The Economic Impact of Montana Artists Center for Applied Economic Research Montana State University — Billings Dr. Ann L. Adair, Senior Economist Kristin S. Wagner, Associate Researcher January 2005

Executive Summary

The arts community is often overlooked when states are focusing on economic development. Sectors like mining or construction are perceived to provide many well-paying jobs and lots of economic activity. Art is not. But the reality is that the art sector of the Montana economy may be a far more powerful economic engine than realized. Survey data indicates that responding Montana artists generated more than \$28 million in sales during 2003, with more than \$21 million coming from outside the state. These sales supported more than 729 jobs in the state's economy and spawned additional spending of \$11 million in non-art-related businesses. Extrapolating the sample data to the identified population of artists in Montana shows economic effects of over \$233 million, with 77 % of the goods and services produced being sold to out-of-state buyers.(1) This sales level would be responsible for providing over 4,200 full-time jobs throughout the state. Artists clearly have a significant impact on the state's economy and should be viewed as an economic development engine similar to construction or mining. Artists are attracted to Montana and many remain here for more than 20 years. Montana has the potential to benefit significantly by appealing to an industry that already acknowledges the attractiveness of living in the state.

(1) Number of artists reported in Montana based on data from U.S. Department of Census, Artist Labor Force by State, 2000

Introduction

The art community is an often overlooked sector when discussions of economic importance to a state are initiated. Many people view art as a "hobby" that artists engage in and discount its value as an economic engine. This study explores the economic impact that artists have on the economy of Montana, based on self-reported income and sales, in order to provide a realistic assessment of the contribution of Montana artists to the state's economic well-being. Industries that have a significant economic impact provide an opportunity for job creation and expansion as well as serve as a basis for economic growth for smaller communities. It is time that the goods and services sold by the artists of Montana are recognized for their importance and contribution to the economic well-being of the state.

Methodology

Primary data were collected by means of a mail survey which was sent to over 3,000 artists across the state. The categories of artists surveyed included visual artists, performing artists, photographers, writers, designers, traditional artists and crafts artists. Primary survey data was collected on gross sales of art, estimates of the percentage of those sales to out-of-state purchases, estimates of total household and individual income, and the percentage of that income which originates from artist sales. Within the survey, artists were queried regarding their full-time occupation, numbers of full-time or part-time employees of the business, the wage and benefit levels of those employees, and the location of those employees.

Artists were surveyed regarding their production expenses. These expenses were disaggregated into materials and supplies, marketing expenses and all other expenses. Additionally, survey participants were questioned on the percentage of the dollar value of the purchases that were made in-state versus out-of-state. This data provides a better picture of the number of Montana businesses that are supported partially or in total by artists.

An input-output model (IMPLAN) was used to identify direct, indirect and induced effects associated with the production and sale of art. The direct effects are those which fall on artists and art production-related businesses. The indirect effects accrue to businesses that the artists utilize. An example would be that as the artist has higher sales, he/she now purchases accounting services to assist in the record keeping for the business. The third type of effect is referred to as the induced effect. As businesses generate more profits, their workers and owners earn higher incomes which are spent in the economy on other types of goods and services. This additional spending generated by the higher incomes is called the induced effect. The linkages between sectors provide the mechanism necessary to capture the full effect that spending in one industry has on the other sectors of the economy. The model captures the direct effects on businesses within that industry, the indirect effects on businesses outside of the target industry and the induced effects of increased spending resulting from higher consumer and business incomes. Model results can be used to examine the relative importance of artists on different counties within the state. The value of the impacts is discussed in detail at the beginning of page 25. (Click here for that section of the report.)

Survey results were compiled to provide information on the rationale for artists choosing Montana as a residence and their expectations about remaining in the state. Available information was assessed to determine migration patterns for artists, both into the state and out of the state

The primary survey utilized the database of artists compiled by the Montana Arts Council and the Billings Arts Association to identify and provide contact information for the artists. The number of surveyed artists is approximately 3,099, across all disciplines of artists. The 2000 Census report indicates that there are at least 5,840 artists in the state of Montana. Contact information was not available for all of these 5,840 artists or artists who were identified under other census categories. The survey required 398 responses to provide a 95% confidence level (with a sampling error of 2% and expected true error rate of 5%), slightly more than a 10% response rate. Of these 3,099, we received 795 completed responses (a response rate of 26%). It should be noted that despite the high response rate, the possibility of non-response bias exists. Non-response bias occurs when a portion of the surveyed population that has particular characteristics chooses not to respond.

Once the primary data was received, it was compiled into a database that allowed for analysis of the data by artistic category, location, length of time in business, and other variables of interest. Income and expense data were divided into in-state and out-of-state categories and totaled.

