July 28, 2011

The Honorable Mary-Anna Holden  
Mayor of Madison  
Hartley Dodge Memorial  
50 Kings Road  
Madison, NJ 07940

Dear Mayor Holden,

On behalf of the Trustees, staff, artists and students of the Shakespeare Theatre of New Jersey, I am proud to share with you the results of a very exciting study that was recently completed regarding The Shakespeare Theatre’s economic impact on the region.

In late fall of 2010, The Shakespeare Theatre of New Jersey engaged a pro bono consulting group from the Yale School of Management to conduct a study to quantify the spending of the Theatre, as well as its audiences, artists, students and staff, and then calculate the effect of that spending on the economy of the greater Madison area (defined in the study as a 20 minute driving radius from Madison). This economic impact study was both rigorous and conservative, approximating a $5.7 million impact on the Madison area. This calculation was a point in a range of $4.9 - $7.6 million, and is a 138% increase from a previous study conducted in 2003.

This robust growth in the Theatre’s local impact reflects the continuing importance of the institution’s role in both the community and economy surrounding Madison, as well as the durability of that impact during a national economic downturn. Our impact on a wider region is even more significant, with students, staff and patrons spending theatre-related dollars far beyond the immediate Madison area. Based on additional analysis of the data collected through the Yale study, as well as figures produced by the Arts & Economic Prosperity Calculator, a tool designed by Americans for the Arts, a $7.9 - $11 million range of overall impact can be deduced, with a midpoint of $9.5 million.

This considerable contribution to the economic vitality of our region, combined with the highest caliber artistic and educational opportunities that this organization uniquely provides, reinforces the necessity of The Shakespeare Theatre and all that it offers to the citizens of our state, the broader region and the nation. Enclosed is a copy of the Yale study, along with a two page supplement illustrating our broader impact beyond the immediate Madison area. Questions regarding the attached can be addressed to Whitney Estrin, our senior staff member who facilitated the study. She can be reached via email at westrin@shakespearenj.org, or by phone at 973-408-3685.

As always, thank you for the support you provide to our institution! As we approach our 50th Anniversary season in 2012, we look forward to celebrating this exciting achievement with you and the entire community.

Sincerely,

Bonnie J. Monte  
Artistic Director
MAKING AN IMPACT ON MAIN STREET

A Study of The Shakespeare Theatre of New Jersey’s 2010 Economic Impact on the Madison Area

Yale SCHOOL OF MANAGEMENT
STUDENT ORGANIZATIONS

SOM Outreach Club

Kelly Bougere, Katy Davis, Fauzia Dawood & Andrea Gudis

May 18, 2011
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I. Executive Summary

Located in Madison, New Jersey, The Shakespeare Theatre of New Jersey ("the Theatre") is an integral part of the local community and brings together students, employees, and patrons from all over the country to take part in the organization's wide array of artistic offerings. While the Theatre has thrived in this small New Jersey community, its economic impact was last estimated in 2003. The purpose of this report is to measure the full and current economic impact of the Theatre on Madison, New Jersey and the immediate surrounding community (within a 20-minute drive of Madison) in 2010.¹

Major finding of the report:

The Theatre's economic impact on the Madison Area in 2010 is estimated at $5.7 million.

Other key findings include:

- Patron expenditures during the 2010 season are estimated to fall between $1,056,049-$1,931,651. The midpoint of $1,493,891 was used in the overall economic impact calculation.

- Staff expenditures in 2010 are estimated at $813,312
  - Employee spending was dominated by retail purchases (35%) and dining (25%)
  - On average, staff each spent $16,944 per year in the Madison Area

- Artist expenditures in 2010 are estimated at $680,701
  - Artists spent most on dining out (46%) and local shopping (35%)
  - On average, artists spent $6,362 per year in the Madison Area.

- Institutional expenditures in the Madison area are estimated at $178,776.

- Expenditures by participants in the Summer Professional Training Program (SPTP) (May-August) are estimated at a total of $179,191.
  - 42% of students’ expenditures in the Madison Area went to dining out at local restaurants, and 41% of their local expenditures went towards retail shopping.

- While the study focused its quantitative analysis on the Madison area, there is clearly additional economic impact generated outside this area.

¹ This study looks at the economic impact directly on the local community surrounding Madison, New Jersey. In our data collection, this was defined as "a 20 minute drive from Madison, New Jersey" and includes nearby towns such as Morristown, Chatham, Kenilworth, Summit and Maplewood. This region is hereafter referred to as the "Madison Area."
In 2010, the Theatre paid vendors a total of $812,518 for providing various goods and services (excluding payroll). Of the total amount, a majority was spent within New Jersey and New York. Only $178,776 is included in this study, the remaining expenditures were not within this report’s defined geographic area.

