SMALL ECONOMY ESTIMATES OF THE IMPACT OF THE ARTS

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The arguments relating to financially supporting the arts at the public's expense as either a budget or tax deduction item often turns on the analysis presented to legislative committees by various arts-related interest groups. The interest groups speaking in favor of supporting the arts financially include members of the arts community and economic development agencies. Local economic development specialists, who have often endorsed and pursued diversification in the economic base or export sector via the arts, emphasize the tourism industry in local communities as the major market component impacted by the arts. Additionally, they argue that the arts particularly distinguish a community and significantly increase its desirability as a place to live or visit by providing psychic income to residents and tourists. Because this analysis is congruent with rational economic behavior, it may be effective in influencing the outcome of the governmental funding process.

Understanding the economic impact of the arts is of benefit to the arts community, to those interested in economic development and urban revitalization, and to those looking for an economic rationale for supporting the arts. As is true in many states, the allocation of funds by the Idaho State Legislature often requires a demonstrable economic benefit to the state. An economic analysis of the arts industry provides evidence concerning the degree to which this activity contributes to a region's base and the non-base sector.

A statewide inquiry into the economic importance of the arts was undertaken in Idaho, a primarily rural economy with a historical dependence on natural resource-based industries, using The U.S.

Department of Commerce's *Regional Input-Output Modeling System* (RIMS II). The research relied heavily on the members of the arts community and was conducted with the full cooperation and support of the Idaho Commission on the Arts. The primary advantages of this small-economy context were the relative ease in identifying individuals critical to data gathering and contacting them by mailed surveys, and the cooperative attitude displayed in the four local communities where the most detailed data-gathering took place. Previous studies often employed financial data from preselected arts organizations rather than data obtained using a random sampling technique. (See for example, Cwi and Lyall) The small-economy context provided the opportunity for an informal relationship between the organizations and the researchers. As a result, many of the organizations contacted readily revealed the details of their budgets.

Offsetting disadvantages include the well-known problems with impact analysis in an open local economy where leakages and cross hauling complicate the calculations of transactions for the economic base models. The problems created by using nationally based input-output models for impact analyses in smaller economic regions, which lack the characteristics of a nodal region, are well known. However, our use of detailed survey data improves the accuracy of our impact assessment as compared to studies that use final demand as their market valuation measure.

The Model

The RIMS II model employed in the impact analysis for nonprofit arts organizations was developed by the U.S. Department of Commerce, Bureau of Economic Analysis.(1) The localized form of the model segments the economy into 39 sectors and provides gross output, income, and employment multipliers. Thus, the model provides the industry-specific detail desirable in impact studies. For example, one can ask about the impact of arts activity on the food, lodging, entertainment, and transportation sectors normally identified with the tourism industry.

Furthermore, the model's form allows for an evaluation of the more common approaches to the problem of determining the economic impact of activities that are not easily placed in one of the U.S. Office of Management and Budget's Standard Industrial Classification (SIC) codes.

The arts industry does not appear as a distinct entity within the SIC codes or in the traditional input-output tables employed for estimating economic impacts. Portions of the arts industry are listed under membership organizations, entertainment, printing, photography, and selected manufacturing and service sectors. Further, the diversity of arts activities also makes it more difficult to know exactly what should be included when defining "the arts sector." Previous arts impact analyses have focused on nonprofit organizations (the St. Paul study; Cuciti; Prieve; Stapleford and Tannian), for-profit firms (The New Mexico Arts Division study), and combinations of these as their study group (The Port Authority study). In some studies the included arts activities were sometimes limited to those generally thought to be "creative," while other studies admitted movie theaters, video outlets, other forms of commercial entertainment, and art fairs. The activities included in this study are a condensation of the National Endowment for the Arts classification system, with the study group limited to nonprofit arts organizations.(2) These definitions, classifications, and the use of input-output analysis provided a basis for comparison of our results to those obtained elsewhere.

