Do Cropland Diversion Programs Harm Rural Communities?

Evert Van der Sluis and Willis L. Peterson

Introduction

Acreage reduction programs have been used in the United States since the 1930s to reduce commodity production and improve the environment. These programs make use of three fundamental instruments: (1) acreage limitations, (2) set-asides, and (3) required diversions. Acreage-limitation programs restrict the planting of a specific crop; set-asides require the farmer to idle a specific proportion of all acreage; and required diversions might restrict either the planted acreage or the crop acreage base. (One additional policy measure is long-term conservation programs.) While specific effects of acreage reduction programs vary by program (such as success in controlling production or cost-effectiveness), the land covered under the various programs is lumped together in the study reported here. What we call acreage-reduction programs are all those that take crop land out of production in return for a payment to the farmer. Both short- and long-term agreements are included.

In recent years, these programs have become increasingly controversial. Much of the debate over the next federal farm bill is expected to center on them.

The central question seems simple enough—should the government continue paying farmers to take cropland out of production? Program advocates argue that the policies have been successful in lifting crop prices and in enhancing environmental quality. Others counter that large-scale land withdrawals have slowed the growth of U.S. agriculture and put American producers at a competitive disadvantage in global markets.

We examine here one aspect of these programs: their effects on rural economies. In particular we ask: Did these programs change the demand for the services of the rural nonfarm population?

The History of Production Controls

The Agricultural Adjustment Act of 1933 was the country's first attempt to raise prices by linking government support to a reduction in plantings of cotton, wheat, corn, rice, and tobacco (among others). Ensuing acts continued to require farmers to reduce their acreage as a condition for receiving higher

Casinos and Income in Non-Metropolitan Minnesota

Jean Kinsey and Todd Gabe

Growth in Gambling

Gambling has been increasing rapidly in recent years. Concern about gambling, especially the growth in number and size of Indian gambling casinos, has led many to question the effect on local economies, on the welfare of the Indian people themselves, and on the social costs of addiction and crime. Indian casinos are part of the proliferation of gambling ventures that have swept the country. By 1992, lotteries were legal in 33 states and Washington, D.C. Only Utah and Hawaii have no legalized gambling of any sort. Table 1 outlines a brief recent Minnesota gambling history. The basis for the rapid development of Minnesota's tribal gaming industry was the federal 1988 Indian Gaming Regulatory Act. By 1991, 11 of the

(See Cropland page 2)

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(Cropland continued from page 1)

prices. During World War II, this requirement was temporarily shelved in favor of production enhancement, but production controls were reinstated after the war. Despite this, technological advances and changes in farm management practices contributed to a sharp rise in yields, leading to crop surpluses and lower prices.

The Agricultural Act of 1956 established the Soil Bank, which was made up of both an Acreage Reserve Program (ARP) and a Conservation Reserve Program (CRP) program. Under the ARP, farmers were paid to reduce plantings of certain crops (wheat, cotton, corn, peanuts, rice, and tobacco) below their annually permitted levels. Under the CRP, land was retired from agriculture and converted to long-term (5-10 years) conservation use.

Despite these supply-control efforts, corn and wheat surpluses still reached record highs in the 1960s, while prices were at their lowest since the 1940s. To counter this, the 1961 Act established acreage diversion programs, and in 1965 price supports contingent upon acreage reduction were initiated. Also, a long-term general conservation program was established, the Cropland Adjustment Program (CAP).

Starting in the 1970s, market conditions changed dramatically. Increasingly, export demand led to an emphasis on “market-oriented” agriculture, with limited supply controls and small government payments. Shortages and resulting high market prices provided farmers with sufficient incentive to put more previously idle land into production again.

But by the time the 1981 Act went into effect, foreign demand had once again diminished, and surpluses emerged. stocks had increased, and program costs had grown. A combination of large acreage reductions by the Payment In Kind (PIK) program and a nationwide drought in 1983 temporarily reduced surpluses, but in 1987, the largest grain and cotton production Adjustment Programs of the sixties and early seventies; feed-grain, wheat, and cotton Production Adjustment Programs of the sixties and early seventies; the barley, sorghum, and corn Feed Grain

Effect on Rural Areas

A great deal of economic research has gone into the market short-run effects of supply-reduction programs. Several studies have shown that acreage reduction schemes directly and indirectly lead to job losses. Earlier studies on the Soil Bank considered only economic impacts on farming itself, but more recent analysis has looked at impacts on entire rural communities. The PIK program and the present CRP have been shown, for example, to detrimentally affect farm input industries. Communities that serve as trade centers for agricultural inputs and products, and those with a high proportion of older cropland, appear to be most affected.