- The Theatre’s total economic impact in the Madison Area in 2010 is approximately 138% higher than the Theatre’s total economic impact in Madison calculated in the 2003 study.
  - The 2003 study estimated total economic impact of approximately $2.30 million for 2002, compared to $5.7 million for 2010.
  - Spending figures for 2010 increased from 2003 for every category other than Institutional spending, which decreased from 2003.
II. Introduction

The purpose of this report is to measure the current economic impact of The Shakespeare Theatre of New Jersey (hereafter referred to as “the Theatre”) on Madison, New Jersey and the surrounding community. Economic impact is defined as the financial contribution to local businesses that is either directly or indirectly attributed to the presence of the Theatre. The types of economic impact measured in this report are:

- **Patron Spending**: Spending by the Theatre’s patrons in the Madison Area on shopping, dining, and other related expenses in connection with attendance at a Theatre performance;

- **Employee Spending**: Spending by the Theatre’s staff and hired artists in the Madison Area on shopping, dining, transportation, and other related expenses, including housing expenses (rent, utilities, etc) for staff that have relocated to the Madison Area;

- **Institutional Spending**: Money spent by the Theatre on goods and services provided by vendors in the local Madison Area;

- **Educational Programs**: Spending on shopping, dining, transportation, and other related expenses by participants in the Summer Professional Training Program conducted annually by the Theatre; and

- **Indirect Effects**: Additional economic activity generated in the local community when local businesses spend the additional income earned from transactions with the Theatre or by its employees, patrons, and students.

Yale SOM Outreach is a student-run, pro bono nonprofit consulting club at the Yale University School of Management. Student teams of four work with a nonprofit organization for the length of an academic year. The surveys distributed to collect data for this study were developed and produced by the Yale SOM Outreach team in collaboration with The Shakespeare Theatre of New Jersey staff.
III. Methodology

Data Collection

Data was collected via online surveys distributed to the Theatre’s patrons, staff, artists, and participants in the Theatre’s Summer Professional Training Program. Participation in the survey was voluntary, although recipients of the patron survey received a discount coupon for a Theatre offering if they completed the survey by the given deadline. The patron survey was distributed on January 25, 2011 with a deadline of February 8, 2011 and the staff, artist and educational program participant surveys were distributed on March 2, 2011 with a deadline on March 16, 2011.3

Survey participants were asked to report their estimated expenditures on shopping, dining, transportation and other services in the Madison Area in 2010. In addition, employees were asked to report their total monthly housing cost. Because the survey responses were provided directly by individual respondents with no additional verification, they are only estimations of actual expenditures.

Outliers outside the realm of reason were removed from the data to prevent them from skewing the spending averages. For example, if a respondent marked that he or she dined 30 times in one year in conjunction with a visit to the Theatre, the answer was removed from the data set, given that the Theatre only offers 7 shows per year. If a staff member marked that he or she visited a salon 50 times in one month, the answer was removed because it is improbable that they visited a salon more than once per day.

The economic impact from institutional spending was calculated using the Theatre’s 2010 budget and actual financial reports.

Please refer to Appendix 1 for a complete list of survey questions and responses.

Geographic Area of Study

This study estimates the Theatre’s economic impact on the local community surrounding Madison, New Jersey. In all data collection, the study area was defined as “a 20 minute drive from Madison.” This area includes 40 cities and towns in Essex, Morris, Somerset and Union Counties. By selecting a more narrow geographic focus, this study can capture the inflow of dollars into the community immediately surrounding the Theatre. As many of the patrons and employees live outside this region, a visit to the Theatre increases spending in the local community that might have otherwise been spent elsewhere in the greater New Jersey area.

3 Total patron population: 6,448; Total patrons contacted: 2,830; Total patron responses: 215.
Total employee population: 225; Total employees contacted: 220; Total employee responses: 142.
The total population of this geographic area (as estimated by the 2000 census) is 562,038 people. The top ten largest cities included are:

<table>
<thead>
<tr>
<th>CITY</th>
<th>COUNTY</th>
<th>POPULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRVINGTON</td>
<td>ESSEX</td>
<td>60,727</td>
</tr>
<tr>
<td>UNION</td>
<td>UNION</td>
<td>50,766</td>
</tr>
<tr>
<td>MORRISTOWN/MORRIS TOWNSHIP</td>
<td>MORRIS</td>
<td>43,409</td>
</tr>
<tr>
<td>PARSIPPANY</td>
<td>MORRIS</td>
<td>27,616</td>
</tr>
<tr>
<td>LIVINGSTON</td>
<td>ESSEX</td>
<td>27,264</td>
</tr>
<tr>
<td>BASKING RIDGE</td>
<td>SOMERSET</td>
<td>24,600</td>
</tr>
<tr>
<td>MAPLEWOOD</td>
<td>ESSEX</td>
<td>23,829</td>
</tr>
<tr>
<td>SUMMIT</td>
<td>UNION</td>
<td>17,803</td>
</tr>
<tr>
<td>HILLSIDE</td>
<td>UNION</td>
<td>27,204</td>
</tr>
<tr>
<td>MONTVILLE</td>
<td>MORRIS</td>
<td>20,839</td>
</tr>
</tbody>
</table>
Please refer to Appendix 2 for a complete list of all cities included in this geographic area of this study.

