ARTS & ECONOMIC PROSPERITY IV
The Economic Impact of Nonprofit Arts and Culture Organizations and Their Audiences
THE PURPLE ROSE THEATRE COMPANY
The *Arts and Economic Prosperity IV*™ series of economic impact studies is conducted by Americans for the Arts, the nation’s leading nonprofit organization for advancing the arts in America. Established in 1960, we are dedicated to representing and serving local communities and creating opportunities for every American to participate in and appreciate all forms of the arts.
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"Understanding and acknowledging the incredible economic impact of the nonprofit arts and culture, we must always remember their fundamental value. They foster beauty, creativity, originality, and vitality. The arts inspire us, soothe us, provoke us, involve us, and connect us. But they also create jobs and contribute to the economy."

— Robert L. Lynch
President and CEO
Americans for the Arts
The Arts Mean Business
By Robert L. Lynch, President and CEO, Americans for the Arts

America’s artists and arts organizations live and work in every community from coast to coast—fueling creativity, beautifying our cities, and improving our quality of life. In my travels across the country, business and government leaders often talk to me about the challenges of funding the arts amid shrinking resources and alongside other pressing needs. They worry about jobs and the economy. Is their region a magnet for attracting and retaining a skilled and innovative workforce? How well are they competing in the high-stakes race to attract new businesses? The findings from Arts & Economic Prosperity IV send a clear and welcome message: leaders who care about community and economic vitality can feel good about choosing to invest in the arts.

Arts & Economic Prosperity IV is our fourth study of the nonprofit arts and culture industry’s impact on the economy. The most comprehensive study of its kind ever conducted, it features customized findings on 182 study regions representing all 50 states and the District of Columbia as well as estimates of economic impact nationally. Despite the economic headwinds that our country faced in 2010, the results are impressive. Nationally, the industry generated $135.2 billion in total economic activity—$61.1 billion by the nation’s nonprofit arts and culture organizations in addition to $74.1 billion in event-related expenditures by their audiences. This economic activity supports 4.1 million full-time jobs. Our industry also generates $22.3 billion in revenue to local, state, and federal governments every year—a yield well beyond their collective $4 billion in arts allocations.

Arts and culture organizations are resilient and entrepreneurial businesses. They employ people locally, purchase goods and services from within the community, and market and promote their regions. Arts organizations have local roots; these are jobs that cannot be shipped overseas. Like most industries, the Great Recession left a measurable financial impact on the arts—erasing the gains made during the pre-recession years, and leaving 2010 expenditures three percent behind their 2005 levels. The biggest effect of the recession was on attendance and audience spending. Inevitably, as people lost jobs and worried about losing their houses, arts attendance—like attendance to sports events and leisure travel—waned as well. Yet, even in a down economy, some communities saw an increase in their arts spending and employment. As the economy rebounds, the arts are well poised for growth. They are already producing new and exciting work—performances and exhibitions and festivals that entertain, inspire, and attract audiences.

Arts & Economic Prosperity IV shows that arts and culture organizations leverage additional event-related spending by their audiences that pumps revenue into the local economy. When patrons attend an arts event they may pay for parking, eat dinner at a restaurant, shop in local retail stores, and have dessert on the way home. Based on the 151,802 audience-intercept surveys conducted for this study, the typical arts attendee spends $24.60 per person, per event, beyond the cost of admission.

Communities that draw cultural tourists experience an additional boost of economic activity. Tourism industry research has repeatedly demonstrated that arts tourists stay longer and spend more than the average traveler. Arts & Economic Prosperity IV reflects those findings: 32 percent of attendees live outside the county in which the arts event took place, and their event-related spending is more than twice that of their local counterparts (nonlocal: $39.96 vs. local: $17.42). The message is clear: a vibrant arts community not only keeps residents and their discretionary spending close to home, it also attracts visitors who spend money and help local businesses thrive.

Arts & Economic Prosperity IV demonstrates that America’s arts industry is not only resilient in times of economic uncertainty, but also a key component to our nation’s economic recovery and future prosperity. Business and elected leaders need not feel that a choice must be made between arts funding and economic prosperity. This study proves that they can choose both. Nationally, as well as locally, the arts mean business.
"As all budgets—local and national, public and private—continue to reel from the effects of the economic downturn, some may perceive the arts as an unaffordable luxury reserved for only the most prosperous times. Fortunately, this rigorous report offers evidence that the nonprofit arts industry not only provides cultural benefits to our communities, but also makes significant positive economic contributions to the nation’s financial well being regardless of the overall state of the economy. This certainly is something to applaud."

— Jonathan Spector
President & CEO
The Conference Board
The Economic Impact of the Purple Rose Theatre Company in Washtenaw County

*Arts & Economic Prosperity IV* provides compelling evidence that the Purple Rose Theatre Company is a significant economic engine in Washtenaw County—one that generates $3.6 million in total economic activity. This spending—$1.9 million by the Purple Rose Theatre itself and an additional $1.7 million in event-related spending by its audiences—supports 77 full-time equivalent jobs, generates $1.8 million in household income to local residents, and delivers $404,000 in local and state government revenue. This economic impact study sends a strong signal that when we support the Purple Rose Theatre, we not only enhance our quality of life, but also invest in Washtenaw County’s economic well-being.

**Defining Economic Impact**

This proprietary study uses four economic measures to define economic impact: full-time equivalent jobs, resident household income, and local and state government revenues.

(1) **Full-Time Equivalent (FTE) Jobs** describes the total amount of labor employed. Economists measure FTE jobs, not the total number of employees, because it is a more accurate measure that accounts for part-time employment.

(2) **Resident Household Income** (often called Personal Income) includes salaries, wages, and entrepreneurial income paid to local residents. It is the money residents earn and use to pay for food, mortgages, and other living expenses.

Revenue to (3) **Local and (4) State Government** includes revenue from local and state taxes (e.g., income, property, sales, and lodging) as well as funds from license fees, utility fees, filing fees, and other similar sources.
The Overall Economic Impact of the Purple Rose Theatre Company

During fiscal year 2012, aggregate spending by both the Purple Rose Theatre Company and event-related spending by its audiences totaled $3.6 million. The table below demonstrates the total economic impact of this spending (both direct and indirect impacts).

