such as forest cover and flooding. Farm land is not assessed based on market value, but based on its "use value" in agriculture. This protects farmers from speculative land value increases.

But the base rate is subject to trending. It will be re-calculated each year starting with taxes in

Table 3. Estimated Property Tax Bill Changes 2007-2008

	Agricultural	All Residential	Residential Homestead	Commercial	Industrial	Utility	All Property	Average Homestead[4]
Baseline	3.8%	5.3%	5.2%	4.6%	4.8%	4.2%	4.9%	3.0%
Effects of Individual Policy Changes, added to baseline								
Assessment, Deduction and Exemption Changes								
Homestead Deduction to $35,000 in 2008	-2.6%	4.0%	8.5%	-5.0%	-4.9%	-5.3%	-0.8%	5.3%
Farmland base rate, $880 to $1,140 in 2007-08	8.3%	-0.8%	-0.7%	-0.4%	-0.7%	-1.2%	0.0%	-0.5%
Trending	-0.6%	0.9%	1.2%	-1.0%	-1.2%	-2.5%	0.0%	1.1%
Levy and Credit Changes								
State Property Tax Relief Cap	2.6%	1.8%	1.4%	2.3%	1.9%	1.4%	2.0%	1.3%
Total Change, Prior to 2007 Session[3]	*11.5%*	*9.2%*	*11.3%*	*2.2%*	*1.7%*	*-1.3%*	*6.5%*	*10.6%*
State Policy Changes, 2007 session								
$250 Million Homestead Credit	0.9%	2.4%	3.8%	0.0%	0.0%	0.0%	1.2%	3.9%
Homestead Deduction remains at $45,000	1.2%	-1.4%	-2.8%	2.3%	2.2%	2.2%	0.2%	-6.5%
Total Change, After 2007 session	*13.7%*	*10.4%*	*12.2%*	*4.5%*	*3.9%*	*0.9%*	*8.0%*	*7.8%*
Changes with New Local Option Income Taxes, Average County								
Fund Civil Operating Increase with Income Tax	-2.1%	-2.3%	-2.2%	-2.4%	-2.5%	-2.3%	-2.3%	-2.0%
1% Income Tax for Property Tax Relief								
Distributed to All Taxpayers	-24.1%	-24.0%	-25.8%	-16.7%	-13.8%	-10.1%	-20.4%	-24.1%
Distributed to Homeowners only	-14.0%	-37.7%	-54.1%	0.0%	0.0%	0.0%	-20.4%	-55.0%
Distributed to Homeowners and Rental Owners	-10.4%	-36.2%	-38.8%	-4.1%	0.0%	0.0%	-20.4%	-37.0%

3 *Individual policy effects may not add to total changes because of interactions among policies*

4 *Average homestead with market value of $122,000 in 2006 and $156,000 in 2008, after trending. Assumes mortgage and standard deductions only. Results differ from Residential Homestead column because average homestead does not include effects of new construction, nor the effects of other residential deductions.*

2008, based on a capitalization formula, which measures net income per acre and divides by an interest rate. Increases in commodity prices, particularly corn, are raising farm income in this formula. This increase in farm land assessments is estimated to add 8.3% to the average agricultural property owner's tax bill in 2008.

State Tax Relief Passed in 2007

The General Assembly could not allow homeowner property taxes to rise an average of 24%. Legislators responded by pledging $300 million in new tax relief for homeowners in 2007, and $250 million in new relief in 2008. In 2007 homeowners will receive special rebate checks towards the end of the calendar year. In 2008 the homestead credit percentages will be increased, reducing homeowner tax bills. This new property tax relief is estimated to cut the 2007 average homeowner tax increase from 23.6% to 8.3%. The average rebate check is expected to be about $235.

Indiana has never delivered property tax relief through rebate checks before, and this procedure was criticized by some members of the General Assembly. At least one legislator admitted that the move was political, to make sure that taxpayers gave the legislature credit for delivering tax relief.

Legislators have complained that in past years substantial tax relief has been provided—state property tax relief spending has doubled since 2002—but because it reduced *very big* tax hikes to merely *big* tax hikes, many taxpayers did not realize that tax relief had been increased. Unfortunately, the rebates may create the appearance that local officials caused the large tax bill increases for the legislature to remedy. In fact, the larger part of the tax bill increases were caused by legislative changes in assessment and credit provisions. Some of these changes were forced by the 1998 Supreme Court decision which required the state to replace the old true tax value assessment system with the new market value system.

There are at least two non-political reasons for the rebate procedure. First, new higher homestead credits require the recalculation of tax bills. The counties that have already mailed their 2007 tax bills would need to recall them and issue new bills. This would create confusion. The rebates allow tax billing to go forward as usual. However, some counties anticipated legislative changes and delayed their tax billing. In many other counties billing has been delayed by problems with trending, so fewer counties than usual would have been affected if tax bills were changed this late in the billing process.

Second, the state won't have the money for the rebates until late in the year. Tax relief will be financed by the sale of slot machine licenses to the two race tracks, turning them into "racinos." The first installments of these two $250 million payments are expected in the summer or fall. An additional $300 million tax relief payment before the racino money arrives would strain state balances.

In Table 3, the $250 million in homestead credits in 2008 is shown *adding* 3.9% to homeowner tax bills. This is because $250 million represents a reduction in credits from the $300 million to be delivered in 2007. This illustrates a problem that the legislature creates when it delivers property tax relief. Once relief is started it must be continued or tax bills will increase. Note, however, that without the $250 million in 2008 homeowner tax bills would increase by about 20% over all. The relief in 2008 represents a substantial reduction in homeowner taxes, just not as big a reduction as in 2007.