All survey respondents were asked to report the zip code of their home residence. 43% reported that they lived within the area of the study. This is very similar to the total Theatre patron population. In 2010, 45% of Theatre patrons reported that they lived within the Madison area of the study and 55% lived outside.³

**Comparison of Theatre Patrons' Location in Relation to the Madison Area**

(Based on Zip Code Data)

Data Analysis

Any significant outliers were removed from the data set obtained from the online survey. The remaining expenditures were summed and averaged across each spending category. This average was then applied across each population segment to calculate the total economic impact from patrons, employees, and SPTP participants.

Patron Spending

Patron spending is perhaps the most variable of constituent spending categories connected to the Theatre. In contrast to relatively consistent spending by Theatre staff, artists and SPTP participants, patrons spend on a whim, depending on the show they attend and with whom they attend it with. It is thus difficult for patrons to remember their exact spending, and equally difficult for that number to be measured in a way that applies to all patrons of a similar category. For these reasons, survey respondents were asked to select from different ranges of spending and questions were worded to assist their recall of these amounts. The total spending number was then calculated as a range, based on the total of low, mid and high points of spending ranges

³This was calculated using zip code data from 5,157 patron households that purchased tickets in 2010
selected by respondents. Providing a range allows a more accurate account of spending than a single number derived from patron attempts to exactly recall their expenditures.

Each spending range was divided into a high, mid, and low point. For example, a patron that selected the $15-$30 dining category was assigned a low point of $15, a mid-point of $22 and a high point of $29. Though the sixth option in each spending category included a lower bound only, an upper bound of the same interval as the other five categories was imposed to ensure that those selections could be quantified. As a result, patron spending may be larger than indicated in this study for respondents that selected the sixth spending option.

All spending categories were summed to find the total spending per visit, per patron respondent. These results were then averaged across all survey respondents in each patron category. To determine total annual patron spending, this per-visit average spending was multiplied by the total number of tickets sold in 2010 for category, i.e. single tickets; complete works; four-play, and five-play packs; and flex passes.\footnote{The average expenditures reported by each respondent were assumed to be consistent across all visits. The economic impact calculated for patron spending in this study could be higher than actual if a patron who attended multiple shows did not spend the reported amount at every visit.}

Staff/Artist Spending

Staff expenditures on housing (rent and utilities) were based on actual responses of dollar amounts, and were only included in the economic impact calculation if:

- The respondent had indicated “Yes” to question 1.5 “Did you relocate to the Madison Area (within a 20 minute drive of Madison) specifically to work for the Theatre?”; and

- The respondents reported a zip code that corresponded with the defined geographic area of study (see Appendix 2 for a specific list of cities included).

This ensures that no spending is included which cannot be directly attributed to a staff member's employment at the Theatre or is not within the defined geographical area of the study.

Institutional Spending

All data on institutional spending was directly provided by the Theatre and included the vendor name, city, state, type of purchase, and amount. Based on the city and state, each expenditure was determined to be inside or outside our defined region of study. Total expenditures to vendors outside the Madison Area (and outside New Jersey) were calculated for comparison purposes, but have not been included in the final institutional spending figure or the total economic impact calculation for the Theatre. Madison area expenditures were split into general categories based on the type of purchase.
Educational Spending

Data on educational spending comes from surveys distributed to participants in the Summer Professional Training Program, and does not include data connected to the other education programs offered by the Theatre in Madison, such as student matinees, Shakespearience: NJ or the Jr/Sr corps summer camps.

Multipliers

The Regional Input-Output Modeling System (RIMS) II developed by the Bureau of Economic Analysis measures the economic "ripple" effect of economic activity within a particular industry and region\(^5\). The additional indirect economic spending generated by a given amount of expenditures is expressed as a multiple of the original amount. For example, the Theatre purchases goods and services from a variety of vendors, whom in turn spend additional amounts within the economy. A multiplier of 1.7\(x\) indicates that for every dollar spent, an additional $0.70 was spent elsewhere in the economy as a result of the initial purchase.

Using data from this model, a 2007 ArtPride study on the economic impact of the nonprofit arts industry in New Jersey cited a multiplier of 1.77\(x\) for visitor spending and 2.45\(x\) for operating expenditures in the region\(^6\). A report by the Alliance for the Arts discloses an overall multiplier of 1.77\(x\) for the arts industry in New York City and 1.98\(x\) for the arts industry in New York State in 2006\(^7\). There is a general multiplier range within these studies of 1.7\(x\) to 2.5\(x\).