<table>
<thead>
<tr>
<th>Estimated Annual Economic Impact of the Purple Rose Theatre Company</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(Spending by the Purple Rose Theatre Company and Its Audiences during Fiscal Year 2012)</td>
<td></td>
</tr>
<tr>
<td>The Purple Rose Theatre’s Operating Expenditures</td>
<td>$1,909,128</td>
</tr>
<tr>
<td>Estimated Event-Related Expenditures by the Purple Rose’s Audiences (excluding the cost of admission)</td>
<td>$1,670,889</td>
</tr>
<tr>
<td>Total Economic Activity Generated by the Purple Rose Theatre Company during fiscal year 2012</td>
<td>$3,580,017</td>
</tr>
<tr>
<td>Full-Time Equivalent Jobs Supported in Washtenaw County</td>
<td>77</td>
</tr>
<tr>
<td>Resident Household Income Generated in Washtenaw County</td>
<td>$1,830,000</td>
</tr>
<tr>
<td>Local Government Revenue Generated in Washtenaw County</td>
<td>$83,000</td>
</tr>
<tr>
<td>State Government Revenue Generated in Washtenaw County</td>
<td>$321,000</td>
</tr>
</tbody>
</table>

Direct and Indirect Economic Impact: How a Dollar is Re-spent in the Economy

*Arts & Economic Prosperity IV* uses a sophisticated economic analysis called input-output analysis to measure economic impact. It is a system of mathematical equations that combines statistical methods and economic theory. Input-output analysis enables economists to track how many times a dollar is “re-spent” within the local economy, and the economic impact generated by each round of spending. How can a dollar be re-spent? Consider the following example:

The Purple Rose Theatre Company purchases several gallons of paint from a local hardware store for $200. The hardware store then uses a portion of the $200 to pay the sales clerk; the sales clerk re-spends some of the money at a grocery store; the grocery store uses some to pay its cashier; the cashier spends some on rent; and so on…

Thus, the initial expenditure by the theater company was followed by four additional rounds of local spending (by the hardware store, the sales clerk, the grocery store, and the cashier).

- The economic impact of the theater company’s initial $200 expenditure is the direct economic impact.
- The economic impacts of the subsequent rounds of local spending are the indirect impacts.
- Eventually, the $200 dollars will “leak out” of the local economy (i.e., be spent outside of Washtenaw County) and cease to have a local economic impact. In this example, if the theater company purchased the paint from a non-local hardware store there would be no local economic impact. Since the hardware store is located in Washtenaw County, the dollars remain within the local economy and create at least one more round of local spending by the hardware company.
- The total impact is the sum of the direct impact plus all indirect impacts. This report provides the total impact.

A dollar “ripples” very differently through each community, which is why a customized input-output model was created for Washtenaw County.
"Mayors understand the connection between the arts industry and city revenues. Arts activity creates thousands of direct and indirect jobs and generates billions in government and business revenues. The arts also make our cities destinations for tourists, help attract and retain businesses, and play an important role in the economic revitalization of cities and the vibrancy of our neighborhoods."

— Philadelphia Mayor Michael A. Nutter
President, The United States Conference of Mayors 2012–2013

"Many businesses support the arts across the country because they intuitively understand that the arts matter, so it is great to get the facts and a clearer understanding of the links between the arts and economic prosperity."

— Stephen Jordan, Executive Director
Business Civic Leadership Center
U.S. Chamber of Commerce
The Economic Impact of Spending by the Purple Rose Theatre Company

Nonprofit arts and culture organizations are active contributors to their local business community. They are employers, producers, and consumers. They are members of the Chamber of Commerce as well as key partners in the marketing and promotion of their cities, regions, and states. As a result, they have a significant impact on the economy.

Spending by the Purple Rose Theatre Company totaled $1.9 million during fiscal year 2012. These expenditures were far-reaching: they paid employees and/or artists, purchased supplies, contracted for services, and acquired assets within the community. These actions, in turn, supported jobs, created household income, and generated revenue to the local and state governments.

The Purple Rose Theatre supports employment for more than just administrators and/or artists within Washtenaw County. It also supports the community’s financial service workers, facility managers, and marketing professionals. In addition, its expenditures directly support a wide array of other occupations spanning many industries (e.g., printing, event planning, legal, construction, and accounting). The Purple Rose Theatre provided detailed budget information about more than 40 expenditure categories for fiscal year 2012 (e.g., labor, payments to local and nonlocal artists, operations, administration, programming, facilities, and capital expenditures/asset acquisition). The following table demonstrates the total economic impacts (i.e., direct, indirect, and induced impacts) of the expenditures made by the Purple Rose Theatre Company.

<table>
<thead>
<tr>
<th>TOTAL Economic Impact of Spending by the Purple Rose Theatre Company (excluding audience spending)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiscal Year 2012 Expenditures made by the Purple Rose Theatre</td>
</tr>
<tr>
<td>Full-Time Equivalent Jobs Supported in Washtenaw County</td>
</tr>
<tr>
<td>Resident Household Income Generated in Washtenaw County</td>
</tr>
<tr>
<td>Local Government Revenue Generated in Washtenaw County</td>
</tr>
<tr>
<td>State Government Revenue Generated in Washtenaw County</td>
</tr>
</tbody>
</table>
An Economic Impact Beyond Dollars: Volunteerism

While arts volunteers may not have an economic impact as defined in this study, they clearly have an enormous impact by helping the Purple Rose Theatre Company function as a viable cultural organization. *Arts & Economic Prosperity IV* reveals a significant contribution as a result of volunteerism. During 2012, a total of 234 volunteers donated a total of 2,808 hours to the Purple Rose Theatre. This represents a donation of time with an estimated aggregate value of $62,169 (Independent Sector estimates the dollar value of the average 2012 volunteer hour to be $22.14).

