Fiscal Impacts of Urban Exodus on Rural Municipal Governments

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Fiscal Impacts of Urban Exodus On Rural Municipal Governments ABSTRACT

Urban exodus has contributed to rapid population growth in rural communities in the western U.S., including Idaho where rural communities grew nearly twice as fast as larger communities from 1975 to 1980. This growth has strained local governments in their efforts to provide demanded services, with costs already increased by inflation and revenues often limited by "tax revolts." This paper reports the results of a study of the fiscal impacts (costs versus revenues) of development projects on municipal governments in Idaho communities of less than 10,000 population. Nine developments in eight communities were analyzed, including a manufacturing plant, shopping malls, condominiums and apartments, and single family housing. All municipal costs and revenues directly attributable to the developments were documented for the original construction and for operations and maintenance for a ten-year period, using projections for future years. Net fiscal impacts were estimated in both nominal (actual) dollars and, for the ten-year term, in net present values at ten and 15 percent discount rates. Only three of the nine developments had negative impacts in the initial (construction) year. Over the ten-year period only one project showed a negative fiscal impact--a high-rise condominium complex which necessitated the city buying new fire control equipment. Discounted net fiscal impacts for the remaining eight developments had average and median values of approximately \$2,000 annually per project. The results indicate that rural municipal governments in Idaho are covering the public costs of developments, and are doing so by assessments and service charges on the beneficiaries rather than through taxing the entire community. But

the results also illustrate that when existing facilities are inadequate for providing increased services, the development may not pay its way, e.g. the condominium - fire equipment case. Thus, while these case studies accurately portray the net fiscal impacts of individual developments on municipal governments they do not measure the total cost of continued growth as facilities, equipment and personnel utilization reach capacity and must be replaced or expanded. The public sector burden of population migration, which has previously visited urban and suburban governments, is now a reality for rural communities.

Fiscal Impacts of Urban Exodus On Rural Municipal Governments

Urban exodus from cities in California and other west coast states has contributed to population growth in inland rural communities in the western United States. This type of population movement was a major contribution to Idaho's 32 percent population growth from 1970 to 1980, one of the fastest growth rates in the U.S. For the last one-half of the 1970 decade communities in Idaho of less than 10,000 population grew nearly twice as fast (19.4%) as communities of 10,000 and over population (10.3%). Thus after many years of decline or stagnation, rural communities have experienced increased population accompanied by growth in business and industry.

Historically, population and economic growth were looked upon very favorably by recipient communities, and in fact, were often sought after eagerly. Local government officials, planners and fiscal administrators generally believed that business and industrial development would expand the local tax base and generate more public revenues than costs. The result would be either an easing of the growing local tax burden, lowering of taxes, or an increase in the quantity and quality of services without raising taxes.

As this growth took place and accelerated, many communities discovered that population and industrial expansion were not cost free. Growth resulted in increased demand for public services, which led to more public expenditures. Frequently, it cost more to provide public services than was received in added revenue, which resulted in tax increases to cover the costs. As awareness of this problem grew in 1970's the value of growth began to be questioned. Possible tax increases provided incentive for citizens to oppose growth.

In addition to increased resistance to using the total property tax base to pay for new services demanded by only a few, other factors have begun to

severely affect the costs and revenues of city governments. Inflation erodes the real purchasing power of local governments, while their ability to generate tax revenue is limited by the "tax revolt", in the form of Idaho's One Percent Initiative, California's Proposition 13 and similar property tax limitation legislation in other states. High interest rates add to the problem by greatly increasing the costs of projects eligible for bonding or borrowing. In addition, state budget problems and changes in federal government spending priorities are removing large amounts of transfer revenues local governments came to depend on in the 1970's.

The combination of these pressures, which are likely to exist through the 1980's, is forcing local government officials to become more efficient managers of funds and more efficient producers of public services. They must be aware of and assess the impacts of economic and population change, plan for provision of services, and anticipate how budgets will be affected. Current revenues are scarcely sufficient to cover current costs. When the costs of growth are added, which may include large initial outlays, even greater pressures are put on budgets. In essence, then, the main issue for local government in the 1980's will be fiscal management.

The purpose of this paper is to report the results of a study which examined how small cities (< 10,000 population) in Idaho are coping with growth-induced public service expenditures. Specific objectives of the study were to (1) determine the marginal direct costs incurred by municipalities in providing services to new developments in Idaho, (2) determine how communities finance these costs, and (3) estimate the net fiscal impacts of new developments. This information will be useful to local governments in meeting the challenge of more efficient fiscal management in the increasingly stringent conditions of the 1980's.