The added tax relief in 2008 will be provided by keeping the homestead standard deduction at $45,000 for 2008, instead of allowing it to drop back to $35,000. The deduction will be reduced by $1,000 a year until it reaches $40,000 for taxes in 2013. This subtracts 6.5% from homeowner tax bills in 2008.

Homeowner tax bills are estimated to increase 7.8% in 2008, less than the 10.6% estimated prior to the 2007 policy changes. For non-residential property owners, however, the policy changes increase tax bills. The higher homestead deduction reduces the tax base and so raises tax rates. Tax bills increase for property owners who are not eligible for the deduction.

New Local Income Tax Options

The 2007 General Assembly offered local governments three new local income tax options. These could make substantial changes in the mix of property and income taxes that fund local government in Indiana, should local governments decide to use them.

First, local governments can decide to fund the annual increase in civil government property tax operating levies (that is, non-school, non-debt-service levies) with local income tax increases instead. This decision would be made by the county council in counties with the county adjusted gross income tax, and the COIT council in counties with the county option income tax. The COIT council is made up of the fiscal bodies of counties, cities and towns, with votes based on population.

Table 3 shows an estimate of the effect of this option in the average county. Property taxes would be lower by 2% to 2.5% across all property tax types. (This shows, by the way, that civil government operating costs are not the primary drivers of property tax increases. Taxes go up, for the most part, for other reasons than added spending by counties, cities and towns on employees and other day-to-day costs.)

Second, the county council or COIT council may adopt an income tax to reduce property taxes. The maximum rate is one percent, and the money may be distributed in three ways. It can be used to reduce taxes of all property owners. It can be used to reduce the property taxes of homeowners only. Or, it can be used to reduce the taxes of homeowners and owners of rental housing. The county may select any combination of these three tax relief formulas.

Table 3 shows the estimated effects of this tax option, under all three distribution formulas.

The estimated reduction in property taxes overall is 20.4% under all three formulas. Statewide, a one percent income tax raises about $1.3 billion. The total net property tax levy is about $6.3 billion, so a one percent income tax would reduce property taxes by about 20%.

The choice of a distribution formula makes a substantial difference in which taxpayers receive relief. If relief is distributed to all taxpayers, homeowner and agricultural taxes are reduced by about a quarter; business taxes by less. This is because the new local tax relief would be distributed based on the property tax replacement credit formulas, and business equipment receives a lower credit than do land and buildings.

If relief is distributed to homeowners only, the average homeowner could see his or her property tax bill cut in half. Owners of agricultural homesteads also benefit. Business property owners see no tax relief under this distribution formula. If the relief includes homeowners and owners of rental housing, homeowner taxes would fall by more than one-third. Large apartment houses are counted as commercial property, which is why that category of property sees some tax relief under this formula.

A third local income tax option raises new money for local budgets. The county council or COIT council can adopt an added income tax to raise new revenue for public safety. Public safety is broadly defined, as police and fire, emergency medical services, corrections and juvenile services, and includes current operating costs, debt service and pension obligations. The maximum rate is 0.25%, and most counties must adopt the two property tax relief income taxes to be allowed to adopt the public safety rate.

The deadline for adopting local income taxes will now be August 1. It had been April 1. The legislature wants counties to be able to consider these options this year, for taxes in 2008.

Income Taxes and Property Taxes

The local income taxes could deliver substantial property tax relief. But those same taxpayers may pay higher income taxes. How much taxpayers benefit overall from local income taxes depends on what they own, what they earn, where they live, and how their county decides to distribute tax relief.

The most important factor is the comparison of a taxpayer's taxable income and the assessed value of his or her property. Taxpayers with more assessed value and less taxable income tend to benefit when income tax rates rise and property tax rates fall. People who pay less generally include farmers, retired homeowners and property owners who live outside the county. This latter group includes most corporate businesses. People with more income and less property tend to pay more when income taxes increase to reduce property taxes. People who pay more include renters (at least at first), and, generally, employed homeowners.

We can estimate a "break-even" income for the average employed homeowner. In 2008, the average homestead in Table 3 has an assessed value of $156,000 and a net tax bill of $1,714 after deductions and credits. This homeowner's tax bill would fall 24.1% if a one percent income tax was distributed to all property taxpayers. That's a $413 saving. However, with a one percent income tax, any homeowner with a taxable income of more than $41,300 would pay more in total. A majority of employed homeowners would end up paying more total taxes. (Remember, these are statewide averages. The "break-even" income will vary depending on local property tax rates and the amount a one percent income tax raises in each county.)

If the tax relief is distributed to homeowners exclusively, though, the tax bill is cut by 55%, $943. Homeowners with taxable incomes less than $94,300 would see total tax cuts. A large majority of homeowners would fall into this category. If the relief is also distributed to owners of rental property, the break-even homeowner income is $63,400. Again, most homeowners would pay less overall.

Unless tax relief is distributed to all property owners, those taxpayers who have income in the county but do not own residential property will probably pay more overall. Such property owners receive no tax relief when it is distributed to residential property only, but would pay higher income taxes. Income earned by large corporations is not subject to local income taxes, so those businesses would not see an effect from either tax.

Renters own no property, but may pay income taxes. An income tax that reduces the property tax will increase the total tax bills of renters. But it's possible for renters to benefit from property tax relief. Lower property taxes paid by landlords make rental property more profitable. In pursuit of these profits, more rental property may be made available. This added supply of rentals could reduce rents, or at least slow their increase, as landlords bid to attract renters. Low income renters, who pay little in added income taxes, could benefit if lower property taxes create a boom in rental housing.

Where taxpayers live also matters. There are different property tax rates in different parts of a county, but the added income tax rate would be the same for the whole county. Suppose local governments decide to pay for their levy increase with an income tax instead of property taxes. The localities that have the highest levy increases receive more of the added income tax from all county taxpayers, no matter where the taxpayers live. Taxpayers would pay for services in jurisdictions other than where they live.