Discipline and Distribution of Artists

The responses were sorted to examine the extent of responses by artistic discipline. The results of the compilation are shown in Chart 1. Obviously, there are more visual artists than any other discipline. Visual arts encompasses many sub-disciplines including painting, drawing, sculpture, etc. The pie chart below adequately represents the distribution of respondents by discipline.

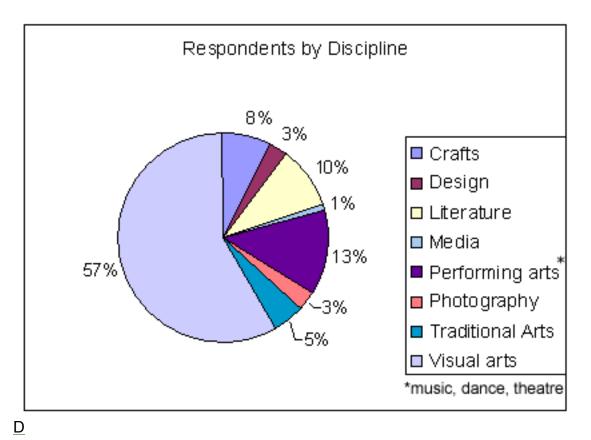
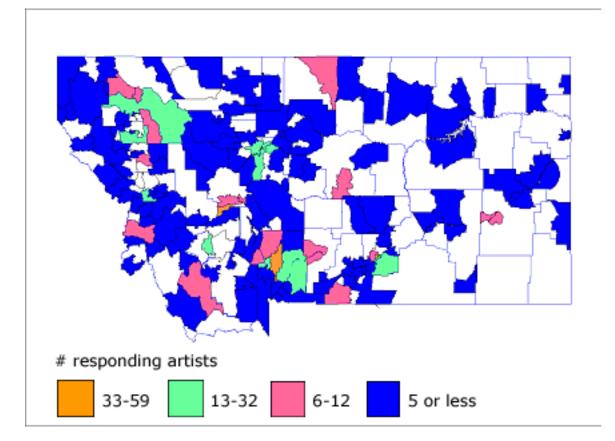


Chart 1

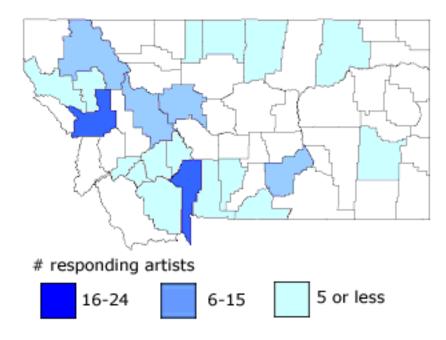
Out of the 795 artists that responded to the survey, 336 stated that they are fulltime artists and 433 stated they are part-time. The following map outlines the density of artists by zip code. While there are concentrations of artists in the western part of the state, it is important to note that almost 25% of respondents were from the eastern half of the state (east of Lewistown). Map 1 shows the distribution of responding artists.



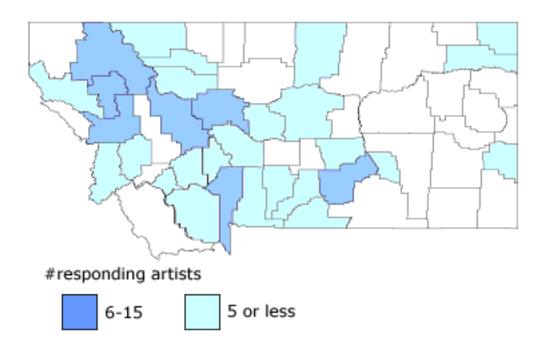
Map 1: Responding Artists by Location

The following four maps identify the density of responding artists by county and artistic discipline.

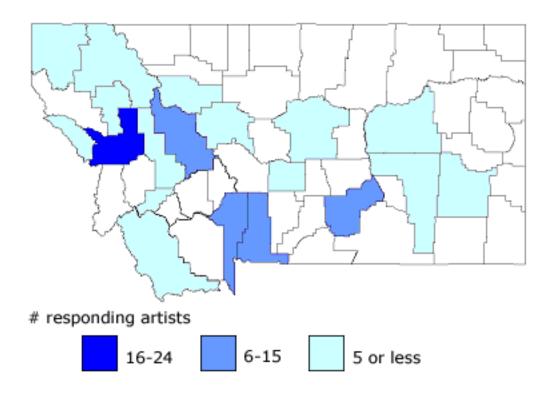
Map 2: Performing Artists Locations



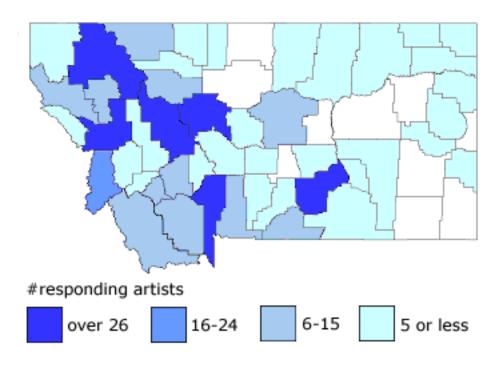
Map 3: Traditional and Crafts Artists Locations