This study focuses on the economic impact of the Theatre within the Madison Area as defined above, not on the entire state of New Jersey. Due to the fact that this survey focuses on a small region, we have applied the low end of the range (1.7\(x\)) to the total spending figures, resulting in a conservative estimate of the indirect spending effects.

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\(^5\) https://www.bea.gov/regional/rims/.
\(^7\) "Arts as an Industry: Their Economic Impact on New York City and New York State." Alliance for the Arts, 2006.
IV. Demographic Overview

Madison Area

Madison, New Jersey is located in Morris County, New Jersey (the tenth most highly populated county in the state) in the central northern region. According to the 2000 census, the city had a population of 16,530.

According to 2009 data collected from the city, Madison’s population is approximately 47.4% male and 52.6% female, with a median resident age of 34.3. This is slightly lower than the median resident age of New Jersey, which, in 2009, was 36.7 years.8 In 2009, the median household income was estimated to be $104,477, which was a distinct increase from 2000, when the median household income was approximately $82,847.

Theatre Patrons

The Theatre has demographic information for 3,316 single ticket buyer households and 1,644 households that subscribed to ticket packages in 2010.9 This household population has the following characteristics:

- Approximately 74% of single ticket buyers and 79% of subscribers are over the age of 45;
- Approximately 65% of single ticket buyers and 63% of subscribers reported annual household earnings of over $100,000; and
- Approximately 52% of the patron population is female, and 48% is male.

<table>
<thead>
<tr>
<th>2010 Patron Population by Age (Years)</th>
<th>2010 Patron Population by Annual Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 - 34</td>
<td>35 - 44</td>
</tr>
</tbody>
</table>

Approximately 55 single ticket-purchasing households and 160 subscriber households responded to the survey. This survey population has the following characteristics:

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9 Numbers taken from a Shakespeare Theatre of New Jersey TRG report pulled on April 14, 2011.
Shakespeare Theatre of New Jersey
Yale SOM Outreach Economic Impact Study

- An average household size of 2.3 individuals for single ticket buyers and 2.4 individuals for subscribers;
- Approximately 76% of single ticket buyers and 93% of subscribers are over the age of 45;
- Approximately 69% of single ticket buyers and 75% of subscribers reported annual household earnings of over $100,000; and
- Approximately 63% of the survey population is female, and 37% is male.

**2010 Patron Survey Population by Age (Years)**

<table>
<thead>
<tr>
<th>Age Bracket</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 - 34</td>
<td></td>
</tr>
<tr>
<td>35 - 44</td>
<td></td>
</tr>
<tr>
<td>45 - 54</td>
<td></td>
</tr>
<tr>
<td>55+</td>
<td></td>
</tr>
</tbody>
</table>

**2010 Patron Survey Population by Annual Income**

<table>
<thead>
<tr>
<th>Income Bracket</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; $100,000</td>
<td></td>
</tr>
<tr>
<td>$100,000+</td>
<td></td>
</tr>
</tbody>
</table>

Thus, the characteristics of our survey population appear to be quite similar to the overall patron population.

**2010 Patron Survey Population by Gender**

- Female: 63%
- Male: 37%

**2010 Patron Population by Gender**

- Female: 52%
- Male: 48%
Theatre Employees

For 2010, the Theatre reported 197 total employees (staff and artists), comprised of the following job sub-categories:

**2010 Theatre Employees**

- Overhire (Hourly Staff) 13%
- Teaching Artists 3%
- Shakespeare Live! 7%
- Full-Time 15%
- Part-Time 2%
- Seasonal Employees 7%
- Contracted Artists 53%

Our survey solicited responses from approximately 103 employees, of which 70 were contracted artists and 33 were staff members. Contracted artist respondents had worked with the Theatre for an average of 5.4 seasons and held the following positions in 2010: Director, Designer, Equity Actor or Stage Manager, Non-Equity Actor/Shakespeare LIVE! company member, and Assistant Stage Manager, among other roles. Staff member respondents had worked for the Theatre for an average of 4.8 seasons and held the following positions in 2010:

**2010 Staff Respondents**

- Full Time 82%
- Part Time 3%
- Seasonal 15%
V. Patron Spending

Within the two categories of patrons (subscribers and single ticket buyers), survey respondents were further split as follows: single ticket buyers that attend two or less shows; single ticket buyers that attend three or more shows; Complete Works, four-play or five-play subscribers; and Flex-Pass subscribers.

Breakdown of Patron Population by Surveyed Category

- Complete Works, 4 & 5 Play Subscriber (58%)
- Flex Pass Subscriber (35%)
- Single Ticket Buyer (1-2 Shows) (5%)
- Single Ticket Buyer (3+ Shows) (2%)

This split allowed us to note the differences in spending behavior across groups based on both patron type and frequency of attendance. The collected data confirms that spending behavior is in fact different, particularly among the two single ticket buyer groups.

Single ticket buyers spent an average between $26.37 and $46.29 per person per visit to the Theatre, while subscribers spent an average between $30.52 and $57.37. To calculate total spending, these averages were applied to the total number of tickets sold in 2010, which totaled 36,947.

