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The role of rural industry in Idaho's urban places

Rural industries such as agriculture, timber, and mining provide jobs and income to residents in rural parts of Idaho. But what are the impacts of rural industry on Idaho's urban places? These impacts are all too often overlooked.

In this paper we examine the role of rural industry in Idaho's urban places with the aid of a computerized model of the Idaho economy. The University of Idaho College of Agriculture's model, the IDAho Economic Model Project, or IDAEMP, discloses the interconnectedness of the Idaho economy. In an earlier study, published as Extension Bulletin 731, *The Role of Natural Resource-based Industries in Idaho's Economy*, we used IDAEMP to disclose the economic importance of Idaho's natural resource-based industries. In the present study, we use IDAEMP to examine the contribution of rural industry to the economic health of selected Idaho urban areas.

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Our findings are dramatic. In southeastern Idaho, fully 56 percent of urban Rexburg-Idaho Falls-Pocatello's gross product is generated by economic activity outside the urban area — in rural southeastern Idaho; in southcentral Idaho; and in Teton County, Wyoming.

In southwestern Idaho, 31 percent of urban Boise-Nampa-Caldwell's gross product is generated by economic activity outside the urban place — in rural southwestern Idaho, southeastern Oregon, and southcentral Idaho. Boise-Nampa-Caldwell has many more strictly urban industries than Rexburg-Idaho Falls-Pocatello, and this explains much of the difference in their dependencies on economic activity beyond their boundaries.

Let us consider the features of Idaho's economic landscape that determine rural industry's substantial impact on urban Idaho income.

Multiplier effects and the impact of rural industry on urban places

The notion of basic, outside income-earning industries as the engine that drives local economies is well known. One visits a single-mill town and quickly recognizes the base on which all other economic activity depends. In larger cities, the link between basic and resident-serving industry is less visible, but even there basic industry is recognized as the source of outside income that nourishes the entire economy.

Urban development specialists work hard to attract new basic industry with an eye to the multiplier effects they create. For every job in the new industry, some multiple of jobs in other industries will be created. This multiplier effect is recognized as the force that propels urban development.

The multiplier effect of rural industry is often overlooked, however, even though there is little reason for rural industry to have a smaller multiplier effect than urban industry. The only difference is that the multiplier effects of urban industry tend to stay in the urban place, while the multiplier effects of rural industry spill beyond the



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rural area to the urban area industries that supply a large share of rural business and consumer needs.

Idaho cities and their industry-rich hinterlands

Geographers describe cities as population foci in an otherwise rural plain of low population density. Cities in the West are few in number with large rural areas in between. Yet western cities differ greatly in their economic relationships to the surrounding rural areas.

Compare Idaho's cities with those of neighboring Nevada, for example. Nevada is a desert state, and the rural areas separating Nevada's cities sustain relatively little economic activity. Nevada's cities, therefore, derive little economic benefit from the surrounding hinterland.

In contrast, the hinterland separating Idaho's cities is in most places rich in agriculture, timber, mining, and other predominantly natural resource-based industries. Income entering the state through rural industries produces a multiplier effect, a multiplier effect that spills beyond the rural areas to the many consumer and business service industries that are located in Idaho's cities. Unlike Nevada's cities, Idaho's cities are significantly affected by rural industry.

Idaho's trade hierarchy

There is an old saying that Idaho has three capitals, only one of which is located in Idaho. The saying mirrors an important feature of Idaho's trade hierarchy, in particular, the market inroads of Salt Lake City, Utah, in southeastern and southcentral Idaho and of Spokane, Washington, in northern Idaho.

Market inroads reflect trade dominance. A portion of southeastern and southcentral Idaho's business and consumer needs are obtained from Salt Lake City, and a portion of northern Idaho's business and consumer needs are obtained from Spokane. Boise's market dominance is largely limited to southwestern Idaho and a portion of southeastern Oregon.