Map 4: Literature Artists Locations

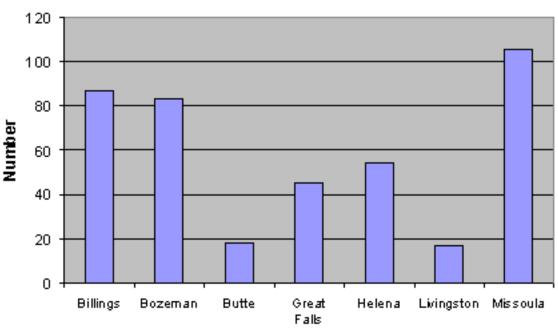


Map 5: Visual Artists Locations



Although artists are located statewide, it is interesting to look at the concentration of artists in the major cities within Montana. Chart 2 shows the number of responding artists by major city within the state. The greatest number live in Missoula, Bozeman and Billings while fewer numbers are located Great Falls and Helena. Surprisingly, there are almost as many artists living in Livingston as in Butte, although Butte has five times the overall population of Livingston.

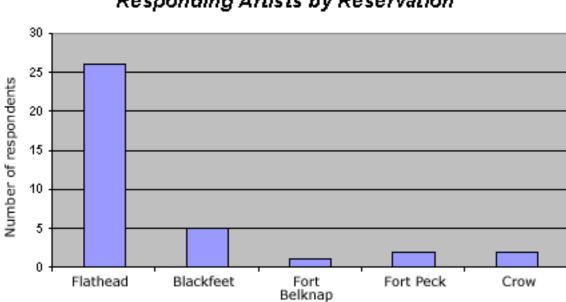
Chart 2



Number of Responding Artists by Major City

Although ethnic background was not asked specifically in the survey, data was aggregated by zip code to identify the number of artists located on Indian reservations within the state. Chart 3 shows the number of responding artists by reservation. The vast majority of responding artists were from the Flathead reservation. It is important to note that this does not guarantee that all of these respondents are tribal members, merely that they live within tribal boundaries. We received no responses from the Rocky Boy and Northern Cheyenne reservations.





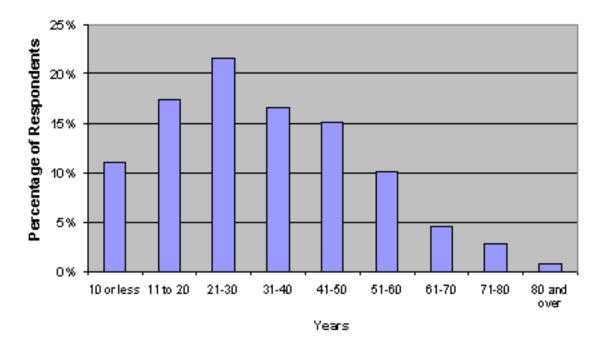
Responding Artists by Reservation

Residency Desirability

The majority of respondents could be classified as long-term Montana residents. 50% of respondents have lived in Montana for 30 years or longer, while 11% have lived here 10 years or less. Chart 4 shows the distribution of longevity within the state.

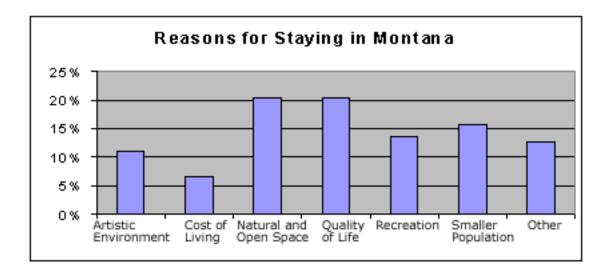
Chart 4: Years of adult life spent in Montana



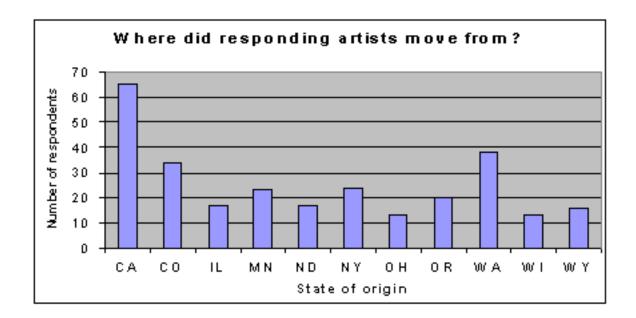


When asked whether artists were planning to stay in Montana, 90 percent of respondents indicated that they planned to stay in the state. Their reasons for staying were varied. Chart 5 summarizes the primary reasons for artists staying in Montana. Artists appear to appreciate the quality of life and natural environment that the state has to offer. Many artists have moved to Montana from different states and even different countries. While respondents stated they came from everywhere from Europe to Alaska, the vast majority came from California, Washington, Oregon, New York and Colorado (Chart 6). Compared to overall in-state migration patterns, more artists have moved here from the west and mid-west than the general population. (2)

