

ARTS IN TUCSON'S ECONOMY

An Economic and Tax Revenue Impact
Study of Major Arts Organizations in
Metropolitan Tucson

1999-2000

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and
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THE UNIVERSITY OF ARIZONA®
OFFICE OF ECONOMIC DEVELOPMENT

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Prepared for
Tucson Arts Odyssey 2001

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Tucson Arts Odyssey 2001 Partner Organizations

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Arizona Theatre Company

Tucson Symphony Orchestra

Tucson Museum of Art

UApresents

The University of Arizona
College of Fine Arts

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ARTS IN TUCSON'S ECONOMY

An Economic and Tax Revenue Impact Study of Major Arts Organizations in Metropolitan Tucson

1999-2000

Executive Summary

This study was undertaken in response to a request by Tucson Arts Odyssey 2001 to clarify the contributions of Tucson's major arts organizations to the local economy. The study documents that arts organizations represent more than an underpinning of Tucson's quality of life. The arts also play an important role in Tucson's economy and generate significant financial benefits to local and state government.

Participating Organizations

Eight major arts organizations participated in the study:

- Arizona Opera
- Arizona Theatre Company
- Tucson Museum of Art
- Tucson Symphony Orchestra
- UApresents
- The University of Arizona Center for Creative Photography
- The University of Arizona College of Fine Arts, and
- The University of Arizona Museum of Art

These arts organizations in 1999-2000 directly employed 1,747 persons, spent \$11.9 million on purchases of goods and services, and paid \$27.6 million in direct wages.

This report documents a simple but critical message: in addition to being vital to social enrichment, the arts industry generates jobs and represents an economically sound community investment.

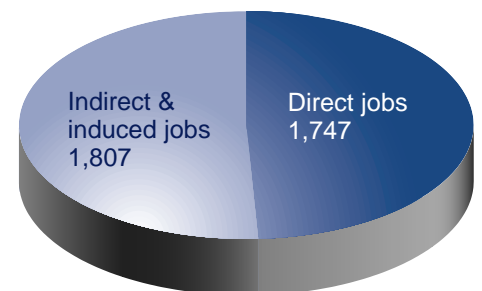
Aggregate Impact

The study analyzes the economic and tax revenue impacts of operating expenditures by the eight participating arts organizations, including employee spending. The study also reviews the impacts of audience spending. In 1999-2000, the total dollar impact of all activities was \$96.8 million. This impact included \$50.2 million in wages and salaries, \$2.9 million in tax revenues to local governments and \$2.9 million to state government. These major arts organizations supported a total of 3,554 jobs in Metropolitan Tucson.

- Direct expenditures of arts organizations - \$39.5 million
- Audience spending (excluding tickets) - \$24.4 million
- Total number of jobs - 3,554
- Personal income - \$50.2 million
- Local government tax revenues - \$2.9 million
- State government tax revenues - \$2.9 million
- Total dollar impact - \$96.8 million

Job Impact

Of the 3,554 total jobs supported by the major arts organizations, 1,747 were jobs in the participating organizations. About one fourth of these jobs were full-time, while 75 percent were part-time and contractual positions. An additional 1,807 jobs were supported in other economic sectors.



Total Jobs Supported by Tucson's Major Arts Organizations

Source: Survey of Arts Organizations 2000.

Direct Spending

Tucson's major arts organizations represented a \$39.5 million industry (direct expenditures, including payroll). Additionally, \$24.4 million dollars were spent in the local economy by arts audience members in relation to attending arts events.

Total Impact: \$96.8 Million in Total Economic Activity

Total dollar impact, including the effects of re-spending of the initial dollars in the local economy, was \$96.8 million.

Origin of Patrons

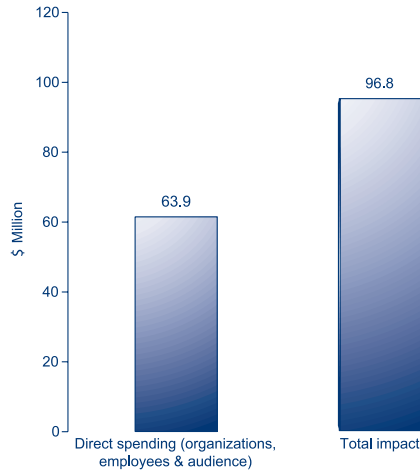
Tucson's arts organizations attract out-of-town visitors and contribute to Tucson's tourism industry. Visitors and seasonal residents represented 36 percent of all attendees at Tucson's major performing or visual arts events.

Patron Spending

Aside from tickets and on-site beverages and souvenirs, patrons spent a significant amount of money on transportation, meals, lodging and clothing before and after events. These expenditures accounted for \$24.1 million in local sales.

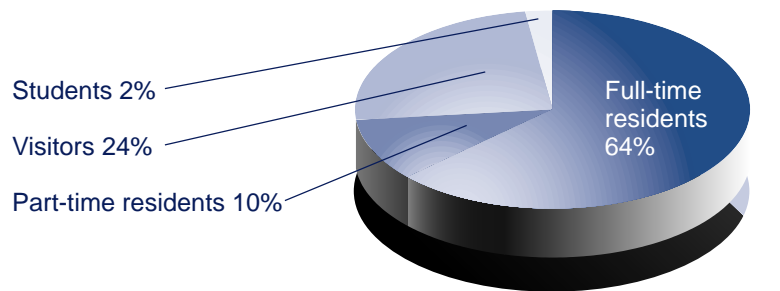
Private Support to Major Arts Organizations

The data indicated a significant level of support from individual donors, corporations and foundations, with a combined 1999-2000 total of \$6.8 million (16.7 percent of total income).



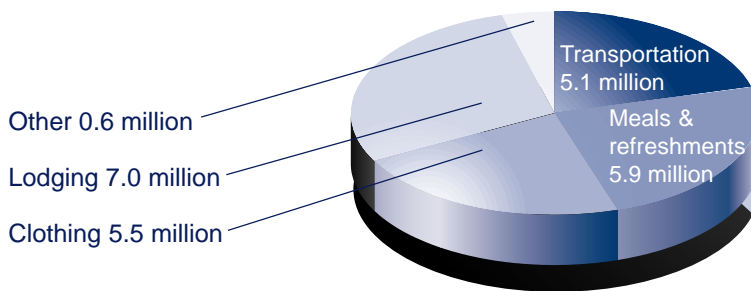
Total Economic Activity vs. Direct Expenditures

Source: Survey of Arts Organizations 2000 and input-output model.



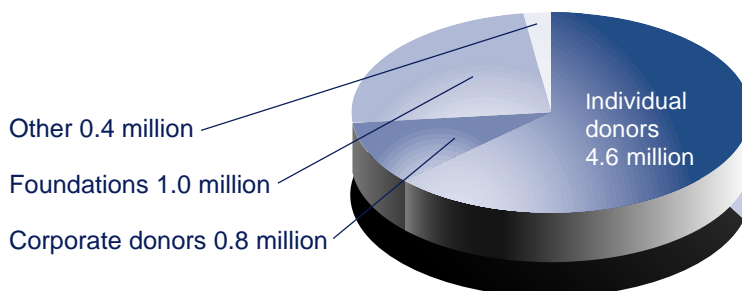
Origin of Patrons

Source: Audience Survey 2000-01.



Patron Spending (In dollars)

Source: Audience Survey 2000-01.



Private Support to Arts Organizations, 1999-2000 (In dollars)

Source: Survey of Arts Organizations 2000.

Public Support and “Return on Investment”

Local and state governments provided \$3.5 million in support to the eight major arts organizations and received a total of \$5.8 million in tax revenues from the total economic activity generated by the arts organizations. Through taxes paid on sales associated with the organizations’ expenditures and spending by employees and arts audiences, the initial investment was not only repaid, but additional dollars were generated as well.

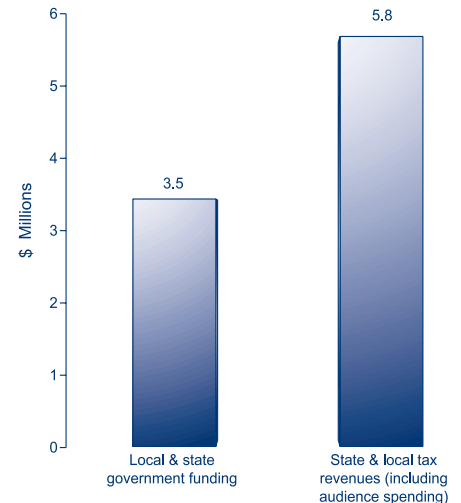
Impacts are Felt Outside Metropolitan Tucson

Because a portion of money spent in Tucson’s economy spills over to the rest of Arizona, mostly to Phoenix and Maricopa County, economic and tax revenue impacts are felt beyond Metropolitan Tucson. An additional 190 jobs and \$2.9 million in wages were generated outside Metropolitan Tucson. Total dollar impact outside Metropolitan Tucson was \$9 million.

Total Impact on the Economy of Arizona (including Metropolitan Tucson)

Combining the impacts occurring within Metropolitan Tucson with the spillover effect in the rest of Arizona, the total dollar impact in Arizona was \$105.9 million. Total job impact was 3,744 jobs in Arizona, of which 1,747 were arts industry jobs and 1,997 from other sectors.

- Total number of jobs - 3,744
- Personal income - \$53.1 million
- Local government tax revenues - \$2.9 million
- State government tax revenues - \$3.1 million
- Total dollar impact - \$105.9 million



Public Support vs. Tax Revenue Impact
Source: Survey of Arts Organizations 2000 and input-output and revenue model.

What do the Numbers Suggest?

- The presence of arts organizations not only enhances cultural and entertainment choices in the region, but contributes to economic wealth as well: for every dollar of direct expenditures by arts organizations (including cost of labor), an additional 60 cents is generated in the Metropolitan Tucson economy and another 11 cents elsewhere in Arizona (or a total of 71 cents for every initial dollar).
- Availability of cultural events in Metropolitan Tucson encourages the residents to spend a portion of their disposable incomes in the region, thus preventing leakage of that income to other entertainment centers. Moreover, performing and visual arts events attract visitors and part-time residents and, by capturing portions of their incomes, generate new money in the local economy. For every dollar arts patrons spend in association with attending performing or visual arts events, an additional 56 cents is generated in Metropolitan Tucson and another 20 cents

elsewhere in Arizona (or a total of 76 cents for every initial dollar).

- Contrary to the popular belief that arts organizations are a burden to local and state government, governmental support is not only “repaid,” but is returned with a multiplier effect. For every initial dollar given to arts organizations, the government received \$1.06 as a result of taxes paid on local purchases of goods and services. This is a “repayment” of the initial one dollar plus an additional six cents. When audience spending is included, tax revenues represented 79 cents on top of the initial one dollar of government’s support to arts organizations. Obviously, governmental support of the arts is a valuable and viable investment.

Arts Volunteerism

The study revealed a significant in-kind contribution to arts organizations as a result of volunteerism: 2,081 volunteers donated 136,738 hours to the major arts organizations. This represents a donation of time valued at about \$2.7 million. Volunteers for the arts include members of boards of directors, docents, ushers and others.

While the volunteers’ contribution does not have an economic impact in a strict sense, volunteers assist in keeping arts organizations functioning and are an important component of the arts industry.

Comparison with Other Studies

Because of varied methodologies and different numbers and mixes of organizations included in each study, direct comparison of results from other studies is difficult.