The need to deal with industries that span a series of SIC codes means that data must be gathered from the organizations themselves rather than from traditional (and usually more accessible) secondary data sources.

The Income Data

A statewide survey of arts organizations provided the data base for this study. Arts organizations were identified by combining the mailing lists compiled by the Idaho Commission on the Arts, Arts for Idaho, and chambers of commerce; the combined list was reviewed and supplemented by a group of prominent individuals in the art community. A questionnaire was mailed to these arts organizations to solicit information on income sources and uses, types of arts-related activities, employment, volunteers, and programs offered. Of the 256 questionnaires mailed, 93 responses (41.3 percent) had a sufficient number of items completed to be included in the data base.(3) The respondents sponsored 1,585 arts events with a total attendance of 192,745 and an average reported ticket price of $6.51. The total respondents' income as displayed in Table 1 was $4,624,054, with $1,294,618 in ticket revenues from paid attendance accounting for 73 percent of operating revenues of $1,772,142; ticket revenues accounted for only 28.0 percent of total income.(4) When membership fees,

workshop revenues and earnings from concessions and programs are added to ticket revenues, earned income accounts for 38.3 percent of total income.

Table 1: Arts Organization Income by Source

Admit/tickets	$1,294,618
Membership fees	235,713
Programs	104,055
Workshops	32,806
Concessions	104,951
Corporate grants	146,124
Individual gifts	359,804
Foundation grants	360,297
Municipal grants	109,975
State grants	520,568
Federal grants	489,677
Interest	386,042
Other	479,424
Total	$ 4,624,054

Of the surveyed organizations 45.6 percent identified themselves as general arts organizations, 33 percent as performing groups (opera and theater) and 13.5 percent visual arts groups, which included galleries and museums. The spatial makeup of these arts activities in the local, small economy setting is evidenced by the organizations' reporting of the geographical distribution of operating income sources: 93.8 percent of ticket revenues, 99.51 percent of membership fees, 67.8 percent of program sales, 96.3 percent of workshop revenues, and 59.1 percent of concession sales were identified by respondents as local (in-state) transactions. This pattern also appears in corporate and individual donations, with 87.9 percent of the $146,124 in corporate contributions and 93.9 percent of the $359,804 in individual contributions originating locally.

However, only 39.1 percent of the $360,297 of foundation support originates locally.(5) The division of grant income by geographical origin showed respondents receiving $2,827,295 (75.2 percent) of their income and private grants from local sources. When the federal

government grants of $489,677 are included, only 61.6 percent of total income from all sources originates locally. The 38.9 percent of non-profit arts organization income originating non-locally (out of state) contributes to the state's economic base.

The Expenditure Data

Organization spending was classified as operating or capital expenditure, and local or non-local. With the exception of artists' fees and equipment purchases, the geographical distribution of the spending pattern was similar to the income source pattern; in excess of 90 percent of expenditures were local.(6) Total local expenditures were $2,274,445, which increases to $5,256,215 when artists' fees and employee compensation are included.(7)

Because of the low magnitudes or absence of expenditures in many of the specific sectors of the model, the expenditure data were organized into 14 general industry categories, which appear in column 1 of Table 2. The expenditure levels appearing in column 2 are net of the leakage to non-local firms. The data suggest that the arts industry behaves as if it were a slow growth or mature industry, where construction occurred in previous periods. Construction and real estate expenditures, typically associated with new construction or remodelling, are reported to be at relatively low levels. Observed maintenance and repair totaled $36,763, with 95.0 percent of these expenditures made locally. These types of expenditures are influenced by the use of rental properties, donated use of facilities and building project restrictions consequent on limited budgets.

Spending by arts organizations for manufactured goods was organized into either printing, office equipment, or miscellaneous based on the types and magnitude of the reported expenditures. Local printing expenditures, encompassing books, other print media output, programs and advertisements, totaled $137,406. With only two organizations reporting non-local printing expenditures, a mere 1.7 percent of the total printing expenditures was made out-of-state.