**Total Tickets Sold in 2010**

<table>
<thead>
<tr>
<th>Single Tickets</th>
<th>Complete Works, 4 play and 5 Play Packs</th>
<th>Flex Pass</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>16,179</td>
<td>19,930</td>
<td>838</td>
<td>36,947</td>
</tr>
</tbody>
</table>
Theatre patrons spent between $1,056,049 and $1,931,651 in the Madison area in connection with visits to the Theatre in 2010.

Breaking down total average spending per person, dining establishments in the Madison Area absorbed the most spending in conjunction with a visit to the Theatre in each of the four patron categories. In addition, there was a marked difference in the spending habits between single ticket buyer groups. Those who attended three or more shows during the 2010 season spent, on average, up to 52% more on dining, alcohol and shopping per Theatre visit than those who attended two shows or less. This stark difference suggests that single ticket buyers who attend more shows are likely to spend much more in the Madison Area than those who attend less. The table below provides the average total spending per patron, using the midpoints of the spending Ranges and broken down by category.
### Mid-Point Per Visit Expenditures per Subscriber in 2010 Season

<table>
<thead>
<tr>
<th></th>
<th>Dining</th>
<th>Alcohol</th>
<th>Shopping</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Complete Works, 4 &amp; 5 Play Subscriber</strong></td>
<td>$23.68</td>
<td>$8.76</td>
<td>$10.43</td>
<td>$42.94</td>
</tr>
<tr>
<td><strong>Flex Pass Subscriber</strong></td>
<td>$37</td>
<td>$10.72</td>
<td>$12.39</td>
<td>$60.11</td>
</tr>
</tbody>
</table>

### Mid-Point Per Visit Expenditures per Single Ticket Buyer in 2010 Season

<table>
<thead>
<tr>
<th></th>
<th>Dining</th>
<th>Alcohol</th>
<th>Shopping</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Single Ticket Buyer (0-2 Shows)</strong></td>
<td>$17.40</td>
<td>$6.29</td>
<td>$5.28</td>
<td>$28.96</td>
</tr>
<tr>
<td><strong>Single Ticket Buyer (3+ Shows)</strong></td>
<td>$28</td>
<td>$10.83</td>
<td>$16.53</td>
<td>$55.97</td>
</tr>
<tr>
<td><strong>Single Ticket Average (Total)</strong></td>
<td>$20.45</td>
<td>$7.53</td>
<td>$8.35</td>
<td>$36.33</td>
</tr>
</tbody>
</table>

---

*Total spending may not be the exact sum of each spending category because significant outliers were removed from the dataset. Any patron that reported an outlier in any spending category was completely ignored for the total spending calculation. However, if they input a statistically acceptable number in any specific category, it was included in calculating the category average.*
VI. Employee Spending

The economic impact created by the Theatre’s employees comes from two different categories:

- Staff members
- Performing artists who are contracted by the Theatre

Theatre Staff

During 2010, the Theatre employed 48 administrative and production staff – 29 full-time staff members (for 25 full-time positions) and 19 part-time or seasonal staff members. 33 staff members (27 full-time and 6 part-time) responded to a survey about their spending in the Madison Area during 2010.

The average staff member has worked for the Theatre for 4 seasons. 52% (17 out of 33) currently live (or lived) in the Madison Area while working for the Theatre. Of those 17 staff living in the Madison area, 11 had relocated specifically to work for the Theatre.

Employees Living in Madison Area

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>48%</td>
<td>52%</td>
</tr>
</tbody>
</table>

Relocation of Employees Living in Madison Area

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>35%</td>
<td>65%</td>
</tr>
</tbody>
</table>

Staff Spending

The Theatre’s staff members reported estimated spending in five different categories: Housing, Transportation, Food, Shopping and Other Expenditures.
The average cost of housing and utilities for staff members who relocated to the Madison Area was $12,632 annually. This amount was averaged across all Theatre staff, resulting in an estimated annual spending figure of $3,828 in housing costs per staff member.\textsuperscript{11}

<table>
<thead>
<tr>
<th>Staff Member 2010 Spend in Madison Area</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong>\textsuperscript{12}</td>
</tr>
<tr>
<td>$16,944</td>
</tr>
</tbody>
</table>

Applying the average expenditure per staff member of $16,922 across all 48 staff, the estimated economic impact of Theatre’s staff is $813,312.

**Artist Spending**

The Theatre paid 107 artists during 2010, of which 70 responded to the online survey. The average respondent to the artist survey has worked for the Theatre for over five seasons and held a variety of roles, including director, designer, actor, stage manager, or educator.

Among all 70 respondents, only one artist permanently lives in the defined area of study, the remainder all relocate to Madison temporarily while performing in a Theatre show. Therefore, it is very likely that the economic impact created by Theatre artists would otherwise not exist in the Madison Area.