Conclusions from Previous Studies

The fiscal impacts on rural communities of industrial and residential development have been examined by many researchers. (For a sample, see Bateman, Garrison, Goldman et al., Lowenstein, Pattie, Reinschmiedt et al., Shaffer and Tweeten, Summers et al., Tillson et al., Weber, Weber et al.)

A review of these studies indicates several ways in which such research can be improved, and thus provide clearer insight into the cost-revenue balance of growth. They are:

- --More focus on the direct public service costs of new industry,

 and on maintenance and operation costs. Bateman, and Summers et al.

 in their extensive examination of the industrialization literature,

 concluded that very little attention was paid to these costs, and

 that public officials tended to underestimate the latter costs in

 particular.
- --Estimation of net fiscal impacts over time, and not just for the initial year or build-out period.
- --More focus on marginal costs instead of average costs.

 The authors of this study used these suggestions as guidelines.

 Method and Data

Only the effects on the municipal taxing district were studied.

School districts, counties and special districts were excluded for two main reasons. One was to limit the project to a more manageable size.

The second was that while other districts may also have had added demands upon them, particularly schools, characteristics of the developments studied were such that these demands would have resulted in no added capital costs and only minimal added operating costs.

An important focus of the study is "marginal" type development and

service expansion. Although "boomtown" situations attract considerable attention because of the severity of the impacts, few rural cities face situations where entire service systems must be installed as the result of one or two developments. Rather, the case is that services exist, capacity to meet new demand usually exists, and the services will be extended to new users as necessary. In fact, Stinson defines net fiscal impacts in marginal terms as "the difference between new revenues and new expenditures."

Nine developments in eight Idaho communities of less than 10,000 population were studied. Construction began between 1975 and 1979. The types of development included manufacturing, commercial, high-density multifamily residences, and single family housing. Only the costs (including capital, operating and maintenance) and revenues directly attributable to a development were considered. Indirect effects that may occur because of new developments—increased population or business activity generated by the original development—were not estimated.

Data were compiled on the additional footage of water distribution system, sewage collection system, and streets and sidewalks required for each development. National or state design standards were used as the bases for computing costs, which were adjusted for inflation to the particular year under consideration. All revenue collected by the city as a result of construction and operation of the development was recorded.

The initial impacts were defined as the difference between (1) the costs arising solely from the development, including building inspections, construction of new service facilities and connections to services and (2) the revenues from service installation, hook-ups and building permits. Property tax revenues in the initial year were excluded because the lag in collection meant that those revenues were generated by the previous land use. Thus, the actual reve-

nue received from the property in the initial year was higher than assumed, but only very slightly so, since the land was previously undeveloped in all cases.

The 10-year impacts are based on projections for user fees, operations and maintenance costs (0 & M) and property taxes; they also include the initial impacts. 0 & M costs were estimated for 1979, and were assumed to increase 11 percent per year, the average increase of state and local government costs from 1972 to 1979. Estimates for years prior to 1979 were based on recorded changes in the index. User fees were assumed constant each year unless a city indicated that changes were scheduled.

Projections for property tax revenue were complicated by Initiative #1 (popularly referred to as the One Percent Initiative) passed by voters in 1978 and since revised twice by the legislature. Assumptions for property tax revenue are that:

- 1) beginning in 1980 total property tax collections for the taxing district equal one percent of 1978 market value of property,
- 2) the share of property taxes going to cities in 1980 and later continues to be the same percentage of total property tax collections for the taxing district as in 1979, and
- 3) the market value of property is allowed to increase two percent annually after 1980. (The 1981 Idaho Legislature changed this to allow larger, but still limited, property tax increases.)

The net 10-year impacts are estimated in nominal dollars and in net present value, using 10 percent and 15 percent discount rates.

Results

The results of the impact analyses are shown in the table. In the initial year, three developments resulted in negative impacts, one of -\$50 another of -\$345 and the third of -\$1,434. The other initial impacts

ranged to a high of \$2,279. Using nominal dollar calculations, over the ten year period only one development resulted in a negative fiscal impact, -\$130,005. Seven of the eight positive impacts were between \$16,000 and \$70,000, and the eighth was \$216,792.

The more accurate way to estimate fiscal impacts over time is with net present values. On this basis there was still only one development which had a negative impact, -\$74,508 at a 10 percent discount rate and -\$58,521 at 15 percent. The positive values ranged from \$926 to \$12,790 per year at a 10 percent discount rate and from \$742 to \$10,183 per year at a 15 percent rate.