For example, a 1999 study of Tucson’s 68 cultural organizations and museums reported \$15.7 million in direct spending, \$19.7 million in direct wages, and \$46.3

million in expenditures by the arts audience. Total dollar impact was estimated at \$245.7 million. (Note that the 1999 study included only five of the major organizations that participated in this study, i.e., Arizona Opera, Arizona Theatre Company, Tucson Symphony Orchestra, Tucson Museum of Art and UApresents).

Support for arts organizations also has varied from place to place. For example, a 1994 study of 37 arts organizations in Phoenix reported 37.5 percent of income from contributions and government funding compared to 68.6 percent in Atlanta and 79.5 percent in San Antonio.

Beyond Dollars: Quality of Life Considerations

The arts organizations offer a wide range of programs, activities and outreach which cannot be measured in dollars. These activities benefit individuals and, in aggregate, the whole community. The arts organizations offer high quality entertainment, improve the educational environment, increase awareness of different cultures, and enhance the overall human capital of the region.

There are other benefits from the presence of major arts organizations such as opera, symphony, theatre companies, art museums, and university drama, dance and music departments that are difficult to quantify. Without doubt, they all add up to make Tucson a more desirable place to visit, return to or live in. They are part of what economists increasingly refer to as the intangible, region-specific “untradable interdependencies” that make regions not only different from each other, but also more desirable than other communities.

Introduction

When Tucson Mayor Bob Walkup asked the readers of the *Arizona Daily Star* what would make Tucson an excellent place to live, he included the arts among the key elements next to such obvious necessities as transportation and companies offering high quality jobs. This revealed a growing appreciation in the Tucson economic development and business communities that the arts are an indispensable dimension of a superior quality of life, which in turn has become an important attraction for business and labor. In a recent interview, Duff C. Hearon, incoming Chair of the Greater Tucson Economic Council (GTEC), conveyed this attitude quite succinctly:

The Arts have long been an important part of life and the texture of Tucson. The Arts are an extremely important attraction to those businesses that are considering moving here and businesses already located here that are considering expansion. To attract and keep top employees, business decision makers consider a community's cultural base to be as important as any aspect of the business environment.

Thinking about arts from an economic perspective is a response to a policy environment that has become increasingly concerned with jobs, the economy and community economic development. In response to questions of public subsidies, of whether government should support the arts and what is the collective impact of the arts industry, the focus of the relationship of the economy to the arts has shifted. But this focus on the economics of the arts also is an outgrowth of changes in the arts industry itself. Expansion in the size and complexity of the arts industry has encouraged arts groups to see themselves as partners in one industry and potentially as economically significant players in the local economy at large.

The six major arts organizations in Tucson -- Arizona Opera, Arizona Theatre Company, Tucson Museum of Art, Tucson Symphony Orchestra, *UApresents* and the University of Arizona College of Fine Arts -- created an alliance known as Tucson Arts Odyssey 2001, with the purpose of drawing attention to Tucson's rich arts legacy and increasing awareness of the arts as a viable economic activity. They commissioned this study from the University of Arizona to identify and measure the arts' economic and revenue impacts on the local economy.

In his review of *Twenty Years of Economic Impact Studies of the Arts*, Anthony Radich concluded that there were two primary findings about the role of the arts in state and local economies. Number one, the arts constitute an industry that has a positive and, in some cases, significant impact on state and local economies. Number two, the number of arts organizations and the size of their audiences have grown significantly.

Scope of the Study

The scope of this study is limited to eight arts organizations. The first six -- Arizona Opera, Arizona Theatre Company, Tucson Museum of Art, Tucson Symphony Orchestra, *UApresents* and the University of Arizona College of Fine Arts -- are the founding members of Tucson Arts Odyssey 2001. Two additional arts organizations also have been included -- the University of Arizona Museum of Art and the Center for Creative Photography.

The arts industry is not well defined statistically. Rather, it consists of a more or less arbitrary inclusion of arts organizations from major, highly visible operas, symphonies and museums to smaller arts groups including various heritage and other cultural organizations. The 1994 study *How Tucson Profits from Museums and Cultural Organizations* identified 50 arts organizations,

while its 1999 update, *The Economic Impact of Tucson-Area Museums and Cultural Institutions*, included a total of 68 organizations. *Tucson Lifestyle* magazine reported more than 80 arts groups in Tucson in 1999-2000.

Although they are among the largest arts organizations in Tucson, the eight organizations that participated in this study represent only a snapshot of Tucson's vibrant arts scene.

Research Approach

This study uses a method of economic impact analysis pioneered by Cwi and Lyall in their 1981 study of six cities -- Columbus, Ohio; Minneapolis/St. Paul, Minnesota; St. Louis, Missouri; Salt Lake City, Utah; San Antonio, Texas; and Springfield, Illinois. Their approach set the pattern that has been followed in many studies of the economic impact of the arts: the use of a multiplier to arrive at a total value of the arts in an economy and the measurement of audience spending. Valuable conceptual frameworks for this report also were provided by two other studies: a study of Pierce and King counties, Washington, by GMA Research Corporation and University of Washington professor William Beyers, and a 1997 Flagstaff arts study by Northern Arizona University professors John Eastwood and Max Jerrell.

The two basic sources of data for determining the economic impact of arts organizations are the records of the arts organizations and audience surveys. The questionnaire for data collection about the Tucson arts organizations followed a format used by the National Assembly of Local Arts Agencies (NALAA) in a 1994 study of 33 American communities, which has become a standard survey instrument in a majority of studies. It collects data on an organization's income sources, detailed expenditures, number of employees, volunteer hours and number of attendees during a fiscal year.

The audience survey was designed to identify spending related to attendance of arts events. Based on similar studies and in consultation with University of Arizona experts, a one-page questionnaire was designed for easy self-administration by attendees at arts performances and museums. With assistance from volunteers, the questionnaires were distributed at carefully selected events to capture audiences at different days and times. The survey started on October 30, 2000 and concluded on February 10, 2001.

One of the critical research issues is the selection and use of multipliers as measures of how many times dollars related to arts spending turn over in an economy. This study is based on a sophisticated input-output model describing Pima County's economy in terms of 200 interrelated economic sectors. Because these multipliers are composite multipliers, developed by taking into account both the mix of performing and visual arts and the specific economic structure of Pima County, they are far more accurate than "average" multipliers borrowed from other studies. On the other hand, because of different methodologies, it is difficult to compare them directly with other studies.

This study also provides estimates of arts-related tax revenues that accrue to local and state governments. These estimates are based on tax revenue models for the City of Tucson, Pima County and the State of Arizona.

What Do Other Studies Suggest?

The highly varied pattern of what components of the arts industry are included in each study is one factor that prevents direct comparison of findings from various reports. Different combinations of arts organizations account for differences in direct economic impact, i.e., what organizations spend directly on operations and wages to employees. The

varied methods used to estimate the multiplier effect are responsible for differences in total dollar impact. In addition, inclusion or exclusion of audience spending significantly affects the final results. Despite these constraints, the following examples illustrate that the arts are more than just a venue for cultural expression, community pride or enhanced quality of life.

One of the most comprehensive studies in terms of geographical coverage is the 1994 NALAA study of non-profit arts organizations in 33 communities nationwide. Taking into account only the organizations' expenditures, the study estimated that the arts industry spent \$36.8 billion annually, generating 1.3 million full-time equivalent jobs (FTE) with \$25.2 billion in personal income, \$790 million in local government tax revenues, \$1.2 billion in state government tax revenues, and \$3.4 billion in federal income tax revenues. The study also reported that the full-time arts jobs represented 0.9 percent of the total U.S. workforce in 1994. The average job multiplier (the ratio between total estimated jobs related to the arts industry and direct jobs in the arts industry) was 1.14. Thus, on average, for every 100 direct jobs in the arts industry, an additional 14 jobs were generated as a result of the arts organizations' expenditures.

One of the 33 surveyed cities included Phoenix, Arizona. Thirty-five randomly selected nonprofit arts organizations were surveyed. It was reported that the organizations spent \$77.8 million in Phoenix, generated a total of 2,863 FTE jobs, \$64.3 million in personal income, \$2.7 million in local government tax revenues, and \$3.3 million in state government tax revenues. A job multiplier of 1.437 implied that for every 100 direct jobs in arts organizations, an additional 44 jobs were generated in other sectors of the local economy.

The study also estimated the economic impact of volunteers: this donation of time represented about \$4.6 million.

Although Tucson was not included, the NALAA study provided averages for cities with populations between 100,000 and 499,999 (corresponding to Tucson's size at the time). Based on results from 10 cities, average expenditures were estimated at \$53 million, generating 1,773 FTE jobs, \$42.9 million in personal income, \$1.5 million in local government tax revenues and \$2.1 million in state government tax revenues. The job multiplier suggested that on average for every 100 direct jobs in the arts industry, an additional 50 jobs were generated in other sectors. The average job multiplier for all cities regardless of size was 1.496.

The 1997 study of arts organizations in Flagstaff, Arizona, by Northern Arizona University's Eastwood and Jerrell, included 23 organizations and an audience survey. An input-output model was used to estimate economic impacts on Coconino County. Direct economic impact was estimated at \$27.7 million, including \$12.6 million in spending by tourists that visited the organizations. A total of 1,346 FTE jobs were generated in the local economy, with \$15.3 million in wages and salaries. The study found that 60 percent of the audiences were visitors, which was considerably higher than the percentages reported in studies of other communities.

According to a 1999 Western States Arts Federation (WESTAF) study of Tucson's 57 cultural organizations and 11 museums, total dollar impact was estimated to be \$245.7 million, including visitors' spending of \$46.3 million. As mentioned earlier, different methodology and mix of surveyed organizations prevent direct comparison.

The Arts Mean Business

Employment in Arts Organizations

In his newest book, *Creative Industries, Contrasts Between Art and Commerce*, Richard Caves explored characteristics of employment in arts organizations and found part-time work to be quite prevalent. This partly reflects the nature of the arts professions and partly a trend of flexible specialization in the arts industry. Arts productions tend to be based on many inputs of specialized services coming together in “one-shot” deals. Therefore it is important for arts organizations to have available a flexible pool of artists and contractors. On the other hand, the literature suggests that artists, more than other professions, are willing to sacrifice in order to devote themselves to creative work. This is reflected in their activity patterns as well as their incomes. A 1989 survey of New York City artists, for example, found that the majority of artists supported themselves from their own “humdrum” jobs or from the earnings of family members. This is one of the reasons that, on average, artists earn lower incomes than their general ability, skill and education would otherwise warrant. “Yet, they typically turn out more creative product than if they valued only the incomes they receive,” concluded Richard Caves.

The arts organizations participating in this study employ a combination of full-time and part-time personnel. Together, the organizations employed 431 full-time and 1,264 part-time employees. In addition, the organizations reported 52 contractual employees. Most organizations also employed local artists, although their number was not available. The job status composition of total direct employment is shown in Figure 1.

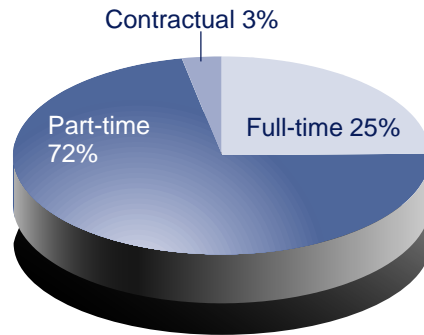


Figure 1. Composition of Direct Employment in Arts Organizations

Source: Survey of Arts Organizations 2000.