A closer look at Idaho's trade hierarchy shows a number of smaller, locally dominant trade centers: Idaho Falls, Pocatello, Blackfoot, Rexburg, and Rigby in southeastern Idaho; Twin Falls in southcentral Idaho's Magic Valley; and Lewiston and Coeur d'Alene in northern Idaho. The locations of these trade centers, and the types and magnitudes of the rural industry surrounding them, determine the diffusion of economic effects from rural to urban places in Idaho. IDAEMP discloses a number of these key rural-urban relationships. We used IDAEMP to examine the role of rural industry in urban places, particularly in southwestern and southeastern Idaho.

Idaho's four principal trade regions

For the purposes of this study, we divided the Idaho economy into its four principal economic trade regions (fig. 1). The northern Idaho trade region covers counties north of the Salmon River gorge and has trade dominated by Spokane, Washington. Southwestern Idaho covers counties directly south of the Salmon River gorge and has trade

dominated by urban Boise-Nampa-Caldwell. Southeastern Idaho covers counties of the upper Snake River plains, broadly defined to include the upper reaches of the Lemhi and Lost River valleys, the Bear Lake basin, and other Great Basin counties in the southeastern corner of the state. Trade in this region is dominated by Rexburg-Idaho Falls-Pocatello: urban Rexburg, Rigby, Idaho Falls, Blackfoot, and Pocatello. Finally, the Magic Valley covers the southcentral Idaho counties south of the Salmon River Mountains. The Magic Valley has its own locally dominant trading core — Twin Falls, Jerome, Burley, and Rupert. The Magic Valley also lies within the extended market reach of Boise-Nampa-Caldwell to the west, Rexburg-Idaho Falls-Pocatello to the east, and Salt Lake City, Utah, to the southeast.

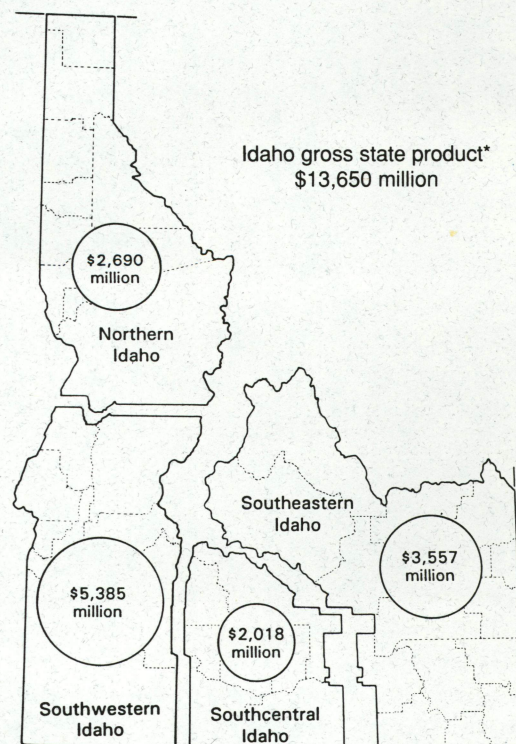


Figure 1. Idaho's gross state product by principal economic region.

Contributions of rural and urban areas to gross state product

The current version of IDAEMP models the Idaho economy in 1987. Idaho's gross state product in 1987 was \$13.6 billion. Gross state product is a broad measure of income. It roughly includes wages, salaries, and property income. Figure 1 indicates Idaho's gross state product according to the four principal economic trade regions.

IDAEMP permits a particularly detailed look at the urban-rural makeup of the southwestern and southeastern Idaho economies. Figure 2 focuses on southern Idaho, distinguishing between gross product generated in rural areas and gross product generated in urban areas.