Band-Aid or Substantial Change?

The tax relief passed for 2007 and 2008 might be called a band-aid, in that it merely postpones the problem for another two years. The new homestead credits are not funded for 2009. If this $250 million in property tax relief disappears, homeowner tax bills are likely to rise 10% or so, in addition to the increases that will occur because of levy increases, the drop in the homestead standard deduction and trending. A 15% increase

is plausible. In other words, by mid-2008 we'll be right where we were in mid-2006, looking ahead to a big homeowner property tax increase. It's a problem postponed.

What will the General Assembly do in 2009? Perhaps legislators will find money in the state budget to extend homeowner tax relief for additional years, as they have so often in the past.

Or perhaps the 2007 General Assembly has handed the property tax problem to local governments. The new income tax options allow counties to deliver a large amount of property tax relief to homeowners or taxpayers more broadly. The options also allow local governments to freeze non-school operating levies at current levels, funding levy increases with income taxes instead. If legislators do not fund added tax relief, local governments may face pressure to fund it with local income taxes.

When the next homeowner property tax problem hits in 2009, the General Assembly may act. Or, state legislators may say to local officials: it's your problem now. If so, Indiana's system of local finance will undergo substantial change. Depending on what state and local governments do in 2009, this year's tax legislation may be way beyond a band-aid.

Legal and Tax Issues

Gerald A. Harrison, Professor and Extension Economist

Changes for Eminent Domain and Condemnation in Indiana

The U.S. Supreme Court in the *Kelo* case in 2005 said a local government entity New London, CT could not condemn property to convey a private benefit. But it was okay to take the property of an individual if pursuant to a *carefully considered development plan* as long as the plan was not adopted to benefit a class of "identifiable individuals."

For a long period of time, the U.S. Supreme Court has said takings are permissible even though the reason for the taking is for "public purpose" not necessarily explicitly for "public use." Implications of the distinction between "use" and "purpose" is where a battle has been raging! Economic development comes under "public purpose." Developments to expand the economy of an area are everyday events across America! The Supreme Court said if the *Kelo* holding is not satisfactory to a state, that state's legislature could amend its takings law accordingly.

State legislatures and administrations have reacted in different ways. What follows are some of the changes added to the law of takings in Indiana, in the 2006 session.

Indiana Changes.
First of all, to answer the "*Kelo* concerns" while the usual "public use" projects (highways, utilities, airports, …) will come under the eminent domain procedures, the amended Indiana law says that takings for development (private to government to private or private to private) with the power of eminent domain can only be where what may be referred to as identifiable "economic blight."

Where "blight" comes in to play may be the following situations:

- a structure that is a public nuisance;
- a structure unfit for human habitation;
- a structure that is a fire hazard or other public safety threat;
- a structure that is not fit for its intended purpose because of infrastructure deficiencies;
- a vacant or abandoned parcel in a substantially developed neighborhood in a nuisance-type condition that has not been remedied within a reasonable time after notice;
- a structure with delinquent taxes exceeding the assessed value:
- a property environmentally contaminated or
- an abandoned property.

Specifics of the Indiana law on the above points can be found at IC 32-24-4.5-7.

Among the other changes added in 2006 to Indiana law is the amount of compensation for certain takings of property. For farmland, the promise in the law for takings under the power of eminent domain the compensation must be 125 percent of the fair market value. If the taking is a residential property in which the owner lives, 150 percent of the fair market value is provided in the law.

Another significant change is the landowner who elects to enter a condemnation proceeding and gets more than offered 45 days before trial may get an extra $25,000 toward litigation expenses. That is a 10 fold increase from a similar provision in prior law.

Further, the new law adds a time limit of two years for the condemning agency to file a condemnation proceeding once the landowner rejects an offer. Otherwise, the taking agency must wait three years after the two years lapse before seeking the property for the same or substantially similar project. However, if there is a rejection of an offer from the Indiana Department of Transportation, a public utility or pipeline company, these entities have *six years* rather than the two years to file a complaint. (*The above is added by Indiana P.L.163-2006 along with numerous other changes in takings law.*)

Tax aspects of eminent domain

Finally, beyond the 2006 changes in the Indiana takings law, keep in mind the favorable federal income tax treatment of money received from eminent domain takings. The net received is often long capital gain from real estate though the proceeds may be ordinary income. But if it is long term capital gain, there is potentially a tax rate of no higher than 15% and as low as 5%. In addition, the proceeds could be reinvested in similar property of the taking under Internal Revenue Code (IRC) Section 1033 and defer if not permanently avoid taxation of the realized gain. In the case of a real estate taking under eminent domain powers, there are three years available after the year of obtaining the proceeds to find replacement property.

Furthermore, the landowner can have possession of the money during this replacement period. The rules of Section 1033 should not be confused with the like-kind exchange law of IRC Section 1033. Section 1033 has a much shorter time period for finding like-kind replacement property and the taxpayer (or his or her agent) may not take possession of money for the property being replaced.

In addition, the proceeds (net gain) from an eminent domain taking could be subtracted from the basis of the remaining property to avoid or defer taxable income.

Conservation Easements on Farm and Ranch Land: An Enhanced Charitable Tax Deduction

The Pension Protection Act (PPA) of 2006 included an amendment to the federal tax law greatly increasing the income tax deduction incentive for gifting a conservation easement on "farm and ranch" land.

The normal rule for a conservation easement donated to an appropriate organization—such as an I.R.C. Section 501(c) (3) land trust—limits the deduction to 30% of a donor taxpayer's contribution base (typically, the adjusted gross income (AGI)). (This is illustrated on page 2 of *"Conservation Easements in Indiana"*.) Amounts not deductible on a Schedule A in the year of the gifted conservation easement are carried forward and deducted in a similar fashion for up to five (5) years.