For the purpose of this analysis, part-time jobs are not translated into full-time equivalents, although this practice is followed in several other studies. Because our input-output model does not distinguish between full-time and part-time jobs, but reports them as total jobs, we apply the same approach here. We refer to these jobs as direct jobs and combine them later with the estimated indirect and induced jobs by means of the input-output model.

Income Sources

Analysis of income sources is critical for economic impact analysis. Theoretically, economic “impacts” are generated only by so-called “new money” that is being injected into a local economy through exports of products or services to outside markets as well as through sales of products and services to tourists and other visitors. In the case of arts organizations, funding from non-local sources, such as federal grants and state funding, is considered new money. In addition, a certain number of tickets for performing and exhibition events are sold to out-of-town visitors, which corresponds to the concept of exports. Thus, by analyzing income sources of the participating arts organizations, we obtain a better understanding of the portion of their total income that can be identified as new money, which in turn generates economic impacts in a strict sense.

However, in this analysis we use the prevailing approach found in the economic impact literature concerning arts organizations: locally generated income and associated expenditures are included with new money in the economic impacts. This is based on the assumption that, if the arts organizations were nonexistent in the given community, residents would spend their money in other places.

Although the scope of this study does not require an analysis of differences among the participating organizations, such information is useful for a better understanding of the subject. Specifically, we hope that it will shed some light on (a) the ways in which the arts organizations differ from most private enterprises and governmental organizations, and (b) the differences among arts organizations in the ways that they acquire their incomes and thus require different business strategies.

For reporting purposes, information pertaining to the Arizona Opera, Arizona Theatre Company, Tucson Symphony Orchestra and UA*presents* is combined under performing arts organizations. Tucson Museum of Art, The University of Arizona Museum of Art and The University of Arizona Center for Creative Photography are combined under visual arts organizations. Because of its size and different income source (student tuition as opposed to sale of tickets), data are shown separately for the College of Fine Arts when necessary.

The participating arts organizations had a total income of \$40.7 million in 1999-2000. They obtained their income from a combination of earned and contributed income (Figure 2). About 75 percent was reported as earned income, while the remaining 25 percent came from contributions (16.7 percent) and government sources (8.7 percent). Because fundraising events were reported under earned income, the actual role of contributions was higher than 16.7 percent.

Earned Income

Earned income was the predominant income source for the performing arts organizations, accounting for 68.1 percent of their total income (Figure 3). In comparison, visual arts organizations obtained about 50 percent of total income from earned sources, with a relatively large role for government support (37.7 percent). The College of Fine Arts, however, obtained more than 91 percent of its total income from earned sources, mainly tuition paid by students.

Other sources of earned income included fundraising events, interest, contracted services, membership dues and other programs. However, there were pronounced differences among arts organizations. Ticket sales (admissions) were the most important source of earned income to performing arts organizations, accounting for 85.1 percent of total earned income. In contrast, the visual arts organizations primarily obtained their earned income through fundraising events and other programs. As noted earlier, the College of Fine Arts obtained most of its earned income from tuition.

Contributed Income

Contributed income is the second most important income source to Tucson's arts organizations. The eight participating organizations received a total of \$6.8 million in direct contributions during 1999-2000. Individual donors contributed over \$4.6 million, which represented more than two-thirds of total contributed income. Foundations gave about \$1 million or 15 percent of total contributed income. Corporations donated close to \$800 thousand, or 11.7 percent. Other contributors, like friends of arts groups, contributed about \$365 thousand, or 5.4 percent of total contributed income (Figure 4).

Note, however, that the actual contributed dollar amount was higher than \$6.8 million. A large portion of earned income, which is

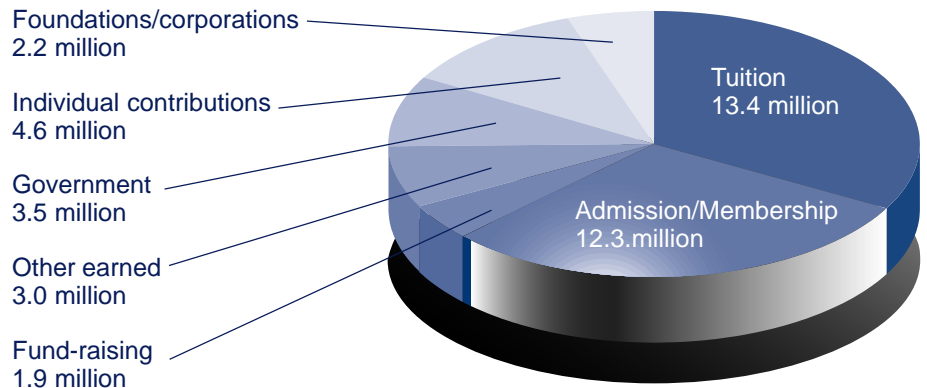


Figure 2. Income Sources of Participating Arts Organizations, FY 1999-2000 (In dollars)
Source: Survey of Arts Organizations 2000.

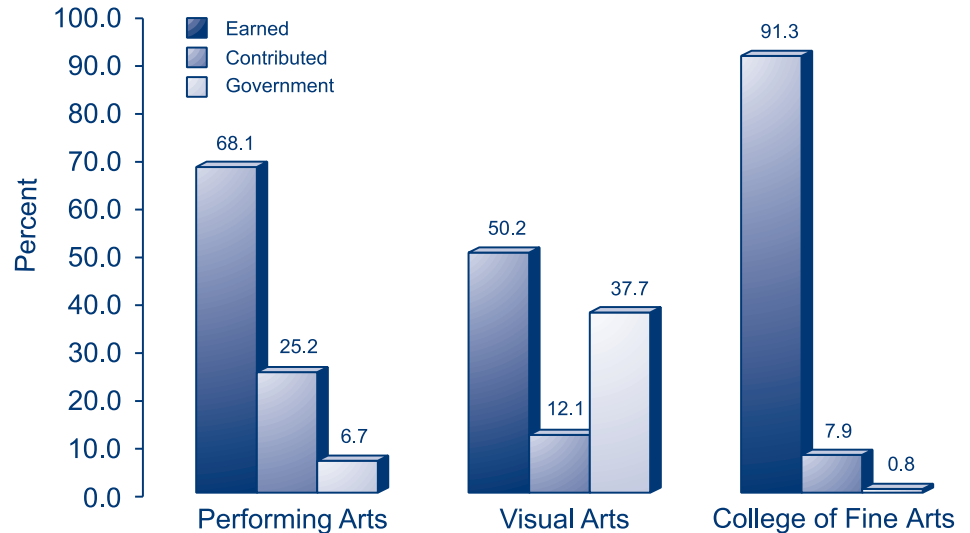


Figure 3. Share of Income Sources by Type of Arts Organization
Source: Survey of Arts Organizations 2000.

obtained through fundraising activities, represents donations. Thus, we estimate that, when donations obtained through fundraising events are included, the actual amount of contributions was over \$8.2 million or about 20 percent of total income.

The importance of each contributing source varies among arts organizations (Figure 5). Individual contributions represented 100 percent of the College of Fine Arts' contributed income. Individuals were the major

source of contributed income to the performing arts organizations as well, accounting for 62.2 percent. Even the visual arts organizations received more than half of contributed income from individual donors.

Foundations were the second most important source of contributed income, accounting for 34 percent of visual arts' contributed income and 16.1 percent of performing arts' contributed income.

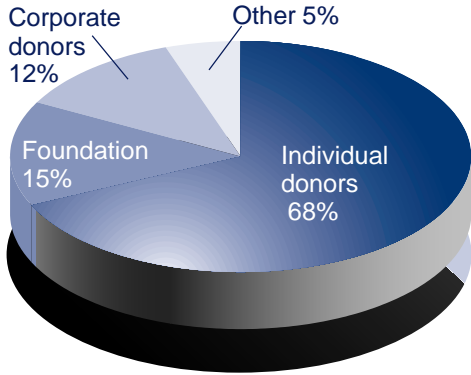


Figure 4. Sources of Contributed Income
Source: Survey of Arts Organizations 2000.

Corporate donations also were an important source of contributed income in support of the arts organizations. Corporations' contributions accounted for 14.8 percent of the performing arts' contributed income and 11 percent of the visual arts' contributed income.

Government Funding

As stated recently in the *Economic Impact Study of Arts and Cultural Organizations in Pierce County*, government funding is an important source of income to arts and cultural organizations, ensuring that high quality arts experiences are accessible to the greatest number of people possible. Empirical studies, however, show a great discrepancy in government's support for arts organizations. For example, arts and cultural organizations in King County, Washington, received only 7 percent of their total income from government sources, while in neighboring Pierce County, government funding represented 29 percent of total income.

Tucson's arts organizations received a total of \$3.5 million from government sources or 8.7 percent of their total income. State government was the major source of government funding with a contribution of \$3 million, which accounted for 85.3 percent of all government funding. The City of Tucson and Pima County governments together provided over \$328 thousand or 9.5 percent of total government support. Federal

government agencies (including the National Endowment for the Arts) contributed about \$189 thousand or 5.3 percent of all government funding (Figure 6).

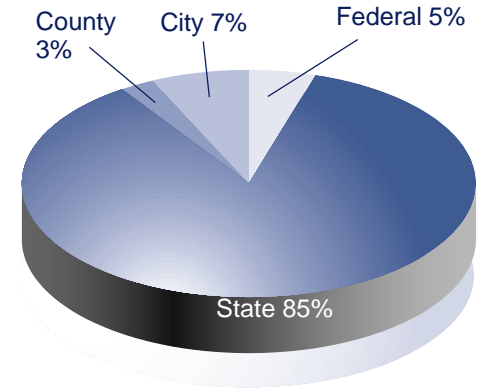


Figure 6. Government Funding Sources
Source: Survey of Arts Organizations 2000.

State government funding accounted for 92.3 percent of the visual arts' government support, and for 83 percent of the performing arts organizations' government income. State government funding was the only source of government funding received by the College of Fine Arts (Figure 7).

The City of Tucson provided 2.3 percent and 9.2 percent of total government funding to, respectively, the visual arts and performing arts organizations. The performing arts organizations also received support from county government (3.1 percent).

Federal government sources played a relatively small role as a funding source for Tucson's arts organizations, accounting for 4.7 percent of total government funding of the performing arts and 5.2 percent of the visual arts organizations. For comparison, the arts and cultural organizations in King and Pierce counties received, respectively, 14 and 46 percent of all government funding from the federal government sources.