In the case of southeastern Idaho, "urban" refers to the region's five principal trade centers—Rexburg, Rigby, Idaho Falls, Blackfoot, and Pocatello. Southeastern Idaho generated a gross product in 1987 of \$3.6 billion (fig. 1). Of this, urban industry¹ accounted for \$2.2 billion,

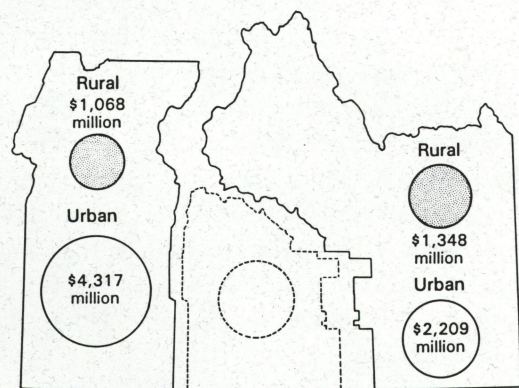


Figure 2. Rural-urban breakdown of gross regional product: southwestern and southeastern Idaho, 1987.

¹The Idaho National Engineering Laboratory (INEL) is an important source of southeastern Idaho income. While INEL is physically located outside the urban core, mainly in Butte County, all but a small portion of INEL subcontractors and employees are located in southeastern Idaho's five principal trade center cities (Zelus, P., J. Togle, and K. Bossingham. 1989. Socio-economic impacts of the Idaho National Engineering Laboratory. Idaho State University Center for Business Research and Services). Accordingly, INEL's contribution to southeastern Idaho's gross product is all but entirely included in the urban core.

or 62 percent, while rural industry accounted for \$1.3 billion, or 38 percent (fig. 2).

The relative urban-rural makeup of southwestern Idaho is considerably different (fig. 2). Boise-Nampa-Caldwell is Idaho's most developed urban place, with both a larger number and a larger variety of industries than any other Idaho urban place. The greater urban presence in southwestern Idaho has more to do with Boise-Nampa-Caldwell's relatively large size than to differences in the magnitude of rural industry.

Economic spillovers in Idaho's economy

Let us turn next to an examination of that portion of urban southern Idaho's gross product attributable to economic activity in the surrounding rural areas. Rural industries create economic multiplier effects that spill over to urban places. Spillovers occur as rural consumers and businesses travel to or otherwise patronize urban businesses. Through these spillovers, rural industry contributes to a portion of income in urban places.

Figure 3 shows rural to urban economic spillovers in southeastern and southwestern Idaho as well as a number of spillovers from Idaho to other states. The pie charts in figure 3 are sliced to show the portion of urban income linked to industry in other places.

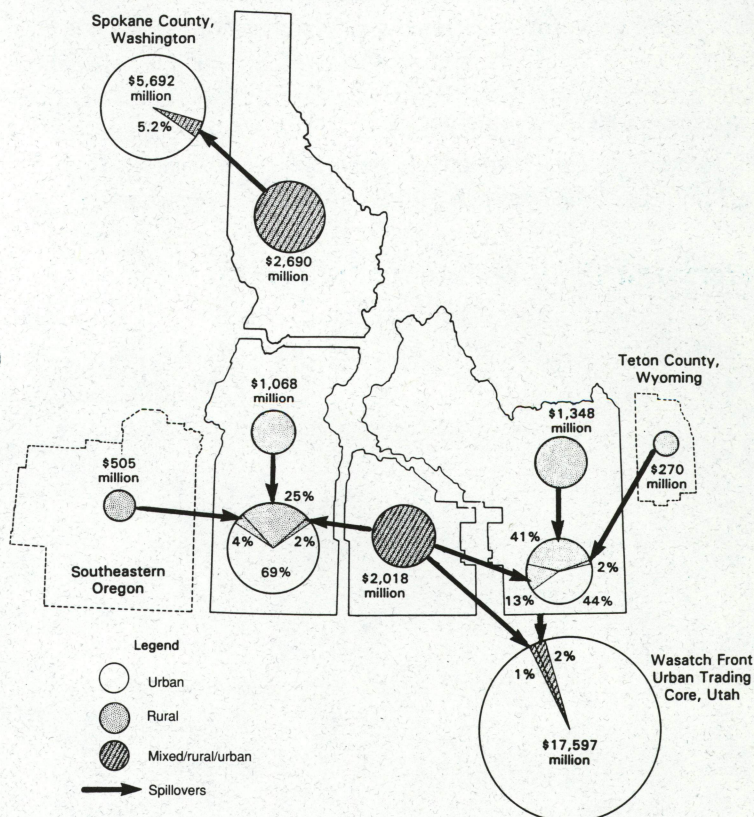


Figure 3. Selected economic spillover within and from Idaho, 1987.