Chart 5

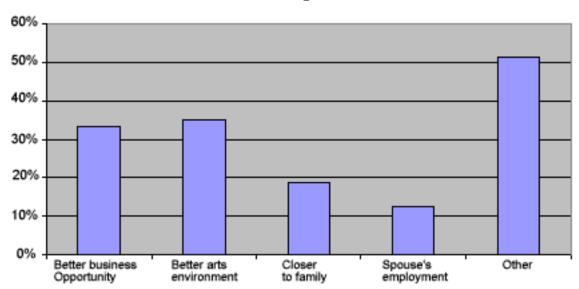






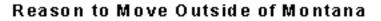
The artists who stated they planned to move within the state of Montana gave many reasons as exemplified in the following chart (Chart 7).

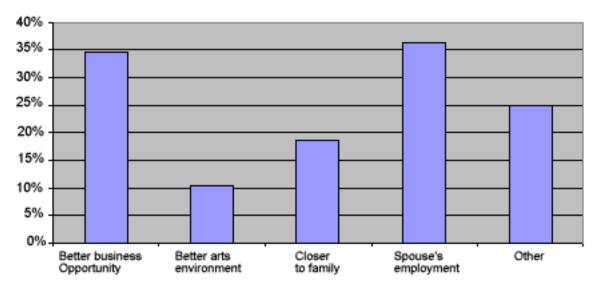




Reasons for moving within Montana

Chart 8





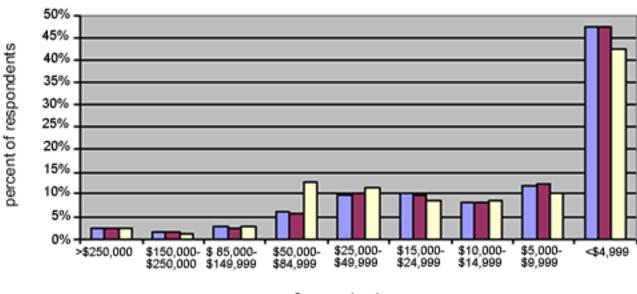
Artists that indicated they planned to move outside of Montana in the near future listed the reasons displayed in Chart 8. The major reasons indicated for moving from the state, better business opportunities and their spouse's employment, are issues that may not be dealt with in the short run. A more robust economy within the state would assist with both of the issues and allow more artists to remain here. Despite these issues, the data indicates that artists prefer to remain in Montana

(2) U.S. Census 2000, Table 3: State of Residence in 2000 for the Population 5 years and over by State of Residence in 1995, August 2003.

Income and Sales

Survey participants were asked to indicate the dollar value of their sales for 2001, 2002 and 2003. This information provided both a baseline for average sales levels and allowed us to examine if there were substantial changes in the sales data over the period. Chart 9 shows the distribution of sales ranges for survey respondents during the three-year period.

Chart 9



Distribution of Sales

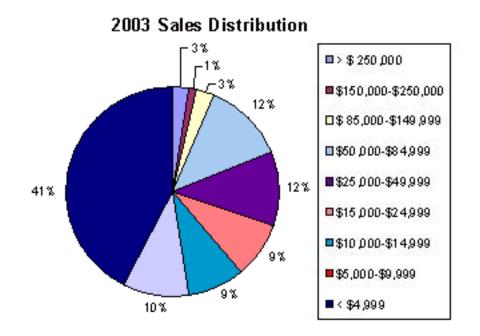
\$ annual sales

Chart 9 indicates that there were not large changes in sales levels in general from 2001 to 2003 although there were movements between categories. • By 2003, the data shows an increase of almost double in the \$50,000 to \$84,000 range while lower sales ranges declined.

- In 2003, artist sales are somewhat evenly distributed in the ranges going from \$5,000 all the way up to \$84,000, with approximately 8 to 12% of respondents falling in each of these ranges.
- 41% of all artists' sales were less than \$4,999, a decline from 47% in 2001 and 2002.
- 24% of all artists who responded had sales between \$25,000 and \$84,000.
- 7% of the respondents had sales above \$84,000.

Chart 10 shows the percentage distribution of sales by range for 2003.