The Value of In-Kind Contributions

In-kind contributions are non-cash donations such as materials (e.g., office supplies from a local retailer), facilities (e.g., rent), and services (e.g., printing costs from a local printer). The Purple Rose Theatre Company reported that it received in-kind contributions with an aggregate value of $7,639 during fiscal year 2012.

"At Aetna, we encourage our employees to be active volunteers. It’s good for the employee, good for the community, and a source of corporate pride. The research also makes clear that employees who are engaged in the community are more engaged at the workplace—and that is good for business. Arts organizations are part of the fabric of a healthy community, so we are delighted to provide incentives to our workers to be regular arts volunteers."

— Floyd W. Green, III
   Head of Community Relations and Urban Marketing
   Aetna
The nonprofit arts and culture industry, unlike most industries, leverages a significant amount of event-related spending by its audiences. For example, when patrons attend a cultural event, they may pay to park their car, purchase dinner at a restaurant, shop in nearby stores, eat dessert after the show, and pay a babysitter upon their return home. Attendees from out of town may spend the night in a hotel. This spending generates related commerce for local businesses such as restaurants, parking garages, retail stores, and hotels.

To measure the impact of the Purple Rose Theatre’s performance attendees, data were collected from 1,144 audience members during 2013. Researchers used an audience-intercept methodology—a standard technique in which patrons complete a written survey about their event-related spending while attending the event. Based on the survey data, the Purple Rose Theatre’s attendees spend an average of $39.82 per person, per performance as a direct result of their attendance. Local businesses that cater to arts and culture audiences reap the rewards of this economic activity.

The Purple Rose Theatre Company reported that the estimated aggregate attendance to its performances was 41,975 attendees during 2012. These attendees spent an estimated total of $1.7 million, excluding the cost of event admission (if applicable). The following table demonstrates the total impacts of this spending (both direct and indirect impacts).

<table>
<thead>
<tr>
<th>TOTAL Economic Impact of Spending by the Purple Rose Theatre Company’s Audiences (excluding the cost of event admission*)</th>
<th>$1,670,889</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated Event-Related Expenditures by the Purple Rose Theatre’s Attendees</td>
<td></td>
</tr>
<tr>
<td>Full-Time Equivalent Jobs Supported in Washtenaw County</td>
<td>33</td>
</tr>
<tr>
<td>Resident Household Income Generated in Washtenaw County</td>
<td>$797,000</td>
</tr>
<tr>
<td>Local Government Revenue Generated in Washtenaw County</td>
<td>$53,000</td>
</tr>
<tr>
<td>State Government Revenue Generated in Washtenaw County</td>
<td>$182,000</td>
</tr>
</tbody>
</table>

* Why exclude the cost of admission? The admissions paid by attendees (if applicable) are excluded from the analysis because those dollars are captured in the operating budget of the Purple Rose Theatre Company and, in turn, are then spent by the Purple Rose Theatre. This methodology avoids “double-counting” those dollars in the study analysis.
Cultural Tourists Spend More

The 1,144 audience survey respondents were asked to provide the ZIP code of their primary residence, enabling researchers to determine which attendees were local residents (i.e., live within Washtenaw County) and which were non-residents (i.e., live outside Washtenaw County). Based on the survey data, researchers estimate that 32.3 percent of the Purple Rose Theatre’s 41,975 attendees were residents while 67.7 percent were non-residents.

Non-resident attendees spend an average of 81 percent more per person than local attendees ($46.56 vs. $25.68) as a result of their attendance to cultural events. As would be expected from a traveler, higher spending was typically found in the categories of lodging, meals, and transportation. These customized findings for the Purple Rose Theatre demonstrate that when a community attracts cultural tourists, it reaps significant economic rewards.

### Event-Related Spending by Attendees to the Purple Rose Theatre Company Totaled $1.7 million (excluding the cost of event admission)

<table>
<thead>
<tr>
<th></th>
<th>Residents of Washtenaw County</th>
<th>Non-Residents of Washtenaw County</th>
<th>All Purple Rose Attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Reported Attendance</td>
<td>13,576</td>
<td>28,399</td>
<td>41,975</td>
</tr>
<tr>
<td>Percent of Attendees</td>
<td>32.3</td>
<td>67.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Average Dollars Spent Per Attendee</td>
<td>$25.68</td>
<td>$46.56</td>
<td>$39.82</td>
</tr>
<tr>
<td>Direct Event-Related Expenditures</td>
<td>$348,631</td>
<td>$1,322,258</td>
<td>$1,670,889</td>
</tr>
</tbody>
</table>

### Attendees to the Purple Rose Theatre Company Spend an Average of $39.82 Per Person, Per Performance (excluding the cost of event admission)

<table>
<thead>
<tr>
<th></th>
<th>Residents of Washtenaw County</th>
<th>Non-Residents of Washtenaw County</th>
<th>All Purple Rose Attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refreshments/Snacks During Event</td>
<td>$1.40</td>
<td>$1.95</td>
<td>$1.77</td>
</tr>
<tr>
<td>Meals Before/After Event</td>
<td>$20.64</td>
<td>$25.22</td>
<td>$23.74</td>
</tr>
<tr>
<td>Souvenirs and Gifts</td>
<td>$0.90</td>
<td>$3.98</td>
<td>$2.99</td>
</tr>
<tr>
<td>Clothing and Accessories</td>
<td>$0.22</td>
<td>$1.26</td>
<td>$0.93</td>
</tr>
<tr>
<td>Ground Transportation</td>
<td>$1.41</td>
<td>$3.09</td>
<td>$2.55</td>
</tr>
<tr>
<td>Event-Related Child Care</td>
<td>$0.39</td>
<td>$0.34</td>
<td>$0.36</td>
</tr>
<tr>
<td>Overnight Lodging (one night only)</td>
<td>$0.23</td>
<td>$9.62</td>
<td>$6.58</td>
</tr>
<tr>
<td>Other</td>
<td>$0.49</td>
<td>$1.10</td>
<td>$0.90</td>
</tr>
<tr>
<td>Total Per Person Spending</td>
<td>$25.68</td>
<td>$46.56</td>
<td>$39.82</td>
</tr>
</tbody>
</table>
Cultural Events Attract New Dollars and Retain Local Dollars

The Purple Rose Theatre Company is a cultural attraction that draws new visitors to Washtenaw County. In fact, 91.7 percent of all non-resident survey respondents reported that the primary reason for their trip was “specifically to visit the Purple Rose Theatre.”