Ongoing organizations require the acquisition of small amounts of office equipment. The level of expenditure for this item was $65,176, with 53.9 percent ($35,108) spent non-locally. Possible explanations of the level and geographical distribution of these expenditures may involve purchases of office in previous periods, availability of business services and the limited local availability of office and specialized

TABLE 2. FINAL DEMAND ATTRIBUTED, MULTIPLIERS AND IMPACTS

INDUSTRY	FINAL DEMAND ATTRIBUTED	MULTIPLIERS			IMPACTS		
		OUTPUT	EARNINGS	EMPLOYMENT	OUTPUT	EARNINGS	EMPLOYMENT
CONSTRUCTION	$ 2,1458.00	1.9441	0.6511	38.3	41,716.50	13,971.30	0.8218414
MAINT/REPAIR	36,763.10	1.8458	0.7348	42.9	67,857.33	27,013.53	1.57713699
MANUFACTURING							
PRINTING	137,406.40	1.8922	0.6029	40.4	260,000.40	82,842.32	5.55121856
OFFICE EQUIP	30,067.63	2.2766	0.5433	31.5	68,451.97	16,335.74	0.94713034
MISC.	1,277,757.00	1.6973	0.5186	48.1	2,168,736.00	662,644.60	61.46009246
COMMUNICATION	69,935.30	1.4441	0.4117	20.3	100,993.60	28,792.36	1.41968659
UTILITIES	72,368.60	1.0371	0.2156	10.5	75,053.48	15,602.67	0.7598703
WHOLESALE TRADE	57,879.63	1.7319	0.6353	40.7	10,0241.70	36,770.93	2.35570094
CONCESSIONS	29,446.60	1.9305	0.5737	78.0	56,846.66	16,893.51	2.2968348
BUSINESS SERVICES	493,482.60	1.7734	0.7698	47.5	875,142.00	79,882.90	23.4404235
REAL ESTATE	1,874.00	1.2764	0.1166	12.5	2,391.97	218.50	0.023425
INSURANCE	46,006.30	1.9464	0.8720	51.5	89,546.66	40,117.49	2.36932445
EARNINGS PAID TO Local RESIDENTS and ID ARTIST FEES	2,981,770.00	0.9252	0.2975	24.0	2,758,734.00	887,076.70	71.56248648
TOTAL NET of WAGES	2,274,445.00	1.7177	0.5808	45.30	3,906,979.00	1321086.00	103.0226853
IDAHO GROSS TOTAL	5,256,215.00	1.2681	0.4201	33.21	6,665,712.00	2,208,163.00	174.5851718

arts-related equipment consequent on population thresholds for central place functions.

All goods purchases by arts organizations that were not in the printing or office equipment categories were placed into a miscellaneous category. Although this generalized category of expenditures was the largest, $1,301,240, a more detailed listing of expenditures by item would have resulted in very small levels in the specific industrial product group. In sum, across the diverse industrial categories, local expenditures were $1,277,757, and non-local expenditures amounted to only $23,484.

Because of their nature, the expectation is that most business services would be purchased locally. Of the listed expenditures for telephone services ($69,935), 96.3 percent were local. For utilities ($72,368), 95.9 percent were local. Expenditures on other business services, including advertising, professional fees, and equipment rental, totaled $520,841 with 94.7 percent local. The final category for service expenditure was for insurance, and this totaled $46,006 local (91.7 percent) and $4,169 non-local (8.3 percent).

Many arts organizations sell programs, snack food, beverages, T-shirts, key chains, and other common concession items to those attending events. All responding organizations listed expenditures on supplies for this activity as local, and they totaled $29,446. The remainder of the supplies purchased appeared under wholesale trade, which includes office supplies; these totaled $58,776, with 98.5 percent expended locally.