Sales Impacts

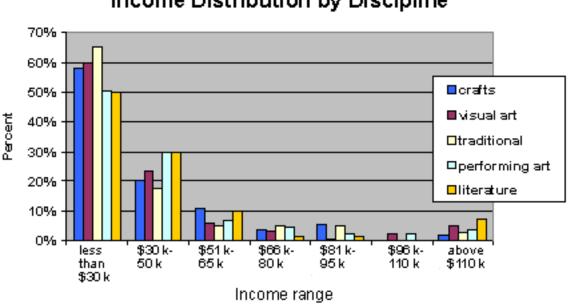
The total reported sales for 2003 for all respondents were \$28,102,987. Of these sales, 77% were to out-of-state buyers, a total of \$21,564,754. This represents \$21 million new dollars being brought into Montana's economy from artist sales. Assuming that the sample of respondents of the survey represents the population of artists in the state, these sales numbers can be aggregated up to provide an assessment of the likely value of artist sales for the state as a whole. Assuming that the population of artists in the state equals 5,840 (3) and that the sales values reported are representative, the estimated total direct value of sales by Montana artists in 2003 would be \$165 million. The estimated direct out-of-state sales would be \$126,511,133.

Survey respondents reported materials, marketing and other business

expenditures of \$13,226,290 in 2003. Of these total expenditures, 26.6% were spent at Montana businesses, slightly over \$3 million. Materials expenditures at Montana businesses accounted for \$2,856,947 while marketing expenditures accruing to Montana businesses equaled \$381,328. Miscellaneous expenditures to Montana businesses totaled \$283,827. These represent direct sales for other businesses in Montana.

Fifty percent of all artists surveyed said that art accounted for 100% of their personal income. When gueried about the annual income range for themselves and their households, the following information was reported.

Chart 11



Income Distribution by Discipline

Chart 11 shows that the majority of artists for all disciplines have a personal income of less than \$30,000 a year. The average per-capita personal income in Montana in 2003 was \$25,775. (4) This is comparable to the income of Montana artists. There are more writers and those involved in the performing arts that fall into the \$30,000-\$50,000 range. Obviously very few artists in any discipline make more than \$66,000 a year. The majority of artists who make more than \$110.000 a year are writers or visual artists.

- (3) U.S. Department of Census
- (4) Montana Department of Labor and Industry

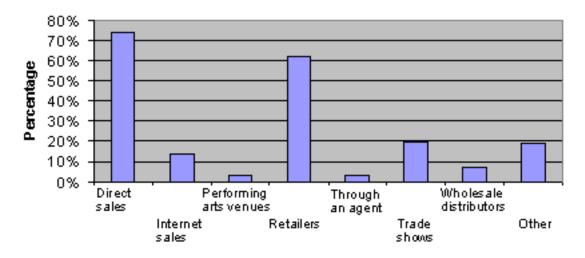
Employment by Arts Businesses

Seventy-two respondents stated they had employees. This accounts for about 8% of the total respondents. Of the top 100 respondents in terms of sales, 44% had employees. The average number of full-time employees was four and the average number of part-time employees was five. The average wage for full- time employees was \$10.95 per hour. The average wage for part-time employees was \$10.24 per hour. These numbers do not include the artists themselves.

Distribution

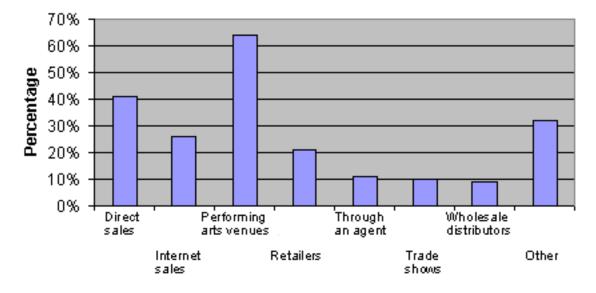
Artists have the ability to distribute their art through a variety of methods. Survey participants were asked to provide numeric information on the most-used distribution methods. The two primary ways that artists distribute their art is through direct sales and retailers. Trade shows and internet sales came in third and fourth respectively. Charts 12a through 12c show the primary distribution methods by discipline.

Chart 12a



Distribution Methods - Visual Arts

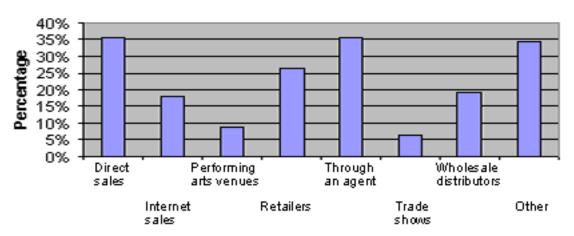
Visual artists overwhelmingly stated that they utilized direct sales and retailers to distribute their art.



Distribution - Performing Arts

Performing artists mostly use performing arts venues to distribute their art. However, they also seem to utilize direct sales and internet sales a great deal. Performing arts venues are used as methods of getting their work into the sales arena.