Additionally, 12.3 percent of the Purple Rose Theatre’s non-resident survey respondents reported that they will spend at least one night away from home as a direct result of attending the performance. As a result of their attendance, the Purple Rose Theatre’s non-resident attendees who stay overnight in paid lodging spend an average of $147.01 per person in the community—significantly more than the per person average of $46.56 for all non-resident attendees.

The audience survey respondents were also asked, “If this event were not happening, would you have traveled to another community to attend a similar cultural experience?”

- 67.3 percent of the Purple Rose Theatre’s resident cultural attendees report that they would have traveled to a different community in order to attend a similar cultural experience.
- 78.4 percent of the Purple Rose Theatre’s non-resident cultural attendees report the same.

These figures demonstrate the economic impact of the nonprofit arts and culture in the truest sense. If a community does not provide a variety of artistic and cultural experiences, it will fail to attract the new dollars of cultural tourists. It will also lose the discretionary spending of its local residents, who will travel elsewhere to experience the arts.

"As a banker, I have visited businesses in almost every city and town in Oklahoma. There is a visible difference in places with a vibrant arts community. I see people looking for places to park, stores staying open late, and restaurants packed with diners. The business day is extended and the cash registers are ringing."

— Ken Fergeson
Chairman & CEO, NBanC
Past President, American Bankers Association

INTERESTING FACT: Many Purple Rose Attendees Are Artists Themselves

- 37.8 percent of the Purple Rose Theatre’s attendees report that they actively participate in the creation or performance of art (e.g., sing in a choir, act in a community play, paint or draw, play an instrument).
Conclusion

The Purple Rose Theatre Company is a $3.6 million economic engine—one that supports 77 full-time equivalent jobs and generates $404,000 in local and state government revenue.

The Purple Rose Theatre, which spent a total of $1.9 million during fiscal year 2012, leveraged a remarkable $1.7 million in additional event-related spending by their audiences. This audience spending pumps vital revenue into local restaurants, hotels, retail stores, parking garages, and other businesses. By demonstrating that investing in the arts and culture yields economic benefits, *Arts & Economic Prosperity IV* lays to rest a common misconception: that communities support the arts and culture at the expense of local economic development. In fact, they are investing in an industry that supports jobs, generates government revenue, and is a cornerstone of tourism. This report shows conclusively that **the Purple Rose Theatre means business!**

"Disney has a rich legacy in animation, film and storytelling, so naturally we consider the arts to be an essential part of our business, as well as an essential element of our communities. We have seen how the arts not only enrich American life, but also support millions of jobs across the country, generate billions of dollars in economic impact, and help drive the family-vacation industry. By investing in the arts, we plant seeds for the future and make our communities better places to live."

— Meg Crofton, President
Walt Disney World Parks & Resorts Operations, U.S. and France
"A vibrant arts environment stimulates and sustains a richer quality of life and economic health. In Delaware, where the arts are among our top 10 employers, we see how the arts contribute to the renaissance of downtown areas, enhance our educational system, and attract new businesses and residents to the state."

— Governor Jack A. Markell
Chair, National Governors Association
The Arts & Economic Prosperity IV Calculator

To make it easier to estimate the future economic impacts of the Purple Rose Theatre Company, the project researchers calculated the economic impact per $100,000 of direct spending by both the Purple Rose Theatre Company and its audiences.

Economic Impact Per $100,000 of Direct Expenditures made by the Purple Rose Theatre Company

For every $100,000 in direct spending by the Purple Rose Theatre Company, there was the following total economic impact (both direct and indirect impacts).

<table>
<thead>
<tr>
<th>TABLE 1: Ratios of Economic Impact Per $100,000 of Direct Spending by the Purple Rose Theatre Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-Time Equivalent Jobs Supported in Washtenaw County</td>
</tr>
<tr>
<td>Resident Household Income Generated in Washtenaw County</td>
</tr>
<tr>
<td>Local Government Revenue Generated in Washtenaw County</td>
</tr>
<tr>
<td>State Government Revenue Generated in Washtenaw County</td>
</tr>
</tbody>
</table>

An Example of How to Use the Organizational Spending Calculator Table (above):

Assume that the Purple Rose Theatre Company has total expenditures of $250,000 during fiscal year 2015, and the organization’s leadership wants to estimate the organization’s total economic impact on full-time equivalent (FTE) employment in Washtenaw County at that time. The administrator would:

1. Determine the amount spent by the Purple Rose Theatre Company;
2. Divide the total expenditure by 100,000; and
3. Multiply that figure by the FTE employment ratio per $100,000 for the Purple Rose Theatre.

Thus, $250,000 divided by 100,000 equals 2.5; 2.5 times 2.30 (from the top row of data on Table 1 above) equals an estimated total of 5.8 full-time equivalent jobs supported (both directly and indirectly) within Washtenaw County during that year. Using the same procedure, estimates can be calculated for resident household income as well as local and state government revenue.
Economic Impact Per $100,000 of Direct Expenditures made by the Purple Rose Theatre’s Audiences

Estimates of the economic impact of event-related spending by the Purple Rose Theatre’s audiences can also be derived based on future attendance projections.

The first step is to determine the total estimated event-related spending by arts and culture event attendees (excluding the cost of admission). To derive this figure, multiply the average per person event-related expenditure for the Purple Rose Theatre Company by the total estimated attendance for the given year. The ratios of economic impact per $100,000 in direct spending can then be used to determine the total economic impact of the total estimated audience spending.

