



## The Economic Impact of the Picasso Exhibit in the Richmond Region and in Virginia

Combining the impact of exhibit staging and visitor spending, the Picasso Exhibit at the Virginia Museum of Fine Arts is estimated to have generated an economic impact of \$26.6 million in the Greater Richmond region and a combined total of nearly \$30.0 million in Virginia.

Prepared  
for

Bob Tarren  
Director of Marketing  
Virginia Museum of Fine Arts  
200 N Boulevard  
Richmond, VA 23220  
(804)204-2721  
bob.tarren@vmfa.museum

### Richmond, Virginia

1309 East Cary Street  
Richmond, Virginia 23219  
804.649.1107 (phone)  
804.644.2828 (fax)

### Cleveland, Ohio

1025 East Huron Road  
Cleveland, Ohio 44115  
216.357.4730 (phone)  
216.357.4730 (fax)

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# 1. Executive Summary

The Picasso Exhibit at the Virginia Museum of Fine Arts (VMFA) generated a sizable economic impact in the Greater Richmond region and the Commonwealth of Virginia (Table 1).<sup>1</sup> The total economic impact is estimated to be \$26.6 million in the Greater Richmond region and \$28.9 million in Virginia. Some of the economic impact results from money spent to stage the exhibit while a portion comes from visitor spending in the Greater Richmond region and in Virginia. The Picasso Exhibit impact supported an estimated 297 jobs in the Greater Richmond region and 329 jobs in Virginia. State and local governments also benefited from one million dollars of tax revenue from the exhibit.

**Table 1: VMFA Picasso Exhibit Impact Summary**

|                   |            | Direct Impact<br>(\$Million) | Total Impact<br>(\$Million) | Local Tax<br>Revenue (\$) | State Tax<br>Revenue (\$) | Total Tax<br>Revenue (\$) |
|-------------------|------------|------------------------------|-----------------------------|---------------------------|---------------------------|---------------------------|
| Richmond Region   | Spending   | \$15.0                       | \$26.6                      | \$244,212                 |                           |                           |
|                   | Employment | 210                          | 297                         |                           |                           |                           |
| State of Virginia | Spending   | \$16.4                       | \$28.9                      | \$258,208                 | \$743,245                 | \$1,001,452               |
|                   | Employment | 229                          | 329                         |                           |                           |                           |

Source: Chmura Economics & Analytics

# 2. Introduction

The Virginia Museum of Fine Arts staged a landmark exhibit from February 19 to May 15, 2011--*Picasso: Masterpieces from the Musée National Picasso, Paris*.<sup>2</sup> VMFA is one of only three art museums in the United States to be included in the seven-city, world-wide tour, and the only east coast location in the nation.<sup>3</sup> Drawn from the collection of the *Musée National Picasso* in Paris, the largest and most significant repository of the artist's work in the world, this exhibition represents works produced during every major artistic period of Pablo Picasso's eight-decade career. The exhibit includes 176 works from Picasso's personal collection. VMFA Director Alex Nyerges has called the exhibit "without a doubt a once-in-a-lifetime opportunity for the American public."<sup>4</sup>

An exhibit of such importance attracted museum goers throughout the east coast of the United States and provided a boost for the economy in the Richmond region and the Commonwealth of Virginia.<sup>5</sup> Throughout the duration of the exhibit, for example, hotels and restaurants in Richmond reported increased sales.<sup>6</sup>

<sup>1</sup> In this study, the Richmond region (or Greater Richmond region) is defined as the following cities and counties: the City of Richmond and the counties of Henrico, Chesterfield, Hanover, and New Kent.

<sup>2</sup> This will be referred to as the Picasso Exhibit in this study.

<sup>3</sup> The other two U.S. locations are San Francisco and Seattle. Source: VMFA.

<sup>4</sup> Source: VMFA. Available at <http://www.vmfa.state.va.us/Picasso/>.

<sup>5</sup> VMFA desires to demonstrate to its trustees, corporate sponsors, state legislators, and the public that staging such a major exhibit has generated economic benefits to the state and the region; to this end, Chmura Economics & Analytics (Chmura) was contracted to perform an analysis of the economic impact of the Picasso Exhibit.

<sup>6</sup> For an example of such anecdotal evidences, please see the *Richmond Times-Dispatch* article: <http://www2.timesdispatch.com/news/2011/mar/19/2/tdmain01-picture-of-success-picasso-exhibit-is-bre-ar-915095/>

The economic impact of the Picasso Exhibit comes from the following two sources:

- **The impact of staging the exhibit** - From 2010 to 2011, VMFA spent \$4.8 million to bring the exhibit to Richmond. The cost includes items such as marketing, shipping and insuring the artwork, and added visitor services and security. VMFA also received pro-bona services from local and national businesses.
- **The impact of visitor spending** - The Picasso Exhibit attracted over two hundred thousand visitors to the city of Richmond. Those visitors spent a significant amount of money in the Richmond region and Virginia, benefiting local businesses.