In southeastern Idaho, fully 41 percent of urban Rexburg-Idaho Falls-Pocatello's gross product is generated by economic activity in rural southeastern Idaho. Another 13 percent of Rexburg-Idaho Falls-Pocatello's gross product is generated by economic activity in rural southcentral Idaho. Finally, 2 percent of Rexburg-Idaho Falls-Pocatello's gross product is generated by economic activity in Teton County, Wyoming — Jackson and its hinterland. Strictly urban industry, that is, industry not dependent on rural activity, explains only 44 percent of Rexburg-Idaho Falls-Pocatello's gross product.

In southwestern Idaho the picture appears much the same, yet in many ways different. Strictly urban industry in Boise-Nampa-Caldwell explains 69 percent of that area's gross product, compared with 44 percent in urban southeastern Idaho. The difference is mainly due to Boise-Nampa-Caldwell's larger number of strictly urban industries, Micron Technology Inc., Hewlett-Packard, Morrison-Knudsen Company, Inc., TJ International, and the headquarters of Boise Cascade Corporation, to name a few. Aside from the Idaho National Engineering Laboratory, similar strictly urban income sources are less apparent in southeastern Idaho.

Boise-Nampa-Caldwell's significant strictly urban industry notwithstanding, fully one-quarter of its gross product is attributable to its role as a trade center dominating rural southwestern Idaho. Another 4 percent is explained by rural industry in southeastern Oregon, and 2 percent is attributable to Boise-Nampa-Caldwell's market reach into southcentral Idaho.

Northern Idaho's trade is dominated by Spokane, Washington (fig. 3). Economic activity in northern Idaho's \$2.7 billion regional economy, rural and urban combined, generates 5 percent of Spokane's \$5.7 billion economy. Similarly, both southcentral and southeastern Idaho's trade is dominated by Utah's Wasatch Front. Economic activity in southcentral Idaho's \$2 billion economy and in southeastern Idaho's \$3.6 billion economy respectively generate approximately 1 percent and 2 percent of the Wasatch Front's \$17.6 billion economy.

Determinants of economic spillovers

What determines the relative magnitude of spillovers? In the case of southwestern and southeastern Idaho, much of the spillover from

rural to urban areas is driven by agriculture. Significant food processing located in Boise-Nampa-Caldwell, for example, is dependent on farms located outside the urban area. Food processing helps explain the substantial spillovers in both Boise-Nampa-Caldwell and Rexburg-Idaho Falls-Pocatello.

Aside from specific supply linkages, farms to food processors for example, the chief determinant of economic spillover is the extent of commercial infrastructure development in the dominated regions. For example, northern Idaho, with urban centers of its own, particularly Lewiston and Coeur d'Alene, offers many of the goods and services available in Spokane, Washington. As a result, northern Idaho's spillover to Spokane is much smaller than it might otherwise be.

Implications and conclusions

The economic health of Idaho's urban places depends to an important degree on rural industry. Significant portions of rural Idaho are federally managed, and federal decisions routinely affect the economies of Idaho's rural places. Our research suggests that rural land use decisions can be of critical significance to Idaho's urban places as well.

Idaho faces a bevy of rural land use decisions in the years to come. These decisions involve water allocation and use, public grazing, timber harvesting, and others. Our economic modeling effort can provide state and federal decision makers with a way to forecast the economic tradeoffs and consequences of their decisions.

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