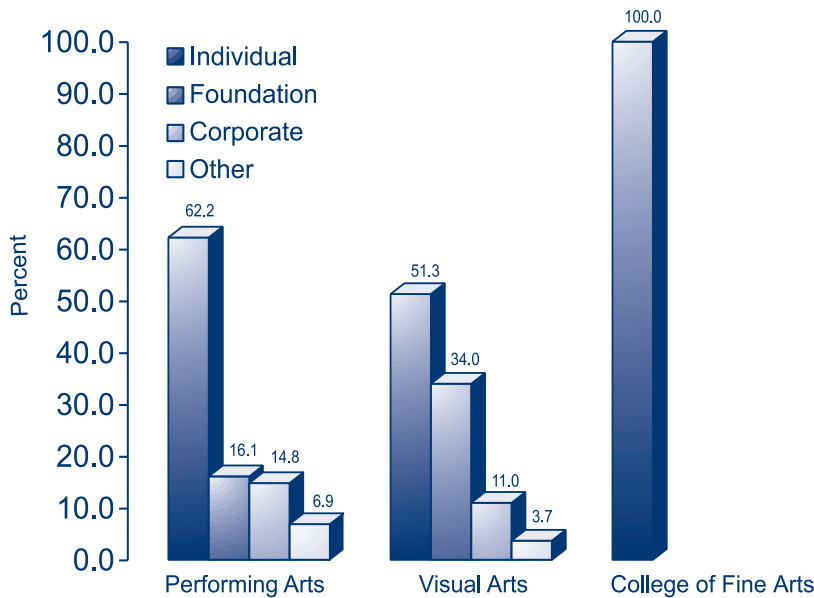


Figure 5. Share of Contributed Income by Type of Arts Organization
Source: Survey of Arts Organizations 2000.

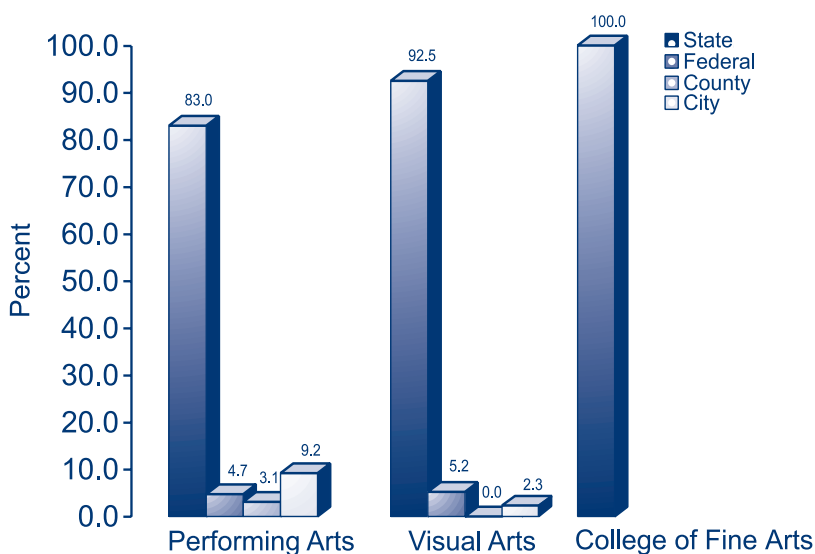


Figure 7. Government Funding by Type of Arts Organization

Source: Survey of Arts Organizations 2000.

Who are Arts Consumers?

The audience survey provided valuable data about the origins and spending patterns of arts audiences. A total of 26,600 questionnaires were distributed in proportion to each organization's share of the total audience, as reported for 1999-2000. A total of 2,695 questionnaires were returned, resulting in a rate of 10.1 percent. Despite a relatively low response rate, the survey is of a considerable size, which allows for high confidence in the survey results and the estimates based on the survey data.

Origin of Patrons

The respondents were asked to identify themselves either as full-time residents, part-time residents, visitors or University of Arizona students and to provide the zip code of their permanent residence. This information was important for the economic impact analysis for two main reasons. One is that visitors' spending patterns differ from that of local residents because of the different costs that are incurred while traveling away from home. Secondly, the distinction between local and non-local residents allows

for an estimation of the new money that is injected into the local economy.

Respondents were divided into four groups based on residence status: Tucson's full-time residents (70.2 percent), part-time residents (12.5 percent), visitors (15.7 percent), and University of Arizona students (1.6 percent).

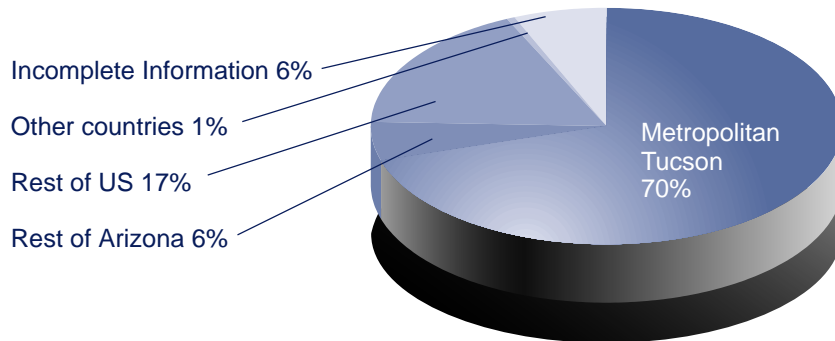


Figure 8. Survey Respondents by Origin

Source: Audience Survey 2000-01.

Tucson and surrounding communities attract large numbers of residents during the winter months from other states with colder climates. A comparison of returned

questionnaires from October-December surveys with those from January-February surveys revealed that the share of non-local residents increased from 24.9 percent to 32.2 percent. On average, the ratio of local versus non-local residents was roughly 70 to 30.

Part-time residents, popularly known as the "snow birds," spend on average between three to six months in the Tucson area. As suggested by survey results, the part-time residents represent an important segment of Tucson arts patrons.

The majority of respondents (70 percent) originated from Tucson and adjacent suburban communities including Marana, Green Valley and Catalina.

About 5.5 percent of respondents were from other places in Arizona. The largest number of non-local attendees originated from other U.S. states, accounting for 17.3 percent of the survey respondents. Visitors from abroad represented less than one percent. The remaining 6.4 percent of respondents provided incomplete or no information regarding their zip code, causing the

exclusion of 172 returned questionnaires from the subsequent analysis.

As expected, the composition of arts patrons varies between the participating organizations, reflecting individual tastes and preferences.

The survey results suggest that performing arts organizations such as Arizona Theatre Company and UApresents rely more on Tucson's full-time residents. In contrast, the visual arts organizations, such as Tucson Museum of Art and the University of Arizona Museum of Art, cater more to visitors. Tucson's part-time residents are more often seen among the audiences at Arizona Opera and Tucson Symphony Orchestra, while university students are more likely to attend University of Arizona performances and exhibits.

The average number of persons per party attending the event varied between 1.8 for students and 3.7 for full-time residents from outside Tucson and its adjacent neighborhoods (referred to as the rest of the Tucson metropolitan area).

Sources of Impacts on Local Economy

Economic and tax revenue impacts are generated in the local economy through purchases of goods and services. Three main sources are included in this analysis: (a) expenditures by arts organizations, (b) spending by employees of arts organizations, and (c) audience spending.

Expenditures by Arts Organizations

Expenditure analysis, i.e., what has been spent locally through purchases of goods and services from other businesses, provides a key element in the estimation of jobs, wages and sales associated with the participating arts organizations.

Operation-related expenditures include the regular costs of running a business/office, such as the costs of utilities, communication services and building maintenance. In addition, arts organizations have costs associated with the production of performances or exhibits, royalty payments, acquisition of artwork and various contract services. Total operation-related costs

amounted to \$11.9 million or 30.1 percent of all expenditures.

Through purchases of goods and services from other businesses in the local economy, the arts organizations generate so-called indirect jobs, i.e., jobs in other businesses that indirectly depend on the operations of the participating arts organizations. These jobs are estimated later in this report by means of the input-output model.

The ratio between expenses related to employees and operating costs differ considerably among arts organizations. For example, visual arts organizations spent 42.3 percent of all expenses on employee-related costs in contrast to 69.1 percent for the performing arts organizations and 80.9 percent for the College of Fine Arts.

The two largest single expenditure categories were associated with production costs (about \$2.5 million or 20.9 percent) and purchase of various supplies and materials (close to \$2.5 million or 20.7 percent). More than \$942 thousand (7.9 percent) was spent on advertising. Over \$919 thousand was spent on utilities (7.7 percent), and another \$494 thousand on communication services. More than \$825 thousand was spent on office equipment.

Fundraising activities accounted for 5.9

percent of all expenditures, or about \$698 thousand. Between \$300 thousand and \$500 thousand was spent on royalties, travel, contract services and artwork. Other categories include property taxes, educational and other programs, building maintenance and insurance (Figure 9).

The performing arts organizations tend to spend more on production costs, while fundraising was the leading operating expenditure for the visual arts organizations. In contrast, supplies and materials was the top expenditure category for the College of Fine Arts.

Employee Spending

Employee-related expenditures include salaries and wages to full and part-time employees, as well as payments to local and non-local artists and contractors. Together these expenditures totaled \$27.6 million, or 69.9 percent of all expenditures.

The largest expenditures were associated with salaries and wages for full and part time employees (\$22.3 million or 80.6 percent). About 15 percent or \$4.2 million was paid to non-local artists in addition to about \$623 thousand paid to local artists. Another \$458 thousand was paid for services to contractors.

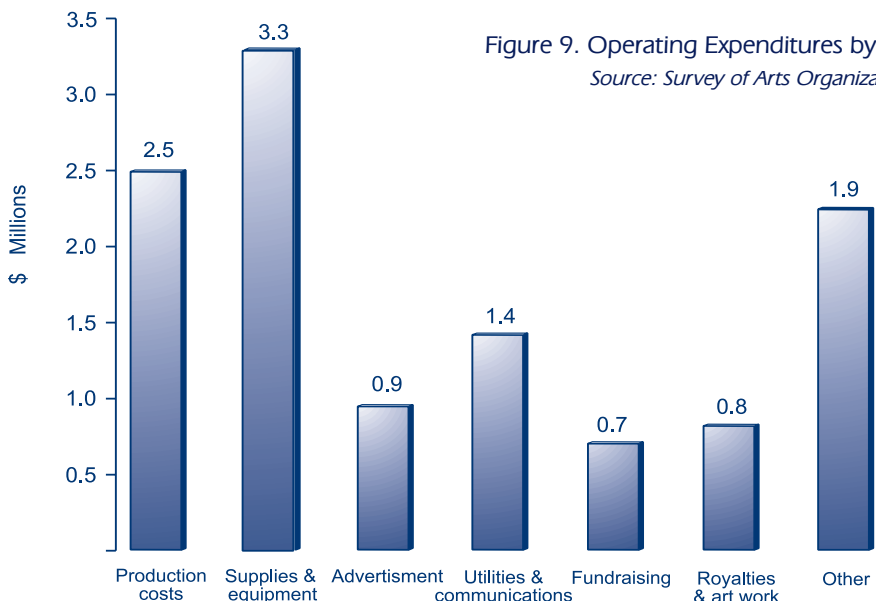


Figure 9. Operating Expenditures by Category
Source: Survey of Arts Organizations 2000.

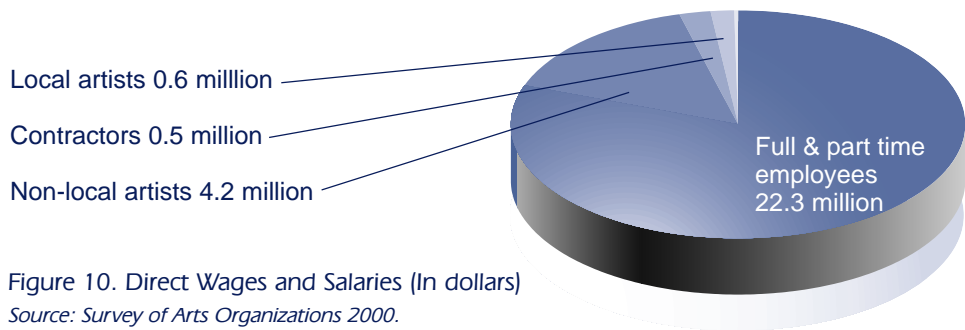


Figure 10. Direct Wages and Salaries (In dollars)

Source: Survey of Arts Organizations 2000.