The above two components constitute the direct economic impact of the Picasso Exhibit in the Richmond region and Virginia. The total economic impact of the exhibit also includes the economic ripple effects from the direct impact. Ripple effects, categorized as indirect and induced (see Appendix 1 for definitions), measure the secondary benefits generated by the Picasso Exhibit in the region and the state. These effects include the benefits for Virginia businesses supporting the Picasso Exhibit and visitors' spending. The indirect and induced effects are estimated with IMPLAN Pro<sup>7</sup> software after the direct impact is determined.

VMFA provided data regarding the spending to stage the event. VMFA also provided the total number of attendants to the Picasso Exhibit. In addition, Chmura Economics & Analytics (Chmura) conducted an intercept survey in April and May to collect information such as visitor's spending patterns.

### 3. Economic Impact of Staging the Exhibit

The total cost of staging the Picasso Exhibit in Richmond was \$4.8 million (Table 2). This spending occurred in 2010 to prepare for the exhibition and in the first half of 2011 during the exhibition. The entire budget was not spent in the Richmond region or Virginia. For example, some of the exhibition division costs were paid to *Musée National Picasso* in Paris, which did not generate economic impacts in the Richmond region or in Virginia. However, other spending such as visitor services, security, and education benefited Virginia. For example, it is assumed that 23.5% of marketing was spent outside Virginia and 44.7% was spent outside the Richmond region.<sup>8</sup> Based on information from VMFA, it is estimated that \$1.8 million of the event budget was spent in Virginia including \$1.6 million in the Richmond region. In addition, the Picasso Exhibit also received pro-bona services from several marketing firms and media outlets in Richmond and nationally. The value of those services, though not part of the official event budget, also generated economic impact in the Richmond region and Virginia. For that reason, it is included in the economic impact of staging the exhibit. The total value of those services was \$0.7 million. VMFA also spent \$91,000 in a membership campaign prior to the exhibit.<sup>9</sup>

<sup>7</sup> *IMPLAN Professional* is an economic impact assessment modeling system developed by Minnesota IMPLAN Group that is often used by economists to build models that estimate the impact of economic changes on local economies.

<sup>8</sup> Source: VMFA

<sup>9</sup> This amount is outside of the \$4.8 million budget for the Picasso Exhibit. It is assumed that half of this amount was spent outside of Virginia. The final breakout will be available at a later date.

**Table 2: VMFA Picasso Exhibit Budget**

|                      | Amount             |
|----------------------|--------------------|
| Design               | \$85,000           |
| Exhibitions Division | \$3,404,000        |
| Registration         | \$145,000          |
| Security             | \$230,000          |
| Visitor Services     | \$43,000           |
| Publications         | \$28,000           |
| Marketing            | \$750,000          |
| Education Statewide  | \$75,000           |
| <b>Total</b>         | <b>\$4,760,000</b> |

Source: VMFA

Table 3 presents the economic impact of staging the exhibit in the Richmond region and Virginia. It is estimated that the spending activities to stage and manage the exhibit generated a total economic impact (including direct, indirect, and induced effects) of \$4.1 million, supporting 36 jobs in the Richmond region. Among these impacts, \$2.3 million is the direct spending in the Richmond region to stage the exhibit. The indirect impact is estimated to have totaled \$0.8 million, which supported six jobs. The induced impact in the region to stage the event is estimated to have been \$0.9 million with eight jobs in the Richmond region, concentrated in consumer service-related industries.

**Table 3: Economic Impact of Event Staging in Richmond Region and Virginia**

|                   |                      | Direct | Indirect | Induced | Total |
|-------------------|----------------------|--------|----------|---------|-------|
| Richmond Region   | Spending (\$Million) | \$2.3  | \$0.8    | \$1.0   | \$4.1 |
|                   | Employment           | 22     | 6        | 8       | 36    |
| State of Virginia | Spending (\$Million) | \$2.5  | \$0.9    | \$1.0   | \$4.4 |
|                   | Employment           | 25     | 6        | 8       | 39    |

Source: Chmura Economics & Analytics and IMPLAN Pro 2009

The economic impact of staging the exhibit in Virginia was larger than that in the Richmond region as businesses outside the Richmond region also benefited from the spending activities. The total economic impact (including direct, indirect, and induced effects) was an estimated \$4.4 million in Virginia, supporting 39 jobs in the state.

## 4. Economic Impact of Visitor Spending

The Picasso Exhibit, a “once-in-a-lifetime” event for museum-goers, attracted a large number of art lovers. These visitors spent a considerable amount in the Richmond region and state, benefiting those economies.