The 2006 amendment enhances the deduction for gifts of conservation easements. Generally, for conservation easements, the amendment permits a deduction for the charitable contribution of 50% of the contribution base minus other charitable deductions on the taxpayers Schedule A and extends the carryover period from five to fifteen (15) years.

Example: a taxpayer with an AGI of $100,000 gave a $90,000 conservation easement and $10,000 of other charitable gifts. The amendment permits $40,000 ($50,000-$10,000) of the value of the conservation easement to be deducted in the tax year of the gift. The balance ($50,000) of the conservation easement may be carried forward and deducted in up to 15 years.

The 2006 amendment allows a "farmer or rancher" to deduct 100% of AGI. In the above example, if the taxpayer donating the conservation easement were a farmer or rancher, he or she (or they) could deduct the entire $90,000 in the tax year of the donation of the conservation easement as well as the $10,000 of other charitable gifts. And if there were a higher value conservation easement the carryover period is 15 years.

To qualify as a farmer or rancher for the 100% limit, 50% of the taxpayer's gross income must come from the trade or business of farming according to I.R.C. Section 2032A(e)(5).

Corporations in farming and ranching that donate a conservation easement also may qualify for the 100% limit.

A further requirement is that the farm or ranch on which the conservation easement is placed remains generally available for the prior existing production activity.

However, the above 2006 amendment allows these enhanced provisions for gifted conservation easements by farmers and ranchers only for tax years beginning after August 17, 2006 and ending before January 1, 2008. (I.R.C. Sections 170(b)(1)(E) and 170(b)(2) as amended by PPA Sec. 1206.)

Prepared by Gerald A. Harrison as an amendment to ID-231, Conservation Easements in Indiana with information from the *National Income Tax Workshop 2006*, published by the Land Grant University Tax Education Foundation, Inc., College Station, TX., October 2006, pages 411 & 412 and the Pension Protection Act of 2006. Go online at: http://www.dol.gov/EBSA/pensionreform.html to read more about the Pension Protection Act of 2006.

Long-Term Capital Gains and Qualifying Dividends

Two of the problems or issues with family-business (closely-held) corporations may be the lack of income (dividends) from stock interests and those family members who would like to cash-in their interest. In fact, many heirs and those outside a family business have an interest but it is in some other entity, not a corporation. The dividend issue relates to a regular (Sub-chapter C) corporation while the realization of long- term capital gain may be from an interest in some other business entity (Sub-chapter S corporation, trust, limited liability partnership or limited liability company) or simply from land held with others as a tenant-in-common. From a business and estate planning perspective, hopefully, for the sake of the business, that interest is covered by a buy-sell agreement (restricted transfer arrangement).

Whether the issue is "when am I going to get a dividend" or "would someone make me an offer" so I get my share (or part of it) out of the business or land ownership arrangement, the current tax law is very helpful. The tax rates for dividends and capital gains are low by historical standards. Here are the federal income tax rates for net long term capital gains and for dividends through the year 2010:

- For taxpayers in the 10% or 15% bracket—5%

- For taxpayers in higher brackets—15%
- Tax on un-recaptured Sec.1250 capital gain—25%
- Capital gain rate for collectibles—28%

For most capital gains in a family business or land holding arrangement, the rate will be either five (5) percent or at the most 15 percent. The five percent rate will cover many tax payers who find themselves in the first two brackets of 10 and 15 percent, especially in the case of low to mid-income families or families with bread winners with a short income year. Thus they may welcome income be it dividend income or capital gain from assets they have in a business or land holding arrangement.

Note that a taxpayers long term capital gains and qualifying dividends are lumped together for a given tax year to get the benefit of the reduced rates now in the federal tax law. Depending on the situation, the distributions subject to these special lowered rates may best be in separate tax years especially if the five (5) percent rate could apply for a taxpayer in each year.

The Economic Impact of Indiana's Turfgrass Industry

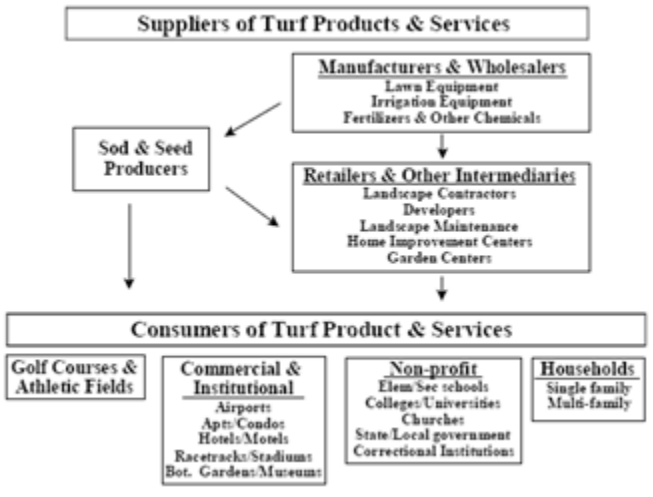
Quintrell Hollis, Graduate Student and Jennifer H. Dennis, Assistant Professor*

Turfgrass is an agronomic crop that provides functional, recreational and ornamental benefits to human activities (Beard 1973). Functional uses of turfgrass include wind and water erosion control thereby minimizing dust and mud surrounding homes and businesses. Other functional attributes of turfgrass include healthier, fresh and improved environments in urban and suburban areas. Turf is also recognized for reducing glare, noise, air pollution and heat buildup and is used widely along roadsides for erosion control. Turf is used recreationally for sports activities including golf, lawn tennis, soccer, rugby, polo, and football to help reduce injuries which are utilized by most professional sports as it provides a strong groundcover. Aesthetics is another benefit as turf is used in landscapes. Past research has shown that landscaped homes and businesses can benefit financially from higher resale values (Behe et al., 2005; Des Rosiers et al., 2002; Henry 1999; Orland et al., 1992). The turfgrass industry is a subsector of the green industry (i.e., floriculture, nursery, woody ornamentals) which is characterized as a set of fragmented businesses. Despite the benefits gained from turfgrass sales, little has been done to examine the economic impact. This article attempts to fill this void.