While working on a production, either housing in Madison or commutation reimbursement was provided by the Theatre for artists. Because these costs are incurred directly by the Theatre, they are reflected in the institutional spending section. Transportation reflected below accounts for additional travel costs accrued by artists while working at the Theatre (e.g. Taking the train to New York on a day off when they are being housed at the Theatre.)

<table>
<thead>
<tr>
<th>Artist 2010 Spend in Madison Area</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong>\textsuperscript{13}</td>
</tr>
<tr>
<td>$6,361</td>
</tr>
</tbody>
</table>

\textsuperscript{11} See *Methodology* for explanation of how average housing costs were calculated.

\textsuperscript{12} The total spending is not the exact sum of each category because significant outliers were removed from the dataset. Any employee that reported an outlier in any spending category was completely ignored for the total spending calculation. However if they input a statistically acceptable number in any specific category, it was included in calculating the category average.

\textsuperscript{13} *Ibid.*
As can be seen from the above breakdown, artists spend a significant amount of money on shopping and dining in the Madison Area when performing in a show.

When the estimated annual spending figure is averaged across 107 artists, the total spending figure is $680,701.

Total 2010 Employee Spending: $1,494,013
VII. Institutional Spending

In 2010, the Theatre paid vendors a total of $812,598 for providing various goods and services (excluding payroll). These expenditures encompass a wide range of products and services in the following categories:

**2010 Vendor Spending by Category**

- Conferences/Travel
- Costumes/Props/Sets/Hardware
- Facilities/Maintenance
- Insurance/Health Care
- Marketing/Advertising
- Membership/Government Fees
- Office Supplies/Admin
- Royalties/Rights
- Technology
- Ticketing/Concessions/Catering
Of the total amount, a majority was spent within New Jersey and New York:

**2010 Institutional Spending by Location**

![Pie chart showing spending distribution by location.]

- Madison Area: 40%
- Other NJ: 22%
- NY: 21%
- Other States: 17%

For illustrative purposes, this spending breaks down into the following geographic regions:

<table>
<thead>
<tr>
<th>Location</th>
<th>2010 Spending</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madison Area</td>
<td>$178,776</td>
</tr>
<tr>
<td>Other NJ</td>
<td>$329,738</td>
</tr>
<tr>
<td>NY</td>
<td>$168,482</td>
</tr>
<tr>
<td>Other States(^\text{14})</td>
<td>$135,601</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$812,598</strong></td>
</tr>
</tbody>
</table>

Overall, the Theatre paid approximately $178,776 to vendors in the Madison Area in 2010. Notably, this study focuses on institutional spending exclusively within the Madison Area as defined herein. As such, no institutional spending outside the Madison Area was included for the total institutional spending figure or total economic impact of the Theatre.

\(^\text{14}\) Includes (among others) California, Pennsylvania and Virginia.
VIII. Education

The Theatre’s education programs are an integral part of the Theatre’s success in the Madison community and beyond. With students coming to the Theatre every summer through the Summer Professional Training Program (hereafter referred to as “SPTP”), the organization manages to touch the lives of young professionals from across the country. From places as far as Flagstaff, Arizona and Waynesville, Ohio to residents of New Jersey cities like New Brunswick and Shrewsbury, the Theatre draws from a diverse audience, and in turn, those students have a strong economic impact on the Madison community during the summers in which they attend SPTP. SPTP is an intensive professional training program in all theatrical disciplines for ages 18 and up, offered each summer. Within SPTP, there are four major programs, which attract a diverse set of students from all over the United States. The programs are: The Apprentice Company, The Next Stage Ensemble, The Intern Company, and Graduate Level Internships.

Sample Demographics

The following results are based on a sample of 40 students who attended SPTP in 2010:

**Participation Breakdown in Summer Professional Training Program (SPTP)**

Students participating in the program range in age, with a majority (approximately 87%) of students ranging in age from 18 to 24 and 13% of students ranging in age from 25-34. During their time at the program, about 92% of students lived in housing provided by the Theatre, and 8% of students commuted to the Theatre from surrounding areas. This 8% may show a small percentage of students contributing to the local real estate sector through the rental of apartments or houses for the summer. The program was relatively evenly split between males and females (59% female
and 41% male). Similarly, 59% of students attending the summer program were already students enrolled in an academic program. 41% of the students attending the summer program were not students during their attendance.

### 2010 SPTP Attendees' Age Ranges

- 18-24: 13%
- 25-34: 87%

---

**SPTP Spending**

From the data gathered\(^{15}\), it can be seen that the on average approximately $32 was spent on transportation per week by students participating in the program. This includes the use of local bus services, train services, the purchase of gas in the state of New Jersey and the payment of parking or tolls in the state.