Some of these studies even suggest that the net long-term impact on regional economic output and employment is negative. One of the first demographic groups affected by declining economic opportunities in rural areas is the relatively mobile group of young adults. As job opportunities decline, they move out. Also, the acreage diversions are thought to cause farmers to move out of rural areas, thereby further draining the local economy.

The smallest rural communities appear to be those most affected by the acreage reduction programs. Rural communities with fewer than 2,500 people decreased from 7.0 percent of the total population in 1950 to 4.3 percent in 1990. The decrease was greatest in the smallest communities (fewer than 1,000 people); they dropped from 2.7 percent of total population to 1.5 percent over the period (Figure 1).

Despite declines as a percentage of total population of the country, the total population of small rural towns (fewer than 2,500 people) has been relatively stable since 1950. The decline in towns of 1,000 or less has been offset by increases in towns in the 1,000-2,500 range.

Decreased employment opportunities coincide with a slower growth in the rural nonfarm population. The nonfarm population is both pushed away from rural areas by a decrease in demand for their services, and pulled away by better earning opportunities elsewhere.

Many goods and services used in agriculture are supplied by rural nonfarm people. The demand for these goods and services by farmers is in a sense a demand for people who supply the goods. The dynamis of this demand in turn depends on factors affecting the profitability of agriculture, as well as on cropland diversion programs.

There is also a supply of these goods and services from rural nonfarm people. The supply of these items, and thus the supply of the rural nonfarm people, also depends on the local earnings and on economic opportunities that exist elsewhere.

The negative side effects of land retirement programs may be offset by positive effects that flow to local economic first. The supply-controlling effect of the programs may lead to higher producer prices, leaving more finances for investments and creating additional employment opportunities in rural areas. Second, farmers may receive payments in return for idling their land. However, these new farm programs are less likely to stimulate agricultural expansion than the acreage decrease. Third, cropland diversions encourage farmers to use less fertilizer. Whether the positive or the negative forces dominate is the empirical question addressed here.

What We Expected

We expected diverted cropland to reduce the demand for services from the rural nonfarm population.

A reduced supply of rural nonfarm population services was expected as well, depending in part on the pre-existing manufacturing bases in the region. The presence of a large urban population would also exert a pull on the supply of these services. Further, we would expect the educational level of rural nonfarm people to have a negative impact on their earnings in local communities because of expanded opportunities elsewhere.

The Data

The data used in the study were drawn from 100 randomly selected farming-dependent U.S. counties over four decades—1950 to 1990. We define farming-dependent counties as those where farming contributes an average of 20 percent or more of total labor and proprietor income. With a relatively high dependence on federal subsidies and few economic alternatives to agriculture, these counties are sensitive to farm policy changes.

The sampled counties are spread throughout the United States, but are heavily concentrated in the Great Plains from North Dakota to Texas. Five Minnesota counties are included: Lyon, Murray, Polk, Red Lake, and Redwood.

The study period spans several federal acreage reduction programs: the ARP and the CRP of the Soil Bank program; the CAP of the late sixties and early seventies; feed-grain, wheat, and cotton Production Adjustment Programs of the sixties and early seventies; the barley, sorghum, and corn Feed Grain

Table 1 summarizes selected employment in these programs in both the United States as a whole and in the number of cropland devoted to the crop, the number of counties in that county. Therefore, programs that hasten the migration of farm people to urban areas have the effect also of reducing the population in small rural communities.

On the supply side, the higher the wages in nonfarm employment in nearby urban labor markets, and the lower the unemployment rate in the economy, the smaller the supply of goods and services produced in small rural communities. As expected, higher wages in alternative occupations and better employment opportunities draw people out of these communities. The same is true of farm people. As economic growth takes place, it is normal for rural to urban migration to occur. This results in a decrease in supply of labor in rural areas and an increase in labor as well.