The economic sectors of the turfgrass industry include sod farms, lawncare services, lawn and garden retail stores, and lawn equipment manufacturing. Golf courses are also included in this sector as a major industry that depends upon highly managed turfgrass for golf play (Haydu Hodges and Hall 2006). Within this industry, five sectors were studied to determine the economic impact including sod production, lawncare services, lawncare goods retailing, lawn equipment manufacturing and wholesaling, and golf courses. The market structure and several linkages for this industry are shown in Figure 1.

Information reported in this article is derived from a national study conducted by the University of Florida and University of Tennessee that examined the broad regional economic impacts of differences within the United States Turfgrass and Lawncare industry. All fifty states were included and divided into seven geographical regions. Economic impacts of the U.S. turfgrass and lawncare industry in 2002 were estimated based upon survey data in conjunction with various published sources of secondary data, and economic multipliers derived from regional input-output models for each state using the *Implan* software system and associated datasets. All numbers reported are expressed in 2005 dollar terms. This article will focus on Indiana's Turfgrass and Lawncare industry and its relation to select Midwestern states (Illinois, Iowa,

Figure 1. Market structure of the turfgrass industry.



* *Jennifer H. Dennis is also in the Horticulture & Landscape Architecture Department, Purdue University.*

Figure 2. Percentage of Lawn Service Total Output Impact for Select Midwestern States.

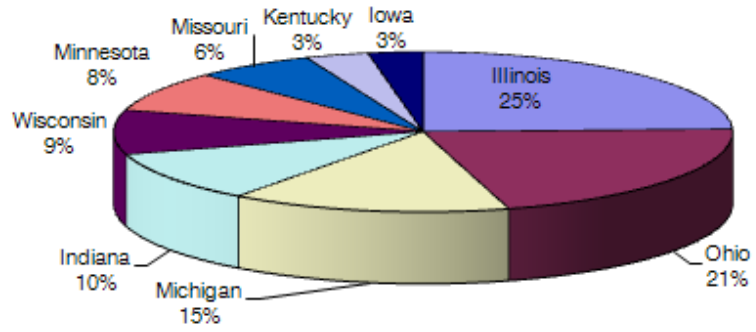


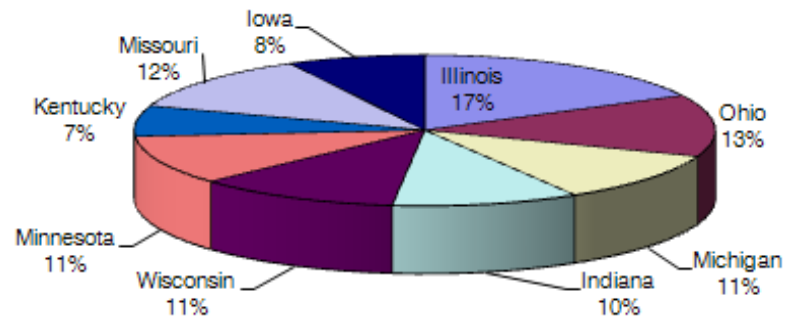
Table 1. Output, employment and value-added impacts for Midwest lawn services.

State	Establishments	Total output $ Millions	Employment	Value-added $ Millions
Illinois	1,501	916	10,303	624
Ohio	1,719	785	12,821	517
Michigan	1,469	545	6,820	370
Indiana	*798*	*383*	*5,907*	*249*
Wisconsin	739	334	4,418	221
Minnesota	752	306	3,910	201
Missouri	736	236	4,238	157
Kentucky	378	123	2,271	80
Iowa	330	107	1,754	70

Table 2. Output, employment and value-added impacts for Midwest lawncare goods.

State	Reported Employment for Lawn & Garden Store	Total output $ Millions	Employment	Value-added $ Millions
Illinois	7,865	417.4	5,218	267.8
Ohio	7,296	318.7	4,515	203.2
Michigan	5,587	258.0	3,332	165.4
Indiana	*5,571*	*249.7*	*3,568*	*157.4*
Wisconsin	6,068	272.4	3,861	173.5
Minnesota	4,924	252.9	3,352	161.2
Kentucky	3,916	157.2	2,348	100.2
Missouri	5,882	290.3	4,055	185.4
Iowa	4,423	184.9	2,797	117.4

Figure 3. Percentage of Lawncare Goods Total Output Impact for select Midwestern States.



Michigan, Minnesota, Missouri, Ohio and Wisconsin) as well as one surrounding state that is not included in the Midwest region (Kentucky).

National Results

Three indicators were used to determine economic impact which include: total output impact, employment impact, and valued added impact. Total output impact is the total economic activity generated in each state by sales (or output) to final demand or exports. This includes the effects of intermediate purchases by industry firms from other economic sectors (indirect effects) and the effects of industry employee household consumer spending (induced effects), in addition to direct sales by industry firms. Direct output impacts, representing sales by the turfgrass industry sectors totaled $41.4 Bn. Indirect output impacts were $3.52 Bn, representing the value of purchased goods and services, and induced impacts were $13.00 Bn, arising from consumer spending by industry employees. Total output impact generated from this industry was $62.2 Bn. Employment impact is the number of jobs generated by a firm which is a measure of economic contribution to a regional economy. The U.S. Turfgrass and lawncare industry supplied over 822,849 jobs.