To estimate the economic impact of visitor spending, two key numbers are needed—the number of visitors and the average spending per visitor during their time in the Richmond region and Virginia. The total number of attendants



to the Picasso Exhibit was 230,373.<sup>10</sup> The average spending per visitor was estimated through an intercept survey conducted by Chmura at VMFA during April and May.<sup>11</sup>

The Chmura survey found that 85.1% of all the attendants to the Picasso Exhibit made a daytrip to the exhibit while 14.9% stayed overnight. Considering that over 85% of the visitors came from within the state of Virginia, it is not surprising that the majority of the visitors made a daytrip to the VMFA. The Chmura survey also found that 94.4% of the visitors said viewing the Picasso Exhibit was their primary reason to come to Richmond, while 5.6% said viewing the Picasso Exhibit was not the primary purpose of their trip. For those whose primary trip motivator was the Picasso Exhibit, all of their spending in the Richmond region and Virginia were counted as direct economic impact attributable to the Picasso Exhibit. For those whose primary trip motivator was not the Picasso Exhibit, only a portion of their spending in the Richmond region and in Virginia was counted as direct impact from the Exhibit.<sup>12</sup>

Average spending of visitors to the Richmond region and Virginia was obtained from the Chmura survey. It is estimated that the average visitor to the Picasso Exhibit spent \$50.20 in the Richmond region and \$55.50 in Virginia.<sup>13</sup> As a result, the total direct visitor spending attributable to the Picasso Exhibit was \$11.6 million in the Richmond region and \$12.8 million in the Commonwealth of Virginia. The total spending was distributed among food, lodging, transportation, and retail categories.<sup>14</sup>

In addition to the visitor spending captured by the intercept survey, VMFA membership grew markedly. During the first five months of 2011, the museum experienced a surge of membership applications, which is likely attributed to the Picasso Exhibit. Data from VMFA showed new members from January to mid-May brought in \$1.1 million membership fees.

Direct visitor spending also generates ripple economic impacts throughout the region and the state. The total economic impacts (direct, indirect, and induced) of the spending by visitors to the Picasso Exhibit are estimated to have been \$22.5 million in the Richmond region, which can support 261 jobs (Table 4). Of this impact, direct visitor spending in the Richmond region is estimated to have been \$12.7 million, supporting 188 jobs, mostly in the region’s tourism businesses such as hotels, restaurants, and retail establishments. The indirect impact is estimated to have been \$4.6 million that can support 32 jobs in the region. The indirect impact benefits other businesses within the region such as suppliers that support the tourism industry. The induced impact is estimated to have been \$5.2 million and 41 jobs in the region.

**Table 4: Economic Impact of Visitor Spending in Richmond Region and Virginia**

|                   |                      | Direct | Indirect | Induced | Total  |
|-------------------|----------------------|--------|----------|---------|--------|
| Richmond Region   | Spending (\$Million) | \$12.7 | \$4.6    | \$5.2   | \$22.5 |
|                   | Employment           | 188    | 32       | 41      | 261    |
| State of Virginia | Spending (\$Million) | \$13.9 | \$4.9    | \$5.7   | \$24.5 |
|                   | Employment           | 204    | 37       | 49      | 291    |

Source: Chmura Economics & Analytics and IMPLAN Pro 2009

<sup>10</sup> Source: VMFA.

<sup>11</sup> Please see Appendix 2 for the detailed survey report.

<sup>12</sup> For example, about one-third of their Virginia spending is counted as direct impact spending, based on the total number of days they spent in Virginia.

<sup>13</sup> These figures do not match those reported in the survey report because these figures are a weighted average of spending from visitors whose primary purpose was visiting the exhibit and partial spending from visitors traveling for other reasons.

<sup>14</sup> Please see Appendix 2 for detailed spending patterns.

The economic impact of Picasso Exhibit visitor spending in Virginia was larger than that in the Richmond region as businesses outside the region also benefited from visitor spending. It is estimated that visitors to the Picasso Exhibit spent a total of \$13.9 million in Virginia which supported 204 jobs in the state. The direct spending generated total economic impacts (including direct, indirect, and induced effects) of \$24.5 million, supporting 291 jobs in the state.