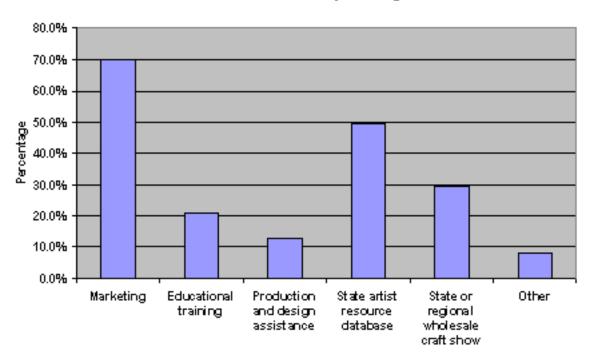




Distribution Methods- Literature

Writers seem to be more broadly split across the use of an agent, direct sales, other methods, retailers and wholesale distributors. Interestingly, guite a few writers said they utilized internet sales to distribute their writing. Most of the comments in the other category indicated the use of a publisher. Many artists indicated they could use some assistance in marketing their art. In fact, the top response to the question regarding what help artists could use was in the area of marketing. Obviously this is an area of great concern to artists. Support to help artists in marketing and sales of their paintings, sculptures, books, performances, etc. would greatly improve their contribution to the state's economy. The second area in which the responding artists mentioned a need for help was a state artist resource website. Some also showed an interest in more educational training and a state or regional craft show. There were a few comments in the other category where artists mentioned some help in grant writing or tax breaks for artists would be helpful. It should be noted that artists were allowed to choose more than one response, therefore the categories will not sum to 100%. Charts 13a through 13c summarize the responses by discipline.

Chart 13



Assistance Chart - All responding artists

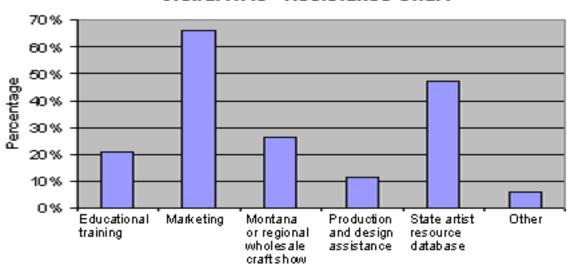
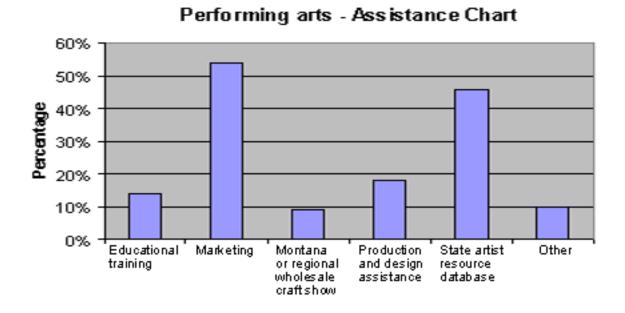
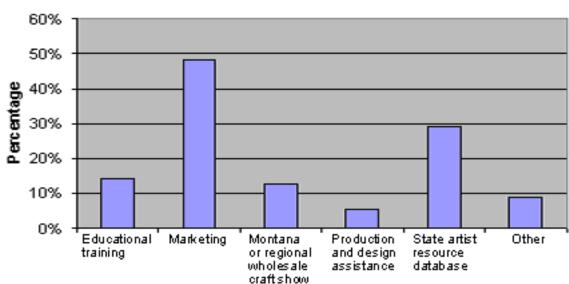


Chart 13b



Visual Arts - Assistance Chart



Literature - Assistance Chart

Economic Impacts

The importance of the artist community to the economic well-being of the state of Montana was one focus of this study. Data collected from the respondents regarding sales indicated that the respondents had over \$ 28 million dollars in sales. The economic impact of artists on the state was evaluated using the IMPLAN model. This model utilizes input-output co-efficients to track linkages between sectors of the economy and the flows of funds and jobs from one sector to another. To evaluate the effects on the economy, the amount of sales reported by the respondents was examined for its effect on other sectors. The results are summarized in Table 1.

 Table 1: Value of Economic Activity Generated by Respondents

 Employment
 Output

 (iobs)
 (dollars)

	(jobs)	(dollars)
Direct	411	\$28,102,987
Indirect	222	\$6,468,284
Induced	96	\$5,214,106
Total	729	\$39,785,377

The economic effects fall into three general categories. The direct effects are those which fall on artists and art production-related businesses. The indirect effects accrue to businesses that the artists utilize. An example would be that as