Farmers have been able to increase their productivity by using larger machinery. This has enabled farm families to increase their incomes with less labor. The days of farmers with "40 acres and a mule" could earn as much as urban workers having manual skills. Now more than 10 times this amount of land along with a complement of large and sophisticated machinery.

We should not, therefore, attribute all of rural to urban migration to farmers. The effects of this study imply, the programs have contributed to this trend. How much?

Estimated Impacts

We used estimated rural nonfarm service supply demand equations to calculate the impacts of changes in the number of cropland on the rural nonfarm population. Our study showed that the number of rural nonfarm people decreased by approximately 50 percent for each 1,000 acres of cropland diverted. Without the cropland diversions, the average rural nonfarm population in each county would have been approximately 150 percent larger.

The crop back- to a 10-year period, based on the average population of the sample counties.
Economic development has gone into the market-oriented agricultural production. Many goods and services are supplied by rural nonfarm households. The demand for these goods and services by urban people is estimated to have a positive effect on the total population. The supply of the rural nonfarm population is also affected by the urban economy. Therefore, changes in the urban economy may also influence the rural nonfarm population. If the urban economy grows, the demand for goods and services by urban people may increase, which may lead to an increase in the rural nonfarm population. On the other hand, if the urban economy declines, the demand for goods and services by urban people may decrease, which may lead to a decrease in the rural nonfarm population. The rural nonfarm population is influenced by both the urban and rural economies. The urban economy provides opportunities for rural nonfarm households to earn income and improve their standard of living. The rural economy provides opportunities for rural nonfarm households to diversify their income sources and improve their livelihood. The rural nonfarm population is also affected by government policies. Government policies such as land reforms, agricultural subsidies, and rural credit policies can influence the rural nonfarm population. For example, policies that support agricultural production may increase the demand for rural nonfarm labor, while policies that reduce agricultural subsidies may decrease the demand for rural nonfarm labor. Overall, the rural nonfarm population is influenced by both the urban and rural economies, and government policies.
Conclusions
Cropland diversion programs have clearly contributed to the relative decline in the rural nonfarm population, due to nonfarm economic dependence on the farm sector. The relative decline of this population along with reduced farm numbers has meant a decrease in the size of the rural population as a whole. The percentage of cropland diverted in the country suggests that the nationwide impact may be greater. On the other hand, where farming is less dominant, other industries can more readily provide alternative employment opportunities.

Do Casinos Benefit Local Economies?

In Minnesota, gambling is a multi-billion dollar industry. Wagers at Indian casinos were at least $1.5 billion in 1993, not quite as much as the $1.6 billion wagered on charitable gambling (mostly bingo and pull tabs) and the lottery combined. Out of the $3.1 billion dollars wagered in Minne-
nesota in 1993, it is estimated that about $2.12 billion was paid out in prizes. This is based on the total gross revenue after prizes ($880 million) that was reported by charitable gam-
bling ($236 million), the lottery ($124 million), plus an estimated $500 million in cashout. Ignoring, for now, the fact that at least 20 percent of the gamblers come from outside the state, the net spending on gambling (wagers minus prizes) was $500 million in 1993, or roughly 1.5 percent of median household income. Spending on gambling is unevenly distributed; many people do not gamble at all while some gamble compulsively. It has been estimated that 60 percent of adults nationwide buy at least one lottery ticket per year, but 30 percent of all lottery bets are made by only 10 percent of the gamblers.

An estimated 4-6 percent of the population are compulsive gamblers (Makela and Tucker 1993). One researcher estimated that the social cost of compulsive gambling is roughly equal to one-half the casino’s gross revenues. If this is correct, the social cost of compulsive gambling is about $2.5 billion per year.

At the same time, 22 percent of the gross wagers on the lottery were collected as state revenues. Ten percent of reported gross wagers for charitable gambling were also received by the state. The state’s revenue from gam-
bling was about $195 million in 1992. Nationally, gambling tax revenues have increased 10 percent per year since 1980 and many states depend heavily on them. South Dakota, for example, now collects $150 per person per year from more than 10,000 video gambling machines.