The performing arts organizations spent only 62 percent on full and part-time employees. They also spent 31.9 percent on non-local artists in addition to 4.7 percent paid to local artists. Not surprisingly, *UApresents* accounted for the single largest amount of expenses associated with non-local artists (over \$3 million), since it is the major arts organization that brings national and international artists to the Tucson scene. The fact that the non-local artists most likely spend only a portion of their income in Tucson, while taking another portion of their income out of Tucson, needs to be taken into account when estimating overall economic impacts.

Visual arts organizations, in contrast, spent less on local and non-local artists (less than one percent of aggregate spending), but relied more on local contractors (4.3 percent of their total employee-related expenditures).

The College of Fine Arts' expenditures were overwhelmingly related to full and part-time employees, accounting for 98.1 percent of all employee-related expenditures.

As the employees (and other associated artists and contractors) spend their incomes on housing, food, transportation, education, entertainment and other services in Tucson, they generate additional jobs in the local economy. These jobs are known as induced jobs. The number of induced jobs generated by the participating arts organizations are estimated later in this report by means of the input-output model.

Audience Spending

Spending by arts patrons, related to attending a performance or other arts event is an additional source of economic impact to the local economy. The survey instrument was crafted along the lines of similar studies with the purpose of providing insights into the origins and spending patterns of the Tucson arts audience. Specific questions were asked about expenditures associated with transportation, consumption of food and beverages, purchase of souvenirs as well as other event-related spending.

Average Spending

The respondents were asked to report total spending for all persons in the party attending the event. In combination with the type

of residency, average spending per person was then estimated for each of the four groups of survey participants.

As expected, the arts patrons differ with respect to the average dollar amount spent as well as by spending categories. This is due primarily to lodging expenses, transportation costs and, to some extent, dining habits before and after the event. For instance, visitors and part-time residents spent on average \$119.88 and \$89.02 per person, respectively (Figure 11). Tucson's full-time residents spent on average \$44.33 per person compared to \$31.61 spent by full-time residents in the rest of the Tucson metropolitan area. Students' average spending of \$17.61 reflects the availability of discount tickets and overall lower transportation costs associated with attending University of Arizona arts events located on campus. The spending differences influence not only the total dollar amount spent, but also how much is spent in each category. Thus, different types of arts patrons have different impacts on local businesses.

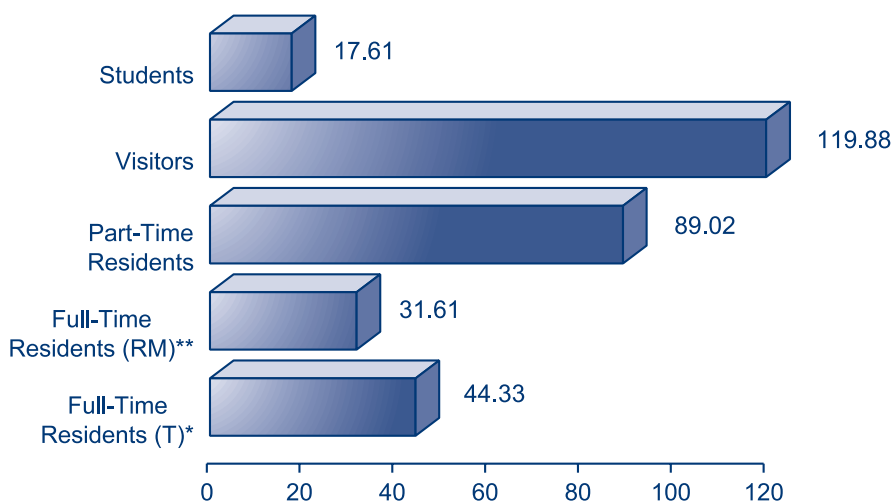


Figure 11. Average Spending per Person (in dollars)

* Tucson area zip codes ** Rest of Tucson metropolitan area

Source: Audience Survey 2000-01.

Aggregate Spending

The estimation procedure involved three steps. First, using the survey data, we estimated the number of persons in each of the five residential categories (Tucson's full-time residents, rest-of-Tucson's metro area, part-time residents, visitors, and students). Because of the variable number of people per party, the estimated number of total patrons in each category by origin differs from the number of respondents in each category.

Next, using the survey based percentage composition of patrons in combination with the total number of attendees in each organization, it was possible to estimate the total number of persons in each category by type of residence.

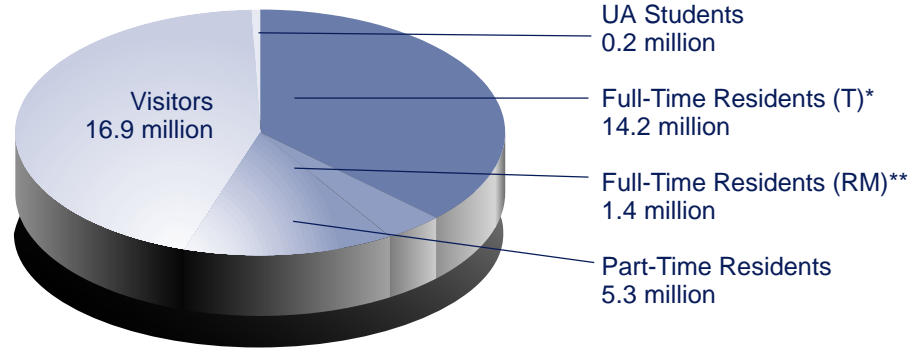


Figure 13. Origin of Patrons and Their Spending (In dollars)
 * Tucson area zip codes ** Rest of Tucson metropolitan area
 Source: Audience Survey 2000-01.

statements regarding their income from ticket sales and admissions. This finding strongly supports the overall confidence in estimates based on the audience survey.

Additionally, an estimated \$2.4 million was

spent on refreshments and souvenirs. These estimates seem to be higher than what the organizations reported, although this may be a result of a difference in reporting total sales versus profits. Some sales also have been reported under the category "other," thus making a direct comparison difficult.

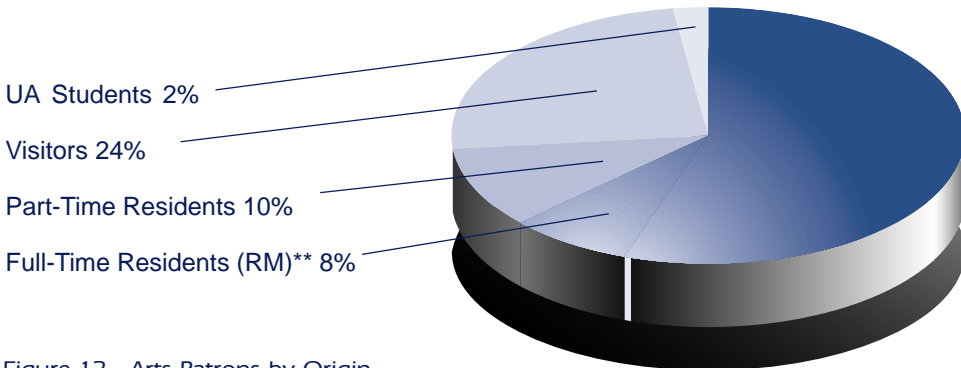


Figure 12. Arts Patrons by Origin
 * Tucson area zip codes ** Rest of Tucson metropolitan area
 Source: Audience Survey 2000-01.

The estimated share of each group of patrons by origin is portrayed in Figure 12.

Finally, by multiplying the number of persons in each residence category by average per person spending, we obtained the total dollar amount spent in each residence category (Figure 13).

The estimates suggest that the 578,837 patrons attending arts events spent over \$38 million. Major spending, obviously, is associated with the purchase of tickets and admissions. Note that the survey-based estimate of \$11.2 million is very close to the actual dollar amount of \$11.8 million that was reported in the organizations' financial

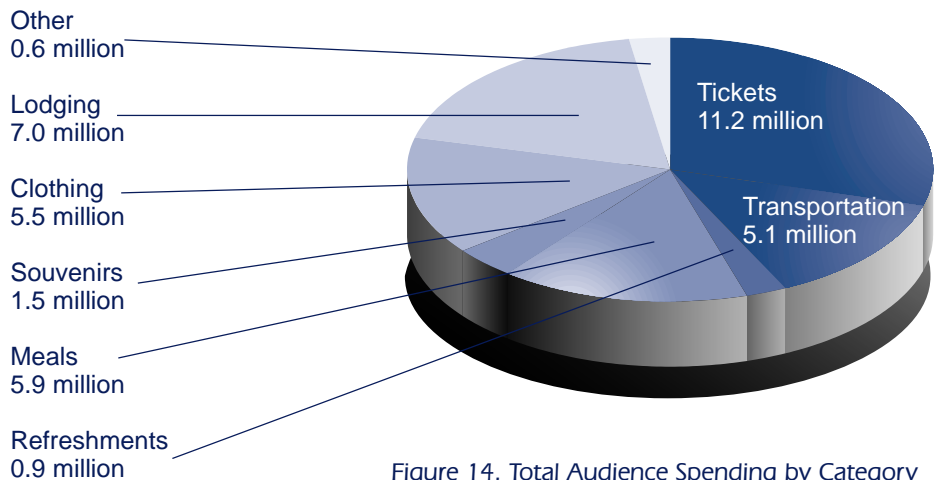


Figure 14. Total Audience Spending by Category (In dollars)
 Source: Audience Survey 2000-01.

The Multiplier Effect

Arts organizations generate impacts in the local economy through local spending. To illustrate how this works, we have borrowed an example from the 1994 NALAA study *Arts in the Local Economy*:

A theatre company purchases a gallon of paint from the local hardware store for 10 dollars (this is the “direct economic impact”). The hardware store then uses a portion of the ten dollars to pay the sales clerk’s salary; the sales clerk re-spends some of the money for groceries; the grocery store in turn uses some of the money to pay its cashier; the cashier spends some for the utility bill; and so on (these are the “indirect economic impacts”).

Although this example is sufficient for the lay person, more sophisticated readers should note that this report uses a more precise definition of “indirect” impacts. “Indirect” impacts are commonly used for impacts generated through purchases of materials and supplies among businesses. The impacts that are generated through re-spending of a portion of employees’ wages (i.e., when the sales clerk or grocery store cashier re-spend their money) are “induced” impacts. For simplicity we report them together as “indirect and induced impacts.”

The original ten dollars from the theatre in the aforementioned example has been “re-

spent” several times. The local expenditures continue to have an economic impact on the local economy until the money eventually “leaks out” of the community (i.e., is spent non-locally). The notion of local spending is thus a key to understanding how the final estimates are obtained and why some dollar amounts reported in the various sections of the report do not “sum up.” The local economic impact is based only on local expenditures; non-local expenditures have no local economic impact.

Impacts Due to Operating Expenditures

As reported earlier, the participating organizations spent close to \$11.9 million on various supplies and services during 1999-2000. The reported expenditure categories were examined and reclassified to conform to the Pima and Arizona input-output models used in this study. It was assumed that only 10 percent of the royalties and 10 percent of the artwork purchases were local. This resulted in an estimated \$11.1 million in direct local spending that was used in the estimation of the economic impact.