the artist has higher sales, he/she now purchases accounting services to assist in the record keeping for the business. The third type of effect is referred to as the induced effect. As businesses generate more profits, their workers and owners earn higher incomes which are spent in the economy on other types of goods and services. This additional spending generated by the higher incomes is called the induced effect. This may mean that workers buy more video tapes or a better car or eat out more often. The model indicates that, for the original \$ 28 million in artist sales, the additional profit generated by businesses that interact with artists (the indirect effect) would be \$ 6.4 million. As businesses generate more profits, their workers and owners earn higher incomes which are spent in the economy on other types of goods and services. This additional spending generated by the higher incomes is called the induced effect. For the \$ 28 million in artist sales, non-art-related businesses gain an additional \$ 5.2 million in sales. The overall impact of the artists responding to the survey is an additional income to the state of \$ 39,785,377 during 2003. This result translates into a total economic benefit to the state of almost \$ 49,919 per responding artist. (6) The respondents' sales levels support 411 full-time-equivalent jobs in the artists' sector of the economy. Those sales also generate another 222 positions in other businesses not directly related to the arts. The spending by wage earners, whose additional income is spawned from artist sales, accounts for another 96 full-timeequivalent jobs, making the total job creation or support equal to 729. The U.S. Census Bureau reports that there were 5,840 artists who made the majority of their income from the arts in Montana as of the 2000 Census. Although many question the accuracy of this number because it was categorized by major income source and does not include part-time incomes, the consensus is that the number is probably understated, not overstated. Extrapolating from our respondent information, the 5,840 artists would generate an overall economic impact of \$233,388,545 for the state of Montana.

Table 2: Total Economic Impact of All Artists

Total Sales (extrapolated to 5,840 total)

	Jobs	Economic Impact
Direct	2,411	\$165 million
Indirect	1,301	\$38 million
Induced	562	\$30 million
Total	4,274	\$233 million

Another component of the economic assessment relates to jobs created or supported by a particular industry. As with dollar value of economic activity, the employment impacts can be separated into direct, indirect and induced effects that result from the art industry in Montana. Using the Census-reported numbers of 5,840 artists in the state, the additional impacts on employment were evaluated. The results are displayed in Table 2.

Expanding the sales numbers to 5,840 artists, the additional impacts on employment were evaluated. Full-time-equivalent positions in the arts sector would total 2,411 while business-to-business transactions would account for an

additional 1,301 jobs in businesses that interact directly with arts businesses. The induced effect on jobs is that the additional income spending supports 562 jobs in non-art-related businesses in communities across Montana. Earlier, it was mentioned that 77% or over \$ 21 million in sales, were made to out-of-state purchasers. Table 3 shows the economic impact which results from the extrapolated out-of-state sales to Montana. The extrapolated out-of-state sales support a total of 3,280 full-time-equivalent jobs in Montana and generate an additional \$ 179 million in goods and services sold for the state. These employment and goods and services sold figures help to underscore the relative importance of the arts to the state economy. It should be noted that this represents an inflow of additional funds into the state that would not exist otherwise.

Table 3: Extrapolated Economic Impact of Artists' Out-of-State Sales Out of State Sales (extrapolated to 5,840 total)

	Jobs	Output	
Direct	1,850	\$126,511,133	
Indirect	998	\$29,118,256	
Induced	431	\$23,472,325	
Total	3,280	\$179,101,715	

Artists contribute significantly to the local economies in many areas of Montana, especially in less populated communities. Table 4 shows the total impact on county-level goods and services sold and jobs generated by artist sales within selected counties. Other counties that had respondents are not listed because the small number of respondents might allow for identification of individual businesses or artists.

Table 4: Overall Economic Impact by County Based on Respondent Data

Only			
County	Sales	Total Output	Total Jobs
Big Horn	\$100,000	\$127,000	3.8
Carbon	\$438,438	\$556,816	14.9
Cascade	\$892,052	\$1,284,555	34.1
Dawson	\$149,266	\$189,568	5.1
Deer Lodge	\$250,000	\$310,000	8.5
Flathead	\$2,705,457	\$4,004,077	104.3
Gallatin	\$9,228,048	\$13,657,511	352.8
Jefferson	\$202,100	\$262,730	6.9
Judith Basin	\$107,893	\$131,629	3.7
Lake	\$400,583	\$520,758	14.2
Lewis and Clark	\$1,605,632	\$2,312,110	61.9
Liberty	\$162,000	\$194,400	5.5
Lincoln	\$223,441	\$268,129	7.6
Madison	\$176,675	\$212,010	6.0
Missoula	\$6,130,840	\$9,073,643	238.3
Park	\$2,287,350	\$3,293,784	86.0
Powell	\$110,628	\$141,604	4.1
Ravalli	\$454,875	\$582,240	16.8
Silver Bow	\$123,400	\$172,760	4.6
Stillwater	\$121,709	\$157,005	4.6
Teton	\$245,545	\$316,753	8.6
Yellowstone	\$1,168,140	\$1,740,529	45.4

Artists that sell out-of-state bring additional dollars into counties in Montana. As with total sales, respondent data has been extrapolated at the county level to estimate the amount of out-of-state dollars that may be flowing into Montana communities. The underlying assumption is that the respondent data on the county level is a representative sample of the county's artist population. Table 5 indicates the potential level of out-of-state dollars flowing into Montana counties from artist sales.