The case of the large negative fiscal impact over time is interesting because it is one for which conditions at first appeared ideal for yielding a positive impact. It is high-density multi-family housing (condominums) near the center of town. Service extensions were not necessary, and the upgrading that was required was paid for by the developer. However, the buildings were too tall for the existing fire equipment and new equipment was required. (This was realized early, as one building burned during construction.)

This case serves as an example of a service system's capacity being exceeded because of demands placed on it by a development. Thus, predevelopment impact estimates, based on general characteristics, may not be valid. Of course, if other developments are built which can take advantage of the new equipment, the fiscal deficit attributable to this one will be greatly reduced.

On the whole, the net fiscal impacts observed in these case studies of development in Idaho differ from previous studies in other states. The difference is that, with the exception just discussed, the net fiscal impacts

estimated in this study were uniformly positive over the long run, including "mature" residential development. In other studies mixed results were the rule. The net impacts found here do conform to other studies in that they are not large. The average net present value impacts about \$2,235 and \$1,778 per development per year at 10 and 15 percent discount rates, respectively, including the large impact from the manufacturing firm. Median values are \$1,981 and \$1,611 per development per year.

These results somewhat underestimate actual costs for two reasons. One is that city officals usually stated that no additional costs were incurred by police, fire and general government because of the new development. However, these services will experience some added costs over time, and these must be covered by the property tax. Since they could not be tied directly to each development, they were assumed to be zero in the net fiscal impact analysis. The second area of cost underestimation occurred because the analyses did not include amortization (replacement) of the investment.

Conclusions and Implications

The reason behind the positive fiscal impacts for the several types of development is that private developers are paying nearly all the initial or "front end" costs for the extension of public services to new developments. In addition to paying for or installing water and sewer lines and streets and sidewalks according to city regulations, developers are charged inspection and hook-up fees. These procedures generally cover any direct costs incurred by the city in the construction stage of developments, and almost ensure that the major direct public costs of development will not be subsidized by the general public through higher property taxes. Also, hook-up fees and service charges are being updated more frequently to keep revenues in line with

increasing costs.

According to previous research, cities had tended to (1) charge direct payments for new services which were less than costs, (2) underestimate the costs of providing added services and their operation and maintenance, thereby increasing still further the burden on the general revenue fund, and (3) allow direct subsidies, or "holidays", to developers for services or taxes. The Idaho cities studied are now doing just the opposite. They appear to be doing what previous research said must be done to avoid fiscal deficits.

Two ways suggested by previous research through which communities could alter the fiscal impacts of growth in their favor were (1) to shift more of the costs to the private sector by requiring developer-installed improvements, and (2) to institute and maintain installation hook-up and operation and maintenance charges (service fees) which cover the total costs incurred. The Idaho communities studied have done this. There is also evidence that rural communities nationwide (even more than urban areas) are moving to increased user fees (Vehorn).

The results of this study indicate that rural communities are finding ways to alleviate the expenditure-revenue squeeze in which growth and economic and political conditions have placed them. Overall, it appears that development is paying its way in Idaho's rural communities. City officials are determined to make sure that developers, and thus beneficiaries of new services, cover marginal capital costs. The active pursuit of this goal in the municipalities surveyed, and presumably others in the state, indicates that cities can control the costs to the public sector of development, and can do so with means that do not limit development nor place undue burden on any one class of citizens.

A final comment concerns the estimation of the marginal costs of development and the conclusion that cities are covering them with marginal revenues. In the strict sense, these case studies reflect the marginal costs of specific developments. They do not necessarily reflect the marginal costs of continued growth over time. There is evidence that as cities get larger (population increases) the marginal costs of providing services also increase (Weber). In addition, those services which were apparently "stretched" in these case studies (police, fire, general government) eventually will require marginal expansion as growth continues. While studies such as this may quite accurately estimate the marginal costs of a given development, city planners and administrators should be aware that the long run marginal costs of continued growth may be higher. Thus rural communities must assume the burden of the "population turnaround" even as cities and, later, suburban areas did for the migrations of earlier decades.