We find that SPTP participants are frequenting dining establishments within 20 minutes of Madison twice a week, on average. SPTP participants tend to spend, on average, $108 per week on dining out, $6 on other expenditures like fitness and entertainment, and $106 per week on shopping at local convenience stores, grocery stores, bookstores, and pharmacies (all within the Madison Area). Below is a breakdown of total expenditures by students participating in SPTP program during the 2010 season:

---

\(^{15}\) 40 participants
As can be seen in this breakdown, most of students’ spending goes towards dining and retail activities. The smallest amount of spending, over the season, goes towards travel. The total average expenditures per student during the summer season are about $2,524. With 71 students, the total student spending in the 2010 summer was $179,191.

Based on these results, we can see that while SPTP does have some economic impact on the Madison community at large, it has more of an indirect affect on the community through the tuition its students pay to the Theatre. While the students certainly have weekly and daily expenditures, we find that the majority of their time in the program is spent on campus. Because these students are also younger and are not employed while in SPTP, the extent to which they impact the economics of the community through expenditures on local goods and services is more limited.
IX. Conclusion

This study focuses on the Theatre’s economic impact exclusively within the Madison Area, as defined herein. Combining the spending figures for each category yields the following total spending in connection with the Theatre in the Madison Area for 2010:

<table>
<thead>
<tr>
<th>Spending Category</th>
<th>Total 2010 Spend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patron</td>
<td>$1,493,891</td>
</tr>
<tr>
<td>Employee</td>
<td>$1,494,013</td>
</tr>
<tr>
<td>Education Participant</td>
<td>$179,191</td>
</tr>
<tr>
<td>Institutional</td>
<td>$178,776</td>
</tr>
<tr>
<td>Madison Area Total</td>
<td>$3,345,871</td>
</tr>
</tbody>
</table>

To capture the indirect effects generated by this spending and estimate the total economic impact of the Theatre, a conservative multiplier of 1.7x has been applied to the total spending figure:

<table>
<thead>
<tr>
<th></th>
<th>Total 2010 Spend</th>
<th>Total 2010 Economic Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madison Area Total</td>
<td>$3,345,871</td>
<td>$5,687,981</td>
</tr>
</tbody>
</table>

Thus, the total economic impact of the Theatre within the Madison Area in 2010 amounts to approximately $5.7 million. This figure has been calculated using a variety of assumptions, as detailed further in the “Methodology” section.

For comparative purposes, this figure can be benchmarked against a similar study conducted in 2003\(^6\). While the studies differ in their geographic scope and methodology, it is worthwhile to compare for illustrative purposes some of the 2010 spending figures for the Madison Area to the 2002 spending figures for Madison outlined in that report:

As shown above, with the exception of the institutional spending category, spending in the Madison Area has increased dramatically since the prior study was conducted. Consequently, the Theatre's estimated economic impact in the Madison Area for 2010 is approximately 138% higher than the implied impact for 2002 in Madison, applying our conservative multiplier of 1.7x in both cases:

This enhanced economic impact reflects the continuing importance of the Theatre's role in both the community and economy surrounding Madison.
SHAKESPEARE THEATRE OF NEW JERSEY
Explanation of Economic Impact
A supplement to the 2010 Economic Impact Study conducted by students from The Yale School of Management

In late fall of 2010, The Shakespeare Theatre of New Jersey engaged a pro bono consulting group from the Yale School of Management to conduct a study to quantify the spending of the Theatre, as well as its audiences, artists, students and staff in conjunction with their time at the Theatre, and then calculate the effect of that spending on the economy of the greater Madison area (defined in the study as a 20 minute driving radius from Madison). This economic impact study is both rigorous and conservative, approximating a $5.7 million impact on the Madison area in 2010. This calculation is a 138% increase from a previous study calculated in 2003. This robust growth in the Theatre’s economic impact reflects the continuing importance of the Institution’s role in both the community and economy surrounding Madison, as well as the durability of that impact during a national economic downturn.

The Yale study specifically focused on the local community surrounding Madison, NJ. By selecting a more narrow geographic focus, it captures the inflow of dollars directly into the area surrounding the Theatre. Because this study does not illustrate the overall impact that the Theatre has on the economy, however, additional analysis is required to quantify that impact. This supplemental document speaks to that need by first defining the sensitivities of the Yale study, and then by extrapolating an overall impact number from several data sources.

Sensitivities of Yale Study
The $5.7 million local impact number stated in the Yale study was based on a midrange local patron spending, gleaned through surveys of both single ticket buyers and subscribers. That patron spending number was combined with the spending calculations for visiting artists, staff and students. A low range multiplier of 1.7x was applied to calculate the economic "ripple" effect generated when local businesses spend the additional income earned from transactions with the Theatre or with its constituents. Because a midrange spending number and a low range multiplier were used, this final impact number (displayed in red in the chart below) falls on the conservative end of the spectrum. The green calculations in the chart below are the top and bottom of the range of impact that The Shakespeare Theatre of New Jersey effects upon the local Madison economy. This range has a midpoint of $6.3 million.