**TABLE 2:** Ratios of Economic Impact Per $100,000 of Direct Spending by the Purple Rose Theatre’s Audiences

| **Average Per Person Event-Related Expenditure** (excluding the cost of admission, if applicable) | $39.82 |
| Full-Time Equivalent Jobs | 1.97 |
| Resident Household Income | $47,699 |
| Local Government Revenue | $3,172 |
| State Government Revenue | $10,892 |

**An Example of How to Use the Audience Spending Calculator Tables** (above):

Assume that the Purple Rose Theatre Company has a total attendance of 25,000 people during fiscal year 2015, and the organization’s leadership wants to estimate the total economic impact of audience spending on full-time equivalent (FTE) employment in Washtenaw County at that time. The administrator would:

1. Determine the total estimated audience spending by multiplying the average per person expenditure for the Purple Rose Theatre Company by the total attendance;
2. Divide the resulting total estimated audience spending by 100,000; and
3. Multiply that figure by the FTE employment ratio per $100,000 for the Purple Rose Theatre.

Thus, 25,000 times $39.82 (from the top row of data on Table 2 above) equals $995,500; $995,500 divided by 100,000 equals 9.96; 9.96 times 1.97 (from the second row of data on Table 2) equals a total of 19.6 full-time equivalent jobs supported (both directly and indirectly) within Washtenaw County. Using the same procedure, estimates can be calculated for resident household income as well as local and state government revenue.
Making Comparisons with Similar Study Regions

For the purpose of this research project, the geographic region being studied is defined as Washtenaw County. According to the most recent data available from the U.S. Census Bureau, the population of Washtenaw County was estimated to be 344,791 during 2012. For comparison purposes, more than 300 pages of detailed data tables containing the study results for all 182 participating study regions are located in Appendix B of the National Statistical Report. The data tables are stratified by population, making it easy to compare the findings for the Purple Rose Theatre Company to the findings for similarly populated study regions (as well as any other participating study regions that are considered valid comparison cohorts).

All of the national study publications are available both by download (free) and hardcopy (for purchase) at www.AmericansForTheArts.org/EconomicImpact.
"The success of my family’s business depends on finding and cultivating a creative and innovative workforce. I have witnessed firsthand the power of the arts in building these business skills. When we participate personally in the arts, we strengthen our ‘creativity muscles,’ which makes us not just a better ceramicist or chorus member, but a more creative worker—better able to identify challenges and innovative business solutions. This is one reason why the arts remain an important part of my personal and corporate philanthropy."

— Christopher Forbes, Vice Chairman, Forbes, Inc.
About This Study

The *Arts & Economic Prosperity IV* study was conducted by Americans for the Arts to document the economic impact of the nonprofit arts and culture industry in 182 communities and regions (139 cities and counties, 31 multi-city or multi-county regions, 10 states, and two individual arts districts)—representing all 50 U.S. states and the District of Columbia.

The diverse communities range in population (1,600 to four million) and type (rural to urban). The study focuses solely on nonprofit arts and culture organizations and their audiences. Public arts councils and public presenting facilities/institutions are included, as are select programs embedded within another organization (that have their own budget and play a substantial role in the cultural life of the community). The study excludes spending by individual artists and the for-profit arts and entertainment sector (e.g., Broadway or the motion picture industry). Detailed expenditure data were collected from 9,721 arts and culture organizations and 151,802 of their attendees. The project economists, from the Georgia Institute of Technology, customized input-output analysis models for each study region to provide specific and reliable economic impact data about their nonprofit arts and culture industry, specifically full-time equivalent jobs, household income, and local and state government revenue.

**The 182 Local, Regional, and Statewide Study Partners**

Americans for the Arts published a Call for Participants in 2010 seeking communities interested in participating in the *Arts & Economic Prosperity IV* study. Of the more than 200 potential partners that expressed interest, 182 agreed to participate and complete four participation criteria: (1) identify and code the universe of nonprofit arts and culture organizations in their study region; (2) assist researchers with the collection of detailed financial and attendance data from those organizations; (3) conduct audience-intercept surveys at cultural events; and (4) pay a modest cost-sharing fee (no community was refused participation for an inability to pay).

**The Purple Rose Theatre Company contracted with Americans for the Arts to conduct a separate economic impact analysis focusing solely on the Purple Rose Theatre Company and its performance audiences.** The methodology used is identical to the national study methodology, providing the ability to compare the results for the Purple Rose Theatre with those of the national study participants.

**Surveys of Nonprofit Arts and Culture Organizations**

Each of the 182 study regions attempted to identify its comprehensive universe of nonprofit arts and culture organizations using the Urban Institute’s National Taxonomy of Exempt Entity (NTEE) coding system as a guideline. The NTEE system—developed by the National Center for Charitable Statistics at the Urban Institute—is a definitive classification system for nonprofit organizations recognized as tax exempt by the Internal Revenue Code. This system divides the entire universe of nonprofit organizations into 10 Major categories, including “Arts, Culture, and Humanities.” The Urban Institute reports that 113,000 nonprofit arts
and culture organizations were registered with the IRS in 2010, up from 94,450 in 2005.

The following NTEE “Arts, Culture, and Humanities” subcategories were included in this study:

- A01 – Alliances and Advocacy
- A02 – Management and Technical Assistance
- A03 – Professional Societies and Associations
- A05 – Research Institutes and Public Policy Analysis
- A11 – Single Organization Support
- A12 – Fund Raising and Fund Distribution
- A19 – Support (not elsewhere classified)
- A20 – Arts and Culture (general)
- A23 – Cultural and Ethnic Awareness
- A24 – Folk Arts
- A25 – Arts Education
- A26 – Arts and Humanities Councils and Agencies
- A27 – Community Celebrations
- A30 – Media and Communications (general)
- A31 – Film and Video
- A32 – Television
- A33 – Printing and Publishing
- A34 – Radio
- A40 – Visual Arts (general)
- A50 – Museums (general)
- A51 – Art Museums
- A52 – Children’s Museums
- A53 – Folk Arts Museums
- A54 – History Museums
- A56 – Natural History and Natural Science Museums
- A57 – Science and Technology Museums
- A60 – Performing Arts (general)
- A61 – Performing Arts Centers
- A62 – Dance
- A63 – Ballet
- A65 – Theatre
- A68 – Music
- A69 – Symphony Orchestras
- A6A – Opera
- A6B – Singing and Choral Groups
- A6C – Bands and Ensembles
- A6E – Performing Arts Schools
- A70 – Humanities (general)
- A80 – Historical Organizations (general)
- A82 – Historical Societies and Historic Preservation
- A84 – Commemorative Events
- A90 – Arts Services (general)
- A99 – Arts, Culture, and Humanities (miscellaneous)