Estimated Initial and 10-year Net Impacts of Developments in Eight Idaho Communities

Community	Type of Development	Initial Net Impact	10-year Net Impacts		
			Undiscounted Value	Net Present Value	
				10% discount rate	15% discount rate
А	commercial	\$1,345	\$32,597	\$19,811	\$16,108
В	commercial	227	33,409	18,505	14,309
С	housing (single family)	0	34,709	21,108	17,024
D	1) manufacturing	-50	216,792	127,903	101,827
	2) housing (condominums)	2,279	-130,004	-74,508	-58,521
E	commercial	529	15,691	9,259	7,416
F	commercial	20	28,731	15,909	12,279
G	housing (apartments)	-345	70,159	40,315	31,745
Н	housing (apartments)	-1,434	40,240	22,870	17,849

References Cited

- Bateman, Arnold J. "Local Public Finance Impacts of Rural Residential Development: A Case Study in the Rapid City School District of South Dakota," South Dakota State Univeristy Agricultural Experiment Station B 650, July, 1975.
- Brinkman, George. "Effects of Industrializing Small Communities." <u>Journal of</u> the Community Development Society, Vol. 4, No. 1, Spring, 1973, pp. 69-80.
- Carroll, John J. and Seymour Sacks. "The Property Tax Base and the Pattern of Local Government Expenditures: the Influence of Industry." Papers and Proceedings of the Regional Science Association, Vol. 9, pp. 173-189, 1962.
- Garrison, Charles B. "The Impact of New Industry on Local Government Finances in Five Small Towns in Kentucky." Agricultural Economic Report No. 191. U.S. Department of Agriculture, Economics Research Service. Washington, D.C., 1970.
- Goldman, George, et al. "Growth Impacts on Government Expenditures and Revenues in Verdi, California, Sierra County." Special Publication, Cooperative Extension Service, University of California, Berkeley, 1980.
- Hansen, Richard and Gary M. Munsinger. "A Prescriptive Model for Industrial Development," Land Economics, Vol. 48, No. 1, February, 1972, pp. 76-81.
- Hirsch, Werner Z. "Regional Fiscal Impact of Local Industrial Development,"

 Papers and Proceedings of the Regional Science Association, Vo. 7, 1961,
 pp. 119-130.
- Kee, Woo Sik. "Industrial Development and Its Impact on Local Finance,"
 Quarterly Review of Economics and Business, Vol. 8, Summer, 1968, pp. 19-24.
- Loewenstein, Louis K. "The Impact of New Industry on the Fiscal Revenues and Expenditures of Suburban Communities," <u>National Tax Journal</u>, Vol. XVI, No. 2, June, 1963, pp. 113-136.
- Maxwell, James A. <u>Financing State and Local Governments</u>. Washington, D.C. The Brooking Institution, 1965.
- Pattie, Preston S. "Impacts of Urban Growth on Local Government Costs and Revenues." Special Report 423. Oregon State University Extension Service. Corvallis, Oregon, 1974.

- Reinschmiedt, Lynn, Richard Floyd and Lonnie L. Jones. "Economic Benefits and Costs of Industrialization in Rural Texas Communities." L-1726. Texas Agricultural Extension Service. College Station, Texas, no date.
- Shaffer, Ron E. and Luther G. Tweeten. "Economic Changes from Industrial Development in Eastern Oklahoma." Bulletin B-715. Agricultural Experiment Station, Oklahoma State University. Stillwater, Oklahoma, 1974.
- Smith, Cortland, L. et al. "Economic Development: Panacea or Perplexity for Rural Areas?," Rural Sociology, Volume 36, June, 1971, pp. 173-186.
- Stinson, Thomas F. "Overcoming Impacts of Growth on Local Government Finance."

 Rural Development Perspectives. United States Department of Agriculture,

 Economic Research Service, RDP-4, September, 1981, pp. 12-19.
- Tillson, Gregory D., et al. "Local Tax Impact of Recreational Sub-divisions," Oregon State University Extension Service, Special Report No. 365, 1976.
- U.S. Department of Commerce. Current Population Reports, Population Estimates and Projections, Series P-25. U.S. Department of Commerce, Washington, D.C., 1977.
- U.S. Department of Commerce, Survey of Current Business. U.S. Department of Commerce, Washington, D.C., various years.
- Vehorn, Charles L. "Public Pricing Growing in America." <u>Rural Development</u>

 <u>Perspectives.</u> United States Department of Agriculture, Economic

 <u>Research Service</u>, RDP-4, September, 1981, pp. 37-39.
- Weber, Bruce A. "Growth, Sprawl and Public Service Costs: A Review of Some Evidence," Department of Agricultural and Resource Economics, Oregon State University, paper presented at Growth Management Workshop, Medford, Oregon, 1979.
- Weber, Bruce, Russell Youmans, and Rick Harrington. "Rural Subdivisions and Local Taxes: The Impact of Recreational and Rural Residential Subdivisions in Klamath County, Oregon." Special Report 503. Oregon State University Extension Service. Corvallis, Oregon, 1978.