Table 1. Minnesota Gambling History

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>1945</td>
<td>Bingo law passed by Legislature</td>
</tr>
<tr>
<td>1976</td>
<td>Law requiring bingo licensing and reporting of finances to licensing authority</td>
</tr>
<tr>
<td>Early 1980s</td>
<td>Indian nations offed high stakes bingo on reservations</td>
</tr>
<tr>
<td>1984</td>
<td>State assumed control of non-Indian charitable gambling activities from local governments</td>
</tr>
<tr>
<td>Mid to late 1980s</td>
<td>Indian gaming expanded to video games of chance</td>
</tr>
<tr>
<td>1988</td>
<td>Indian Gambling Regulatory Act passed by U.S. Congress</td>
</tr>
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<td>1989</td>
<td>Indian nations began to establish compacts with Minnesota state government</td>
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<td>Sixteen Indian casinos in operation across the state</td>
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The Analysis
In our study, we estimated the impacts of various economic indicators, including the presence of a casino, on four measures of per capita income in all rural Minnesota counties. The four measures of income were (1) overall per capita income, (2) income earned by workers in the bar and restaurant industry, (3) income per person in the hotel/motel Industry, and (4) income per person in the amusement industry. We did not examine the effects of casinos in the seven metropolitan counties because there were none at the time. Besides, their larger size would have overwhelmed (and hidden) the results from the non-metropolitan counties.

Time trend to account for normal inflation and economic growth, the region of the state, and whether or not the county had a casino. A variety of analyses used the size of the casino, rather than just its presence.

Study Findings
The results showed that the presence of a casino and overall per capita income were not significantly correlated in the 1990-91 time period, however, income earned by workers in eating and drinking establishments significantly increased in the county’s first and second year. Casinos were positively related to income earned by hotel and motel workers in both years as well. Increased earnings by workers in the eating and drinking industry increased per capita income by the population of county $2.25 per year. (Total increase in earnings by workers in this industry divided by the population of county $2.25) Increased earnings to workers in the hotel/motel industry increased per capita income by $9.06 per year. Higher earnings by those in the amuse-

Table 2. Casino Activity in Minnesota Counties

<table>
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<tr>
<th>County</th>
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<tr>
<td>Carroll</td>
<td>Big Bucks</td>
<td>Yes</td>
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</tr>
<tr>
<td>Cass</td>
<td>The Palace</td>
<td>Yes</td>
<td>Large</td>
<td>Large</td>
</tr>
<tr>
<td>Cook</td>
<td>Northland Lights</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goodhue</td>
<td>Grand Portage</td>
<td>No</td>
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<tr>
<td>Lake</td>
<td>Treasure Island</td>
<td>Yes</td>
<td>NA</td>
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<td>Jackpot Junction</td>
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<td>Lake of the Woods</td>
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<tr>
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Casino size is defined as "small" if it employed fewer than 300 people, or "large" if it employed more than 300. Casino size is also classified as "large" in counties where there were multiple casinos.

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<td>Yes</td>
<td>NA</td>
<td>NA</td>
<td>Large</td>
</tr>
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<td>Mille Lacs</td>
<td>Grand Casino</td>
<td>No</td>
<td>NA</td>
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Further Reading
Van der Sluis, E. 1993. Cropland diversion programs and rural out-

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Table 2 shows the selected casinos and the nature and size of their opera-
tions. The "large" designation was used to indicate when casinos in the county employed more than 300 people. Casino size could impact per capita income.

The non-casino data for 1984-91 were from three sources: Regional Economic Information Systems (REIS) data from the United States Bureau of Economic Analysis, 1990 Census of Population and Housing data, and Minnesota Employment and Wages data from the Minnesota Department of Jobs and Training. The casino data were from the Minnesota Planning publications cited at the end of this article and were verified with the individual casinos. Individual county-averaged characteristics were also taken into account. Four separate equations were estimated to determine how much of the variance in each per capita income measure was explained by the following determinants: the county's average educational level, and its income, percentage of residents who live on farms and in urban dwell-

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Economic activity in rural counties is related to the county’s region and location relative to metropolitan areas and highway corridors and arterial roads for commercial, transport, and tourism. In general, the regions in this study had less economic activity than the reference area counties that are located just outside the metropolitan area, in the central part of the state, and along freeways (freeway corridors). The northeast and southwest regions both had lower per capita income than the reference area counties. The northeast and northwest regions had lower income earned by eating and drinking establishments, whereas the southwest had a higher level of income earned by workers in that sector.