In addition to the organization types above, the study partners were encouraged to include other types of eligible organizations if they play a substantial role in the cultural life of the community or if their primary purpose is to promote participation in, appreciation for, and understanding of the visual, performing, folk, and media arts. These include government-owned or government-operated cultural facilities and institutions, municipal arts agencies and councils, private community arts organizations, unincorporated arts groups, living collections (such as zoos, aquariums, and botanical gardens), university presenters, and arts programs that are embedded under the umbrella of a non-arts organization or facility (such as a community center or church). In short, if it displays the characteristics of a nonprofit arts and culture organization, it is included. For-profit businesses and individual artists were excluded from this study.

Nationally, detailed information was collected from 9,721 eligible organizations about their fiscal year 2010 expenditures in more than 40 expenditure categories (e.g., labor, local and non-local artists, operations, materials, facilities, and asset acquisition) as well as about their event attendance, in-kind contributions, and volunteerism. Responding organizations had budgets ranging from a low of $0 to a high of $239.7 million. Response rates for the 182 communities averaged 43.2 percent and ranged from 5.3 percent to 100 percent. It is important to note that each study region’s results are based solely on the actual survey data collected. No estimates have been made to account for non-respondents. Therefore, the less-than-100 percent response rates suggest an understatement of the economic impact findings in most of the individual study regions.
Surveys of Nonprofit Arts and Culture Audiences

Audience-intercept surveying, a common and accepted research method, was conducted in all 182 of the study regions to measure event-related spending by nonprofit arts and culture audiences. Patrons were asked to complete a short survey while attending an event. Nationally, a total of 151,802 valid and usable attendees completed the survey for an average of 834 surveys per study region. The randomly selected respondents provided itemized expenditure data on attendance-related activities such as meals, souvenirs, transportation, and lodging. Data were collected throughout 2011 (to guard against seasonal spikes or drop-offs in attendance) as well as at a broad range of both paid and free events (a night at the opera will typically yield more spending than a weekend children’s theater production or a free community music festival, for example). The survey respondents provided information about the entire party with whom they were attending the event. With an overall average travel party size of 2.69 people, these data actually represent the spending patterns of more than 408,000 attendees.

The Purple Rose Theatre Company collected a total of 1,144 valid and usable audience-intercept surveys from attendees to its performances during 2013.

Economic Analysis

A common theory of community growth is that an area must export goods and services if it is to prosper economically. This theory is called economic-base theory, and it depends on dividing the economy into two sectors: the export sector and the local sector. Exporters, such as automobile manufacturers, hotels, and department stores, obtain income from customers outside of the community. This “export income” then enters the local economy in the form of salaries, purchases of materials, dividends, and so forth, and becomes income to local residents. Much of it is re-spent locally; some, however, is spent for goods imported from outside of the community. The dollars re-spent locally have an economic impact as they continue to circulate through the local economy. This theory applies to arts organizations as well as to other producers.

Studying Economic Impact Using Input-Output Analysis

To derive the most reliable economic impact data, input-output analysis is used to measure the impact of expenditures by nonprofit arts and culture organizations and their audiences. This is a highly regarded type of economic analysis that has been the basis for two Nobel Prizes. The models are systems of mathematical equations that combine statistical methods and economic theory in an area of study called econometrics. They trace how many times a dollar is re-spent within the local economy before it leaks out, and they quantify the economic impact of each round of spending. This form of economic analysis is well suited for this study because it can be customized specifically to each study region.

To complete the analysis for the Purple Rose Theatre Company, project economists customized an input-output model based on the local dollar flow between 533 finely detailed industries within the economy of Washtenaw County. This was accomplished by using detailed data on employment, incomes, and government revenues provided by the U.S. Department of Commerce (County Business Patterns, the Regional Economic Information System, and the Survey of State and Local Finance), local tax data (sales taxes, property taxes, and miscellaneous local option taxes), as well as the survey data from the responding nonprofit arts and culture organizations and their audiences.
The Input-Output Process

The input-output model is based on a table of 533 finely detailed industries showing local sales and purchases. The local and state economy of each community is researched so the table can be customized for each community. The basic purchase patterns for local industries are derived from a similar table for the U.S. economy for 2007 (the latest detailed data available from the U.S. Department of Commerce). The table is first reduced to reflect the unique size and industry mix of the local economy, based on data from County Business Patterns and the Regional Economic Information System of the U.S. Department of Commerce. It is then adjusted so that only transactions with local businesses are recorded in the inter-industry part of the table. This technique compares supply and demand and estimates the additional imports or exports required to make total supply equal total demand. The resulting table shows the detailed sales and purchase patterns of the local industries. The 533-industry table is then aggregated to reflect the general activities of 32 industries plus local households, creating a total of 33 industries. To trace changes in the economy, each column is converted to show the direct requirements per dollar of gross output for each sector. This direct-requirements table represents the “recipe” for producing the output of each industry.

The economic impact figures for *Arts & Economic Prosperity IV* were computed using what is called an “iterative” procedure. This process uses the sum of a power series to approximate the solution to the economic model. This is what the process looks like in matrix algebra:

\[ T = IX + AX + A^2X + A^3X + \ldots + A^nX. \]

T is the solution, a column vector of changes in each industry’s outputs caused by the changes represented in the column vector X. A is the 33 by 33 direct-requirements matrix. This equation is used to trace the direct expenditures attributable to nonprofit arts organizations and their audiences. A multiplier effect table is produced that displays the results of this equation. The total column is T. The initial expenditure to be traced is IX (I is the identity matrix, which is operationally equivalent to the number 1 in ordinary algebra). Round 1 is AX, the result of multiplying the matrix A by the vector X (the outputs required of each supplier to produce the goods and services purchased in the initial change under study). Round 2 is A^2X, which is the result of multiplying the matrix A by Round 1 (it answers the same question applied to Round 1: “What are the outputs required of each supplier to produce the goods and services purchased in Round 1 of this chain of events?”). Each of columns 1 through 12 in the multiplier effects table represents one of the elements in the continuing but diminishing chain of expenditures on the right side of the equation. Their sum, T, represents the total production required in the local economy in response to arts activities.