Value-added impact is the net economic contribution to business and personal income in a regional economy or the difference between sales revenues and cost of purchased inputs and includes the value of employee wages and benefits, owner's compensation, dividends, capital outlays and business taxes paid. The value-added impact for turfgrass and lawncare was $37 Bn and generated $23 Bn in labor income and is responsible for $2.4 Bn in indirect business taxes to local and state governments.

Each sector provides a different economic impact on the turfgrass industry. Golf Courses provide the highest percentage of economic impact at 36% while the lawn services sector has the second largest impact at 33%. Lawncare goods retailing is third at 15% while lawn

equipment is fourth (13%) and sod production is fifth at 3%.

Indiana Results

Indiana's turfgrass industry generates $1.4 Mn in output or revenue impacts from all sectors accounting for 2% of the nations total output impact. Indiana generates 18,830 jobs which is approximately 2% of the national output. The value-added impact generated by Indiana's turfgrass industry totaled $805.5 Mn that constitutes approximately 2% of the national output. Each sector is evaluated individually and is compared by rank to surrounding Midwestern states.

Lawn Service

The lawn services sector includes firms that provide turfgrass-related horticultural services. This industry sector comprises businesses engaged in providing lawncare and maintenance services. Indiana's output impact is $383 Mn (10%) and ranks 4th amongst surrounding states (Figure 2). The lawn service sector accounts for 5% of the national output. Indiana has 798 establishments devoted to the turfgrass and lawncare industry and supplies 5,907 jobs which are fourth amongst surrounding states (Table 1). The value added impact by Indiana's lawncare sector is approximately $249 Mn. Ohio and Illinois are the top two states in value added impact at $517 Mn and $624 Mn respectively.

Lawncare Goods

The lawncare goods sector encompasses retail lawn and garden supply stores such as Tru-Green that may be franchised or identified as a chain, as well as independent mom- and-pop stores that sell pesticides, fertilizers, seeds, and other turf items to end consumers. Indiana's lawncare goods sector supplies 3,568 jobs which is fifth amongst surrounding states (Table 2). Indiana has an output impact of $249.7 Mn (10%) which is 4% of the national output and ranks 7th compared to other surrounding states (Figure 3). Illinois, Ohio, and Missouri are the top three in output impact accounting for $417.4 Mn (17%), $318.7 Mn (13%), and $290.3 Mn (12%) respectively (Figure 3). Indiana had a value added impact of $157 Mn.

Sod Producers

Indiana sod producers generated 169 jobs with 38 operations (Table 3). This sector accounts for $21.6 Mn of output impacts which ranks 8th amongst Midwestern states (Figure 4). Minnesota is the leader in output impacts amongst surrounding states with an output impact of $64.6 Mn (8%) and 89 operations. Indiana's sod production sector is responsible for a value added impact of $12.3 Mn, 11% of the national total value added output.

Lawn Equipment Manufacturing and Wholesaling

The lawn equipment manufacturing and wholesaling sector includes firms that manufacture commercial turf and grounds care equipment, push-type lawnmowers, powered lawn edgers/trimmers, yard vacuums and blowers, lawn tractors and riding mowers, and parts and attachments for consumer lawn and garden equipment. Indiana has an output impact of $257.6 Mn, which is 3% of the national

Table 3. Output, employment and value-added impacts for Midwest sod producers.

State	Number of Farms	Total output $ Millions	Employment	Value-added $ Millions
Illinois	40	35.9	237	22.2
Ohio	62	30.7	318	17.8
Michigan	54	33.5	317	17.2
Indiana	*38*	*21.6*	*169*	*12.3*
Wisconsin	63	18.7	154	10.5
Minnesota	89	64.6	424	31.9
Missouri	53	25.8	308	13.7
Kentucky	54	15.2	237	13.6
Iowa	33	20.1	117	9.8

Figure 4. Sod Producers Total Output Impact for select Midwestern States.

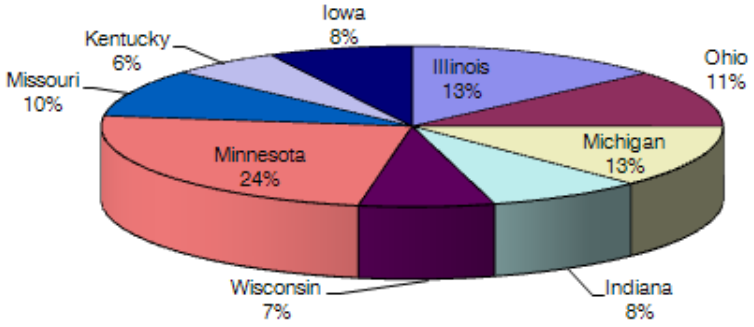


Table 4. Output, employment and value-added impacts for Midwest lawn equipment manufacturers and wholesalers.

State	Establishment	Total output $ Millions	Employment.	Value-added $ Millions
Illinois	7	463.6	1,819	140.4
Ohio	9	489.1	2,117	152.1
Michigan	6	162.7	522	65.2
Indiana	*12*	*257.6*	*1,133*	*74.9*
Wisconsin	8	155.4	5,383	443.9
Minnesota	6	221.8	1,037	75.1
Missouri	4	194.5	815	49.6
Kentucky	3	1.8	7	0.5
Iowa	1	21.2	124	7.1

output (Table 4). Ohio and Illinois were leaders amongst surrounding states in output impact with $489.1 Mn (13%) and $463.6 Mn respectively (Figure 5). Indiana has 12 establishments that supplied 1,333 jobs. Indiana has a value added impact of $74.9 Mn in the lawn equipment manufacturing sector.