**Discussion**

Other studies on Indian gaming in Minnesota found that between 1989 and 1991, gross taxable sales were 35 percent more in the 10 casino counties than in the non-casino counties and increased sales in bars and restaurants were 5.3 percent more in the non-casino counties. Transfer payments to families with dependent children decreased proportionately in the casino counties during that period, while they increased 15 percent in other counties. This suggests that casinos lead to additional jobs, income, and spending. This should be reflected in larger per capita incomes. But our empirical results indicate that there was no relationship between the presence of a casino and overall per capita personal income.

A third reason may be that income generated directly by casino owners and their employees is not being spent locally. Some payments to tribal members are in the form of fees or loans, but only a few sectors in the economy were positively affected by casinos to significantly increase per capita incomes across an entire county. Only a small percentage of the typical rural county economy has been affected by casinos. For example, the mean per capita personal income in a rural Minnesota county was $13,315 per year. The mean per capita income spent (across all residents) contributed by the eating and drinking, hotel, motel, and amusement sectors altogether was only $236 per year. Since this is only 1.7 percent of the income earned, this activity in these sectors had a limited effect on overall per capita personal income. Sectors such as agriculture, mining, and manufacturing, which make up a large portion of the income in many rural counties, were most likely unaffected by the casino industry.

A second possible reason is timing. This study included data from only the first two years of casino operation; there is likely a lag between the time Native Americans and the casino employees began to earn income from the casino industry and when their spending starts to significantly affect local economies. This lag— if it exists—may be difficult to conclude that the casino industry will not impact per capita personal incomes in the future.

Since 1991 some casinos have expanded their facilities and now attract even more visitors. These additional visitors may increase the future economic impact casinos will have on the counties’ economies. Furthermore, some Indian nations have distributed significant sums of money to local businesses and members who are just now starting to build new homes and purchase land and other goods. The investments by Indian nations that are not distributing dividends but are building local infrastructure such as water and sewer facilities and schools will probably show greater economic effects in the future. It is thus possible that the economic impact of casinos will surface between the presence of a casino and per capita personal income once data for more recent years become available.

A third reason may be that income generated directly by casino owners and their employees is not being spent locally. Some payments to tribal members are in the form of fees or loans, but only a few sectors in the economy were positively affected by casinos to significantly increase per capita incomes across an entire county. Only a small percentage of the typical rural county economy has been affected by casinos. For example, the mean per capita personal income in a rural Minnesota county was $13,315 per year. The mean per capita income spent (across all residents) contributed by the eating and drinking, hotel, motel, and amusement sectors altogether was only $236 per year. Since this is only 1.7 percent of the income earned, this activity in these sectors had a limited effect on overall per capita personal income. Sectors such as agriculture, mining, and manufacturing, which make up a large portion of the income in many rural counties, were most likely unaffected by the casino industry.

A second possible reason is timing. This study included data from only the first two years of casino operation; there is likely a lag between the time Native Americans and the casino employees began to earn income from the casino industry and when their spending starts to significantly affect local economies. This lag—if it exists—may be difficult to conclude that the casino industry will not impact per capita personal incomes in the future.

Though gaming is attractive as a source of state revenue, its future in Minnesota and elsewhere is uncertain. It is generally a safer investment, in the short run, as long as the money comes from lenders or limited partnerships, and as long as the establishment has a relative monopoly on the market. But, since there is a great tendency to overbuild, it is risky for all parties in a rapidly expanding industry and for a community that can be left with a lower tax base, fewer jobs, and higher social costs. In Deadwood, S.D., for example, two-thirds of the Bighorn casinos are now reported to be in bankruptcy, and almost all of the other businesses have moved to a neighboring town. Some industry observers estimate that more than half of the gambling is done by locals, the gambling facility is a tax loser. It needs outsiders to survive. Government revenues, though substantial, are believed to fall short of the social and community costs (Pellow 1994).