Table 5: Extrapolated Out-of-State Artists' Sales by County

County	Estimated out of state sales by county
Broadwater	\$315,824
Carbon	\$1,545,786
Cascade	\$3,146,060
Choteau	\$219,650
Dawson	\$369,725
Deer Lodge	\$756,210
Flathead	\$6,787,938
Gallatin	\$35,530,980
Hill	\$420,011
Jefferson	\$698,600
Judith Basin	\$639,702
Lake	\$1,344,875
Lewis & Clark	\$8,516,991
Lincoln	\$928,756
Madison	\$645,355
Missoula	\$27,966,799
Park	\$10,072,155
Powell	\$522,441
Ravalli	\$1,870,255
Silver Bow	\$493,154
Stillwater	\$505,399
Sweet Grass	\$230,021
Teton	\$587,617
Toole	\$376,244
Yellowstone	\$4,803,842

An estimation by county of output generated and jobs created or sustained is displayed in Table 6. These estimates are based on the extrapolated numbers of artists on a county level and assume that artists within that county will have an average earning level similar to that reported by survey respondents.

Table 6: Extrapolated Total Output and Jobs by County

County figures revised 4-15-05 by MSU Billings Center for Economic Research. Original data assigned some towns to the wrong counties. This has now been corrected. There was no change to cumulative totals for the state, however.

County	Extrapolated Sales	Extrapolated Output	Extrapolated Jobs
Big Horn	\$628,550	\$818,373	17.7
Broadwater	\$335,489	\$436,807	13.7
Carbon	\$3,149,490	\$4,464,402	80.5
Cascade	\$5,716,938	\$8,403,898	146.2
Chouteau	\$335,227	\$436,466	13.7
Custer	\$246,033	\$322,303	10.1
Dawson	\$469,106	\$625,553	12.0
Deer Lodge	\$942,826	\$1,187,960	24.1
Fergus	\$521,697	\$679,249	15.0
Flathead	\$17,005,163	\$23,390,602	435.8
Gallatin	\$45,475,674	\$62,551,790	1163.8
Hill	\$497,812	\$663,832	14.5
Jefferson	\$1,340,873	\$1,773,975	34.3
Judith Basin	\$678,159	\$904,325	17.3
Lake	\$2,727,688	\$3,436,887	69.7
Lewis & Clark	\$9,924,003	\$13,546,265	254.7
Liberty	\$678,834	\$883,842	27.8
Lincoln	\$1,404,439	\$1,858,073	35.9
Madison	\$1,388,114	\$1,894,776	35.5
Missoula	\$39,205,602	\$60,102,188	1002.4
Park	\$15,061,774	\$20,084,876	385.1
Powell	\$579,461	\$754,458	14.8
Ravalli	\$3,002,075	\$4,476,093	76.8
Rosebud	\$315,061	\$420,134	8.1
Sanders	\$273,109	\$344,117	10.8
Silver Bow	\$818,722	\$1,212,118	21.9
Stillwater	\$765,002	\$1,020,131	19.6
Sweet Grass	\$394,730	\$513,938	16.2
Teton	\$1,543,374	\$2,058,089	39.5
Toole	\$455,699	\$607,675	11.7
Yellowstone	\$7,423,034	\$11,925,104	191.8
Other Counties	\$386,198	\$1,605,386	50.5
TOTAL	\$164,368,792	\$233,403,685	4,273

(5) Minnesota IMPLAN Group, <u>http://www.implan.com</u>

(6) Total economic impact divided by the number of responding artists.

Discussion

The results of the study provide numerical data that sheds light on the question of the importance of artists to the Montana economy. Artists have a significant impact on the economy of Montana. They do this through their contributions, whether that is through income and wages or spending within the state. Data from the 795 respondents show at least \$ 28 million dollars of goods and services sold being produced by the artist community. These sales bring in more than \$ 21 million from outside the state. Additionally, these sales support at least 729 full-time equivalent jobs within the state. An extrapolation of the survey data to the population of artists in Montana indicates that artists' sales may contribute more than \$ 233 million in goods and services sold to the state's economy and more than 4,200 jobs. Because a large portion of Montana artist sales are made to buyers living out-of-state, artists may be bringing in as much as \$ 179 million from outside the state. These dollars represent funds that would not otherwise be circulating in our economy.

While this study does not address the non-monetary contributions that artists make to the state, it is reasonable to infer that artists contribute to our state on many levels. The contributions that are not easily measured, however, are their contributions to our quality of life and community involvement. Unlike quantitative aspects such as sales, income and expenses, it is very difficult to measure such qualitative contributions.

This analysis has not attempted to measure or value the contributions of artists through their participation in education, volunteerism and community organizations, but recognizes that the importance of artists to our state and communities may far exceed the dollars that they bring in. Simply looking at the dollar value of goods and services sold that artists generate, and the amount of new money that they bring into the state through sales, clearly shows the economic engine that artists create in Montana.

References

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