The Pima County input-output model was used to estimate impacts on the local economy of Metropolitan Tucson. The county model is based on a table of 200 detailed industries showing sales and purchases among industries and payments to households for labor. The model measures how many times a dollar is re-

spent in the community before it leaks out, and the economic impact of each round of spending.

Because businesses in Pima County purchase a certain amount of materials and supplies from other business in Arizona (most notably in Phoenix and Maricopa County), the economic impact of Tucson’s arts organizations can be felt outside the limits of Pima County. The Arizona input-output model was applied to measure these additional impacts due to the leakages from the Tucson economy. These impacts are reported as “impacts in the rest of Arizona.”

Tax revenues accruing to city, county and state governments were estimated by means of respective tax revenue models using the information on the amount of taxable purchases in addition to estimates of indirect and induced wages.

Table 1 summarizes the economic impacts in terms of four basic measures: number of jobs, labor income (wages and salaries), tax revenues, and the total dollar impact. The total dollar impact is the total value of sales (i.e., output) and represents the sum of wages, taxes, and “other” sales. “Other” sales include items such as proprietary income and other value added in the local economy, although the input-output model does not specify these impacts by economic activity. The value of “other” sales is

TABLE 1 ECONOMIC AND TAX REVENUE IMPACTS DUE TO OPERATING EXPENDITURES

Type of Impact	Initial impact	Indirect & Induced Impacts	Total Impact Pima County [1 + 2]	Rest of Arizona Impact	Total Impact [3 + 4]
	1	2	3	4	5
Jobs	174	80	254	37	291
Wages (\$)	3,681,500	1,517,200	4,988,600	580,300	5,568,900
Tax Revenues (\$)	243,8721	422,7541	666,626 ¹	33,4862 ²	700,112
Other sales (\$)	7,225,817	3,565,246	11,000,163	1,152,714	12,152,877
Total Sales (\$)	11,150,189	5,505,200	16,655,389	1,766,500	18,421,889

¹Includes tax revenues that accrue to the State of Arizona, Pima County and City of Tucson governments.

²Includes tax revenues that accrue to the State of Arizona, other county and city governments outside Pima County.

Sources: Survey of Arts Organizations 2000; input-output models; city, county and state revenue models.

obtained as the difference between the total dollar impact and the sum of wages/salaries and tax revenues.

The total dollar impact of operating expenses was over \$16.7 million in Pima County and about \$1.8 million in the rest of Arizona, totaling over \$18.4 million. This includes about \$5.6 million in wages and over \$700 thousand in total taxes paid to local and state governments. About 254 jobs were generated in the local economy and an additional 37 elsewhere in Arizona. The majority of these jobs were in the services sector (45 percent) and trade sector (39 percent). The remaining jobs were in transportation and public utilities (5.5 percent), finance, insurance and real estate (4.9 percent) and construction (2.3 percent).

Impacts Due to Employee Spending

A total of \$27.6 million was paid to employees in arts organizations, including full-time, part-time, contractors, local and non-local artists. Assuming that non-local artists spend only about 50 percent of their Tucson-earned income in Tucson, this

brings a revised total to about \$25.5 million as the initial "direct" impact.

Initially a considerable portion of direct wages and salaries leaks out of the local economy as a result of payments such as federal taxes, contributions to social security and Medicare, mortgage payments, interest on credit cards, and investments. The Pima County input-output model suggests that about 50 percent of wages and salaries leaks out of the local economy.

Table 2 summarizes the economic impact of wages that are re-spent in the local economy, generating 373 indirect and induced jobs and \$5.5 million in indirect and induced wages in Pima County. An additional 47 jobs and about \$696 thousand in wages were generated in the rest of Arizona.

Combining the indirect and induced impacts with "direct" employment and associated wages, the total economic impact due to employee spending resulted in 2,167 jobs, \$31.7 million in wages, and over \$2.8 million in taxes. Total dollar impact (sales) was about \$44.4 million.

Spending by employees generated a slightly different composition of indirect and induced jobs than the organizational spending discussed in the preceding section. More than 46 percent of these jobs were in the trade sector, followed by 31.9 percent in the services sector, 7.8 percent in the finance, insurance and real estate sector, and the rest in construction, manufacturing and government.

Impacts Due to Audience Spending

Total audience spending was estimated at about \$38.1 million. Note, however, that income from tickets and sales of refreshments and souvenirs at the event was included in the estimation of economic impacts associated with the operating expenditures. Thus, in order to avoid double counting, these three items are excluded from this analysis. Subtracting \$11.2 million (tickets/admissions), \$0.9 million (refreshments) and \$1.5 million (souvenirs) from the initial \$38.1 million resulted in a revised initial impact of \$24.4 million. (The slight difference is due to rounding; for the non-rounded figures, refer to the corresponding tables in the Appendix).

Table 2 ECONOMIC AND TAX REVENUE IMPACTS DUE TO EMPLOYEE SPENDING

Type of Impact	Initial impact	Indirect & Induced Impacts	Total Impact Pima County [1 + 2]	Rest of Arizona Impact	Total Impact [3 + 4]
	1	2	3	4	5
Jobs	1,747 ³	373	2,120	47	2,167
Wages (\$)	25,538,080 ⁴	5,505,200	31,043,280	696,100	31,739,380
Tax revenues (\$)		2,818,339 ¹	2,818,339	40,168 ²	2,858,507
Other sales (\$)		8,221,561	8,221,561	1,565,632	9,787,193
Total sales (\$)	25,538,080	16,545,100	42,083,180	2,301,900	44,385,080

¹Includes tax revenues that accrue to the State of Arizona, Pima County and City of Tucson governments.

²Includes tax revenues that accrue to the State of Arizona, other county and city governments outside Pima County.

³Direct number of jobs (not FTE) in participating arts organizations.

⁴Direct wages and salaries include taxes to local, state and federal governments, as well as Social Security and Medicare contributions.

Sources: Survey of Arts Organizations 2000; input-output models; city, county and state revenue models.

Table 3 ECONOMIC AND TAX REVENUE IMPACTS DUE TO AUDIENCE SPENDING

Type of Impact	Initial impact	Indirect & Induced Impacts	Total Impact Pima County [1 + 2]	Rest of Arizona Impact	Total Impact [3 + 4]
	1	2	3	4	5
Jobs	951	229	1,180	106	1,286
Wages (\$)	10,478,600	3,655,800	14,134,400	1,627,800	15,762,200
Tax revenues (\$)	1,077,977 ¹	1,255,041 ¹	2,333,018	93,930 ²	2,426,948
Other sales (\$)	12,862,670	8,769,659	21,632,329	3,248,370	24,880,699
Total Sales (\$)	24,419,247 ³	13,680,500	38,099,747	4,970,100	43,069,847

¹Includes tax revenues that accrue to the State of Arizona, Pima County and City of Tucson governments.

²Includes tax revenues that accrue to the State of Arizona, other county and city governments outside Pima County.

³Excluding purchase of tickets, refreshments and souvenirs.

Sources: Survey of Arts Organizations 2000; input-output models; city, county and state revenue models.

Table 3 shows a total impact of 1,180 jobs in Pima County, with an additional 106 jobs in the rest of Arizona, for a total of 1,286 jobs. The total wage impact was \$14.1 million in Pima County and \$1.6 million elsewhere in Arizona. Audience spending generated over \$2.3 million in tax revenues in Pima County (accruing to city, county and state governments) and almost \$94 thousand outside Pima County.

Summary of Economic and Tax Revenue Impacts

Estimates presented in Tables 1, 2 and 3 are

rearranged and summarized in Table 4 in terms of jobs, wages and salaries, tax revenues, and total sales from all three sources -- operating expenditures, employee spending and audience spending -- combined.

The aggregate impact of the participating arts organizations on the Pima County economy was over \$96.8 million, including over \$50 million in wages and salaries, and over \$5.8 million in tax revenues to local and state governments.

Through a spillover effect, impacts were felt

outside the Pima County boundaries, where an additional \$9 million in sales was generated, including over \$2.9 million in wages and salaries, and about \$167 thousand in tax revenues.

Combining the impacts that occur in Pima County with the spillover effect, the total impact was almost \$106 million, out of which \$53 million was in wages and salaries, and close to \$6 million in tax revenues. The total job impact in Arizona was 3,744 jobs, out of which 3,554 were in Pima County.

Table 4 SUMMARY OF ECONOMIC AND TAX REVENUE IMPACTS (Direct, Indirect and Induced Impacts)

	In Pima County	Outside Pima County	Arizona Total
Total jobs	3,554	190	3,744
Wages & salaries (\$)	50,166,280	2,904,200	53,070,480
Tax revenues (\$)	5,817,983 ¹	167,584 ²	5,985,567
Other sales (\$)	40,853,806	5,966,716	46,820,522
Total sales (\$)	96,838,069	9,038,500	105,876,569

¹Includes tax revenues that accrue to the State of Arizona, Pima County and City of Tucson governments.

²Includes tax revenues that accrue to the State of Arizona, other county and city governments outside Pima County

Sources: Survey of Arts Organizations 2000; input-output models; city, county and state revenue models.

Table 5 **AGGREGATED TAX REVENUE IMPACT BY GOVERNMENT ENTITY**
(Direct, Indirect and Induced Taxes)

Constituency	In Pima County \$	Outside Pima County \$	Arizona Total \$	Arizona Total %
City government	1,823,032		1,823,032	30.5
County government	1,064,046		1,064,046	17.8
Other Arizona counties		37,983	37,983	0.6
State government	2,930,905	129,601	3,060,506	51.1
Total tax revenue impact	5,817,983	167,584	5,985,567	100.0

Source: City, county and state revenue models.

As shown in Table 5, the State of Arizona is the major beneficiary of tax revenues generated through economic activities associated with the participating arts organizations. Out of a total of close to \$6 million in taxes, the state government received about \$3.1 million or about 51 percent. The City of Tucson received more than \$1.8 million (about 30 percent) and the Pima County close to \$1.1 million (about 18 percent).

What Do the Results Mean?

A useful way to assess the meaning of the estimated impacts is to compare the total impacts with the amount of initial direct impacts. These ratios correspond to multipliers, although they need to be interpreted and used with caution. Multipliers in this study may appear smaller than those reported in previous studies of arts organizations. However, multipliers in this study are more accurate, because first, they were derived from the specific structure of Pima County's economy as represented in the regional input-output model. Secondly, unlike other studies, the audience spending in this study was estimated based on the survey of the actual arts audience and thus provides more accurate figures.

A distinction is made between multipliers related to the spending of arts organizations and those related to the spending of audiences. The first multiplier is derived as a ratio of total impact due to operating

expenditures (including employees' expenditures) and the initial direct expenses. That is, the ratio between total estimated sales of \$58.7 and the initial direct expenditures of \$36.7 million spent in Pima County (combination of data from Tables 1 and 2). The resulting multiplier of 1.6 (based on the exact numbers in the tables, not the rounded numbers reported in the text) suggests that for every dollar of what it costs to run arts organizations, an additional 60 cents is being generated throughout the local economy. An additional 11 cents is generated in Arizona outside Pima County.

The second multiplier applies to audience spending. It suggests that for every dollar arts patrons spend, an additional 56 cents is generated in Metropolitan Tucson and another 20 cents elsewhere in Arizona (or a total of 76 cents for every initial dollar).