Indian gambling facilities do not generate much direct state revenue because the states have no taxing authority over the sovereign Indian nations. Some Indian nations pay fees or contribute to local governments to help defray the costs of roads and police, but this arrangement was not part of the compact, it is voluntary. Currently, state and federal income taxes, FICA, and unemployment insurance are paid by all casino employees (except state income taxes, which are not paid by those living on a reservation). Tribal members who receive dividends on the profits of the casino pay state and federal taxes if they live on the reservation and only federal taxes if they live on the reservation. Tribal governments pay no federal or state corporate taxes, and sales and state excise taxes collected on sales of merchandise on the reservation are rebated to the tribes. Federal excise taxes are paid on things like liquor and fuel. Tribal-owned land off the reservation and privately held land on the reservation are subject to local property taxes.

Pressure to expand gambling in non-Indian establishments has been resisted by Minnesota Legislature. Minnesota, some suspect that the industry is already overbuilt and that some casinos will close in a few years' time, and some feel that it's spread or does it require government sanctions? Will it end up costing taxpayers more than it contributes to the economy? Anecdotal evidence suggests that if Indians whose nations own and operate casinos have increased their living standards. It is too early for the full benefits or the social costs of the Indian casino industry to be obvious. The results of this study show that for counties with Indian casino gambling, gains in per capita income have thus far been modest.

**Further Reading**


Total earnings in these three sectors (bar and restaurant, hotel/motel, and amusement) combined were only 1.7 percent of total earnings in the counties. Overall, the increase in earnings amounted to less than $14 per capita or 0.1 percent of all earned income.

Although the combined increase in earnings in the three sectors examined in this study was not enough to boost overall per capita income significantly, the distribution of the contributor is interesting. The contribution to total average county-wide per capita income made by those working in the eating and drinking industry is at least twice as much as the other two sectors, yet they contributed only 17 percent of the increase due to the presence of a casino. Workers in the amusement industry, who contribute only about one-fifth as much to overall per capita income as those in the eating and drinking industry, contributed $2.29, another 17 percent, to the increase after casinos. Those working in the hotel and motel industry contribute about one-third as much as those in the eating and drinking industry overall per capita income, but they contributed almost two-thirds of the increase after casinos—$9.06 per capita.

Figure 1 depicts a picture of this phenomenon.

Casino size was significant in explaining income variations. All casinos were more likely to be conferred with increased earnings in the eating and drinking and the amusement sectors. Both large and small casinos were associated with increased earnings in the hotel/motel sector. This implies that large casinos are less likely to complement and more likely to substitute for local businesses. It appears that the presence of a casino was less significant than other factors in determining per capita income. Our study confirmed that the higher the average educational level and the lower its variance, the higher the income. There were all per capita income measures. Overall per capita income was positively related to the percentage of the population who lived in farms, but income for eating and drinking establishment workers was less. Those who lived in urban dwellings increased overall income and also the incomes of workers in bars and restaurants, but earnings in the hotel/motel industry were less. Employment and the number of business establishments in the county were positively correlated with all four income measures.

Per capita income was negatively associated with the percentage of the population that was from a minority (minority population density), which was known to be associated with higher earnings in the three sectors examined.

Economic activity is rural counties is related to the county's region and location relative to metropolitan areas and highway corridors. Areas for commuting, transport, and to rural. In general, the regions in this study had lower economic activity than the reference area (counties that are located just outside the metropolitan area, in the central part of the state, and along freeways (freeway corridors)). The northeast and southwest: regions both had lower per capita income than the reference area (counties). However, the southeast and northwest regions had $6,000 per capita income earned by eating and drinking establishments, whereas the southwest had a higher level of income earned by workers in that sector.

Discussion

Other studies on Indian gaming in Minnesota found that between 1989 and 1991, gross taxable sales increased more than ten times in the 10 casino counties than in the non-casino counties and increased sales in bars and restaurants were 5.3 percent more in the non-casino counties. Transfer payments to families with dependent children decreased in the non-casino counties during that period, while they increased 15 percent in other counties. The reasons that signified that casinos lead to additional jobs, income, and spending. This should be reflected in a greater per capita income. Our empirical results indicate that there was no relationship between the presence of a casino and overall per capita personal income.