Calculation of the total impact of the nonprofit arts on the outputs of other industries (T) can now be converted to impacts on the final incomes to local residents by multiplying the outputs produced by the ratios of household income to output and employment to output. Thus, the employment impact of changes in outputs due to arts expenditures is calculated by multiplying elements in the column of total outputs by the ratio of employment to output for the 32 industries in the region. Changes in household incomes, local government revenues, and state government revenues due to nonprofit arts expenditures are similarly transformed. The same process is also used to show the direct impact on incomes and revenues associated with the column of direct local expenditures.

A comprehensive description of the methodology used to complete the national study is available at www.AmericansForTheArts.org/EconomicImpact.
Frequently Used Terms

This section provides a glossary of economic impact terminology.

**Cultural Tourism**
Travel directed toward experiencing the arts, heritage, and special character of a place.

**Direct Economic Impact**
A measure of the economic effect of the initial expenditure within a community. For example, when the symphony pays its players, each musician’s salary, the associated government taxes, and full-time equivalent employment status represent the direct economic impact.

**Direct Expenditures**
The first round of expenditures in the economic cycle. A paycheck from the symphony to the violin player and a ballet company’s purchase of dance shoes are examples of direct expenditures.

**Econometrics**
The process of using statistical methods and economic theory to develop a system of mathematical equations that measures the flow of dollars between local industries. The input-output model developed for this study is an example of an econometric model.

**Econometrician**
An economist who designs, builds, and maintains econometric models.

**Full-Time Equivalent (FTE) Jobs**
A term that describes the total amount of labor employed. Economists measure FTE jobs—not the total number of employees—because it is a more accurate measure of total employment. It is a manager’s discretion to hire one full-time employee, two half-time employees, four quarter-time employees, etc. Almost always, more people are affected than are reflected in the number of FTE jobs reported due to the abundance of part-time employment, especially in the nonprofit arts and culture industry.

**Indirect Economic Impact**
Each time a dollar changes hands, there is a measurable economic impact. When people and businesses receive money, they re-spend much of that money locally. Indirect impact measures the effect of this re-spending on jobs, household income, and revenue to local and state government. It is often referred to as secondary spending or the dollars “rippling” through a community. When funds are eventually spent non-locally, they are considered to have “leaked” out of the community and therefore cease to have a local economic impact. Indirect impact includes the impact of all rounds of spending (except for the initial expenditure) until the dollars have completely “leaked out” of the local economy.
Input-Output Analysis
A system of mathematical equations that combines statistical methods and economic theory in an area of economic study called econometrics. Economists use this model (occasionally called an inter-industry model) to measure how many times a dollar is re-spent in, or “ripples” through, a community before it “leaks out” of the local economy by being spent non-locally (see Leakage below). The model is based on a matrix that tracks the dollar flow between 533 finely detailed industries in each community. It allows researchers to determine the economic impact of local spending by nonprofit arts and culture organizations on jobs, household income, and government revenue.

Leakage
The money that community members spend outside of the local economy. This non-local spending has no economic impact within the community. A ballet company purchasing shoes from a non-local manufacturer is an example of leakage. If the shoe company were local, the expenditure would remain within the community and create another round of spending by the shoe company.

Multiplier (often called Economic Activity Multiplier)
An estimate of the number of times that a dollar changes hands within the community before it leaks out of the community (for example, the theater pays the actor, the actor spends money at the grocery store, the grocery store pays its cashier, and so on). This estimate is quantified as one number by which all expenditures are multiplied. For example, if the arts are a $10 million industry and a multiplier of three is used, then it is estimated that these arts organizations have a total economic impact of $30 million. The convenience of a multiplier is that it is one simple number; its shortcoming, however, is its reliability. Users rarely note that the multiplier is developed by making gross estimates of the industries within the local economy with no allowance for differences in the characteristics of those industries, usually resulting in an overestimation of the economic impact. In contrast, the input-output model employed in Arts & Economic Prosperity IV is a type of economic analysis tailored specifically to each community and, as such, provides more reliable and specific economic impact results.

Resident Household Income (often called Personal Income)
The salaries, wages, and entrepreneurial income residents earn and use to pay for food, mortgages, and other living expenses. It is important to note that resident household income is not just salary. When a business receives money, for example, the owner usually takes a percentage of the profit, resulting in income for the owner.

Revenue to Local and State Government
Local and state government revenue is not derived exclusively from income, property, sales, and other taxes. It also includes license fees, utility fees, user fees, and filing fees. Local government revenue includes funds to city and county government, schools, and special districts.
Frequently Asked Questions

This section answers some common questions about this study and the methodology used to complete it.

How were the 182 participating communities and regions selected?
In 2010, Americans for the Arts published a Call for Participants for communities interested in participating in the Arts & Economic Prosperity IV study. Of the more than 200 participants that expressed interest, 182 agreed to participate and complete four participation criteria: (1) identify and code the universe of nonprofit arts and culture organizations in their study region; (2) assist researchers with the collection of detailed financial and attendance data from those organizations; (3) conduct audience-intercept surveys at cultural events; and (4) pay a modest cost-sharing fee (no community was refused participation for an inability to pay).

How were the eligible nonprofit arts organizations in each community selected?
Local partners attempted to identify their universe of nonprofit arts and culture organizations using the Urban Institute’s National Taxonomy of Exempt Entity (NTEE) codes as a guideline. Eligible organizations included those whose primary purpose is to promote appreciation for and understanding of the visual, performing, folk, and media arts. Public arts councils, public presenting facilities or institutions, and embedded organizations that have their own budget also were included if they play a substantial role in the cultural life of the community. For-profit businesses and individual artists were excluded from this study.