Tax revenues, in particular, provide an interesting assessment of a return on the initial government support for arts organizations. Contrary to the popular belief that arts organizations are burdens to local and state governments, governmental support is not only "repaid," but is being returned with a multiplier effect. For every initial dollar given to arts organizations, the government received one dollar and 6 cents as a result of taxes paid on local purchases of goods and services. This is a "repayment" of the initial dollar plus an additional 6 cents. When audience spending is included, the tax revenues represent 79 cents on top of the

initial one-dollar of government's support. Obviously, governmental support to the arts is a valuable and viable investment.

Beyond Dollars

Volunteerism

The arts organizations reported more than 136 thousand hours volunteered by more than 2000 volunteers. Professional volunteers donated about 46 percent or close to 63 thousand hours; artistic volunteers about 17 percent or close to 24 thousand hours; more than 47 thousand hours were volunteered by ticket takers, and other service volunteers. It is estimated that these volunteered hours were worth about \$2.7 million.

Quality of Life Considerations

Impressive as they are, the estimated economic and tax revenue impacts should not obscure other important aspects of the presence of arts organizations. The arts organizations offer a wide range of programs, activities and outreach, which cannot be measured in dollars, and yet provide the utmost contribution to Tucsonans as individuals and the community at large. Although many outreach activities are primarily aimed toward the local community, many of the organizations provide research archives, libraries, and performances that impact and touch lives outside of the Tucson area -- in other cities, states and countries. The following is just a snapshot of

the various and rich programs and activities that benefit the community beyond dollars.

The various activities improve the educational environment, benefiting students from pre-school age to college. The arts organizations provide:

- Discount tickets to students
- Matinees and other special events for students
- Performances and exhibits in schools
- Study guides and classes for teachers
- Summer institutes for students and teachers
- Master classes and internships

Residents and visitors benefit from a variety of outreach/educational activities aimed at the community at large:

- Pre-performance discussions
- Lectures and publications
- Research centers and libraries

There are other benefits from the presence of major arts organizations such as opera, symphony, theatre companies, art museums, and university drama, dance and music departments that are difficult to assess in strict economic sense. For example, there are intangible forces of attraction and networking, which build region-specific milieus. Major arts organizations serve as attraction poles for many smaller arts organizations and individuals, who in turn provide pools of creative human capital. Together, they enhance the creative industry sector.

Tucson's economic development has identified leading industry clusters such as optics, aerospace, information technology and others. The results of this study warrant a new perspective on the arts industry: an investigation of the emergence of, possibly, a new cluster -- the creative industry cluster.

SUMMARY IMPACT OF THE PARTICIPATING ARTS ORGANIZATIONS IN METROPOLITAN TUCSON FY 1999-2000

THE PARTICIPATING ARTS ORGANIZATIONS

directly employed 1,747 persons, and paid \$25.5 million in direct wages locally

EMPLOYEE SPENDING

created 373 additional jobs
\$5.5 million in wages, \$2.8 million in tax revenues, and \$8.2 million in additional sales
(total dollar impact of \$16.5 million)

PURCHASES AND OPERATING EXPENSES CREATED

254 jobs, \$4.9 million in wages, \$0.7 million in tax revenues, and \$11 million in additional sales
(total dollar impact of \$16.6 million)

AUDIENCE SPENDING

generated 1,180 jobs
\$14.1 million in wages, \$2.3 million in tax revenues, and \$21.6 million in additional sales
(total dollar impact of \$38 million)

TOTAL IMPACT IN METROPOLITAN TUCSON:

3,554 JOBS
\$ 96.8 MILLION IN WAGES AND SALES

ECONOMIC AND TAX REVENUE IMPACTS BEYOND METROPOLITAN TUCSON:

190 ADDITIONAL JOBS
\$2.9 MILLION IN ADDITIONAL WAGES
\$168 THOUSAND IN TAX REVENUES
\$6 MILLION IN ADDITIONAL SALES
TOTAL DOLLAR IMPACT OF \$9 MILLION

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Data Sources:
Survey of Arts Organizations 2000 conducted in Fall 2000.

Audience Survey 2000-01 conducted between October 30, 2000 and February 10, 2001.

Appendix

Participating Organizations

Arizona Opera

Performing for Tucson audiences since 1972, Arizona Opera annually presents five productions in both Tucson and Phoenix. Productions feature international artists, conductors and stage directors.

Arizona Theatre Company

Based in Tucson, ATC is the only resident professional theater company in Arizona and the only regional theater in the United States to perform in two cities. It produces six productions annually in Tucson and Phoenix, including classical and contemporary dramas, musicals and new works by emerging playwrights.

Tucson Symphony Orchestra

With a history of more than 70 seasons in Tucson, TSO performs classical favorites as well as new works and many that haven't been performed in over 20 years. Four major series are: Classics, Pops, Masterworks and Ensemble series.

Tucson Museum of Art

For more than 75 years, TMA has showcased a wide variety of regional, national and international fine arts and crafts, five of the most important historic homes in Tucson and an art school.

UApresents

The University of Arizona's performing arts series brings leading artists from around the world to Southern Arizona. The program features Broadway musicals, classical, jazz and popular music, ballet, modern dance, Latin and international culture, and unique community events.

The University of Arizona Center for Creative Photography

CCP is an archive, museum, and research institution, dedicated to photography as an art form and cultural record, and is currently celebrating its 25th Anniversary. CCP holds more archives and individual works by 20th-century North American photographers than any other museum in the nation. Visitors enjoy a changing exhibition program, Research Center, educational programs and resources, school tours, Library, Museum Store, and public access to the vast collection through the renowned PrintViewing program.

The University of Arizona College of Fine Arts

Aside from its educational function, the College of Fine Arts actively participates in Tucson's performing arts scene. The School of Music and Dance showcases master musicians presenting a variety of programs. Programs include: Faculty Artists Series, Alumni Series and Opera Theatre programs. The Department of Theatre Arts has been performing theatrical productions for over 60 years. The Arizona Repertory Theatre showcases the department's professional theater training programs in acting, musical theater and stage design/technology.

The University of Arizona Museum of Art

UAMA houses one of the most complete university collections in the Southwest of Renaissance and later European and American art. It offers changing exhibitions and a growing permanent collection.

Input-Output (I-O) Model

The Pima County I-O model portrays the economy in terms of a matrix of about 200 sectors that purchase and sell goods and services from and to each other. The Pima County model is based on the Arizona I-O model, developed by the Regional Science Research Institute. The state model was modified to reflect the county economy. Each activity associated with the arts organizations' spending as well as audience spending was identified in the model. The I-O model estimates direct, indirect and induced effects in terms of jobs, wages and output (sales).

Economic impacts of the arts organizations outside Pima County were estimated using the Arizona I-O model. The models are maintained in the Office of Economic Development.

The Revenue Impact Model

The revenue impact model computes state, county and city revenues associated with changes in business activity. The model uses estimates of wage impact results from an I-O model and other specific information about changes in business activity. The model computes direct and induced revenue impacts. The revenue models for the City of Tucson, Pima County and the State of Arizona are maintained in the Economic and Business Research Program at the Eller College of Business and Public Administration.

Additional Tables

Table 6 DIRECT JOBS FY 1999-2000

Status	Number	%
Full-time	431	24.7
Part-time	1,264	72.3
Contractual	52	3.0
Total jobs	1,747	100.0

Source: Survey of Arts Organizations 2000.

Table 7 TOTAL INCOME FY 1999-2000

Income Category	Income \$	Composition %
Earned income	30,347,193	74.6
Contributed income	6,811,410	16.7
Government income	3,537,969	8.7
Total Income	40,696,572	100.0

Source: Survey of Arts Organizations 2000.

Table 8 INCOME SOURCE BY TYPE OF ARTS ORGANIZATION (%) FY 1999-2000

Source	Performing Arts Organizations	Visual Arts Organizations	College of Fine Arts
Earned Income	68.1	50.2	91.3
Contributed Income	25.2	12.1	7.9
Government	6.7	37.7	0.8
Total Income	100.0	100.0	100.0

Source: Survey of Arts Organizations 2000.

Table 9 EARNED INCOME BY SOURCE FY 1999-2000

Income Category	Income \$	Composition %
Tuition	13,381,596	44.1
Admissions	11,859,097	39.1
Fundraising events	1,863,082	6.1
Interest	873,219	2.9
Contracted services	635,991	2.1
Sales and rentals	559,182	1.8
Other programs	451,606	1.5
Membership dues	209,417	0.7
Other earned income	514,003	1.7
Total earned income	30,347,193	100.0

Source: Survey of Arts Organizations 2000.

Table 10 EARNED INCOME BY TYPE OF ARTS ORGANIZATION (%) FY 1999-2000

Source	Performing Arts Organizations	Visual Arts Organizations	College of Fine Arts
Admissions	85.1	0.9	3.3
Fundraising events	4.2	44.9	0.4
Interest	1.5	14.7	1.9
Contracted services	4.0	1.5	0.4
Sales and rentals	1.9	7.5	0.7
Other programs	0.0	16.0	0.0
Membership dues	0.0	7.5	0.0
Other earned income	3.2	2.9	0.0
Tuition	0.0	3.8	93.3
Total Earned Income	100.0	100.0	100.0

Source: Survey of Arts Organizations 2000.

Table 11 CONTRIBUTED INCOME BY SOURCE FY 1999-2000

Source	Contributed Income	Share of Contributed Income	Share of Total Income
	\$	%	%
Individual donations	4,629,215	68.0	11.4
Foundations	1,018,330	15.0	2.5
Corporate donations	799,351	11.7	2.0
Other (Friends of Arts, etc.)	364,514	5.4	0.8
Total Contributed Income	6,811,410	100.0	16.7

Source: Survey of Arts Organizations 2000.

Table 12 CONTRIBUTED INCOME BY TYPE OF ARTS ORGANIZATION (%) FY 1999-2000

Source	Performing Arts Organizations	Visual Arts Organizations	College of Fine Arts
Individual	62.2	51.3	100.0
Foundations	16.1	34.0	
Corporate	14.8	11.0	
Other	6.9	3.7	
Total Contributed Income	100.0	100.0	100.0

Source: Survey of Arts Organizations 2000.

Table 13 GOVERNMENT FUNDING BY SOURCE FY 1999-2000

Income Category	Government Funding \$	Share of Government Funding %	Percent of Total Income %
Federal	188,750	5.3	0.5
State	3,016,794	85.3	7.5
County	88,067	2.5	0.2
City	240,358	6.8	0.5
Other	4,000	0.1	0.0
Total	3,537,969	100.0	8.7

Source: Survey of Arts Organizations 2000.

Table 14 GOVERNMENT FUNDING BY SOURCE AND TYPE OF ARTS ORGANIZATION (%) FY 1999-2000

Source	Performing Arts Organizations	Visual Arts Organizations	College of Fine Arts
Federal	4.75	5.2	
State	83.0	92.3	100.0
County	3.1	0.2	
City	9.2	2.3	
Total	100.0	100.0	100.0

Source: Survey of Arts Organizations 2000.

Table 15 AGGREGATE EXPENDITURES FY 1999-2000

Expenditure Category	Total \$	Distribution %
Employee expenses	27,632,442	69.9
Operating expenses	11,883,373	30.1
Total	39,515,815	100.0

Source: Survey of Arts Organizations 2000.