Why? Three explanations can be offered. First, it is likely that too few sectors in the economy were positively affected by casinos to significantly increase per capita incomes across an entire county. Only a small percentage of the typical rural county economy has been affected by casinos. For example, the mean per capita personal income in a rural Minnesota county was $13,315 per year. The mean per capita income spent (across all residents) contributed by the bars and restaurants, hotel/motel, and amusement sectors altogether was only $236 per year. Since this is only 1.7 percent of the income earned, activity in these sectors had a limited effect on overall per capita personal income. Sectors such as agriculture, mining, and manufacturing, which make up a large portion of the income in many rural counties, were most likely unaffected by the casino industry.

A second possible reason is timing. This study included data from only the first two years of casino operations. There is likely a lag between when Native Americans and the casino employees began to earn income from the casino industry and when their spending starts to significantly affect local businesses. This lag—if it exists—makes it difficult to conclude that the casino industry will not impact per capita personal incomes in the future.

Since 1991 some casinos have expanded their facilities and now attract even more visitors. These additional visitors may increase the future economic impact casinos will have on the counties' economies. Furthermore, some Indian nations have distributed significant economic benefits as a dividend to their members. For example, in the Ojibwa nation, the casino facilities are located in the town, and as long as the establishment has a relative monopoly on the market. But, since there is a great tendency to overlook, it is risky for all parties in a rapidly expanding industry and for a community that can be left with a lower tax base, fewer jobs, and higher social costs. In Deadwood, S.D., for example, two-thirds of the Black Hills casinos are now reported to be in bankruptcy, and almost all of the other businesses have moved to a neighboring town. Some industry observers estimate that more than half of the gambling is done by tourists, the gambling facility is a sure loser. It needs tourists to survive. Government revenues, though substantial, are believed to fall short of the social and community costs (Pfeuell 1994).

Indian gambling facilities do not generate much direct state revenue, because the states have no taxing authority over the sovereign Indian nations. Some Indian nations tax the fees or contribute to local governments to help defray the costs of roads and other infrastructure. But this arrangement was not part of the compact, it is voluntary. Currently, state and federal income taxes, FICA, and unemployment insurance are paid by all casino employees (except state income taxes, which are not paid by those living on a reservation). Tribal members who receive dividends on the profits of the casino pay state and federal taxes if they live on the reservation. Tribal governments pay no federal or state corporate taxes, and sales and state excise taxes collected on sales of merchandise on the reservation are rebated to the tribes. Federal excise taxes are paid on things like liquor and fuel. Tribal-owned land off the reservation and privately held land on

The reservation are subject to local property taxes. Pressure to expand gambling to non-Indian establishments has been resisted by the Minnesota Legislature. The governor has tried to suspend or delay any legislation, suspect that the industry is already overbuilt and that some casinos will close in a few years. The spread of the model industry can spur or does it require government sanctions? Will it end up costing taxpayers more than it contributes to the economy? Anecdotal evidence suggests that the Indians whose nations own and operate casinos have increased their living standards. It is too early for the full benefits or the social costs of the Indian casino industry to be obvious. The results of this study show that for counties with Indian casino gambling, gains in per capita income have thus far been modest.

Further Reading


First Looks at the New Agricultural Census for Minnesota

Fewer Farms, Similar Structure

Dale C. Dahl

According to the new census, Minnesota lost 10,000 farms between 1987 and 1992. This represents a 12 percent decline, and continues the downward trend in farm numbers experienced in recent decades. Since 1950, more than 100,000 of the state’s farms have disappeared. The drop in farm numbers has occurred partly in the smallest size class (0-50 acres), but predominately in the 50-300 acre category (figure 1).

Most of the “lost” farms were purchased by other farmers, causing average farm sizes to increase. The average Minnesota farm was 184 acres in 1950. By 1992 the average had grown to 342 acres. In spite of this, land used

Figure 1. The Drop in the Numbers Is Due to the “Diminishing Middle” Size Class in Minnesota

From the Editor

The 1992 Census of Agriculture is not yet available in printed form, but the Commerce Department (which conducts the census) sent us some of the early findings. We asked five faculty members to give us their first impressions.

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Figure 2. Farm Numbers Drop Throughout State

Size of Farm (acres)

- 1,000+  
- 500-1,000  
- 50-500  
- < 50

Number of Farms (in thousands)