The Model Results

In the first of the two methods for estimating arts industry effects in the local economy, arts organizations' initial impacts are measured by their reported expenditures, the changes in the final demand for industries selling goods and services to arts organizations. In this expenditure method, the economic importance of the arts is measured by the firm's expenditure data, which was obtained from the questionnaire responses and represents the one side of their income-expense statement. The advantage in this approach is the use of reported expenditures for the multiplier analysis rather than the economic linkages postulated in the localized version of a national input-output model. Each of the art organizations' expenditures is applied to the sectors producing those goods and services; each component of the

arts organizations' local purchases appear in one of the 14 identified aggregate industrial sectors in column 1 of Table 2.

The next three columns in Table 2 represent the estimates of the multipliers measuring the magnitude of the impacts on the economy. These output and earnings multipliers indicate the change in final cash flow per dollar change in arts sector final demand. The employment multipliers appearing in Table 2 are defined as the number of jobs created per one million dollar's worth of expenditures.

In the RIMS II the multipliers include an induced effect, in addition to the direct and indirect effects of the final demand change. This is a consequence of including the household sector as a component of the input-output table because of the closure process instead of considering households as a component of primary supply. The changes in output, earnings and employment are the consequences of a change in demand as it moves through all sectors included in the model.

The three columns on the right side of Table 2 contain the estimates of the total impacts attributed to the arts industry. The major source of jobs is in the household-local artist sector at 71.6 jobs, followed closely by the miscellaneous manufacturing sector with 61.5 jobs. The number of jobs created in the business services sector are 23.4. Most other industry sectors have single digit employment impacts; the total number of jobs created is 174.6, with 103.0 jobs in the industrial sectors. In the last two rows of the table, overall multipliers appear; these two rows measure the overall impact of the industry expenditures and are sensitive to the distribution of the multipliers and expenditures among sectors.

A similar pattern of impacts for output and earnings appears in the remaining columns of Table 2. With the 9 out of 12 industry output multipliers at or above 1.7, it is not surprising to observe the overall impact on industrial output to be at that level. When the payments to individuals are added to the column sum for expenditures, and the impact for the household services is added to the other impacts, the multiplier declines to 1.3.(8) These multipliers, which were calculated by summing the direct, indirect and induced changes and dividing by the final demand attributed, are the economy-wide multipliers typically reported in economic base analysis.

In the second method for impact assessment, arts activity is measured as a component of the final demand attributed to the "membership organizations" sector of the input-output model. The member-

ship organizations sector includes various enterprises, only some of which are arts organizations. For this approach, the other side of the art organizations' income-expense statement is the measured final demand change and serves as the starting point for the multiplier analysis.

Using the total gross income of arts organizations as the value of the final demand of the arts sector, the estimated impacts on the other industrial sectors appear in Table 3. The arts organizations reported $4,624,054 in income, which is $1,060,587 less than reported expenditures and taxes, cash outflow.

The 39 industrial sectors listed in the left-hand column of Table 3 are consolidated from the 531 sectors employed in the input-output tables. The next three columns give the estimated multipliers for the "membership organization" sector, which includes arts organizations. The multipliers listed in the "Total" row at the bottom of the table are the economy-wide multipliers: 2.0791 for output, 58.7 for employment and 0.8226 for earnings. The relatively large magnitude of employment effects is attributed to the labor-intensive nature of the service sector but still is an underestimate of the labor resources consumed in the arts sector. The presence of relatively large amount of unpaid labor is not taken into account in the model even though it constitutes the use of a resource.

The estimates appearing in Table 3 report higher economy-wide output multipliers (2.08 versus 1.27) and higher overall impacts ($9,613,872 as compared to $6,665,712), with a smaller value for the demand estimate (comparing $4,624,055 to $5,256,215). The overall and specific industries impact assessments differences are obtained because the two methods postulate different economic linkages among the variables appearing in the arts organizations accounting framework. The data in Table 2 may be a more accurate estimate of the impacts of the arts industry because the expenditure information was obtained from the organizations themselves and likely constitutes a more accurate first-round expenditure estimate.

