The Economic Impacts of The California State Lottery on a Rural Area in California

George E. Goldman

Department of Agricultural and Resource Economics
University of California, Berkeley
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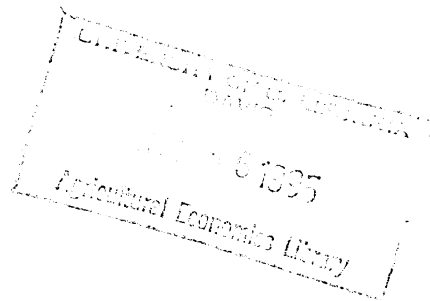
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Introduction

Rural areas in California and the rest of the country are having a hard time these days. Average income differences between metropolitan and rural are large and are again diverging, and population is migrating to metropolitan areas. In California in 1991, metropolitan per capita income was $20,988 and non-metropolitan was $15,365, a difference of $5,623. This paper examines what effect the California State Lottery had on this income difference in Plumas county, a small rural county in northern California, for the fiscal year 1992-93. Plumas county has a population of 20,950, and is about 60 miles northwest of Reno, and about 100 miles northeast of Sacramento. It is not untypical for a rural county in the west, with basic employment being in the resource industries and government. There is some recreation, and second home related economic activity.

Situation

California sells state lottery tickets in retail outlets throughout the state, with the store owners getting a small share of the price. In fiscal year 1992-93, $3.64 million were spent for lottery tickets in Plumas county. Although some may have been bought by visitors (Plumas is not a major tourist destination in summer or winter, and it 's not on any major tourist route), it's assumed that these purchases were balanced by purchases of Plumas residents outside the county. There is a payback of 50% in prizes for the state lottery, and we assume that 1/5th of these prizes were large amounts, and were not spent, but added to personal household wealth. (Actually, a large $10,000. prize was spent in 1992-93 by a lottery winner in Plumas to fix up a wool and yarn store in Quincy for his wife, but this is unusual. Most large prizes are spent on trips to Hawaii, and for expenses to get out of Plumas.) Therefore, 60% of the amount spent, $2.184 million, can be regarded as a decrease in normal household expenditures - money which would have been spent on usual household consumption but was instead spent on the lottery. To estimate the economic effects of this decrease, instead of using marginal household expenditures (which are not known) average household consumption expenditures for Plumas county were used.

On the positive side, following the rules for distribution of lottery funds, there was revenue for the county's schools of $475,603.21 for FY 1992-93. In addition, retailers received $364,000. for selling the lottery tickets.

The Model, IMPLAN

To estimate the economic impacts of the changes in expenditures associated with the state lottery, an input-output model generated by the IMPLAN system was used. IMPLAN is a national system, started by the Forest Service in the 1970s, containing a large data base and algorithms, which allow for the construction of Leontief input-output models for any county, collection of counties, or states, in the United States. Last year it was privatized, and has been, and is being, used by many economists for every state in the country. The national model contains a maximum of 528 economic sectors and includes all of the sectors which are present in a local economy. (Plumas county, a very small rural county, has 118 of the 528 sectors.) I-O models are most often used because they give multiplier effects in the regional economy, of any dollar flow in the economy. They have been used here to estimate the impacts in the Plumas county economy of the economic flows associated with the state lottery. IMPLAN also estimates average local household expenditures, for each local economic sector. The most recent input-output models are based on 1991 data, and that is what is used here.

The Calculations

During fiscal year 1992-93, $3.64 million was spent for lottery tickets. Following the reasoning above, this means a net loss of $2.184 million in personal income in the county. There was a gain of $475,603.21 in revenue to the county's schools. Some say that this is not a real gain in school income - that the state would be transferring the same amount to the schools even without the lottery. However, to be conservative, I have assumed that this is not true - that this money would not be transferred without the lottery.

Using the IMPLAN model for Plumas county generates the numbers in Table 1. For the well informed, these are Type III multipliers, IMPLAN's way of making households endogenous to the model. (IMPLAN comes with Type I and Type III multipliers. Type II multipliers can be calculated.) The table contains the negative effects of the loss of average personal income expenditures, and the positive effects of the revenues of the schools and the retail trade sector. The "Totals" row is the net of these figures.

Table 1. Local Economic Impacts

	Direct	Income Multipliers	Impact on Income
+ Public Schools	$475,600.	1.3253	$630,313.
+ Retail Trade (10%)	364,000.	1.1661	424,461.
- Person Income Exp	-2,184,000.	1 .5670	-3,422,254.
Totals			$ -2,367,480.

Conclusions

There is a net loss in personal income in Plumas county of about $2.4 million. This is an average loss of $113. per capita in the county. Although this is only about 2% of the average difference between rural and metropolitan average income, this is not a trivial sum.

We can extrapolate this to all rural people in California. Different definitions of the rural population in the state give figures from 1,049,500 (people in non-SMSA counties) to 6,294,290 (people in non-incorporated areas). This implies that the estimates of personal income loss range from $118,603,995. to $711,317,713. Since the definition of rural= "non-incorporated" area is much more reasonable than rural ="non-SMSA", what we may have in California is. in effect, a $711 million anti-rural development program.