Golf Courses

Indiana's golf course sector generated $513.7 Mn (11%) (Table 5) in output, which is 5% of the national output and ranks fourth amongst surrounding states (Figure 6). Indiana has 334 golf course establishments, which were responsible for 8,053 jobs. Indiana's value-added impact contributed $311.8 Mn of total value added impact. Illinois and Michigan were the leaders amongst the surrounding states in value-added impact with $612.7 Mn and $588.6 Mn respectively.

Summary

Nationally, sod producers had the largest economic impact in the South. States that produced the most output for the lawncare sector were California and Florida. Two Midwest states were among the top ten for output impacts in this category: Illinois and Ohio. Wisconsin was the only Midwestern state to emerge as a leader in output impacts for a sector (lawn equipment manufacturing and wholesaling). Tennessee and South Carolina provided the next biggest output impacts for the lawn equipment manufacturing and wholesaling sector. Lawncare goods and retailers top states for economic impact were California and Texas. The golf course sector had the most economic impact in California, New York, Texas, Illinois, and Michigan. Indiana's turfgrass industry accounts for $1.4 Mn in economic impact or roughly 2% of the national output and provides 18,830 jobs (2% of national total). The value-added impact of Indiana's Turfgrass and Lawncare industry for all five sectors totaled $805.5 Mn dollars which represent 2% of the national output in value-added.

Figure 5. Lawn Equipment Manufacturers and Wholesalers Total Output for select Midwestern States.

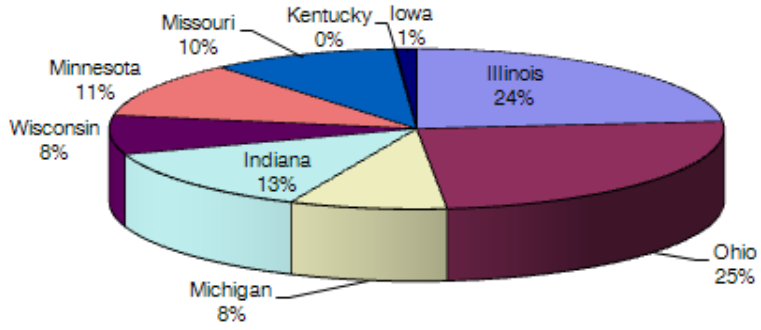
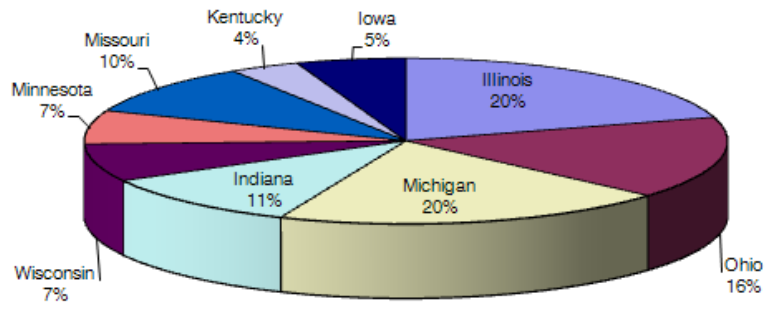


Table 5. Output, employment and value-added impacts for Midwest golf courses.

State	Establishments	Total output $ Millions	Employment	Value-added $ Millions
Illinois	497	983.6	14,049	612.7
Ohio	646	774.5	13,383	548.8
Michigan	652	957.1	10,925	588.6
Indiana	*334*	*513.7*	*8,053*	*311.2*
Wisconsin	393	355.4	5,915	219.3
Minnesota	357	316.1	3,868	195.7
Missouri	262	483.4	7,799	296.8
Kentucky	198	169.6	3,528	105.1
Iowa	318	265.7	4,551	161.8

Figure 6. Percentage of Golf Course Total Output Impact for select Midwestern States.



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75th Annual Indiana Farm Management Tour

Kosciusko County
June 26 and 27, 2007

Understanding and Adapting to the Changing Agricultural Economy

Tuesday June 26, 2007

Lunch and Pre-Registration — Sam Beer Farm — Lunch at 12:00 p.m. Lunch is free and is sponsored by the Kosciusko County Pork Producers. *Please pre-register for lunches by calling 1-888-EXT-INFO or by calling the Kosciusko County Extension Office at (574) 372-2340.*

1) Sam Beer Farm — Interview at 1:00 p.m. (Eastern Daylight Time [EDT]). Mini-tours at 1:45 p.m. on Feed Pro System/feed records and their use in evaluating swine enterprise costs and returns, and Monsanto's VistiveTM low-lin trait soybean plots.
The biofuels boom in Indiana is having profound impacts on the markets for feed grains and poses a difficult challenge to livestock producers. This is particularly true for medium-sized operations, where profit margins on limited throughput are critical for viability. Sam Beer Farms Inc. (SBFI) is a medium-sized farrow-to-finish operation managing to maintain profitability and growth opportunities in a biofuel hotbed. We will learn about the strategic considerations required to find size-consistent competitive advantages in an era of increasing input costs in hog production. Nutrient management, production data analysis, and cooperative input purchasing are strategies currently being used to increase revenues and control costs.

2) Tom Farms — Interview at 3:00 p.m. (EDT). Mini-tours starting at 3:40 p.m. on seed corn production technology, the future direction of crop genetics, the future of GPS and RTK technology, tomato production technology, and how biofuels will change marketing.
Tom Farms provides a rare opportunity to observe one of the largest and best-managed farms in the U.S. Kip Tom was recently selected as the nation's "Top Producer of 2007" by *Top Producer* magazine. Tom Farms enterprises include seed corn production, soybeans, tomatoes, national trucking services, and custom agronomic services. Several members of the Tom family are involved in managing the farm's different business units. See how they are positioning for the future on their 16,000 acres in the U.S. and Argentina. Other speakers will include Ted Crosbie, who is in charge of Monsanto's Global Breeding Program, and Andy Miller, ISDA.