Conclusions

A major reason for conducting an inquiry into the importance of the arts industry is to provide objective empirical information on its role and impact to those interested in financially supporting this activity. Although the arguments relating to psychic income and externalities introduce considerations that cannot be measured fully with

TABLE 3: MULTIPLIERS AND IMPACTS FOR MEMBERSHIP ORGANIZATIONS

	MULTIPLIERS			IMPACTS		
	Output	Employment	Earnings	Output	Employment	Earnings
1 Agricultural products and agricultural/forestry/fishery services.	0.0361	0.7	0.0075	166928.40	3.236838	34680.41
2 Forestry and fisheries products	0.0009	0.0	0.0001	4161.64	0.000000	462.40
4 Crude petroleum and natural gas	0.0001	0.0	0.0000	462.40	0.000000	0.00
5 Miscellaneous mining	0.0005	0.0	0.0001	2312.02	0.000000	462.40
7 Maintenance and repair construction	0.0537	1.2	0.0246	248311.70	5.548866	113751.70
8 Food and kindred products	0.0540	0.3	0.0067	249699.00	1.387216	30981.17
10 Apparel	0.0014	0.0	0.0004	6473.67	0.000000	1849.62
11 Paper and allied products	0.0263	0.2	0.0056	121612.60	0.924811	25894.71
12 Printing and publishing	0.1454	3.1	0.0467	672337.60	14.33457	215943.40
13 Chemicals and petroleum refining	0.0074	0.0	0.0011	34218.01	0.000000	5086.46
14 Rubber and leather products	0.0040	0.1	0.0009	18496.22	0.462405	4161.64
15 Lumber and wood products	0.0077	0.1	0.0016	35605.22	0.462405	7398.48
16 Stone, clay and glass	0.0017	0.0	0.0004	7860.89	0.000000	1849.62
18 Fabricated metal products	0.0033	0.0	0.0008	15259.38	0.000000	3699.24
19 Machinery, except electrical	0.0013	0.0	0.0004	6011.27	0.000000	1849.62
20 Electric and electrical equipment	0.0007	0.0	0.0002	3236.83	0.000000	924.81
21 Motor vehicles and equipment	0.0005	0.0	0.0001	2312.02	0.000000	462.40
22 Transportation equipment, except motor vehicles	0.0009	0.0	0.0002	4161.64	0.000000	924.81
23 Instruments and related products	0.0002	0.0	0.0001	924.81	0.000000	462.40
24 Miscellaneous manufacturing industries	0.0022	0.1	0.0006	10172.92	0.462405	2774.43
25 Transportation	0.0649	1.7	0.0380	300101.20	7.860893	175714.10
26 Communication	0.0381	0.4	0.0101	176176.50	1.849622	46702.95
27 Electric, gas, water and sanitary services	0.0543	0.2	0.0058	251086.20	0.924811	26819.52
28 Wholesale trade	0.0659	1.5	0.0258	304725.20	6.936082	119300.60
29 Retail trede	0.1005	3.9	0.0499	464717.50	18.033810	230740.30
30 Finance	0.0319	0.5	0.0098	147507.30	2.312027	45315.74
31 Insurance	0.0145	0.3	0.0052	67048.80	1.387216	24045.09
32 Real estate	0.1080	0.7	0.0024	499397.90	3.236838	11097.73
33 Hotels, lodging places and amusements	0.0354	2.3	0.0124	163691.50	10.635330	57338.28
34 Personal services	0.0168	0.9	0.0077	77684.12	4.161649	35605.22
35 Business services	0.0467	1.3	0.0242	215943.40	6.011271	111902.10
36 Eating and drinking places	0.0603	3.6	0.0188	278830.50	16.646600	86932.23
37 Health services	0.0430	1.2	0.0253	198834.40	5.548866	116988.60
38 Miscellaneous services	1.0515	29.8	0.4858	4862194.00	137.796800	2246366.00
39 Households	0.8226	1.0	0.0032	3803748.00	4.624055	14796.98
TOTAL	2.0791	58.7	0.8226	9613872.00	271.432	3803748.00
ART ORGANIZATION TOTAL GROSS INCOME	$4,624,055					