Table 16 OPERATING EXPENDITURES BY CATEGORY F1999-2000

Category	Expenditures \$	Expenditures %
Production costs	2,486,693	20.9
Supplies and materials	2,463,154	20.7
Advertisement	942,038	7.9
Utilities	919,488	7.7
Office equipment	825,380	6.9
Fundraising	698,586	5.9
Communications	494,217	5.9
Royalties	474,954	4.0
Travel	439,269	3.7
Contract services	415,709	3.5
Art work	339,695	2.9
Property taxes	300,932	2.5
Education/Programs	272,583	2.3
Box office	231,865	2.0
Building maintenance	129,394	1.1
Fees	118,037	1.0
Insurance	42,799	0.4
Development	39,858	0.3
Miscellaneous	37,661	0.3
Endowments	12,200	0.1
Other	198,861	1.6
Total	11,883,373	100.0

Source: Survey of Arts Organizations 2000.

Table 17 MAJOR OPERATING EXPENDITURES BY TYPE OF ORGANIZATION¹ (%) FY 1999-2000

Performing Arts Organizations	Visual Arts Organizations	College of Fine Arts
Production costs (26.3)	Fundraising (22.1)	Supplies/Materials(49.6)
Advertisement (16.1)	Production/Royalties(19.2)	Office equipment (20.3)
Supplies/materials (8.2)	Supplies/Materials (17.6)	Production costs (12.0)
Royalties (8.1)	Utilities (17.1)	Communications (7.0)
Office equipment	Art work (10.7)	Utilities (7.0)
Travel (7.4)		
Contract services (6.2)		
Property taxes (5.2)		

¹ Expenditures accounting for 5 percent and more of the total expenditures.

Source: Survey of Arts Organizations 2000.

Table 18 COMPOSITION OF EMPLOYEE-RELATED EXPENDITURES FY 1999-2000

Employee Category	Expenditures \$	Expenditures %
Full-time & part-time	22,274,089	80.6
Non-local artists	4,188,724	15.2
Local artists	622,630	2.3
Contractors	457,862	1.7
Other	89,137	0.3
Total	27,632,442	100.0

Source: Survey of Arts Organizations 2000.

Table 19 EMPLOYEE-RELATED EXPENDITURES BY TYPE OF ORGANIZATION (%) FY 1999-2000

Employee Category	Performing Arts Organizations	Visual Arts Organizations	College of Fine Arts
Full-& part-time	62.0	93.4	98.1
Contractors	1.3	4.3	1.6
Local artists	4.7	0.3	
Non-local artists	31.9	0.4	
Other	0.1	1.6	0.3
Total	100.0	100.0	100.0

Source: Survey of Arts Organizations 2000.

Table 20 AGGREGATE EXPENDITURES BY TYPE OF ORGANIZATION (%) FY 1999-2000

Type of Arts Organization	Employee Expenses	Operating Expenses	Total
Performing arts	69.1	30.9	100.0
Visual arts	42.3	57.7	100.0
College of Fine Arts	80.9	19.1	100.0

Source: Survey of Arts Organizations 2000.

TABLE 21 RETURNED QUESTIONNAIRES BY ARTS ORGANIZATION

Organization	Attendees FY 1999-00		Returned Questionnaires	
	Number	%	Number	%
Arizona Opera	24,158	4.2	186	6.9
Arizona Theatre Company	69,174	12.0	223	8.3
Tucson Symphony Orchestra	80,000	13.8	579	21.5
UApresents	124,559	21.5	858	31.8
Tucson Museum of Art	92,000	15.9	361	13.4
UA Museum of Art	35,000	6.0	44	1.6
UA Center for Creative Photography	95,000	16.4	97	3.6
UA College of Fine Arts	58,946	10.2	347	12.9
Total	578,837	100.0	2,695	100.0

Source: Survey of Arts Organizations 2000 and Audience Survey 2000-01.

Table 22 SURVEY RESPONDENTS BY RESIDENCE STATUS

Status	Number	%
Full-time residents	1,891	70.2
Part-time residents	337	12.5
Visitors	424	15.7
Students	43	1.6
Total	2,695	100.0

Source: Audience Survey 2000-01.

Table 23 SURVEY RESPONDENTS BY ORIGIN

Area	Number	%
Tucson ¹	1,710	63.5
Rest of Tucson Metro Area	181	6.7
Rest of Arizona	148	5.5
Rest of United States	467	17.3
Other countries	17	0.6
Incomplete information	172	6.4
Total	2,695	100.0

¹ Tucson zip codes as identified by the Postal Service

Source: Audience Survey 2000-01.

Table 24 NUMBER OF ATTENDING PARTIES AND AVERAGE PERSONS PER PARTY

	Full-time Residents Tucson	Full-time Residents Rest of Tucson Metro area	Part-time Residents	Visitors	Students	Total
Parties	1,685	180	337	410	43	2,655
Persons	3,631	668	856	1,108	76	6,339
Persons/party	2.2	3.7	2.5	2.7	1.8	2.4

Source: Audience Survey 2000-01.

Table 25 COMPOSITION OF SURVEY RESPONDENTS BY ORGANIZATION

Organization	Full-time Residents %	Part-time Residents %	Visitors %	Students %	Total %	Sample size
Arizona Opera	67.6	18.8	12.9	0.6	100.0	170
Arizona Theatre Company	83.8	6.1	9.1	1.0	100.0	198
Tucson Symphony Orchestra	69.2	26.6	3.5	0.8	100.0	519
UApresents	82.3	8.6	6.9	2.1	100.0	798
Tucson Museum of Art	30.0	12.2	57.1	0.6	100.0	343
UA Museum of Art	41.0	-	48.7	10.3	100.0	39
UA Center for Creative Photography	73.4	6.4	18.1	2.1	100.0	94
UA College of Fine Arts	65.7	11.1	19.8	3.4	100.0	324
Total						2,485

Source: Audience Survey 2000-01.

Table 26 ESTIMATED COMPOSITION OF ARTS PATRONS BY ORGANIZATION (%)

Organization	Full-time Residents Tucson	Full-time Residents Rest of Tucson Metro area	Part-time Residents	Visitors	Students	Total
AZ Opera	52.2	13.4	18.3	13.6	0.5	100.0
AZ Theatre Company	62.2	17.7	7.8	11.6	0.8	100.0
Tucson Symphony	49.4	25.0	22.3	2.8	0.5	100.0
UApresents	76.2	5.4	9.1	7.7	1.5	100.0
Tucson Museum of Art	27.6	2.3	12.1	57.2	0.8	100.0
UA Museum of Art	51.5	-	-	40.6	7.9	100.0
UA Center for Creative Photography	65.8	-	5.9	27.3	1.0	100.0
UA College of Fine Arts	54.8	1.5	12.6	29.1	2.0	100.0

Source: Audience Survey 2000-01.

Table 27 ESTIMATED NUMBER OF ARTS PATRONS BY ORGANIZATION

Organization	Full-time Residents Tucson	Full-time Residents Rest of Tucson Metro area	Part-time Residents	Visitors	Students	Total
AZ Opera	13,104	3,229	4,409	3,291	124	24,158
AZ Theatre Company	42,993	12,264	5,374	7,992	551	69,174
Tucson Symphony	39,511	20,039	17,824	2,267	361	80,000
UA <i>resents</i>	94,956	6,740	11,366	9,648	1,850	124,559
Tucson Museum of Art	25,392	2,116	11,132	52,624	736	92,000
UA Museum of Art	48,925	-	-	38,570	7,505	95,000
UA Center for Creative Photography	23,030	-	2,065	9,555	350	35,000
UA College of Fine Arts	32,302	884	7,427	17,153	1,179	58,946
Total	320,213	45,270	59,597	141,100	12,656	578,837
Percent	55.3	7.8	10.3	24.4	2.2	100.0

Source: Audience Survey 2000-01.

Table 28 AVERAGE SPENDING PER PERSON BY SPENDING CATEGORY (dollars)

Spending Category	Full-time Residents Tucson	Full-time Residents Rest of Tucson Metro area	Part-time Residents	Visitors	Students	All
Tickets/admission	20.02	17.16	22.84	18.29	7.91	19.65
Parking	0.70	0.48	0.79	0.71	0.26	0.69
Auto travel	1.26	2.67	6.31	14.29	0.59	4.36
Other transport	0.08	0.68	5.34	9.98	0.32	2.59
Refreshments	0.57	0.34	1.81	4.34	0.42	1.37
Food	7.00	8.93	12.08	17.72	3.54	9.72
Souvenirs	0.82	0.21	1.74	7.93	0.26	2.12
Clothing	12.92	0.74	2.32	8.07	4.30	9.26
Lodging	0.36	0.22	34.31	34.4	0.00	10.89
Child care	0.39	0.03	0.01	0.93	0.00	0.39
Other	0.21	0.16	1.48	3.12	0.00	0.88
Total Avg. Spending/Person	44.33	31.61	89.02	119.78	17.60	61.92

Source: Audience Survey 2000-01.

Table 29 ESTIMATED AUDIENCE EXPENDITURES BY SPENDING CATEGORY (in thousands of dollars)

Spending Category	Full-time Residents Tucson	Full-time Residents Rest of Metro Tucson	Part-time Residents	Visitors	Students	Total
Tickets/admission	6,410.7	776.8	1,361.2	2,580.7	100.1	11,229.5
Parking	224.1	21.7	47.1	100.2	3.3	396.4
Auto transportation	403.5	120.9	376.1	2,016.3	7.5	2,924.2
Other transportation	25.6	30.8	318.2	1,408.2	4.0	1,786.9
Refreshments (at event)	182.5	15.4	107.9	612.4	5.3	923.5
Food (before/after)	2,241.5	404.3	719.9	2,500.3	44.8	5,910.8
Souvenirs	262.6	9.5	103.7	1,118.9	3.3	1,498.0
Clothing	4,137.2	33.5	138.3	1,138.7	54.4	5,502.0
Lodging	115.3	9.9	2,044.8	4,867.9	-	7,037.9
Child care	124.9	1.4	0.6	131.2	-	258.1
Other	67.2	7.2	88.2	440.2	-	602.9
Total ¹	14,195.0	1,431.4	5,305.9	16,915.1	222.7	38,070.2
%	37.3	3.8	13.9	44.4	0.6	100.0

¹Totals may differ from raw sums due to rounding. Totals are based on original (non-rounded) data.

Source: Audience Survey 2000-01.

Table 30 NUMBER OF VOLUNTEERS AND VOLUNTEERED HOURS

	Volunteers	Volunteers %	Hours Number	Hours %
Professional	527	25.3	62,880	46.0
Artistic	158	7.6	23,700	17.3
Services	1,371	65.9	47,158	34.5
Other	25	1.2	3,000	2.2
Total	2,081	100.0	136,738	100.0

Source: Organization Survey 2000-01.

Table 31 EARNED AND CONTRIBUTED INCOME: COMPARISON WITH RESULTS FROM OTHER STUDIES

Study/Area	Earned Income as % of Total	Contributed Income as % of Total	Total Income
Pierce County, WA (1999)	40.0	60.0	100.0
King County, WA (1999)	62.0	38.0	100.0
San Antonio, TX (1990-91)	20.5	79.5	100.0
33 selected cities in USA (1992)	54.9	45.1	100.0
10 cities w/population 100,000-499,999 (1992)	41.4	58.6	100.0
Metropolitan Phoenix, AZ (1992)	62.5	37.5	100.0
Metropolitan Atlanta, GA (1997)	31.4	68.6	100.0

Source: Various reports, see bibliography list.

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