Wednesday June 27, 2007

3) Gingerich Dairy Farms — Milk and donuts provided by Foremost Farms and Northstar Cooperative at 7:30 a.m. (EDT). Interview at 8:00 a.m. Mini-tours at 8:40 a.m. on the milking facilities, sexed semen/reproductive technology, and feeding management in an era of higher feed costs.
Phil Gingerich says that clear priorities and sharing the same values are key reasons why he and his brother, Merrill, complement each other so well despite their different personalities, management styles, and interests. The two partners have built a thriving dairy business through innovation, efficient facilities, genetics, watching spending, controlling debt, and the efforts of their families. One current focus is on reproductive technologies including the use of sexed semen with heifers and selected crossbred cows and hiring a reproductive specialist to help with breeding cows.

4) Bishop Farms — Interview at 10:00 a.m. (EDT). Mini-tours at 10:40 a.m. on irrigation, specialty crops, crop recordkeeping technology, and grain marketing and grain storage.
How do you get into farming on a full-time basis? That question is often asked by young people who want to farm full-time. Bob and Waneta Bishop will explain how Bob made the transition from teaching school for 16 years to farming over 4200 acres. The tour stop provides an opportunity to learn about the economics of irrigation and raising specialty crops. Participants will not only learn about the technology currently used on the farm, but also how the additional information is used to enhance decision-making. Finally, the challenges of grain marketing are as real today as at any time during recent history. The 270,000 bushel grain facility, the economics of investing in storage at the current time, and Bishop Farm's marketing plan for 2007 will be discussed.

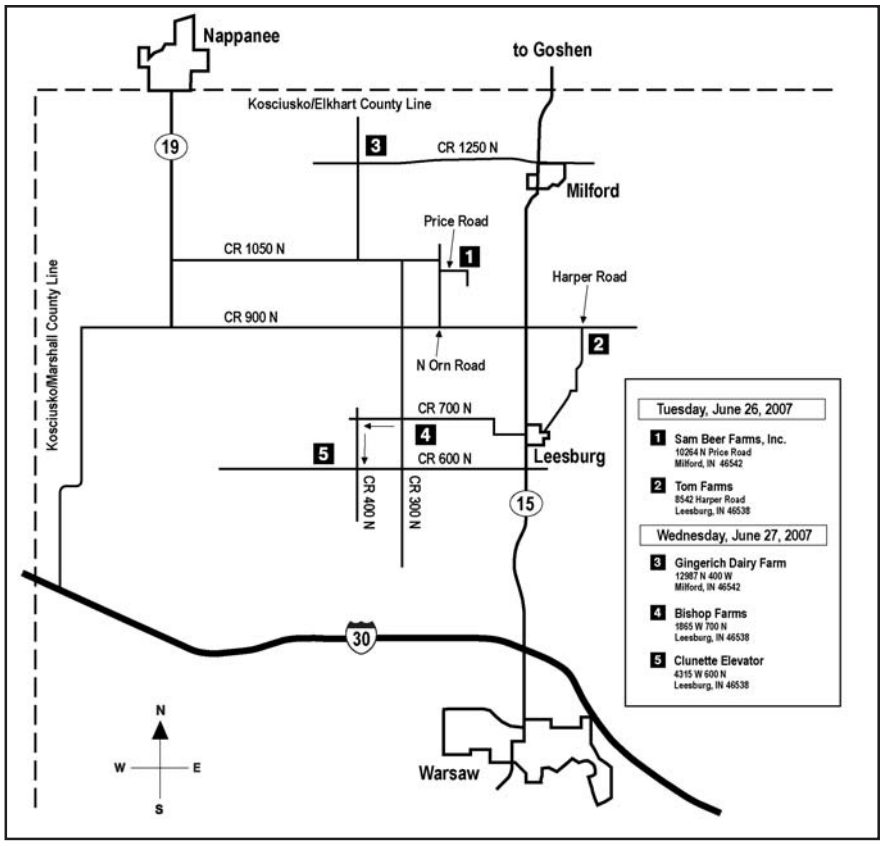
Lunch — Clunette Elevator — 12 p.m. (EDT). Lunch cost will be $5 per person. Please bring cash or a check (no credit cards). *Please pre-register for lunches by calling 1-888-EXT-INFO or (574) 372-2340.*

5) Clunette Elevator — Interview at 12:30 p.m. (EDT). Mini-tours at 1:15 p.m. on enhancing crop performance with custom seed treatments; crops technology and in-season monitoring; and managing plant nutrient requirements/suspension fertilizers. At 2:30 p.m. (EDT)

COLLEGE OF AGRICULTURE *Department of Agricultural Economics* PURDUE UNIVERSITY

Dr. Chris Hurt will update the market outlook for grains, soybeans, and livestock.

Providing value to customers has always been the focus at Clunette Elevator. Starting in the 1950's primarily as a grain business, Clunette has grown and changed as customer needs have changed. Today fertilizers and crop protection products are a core part of the business, and there is increasing growth in the area of crop seeds and precision services. Clunette adds value by assisting customers with technical advice and access to technologies. Custom seed treatments are applied on-site. Fertilizers and crop protection products are applied using variable rate rigs and GPS-enabled automated steering for precise application. Clunette owns an RTK network, and sells and services guidance systems. Clunette values, and works hard to maintain, long-term relationships with its customers, employees, and suppliers. Clunette plans to align its grain business with end users such as the livestock industry, soybean processors, and ethanol/biodiesel plants.



Lodging

For information, contact the Kosciusko County Convention and Visitors Bureau at (800) 800-6090 or (574) 269-6090 or http://www.koscvb.org/.

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