the impact assessment data presented here, studies using market-based measures serve a useful function in the debates over funding arts activities through the governmental budgetary process by providing some quantitative input for these discussions.

In the small economy context, arts organizations received 38.5 percent of their income from non-local sources while spending 56.7 percent of their total budgets locally. The arts industry's positive impact on gross state product results from the revenues initially brought into and then circulated within the state's economy; the arts sector can properly claim a role in the regional economic base. Although the relative magnitudes of the art organizations' financial flows are relatively small, Idaho's total personal income in the survey year was $14,196 million, the in-state cash flows supports the position that the public budget realizes a net cash benefit from financially supporting the arts.

When the results of the "expenditure" method is compared to "membership organization final demand estimate", the $2.95 million difference in output estimates arise from the magnitudes of the multipliers (1.3 versus 2.1) and the $632,160 difference between reported income and reported expenditures. It is somewhat surprising that the employment-earnings linkages are sufficiently dissimilar in the model and that these differences result in significant differences in estimated impacts; applying the smaller multiplier to the larger direct impact results in the low estimate for total impact. Whichever employment estimate is accepted, the paid employment that is reported underestimates the human resources consumed in arts activity because of the presence of a large pool of unpaid labor.

Further differences in the results of the two approaches are a direct consequence of the differences between the RIMS II model's structure of economic linkages and the actual distribution of organizational expenditures. Moreover, the analytical techniques employed in the study were limited by the inability of all organizations to provide budget detail. Whatever the case, the database breadth and depth and the quality of the information gathered are sufficient to show the small, but positive impact on gross state product, but they are not adequate to support stronger conclusions on the magnitude for an internal rate of return to financially supporting the arts.

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Footnotes

Note: The research was primarily supported by a grant from the Northwest Area Foundation. An earlier version of this paper was presented at the Western Economic Association's 65th Conference, San Diego, California.

1. Many previous studies employed some form of input-output analyses; for example, see Cuciti; Stapleford and Tannian. The selected RIMS II system was constructed in 1987 using 1985 data on the national economy. The "regionalized" form is based on a proportional process obtained using location quotients.

2. The reluctance of for-profit firms to provide proprietary data influenced the selection of the nonprofit firms as the study group.
3. Cited reasons by respondents for failure to complete the survey forms included absence of transaction, incomplete or inaccurate records and incomplete understanding of the question. Partially completed forms limit the analysis and conclusions of the study.
4. Ticket revenue figures include the effects of discounts for specified groups and the 53.1 percent of paid attendees who were season subscribers. As a percentage of organization income, ticket revenues in our study may be below national average due to the presence of numerous volunteer organizations providing free arts activities; 46 percent of the attendance reported was unpaid.

5. No attempt was made to differentiate the $386,042 of interest income by origin because of the problem of identifying specific assets within financial portfolios and financial intermediaries.

6. The organizations reporting employment showed 66 full-time and 551 part-time employees. These were assisted by 3,296 volunteers providing an average of 7.1 hours of labor per week. Wage and salary payments totaled $2,698,402, with an additional $77,405 in employment-based taxes.

7. Non-local expenditures on goods and services were $99,368, which increases to $400,759 when compensation to individual artists living outside the state is included, a relatively small leakage.

8. The decline in the magnitude of the calculated multiplier with the inclusion of the household sector is partially explained by the large leakages associated with consumer goods produced outside the region.

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