<table>
<thead>
<tr>
<th>Multiplier Range</th>
<th>Patron Spending Range</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low ($1,056,049)</td>
</tr>
<tr>
<td>1.7x</td>
<td>$4,943,650</td>
</tr>
<tr>
<td>1.77x</td>
<td>$5,147,212</td>
</tr>
<tr>
<td>2.0x</td>
<td>$5,816,058</td>
</tr>
</tbody>
</table>

Calculation of Overall Impact: Institutional Data
Chart B.1 takes the local spending data gathered for the Yale study and compares it to state and overall spending numbers extrapolated from the Theatre’s budget and additional patron data, in order to estimate the Theatre’s overall economic impact in 2010. Multiplying these extrapolated spending numbers against a range of multipliers, a midpoint total impact number of $9.5 million can be deduced.
# SHAKESPEARE THEATRE OF NEW JERSEY

**Explanation of Economic Impact**

*A supplement to the 2010 Economic Impact Study conducted by students from The Yale School of Management*

## Chart B.1

<table>
<thead>
<tr>
<th>Spending Type</th>
<th>Patrons</th>
<th>Artists</th>
<th>Staff</th>
<th>Institutional 2</th>
<th>Educational</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madison Area</td>
<td>$1,493,891</td>
<td>$680,701</td>
<td>$813,312</td>
<td>$178,776</td>
<td>$179,191</td>
<td>$3,345,871</td>
</tr>
<tr>
<td>New Jersey</td>
<td>$100,200^2</td>
<td>None</td>
<td>$936,583^3</td>
<td>$508,514</td>
<td>None</td>
<td>$1,545,297</td>
</tr>
<tr>
<td>Overall</td>
<td>$1,594,091</td>
<td>$680,701</td>
<td>$1,204,178^4</td>
<td>$973,853</td>
<td>$179,191</td>
<td>$4,632,014</td>
</tr>
<tr>
<td>Spending Range</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1.7x)</td>
<td>$2,709,955</td>
<td>$1,157,192</td>
<td>$2,047,102</td>
<td>$1,655,550</td>
<td>$304,625</td>
<td>$7,874,423</td>
</tr>
<tr>
<td>(1.77x)</td>
<td>$2,821,541</td>
<td>$1,204,841</td>
<td>$2,131,394</td>
<td>$1,723,720</td>
<td>$317,168</td>
<td>$8,198,664</td>
</tr>
<tr>
<td>(2x)</td>
<td>$3,188,182</td>
<td>$1,361,402</td>
<td>$2,408,355</td>
<td>$1,947,706</td>
<td>$358,382</td>
<td>$9,264,027</td>
</tr>
<tr>
<td>(2.4x)</td>
<td>$3,825,818</td>
<td>$1,633,682</td>
<td>$2,890,026</td>
<td>$2,337,247</td>
<td>$430,058</td>
<td>$11,116,832</td>
</tr>
</tbody>
</table>

^1 Does NOT include spending within the defined Madison area
^2 Dollars spent outside of the Madison area, by patrons, in conjunction with a performance.
^3 70% of Staff salaries
^4 90% of Staff salaries
^5 All Institutional numbers came from the Theatre's financial statements

### Calculation of Overall Impact: Arts & Economic Prosperity Calculator

For comparative purposes, the above figures can be benchmarked against an impact number estimated with the Arts & Economic Prosperity Calculator, designed by Americans for the Arts. This analysis tool is based on research findings from the 156 communities and regions that were part of *Arts & Economic Prosperity III*, Americans for the Arts' national economic impact study of nonprofit arts and culture organizations, produced in 2007. The calculator uses averages of similarly populated communities to produce an overall spending number that combines institutional spending and patron spending. Using this calculator, The Shakespeare Theatre of New Jersey has a $4,630,762 spending number, which does not include staff, artist or student spending.

## Chart B.2

<table>
<thead>
<tr>
<th>Multiplier Range</th>
<th>Arts &amp; Economic Prosperity Calculator Spending figure ($4,630,762)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.7x</td>
<td>$7,872,295</td>
</tr>
<tr>
<td>1.77x</td>
<td>$8,196,448</td>
</tr>
<tr>
<td>2.0x</td>
<td>$9,261,524</td>
</tr>
<tr>
<td>2.4x</td>
<td>$11,113,828</td>
</tr>
</tbody>
</table>

### Conclusion

By comparing the $4.6 million spending figure in Chart B.2 to the equivalent spending figure from Chart B.1 (Patron overall spending + Institutional overall spending = $2.6 million) it is clear that the impact indicated in Chart B1 is extremely conservative. If the Arts & Economic Prosperity Calculator was accounting for Artist, Staff and Educational spending, the impact calculations would be much greater. **Therefore, an overall economic impact range of $7.9 -$11 million, with a midpoint of $9.5 million is both credible and conservative.**