What type of economic analysis was done to determine the study results?
An input-output analysis model was customized for each of the participating communities and regions to determine the local economic impact of their nonprofit arts and culture organizations and arts audiences. Americans for the Arts, which conducted the research, worked with highly regarded economists to design the input-output model used for this study.

What other information was collected in addition to the arts surveys?
In addition to detailed expenditure data provided by the surveyed organizations, extensive wage, labor, tax, and commerce data were collected from local, state, and federal governments for use in the input-output model.

Why doesn’t this study use a multiplier?
When many people hear about an economic impact study, they expect the result to be quantified in what is often called a multiplier or an economic activity multiplier. The economic activity multiplier is an estimate of the number of times a dollar changes hands within the community (e.g., a theater pays its actor, the actor spends money at the grocery store, the grocery store pays the cashier, and so on). It is quantified as one number by which expenditures are multiplied. The convenience of the multiplier is that it is one simple number. Users rarely note, however, that the multiplier is developed by making gross estimates of the industries within the local economy and does not allow for differences in the characteristics of those industries. Using an economic activity multiplier usually results in an overestimation of the economic impact and therefore lacks reliability.
Why are the admissions expenses excluded from the analysis of audience spending?
Researchers make the assumption that any admissions dollars paid by event attendees are typically collected as revenue for the organization that is presenting the event. The organization then spends those dollars. The admissions paid by audiences are excluded because those dollars are captured in the operating budgets of the participating nonprofit arts and culture organizations. This methodology avoids “double-counting” those dollars in the analysis.

How is the economic impact of arts and culture organizations different from other industries?
Any time money changes hands there is a measurable economic impact. Social service organizations, libraries, and all entities that spend money have an economic impact. What makes the economic impact of arts and culture organizations unique is that, unlike most other industries, they induce large amounts of related spending by their audiences. For example, when patrons attend a performing arts event, they may purchase dinner at a restaurant, eat dessert after the show, and return home and pay the baby-sitter. All of these expenditures have a positive and measurable impact on the economy.

Will my local legislators believe these results?
Yes, this study makes a strong argument to legislators, but you may need to provide them with some extra help. It will be up to the user of this report to educate the public about economic impact studies in general and the results of this study in particular. The user may need to explain (1) the study methodology used; (2) that economists created an input-output model for each community and region in the study; and (3) the difference between input-output analysis and a multiplier. The good news is that as the number of economic impact studies completed by arts organizations and other special interest areas increases, so does the sophistication of community leaders whose influence these studies are meant to affect. Today, most decision makers want to know what methodology is being used and how and where the data were gathered.

You can be confident that the input-output analysis used in this study is a highly regarded model in the field of economics (the basis of two Nobel Prizes in economics). However, as in any professional field, there is disagreement about procedures, jargon, and the best way to determine results. Ask 12 artists to define art and you may get 12 answers; expect the same of economists. You may meet an economist who believes that these studies should be done differently (for example, a cost-benefit analysis of the arts).

How can a community not participating in the Arts and Economic Prosperity IV study apply these results?
Because of the variety of communities studied and the rigor with which the Arts & Economic Prosperity IV study was conducted, nonprofit arts and culture organizations located in communities that were not part of the study can estimate their local economic impact. Estimates can be derived by using the Arts & Economic Prosperity IV Calculator (found at www.AmericansForTheArts.org/EconomicImpact). Additionally, users will find sample PowerPoint presentations, press releases, opinion editorials (“op-eds”), and other strategies for proper application of their estimated economic impact data.
Acknowledgments

Americans for the Arts expresses its gratitude to the many people and organizations who made Arts & Economic Prosperity IV: The Economic Impact of the Purple Rose Theatre Company and Its Audiences possible and assisted in its coordination and production. Generous funding for this project was provided by the Purple Rose Theatre Company, which also served as the local project partner and as such was responsible for the implementation and data collection requirements of the study.

Special thanks to the John D. and Catherine T. MacArthur Foundation and The Ruth Lilly Fund of Americans for the Arts for their financial support of the national implementation of Arts & Economic Prosperity IV.

Thanks also to the Cultural Data Project (CDP), a collaborative project of the Greater Philadelphia Cultural Alliance, The Greater Pittsburgh Arts Council, Pennsylvania Council on the Arts, The Pew Charitable Trusts, The William Penn Foundation, and The Heinz Endowments (in each participating state, the CDP is also the result of a collaborative partnership of public and private funders and advocacy agencies). The CDP was created to strengthen arts and culture by documenting and disseminating information on the arts and culture sector. CDP data were used in the economic impact analysis for all study regions located in Arizona, California, Illinois, Maryland, Massachusetts, Michigan, New York, Ohio, Pennsylvania, and Rhode Island. For more information about the Cultural Data Project, visit www.culturaldata.org.

The Purple Rose Theatre Company’s Participating Audience Members
This study could not have been completed without the cooperation of the 1,144 audience members who generously took the time to complete the audience-intercept survey while attending one of the Purple Rose Theatre’s performances.
"One of the keys to building and sustaining communities and promoting high quality economic development is support and funding of the arts. We have witnessed, in some states, decreased support of the arts, which is counterproductive and a major step backward. We need to emphasize that potential employers look at enrichment of lives as well as schools, hospitals, libraries, and other essential services for the communities in which they want to locate. We need to continue—and increase—our support for the arts. In today’s competitive marketplace, it has never been truer that supporting the arts means business."

— Senator Steve Morris
President, National Conference of State Legislatures

"The Committee Encouraging Corporate Philanthropy (CECP), which is active in measuring trends and best practices in corporate giving to the arts, values the far-reaching research and leadership of Americans for the Arts, demonstrated in the Arts & Economic Prosperity™ series."

— Charles H. Moore
Executive Director, Committee Encouraging Corporate Philanthropy
The following national organizations partner with Americans for the Arts to help public and private sector leaders understand the economic and social benefits that the arts bring to their communities, states, and the nation.

Americans for the Arts is the nation’s leading nonprofit organization for advancing the arts in America. Established in 1960, we are dedicated to representing and serving local communities and creating opportunities for every American to participate in and appreciate all forms of the arts.