## 5. Fiscal Impact of the Picasso Exhibit

The Picasso Exhibit also generated sizable tax revenue for the local and state governments. Chmura estimated the following three major taxes for the state: sales, individual income, and corporate income. Estimates for local taxes include sales, meal, lodging, admission, and business, professional and occupational license (BPOL) taxes. In order to be conservative, only tax revenue from the direct impact is estimated.<sup>15</sup>

### 5.1 Fiscal Impact of Staging the Exhibit

For spending related to the exhibit staging, individual and corporate income taxes are estimated to have been \$34,671 and \$27,690, respectively, for a total of \$62,361 for the state government (Table 5).<sup>16</sup> Local governments in the region could collect \$4,232 in BPOL taxes from money spent to put the exhibit together while local governments in Virginia could collect \$4,809.<sup>17</sup>

**Table 5: Tax Revenue from Exhibit Staging**

|                       | Local Governments<br>Richmond | Local<br>Governments<br>in Virginia | State of<br>Virginia | Total State/Local Tax<br>Revenues |
|-----------------------|-------------------------------|-------------------------------------|----------------------|-----------------------------------|
| BPOL                  | \$4,232                       | \$4,809                             |                      | \$4,809                           |
| Income Tax-Individual |                               |                                     | \$35,349             | \$35,349                          |
| Income Tax-Corporate  |                               |                                     | \$28,185             | \$28,185                          |
| <b>Total</b>          | <b>\$4,232</b>                | <b>\$4,809</b>                      | <b>\$63,534</b>      | <b>\$68,343</b>                   |

Source: Chmura Economics & Analytics

### 5.2 Fiscal Impact from Visitor Spending

The spending by visitors to the Picasso Exhibit also generated significant tax revenue for state and local governments. Regional and state average tax rates on meal, lodging, admission, and BPOL taxes are used to estimate the tax benefits to local governments.

To calculate sales tax revenue for state and local governments, Chmura applied the sales tax rates for retail, food services, and lodging sales. The visitor spending generated an estimated \$68,607 in sales tax for the local governments in the Richmond region and \$70,957 for all local governments in the state. State government is expected to have received \$283,829 in sales tax revenue from visitor spending.

<sup>15</sup> This approach is recommended by Burchell and Listokin in *The Fiscal Impact Handbook*.

<sup>16</sup> The following tax rate assumptions are used: state individual income tax of 5.0% and state corporate income tax of 6.0%.

Source: Virginia Tax Department.

<sup>17</sup> The \$4,809 figure includes the \$4,232 in taxes paid to Richmond region governments.

**Table 6: Tax Revenue from Visitor Spending**

|                       | Local Governments<br>Richmond Region | Local Governments<br>in Virginia | State of Virginia | Total State/Local Tax<br>Revenues |
|-----------------------|--------------------------------------|----------------------------------|-------------------|-----------------------------------|
| Local Sales Tax       | \$68,607                             | \$70,957                         | \$283,829         | \$354,786                         |
| Meal Tax              | \$87,741                             | \$90,646                         |                   | \$90,646                          |
| Lodging Tax           | \$45,248                             | \$51,725                         |                   | \$51,725                          |
| Admission Tax         | \$25,535                             | \$26,870                         |                   | \$26,870                          |
| BPOL                  | \$12,849                             | \$13,201                         |                   | \$13,201                          |
| Income Tax-Individual |                                      |                                  | \$281,756         | \$281,756                         |
| Income Tax-Corporate  |                                      |                                  | \$114,126         | \$114,126                         |
| <b>Total</b>          | <b>\$239,980</b>                     | <b>\$253,399</b>                 | <b>\$679,711</b>  | <b>\$933,110</b>                  |

Source: Chmura Economics & Analytics

The average meal tax rate is 2.1% for the Richmond region and 2.3% for the state. Applying these rates to estimated food spending in the Richmond region and Virginia, the total meal tax revenue for local governments in the Richmond region is estimated to have been \$87,741. Statewide, the total meal tax for all local governments could reach \$90,646.

The average lodging tax rate for the Richmond region is 7.9%. As a result, the total lodging tax revenue for local governments in the Richmond region is estimated to have been \$45,248. The average statewide lodging tax rate is 7.1%, and the total lodging tax for all local governments in state is estimated to have been \$51,725.

Though the museum did not collect admission tax for ticket sales to the Picasso Exhibit, some museum visitors attended other entertainment events while in the region, which could result in additional admission tax for local governments. As a result, the admission tax rate was applied to the entertainment spending minus ticket sales at VMFA. The total admission tax revenue for all local governments in the Richmond region is estimated to have been \$25,535. Statewide, the total admission tax for all local governments in the state is estimated to have been \$26,870.

BPOL taxes were estimated in a similar fashion. The BPOL tax revenue from visitor spending is estimated to have been \$12,849 for local governments in the Richmond region and \$13,201 for all local governments in Virginia.

The state government also benefited from individual income taxes as a result of new jobs created by visitor spending. The individual income tax is estimated to have been \$281,756. In addition, corporate income tax for state governments is estimated to have been \$114,126.

Together, the visitor spending could contribute \$239,980 to local governments in the Richmond region, \$253,399 to all local governments in Virginia, and \$679,711 to state government.

## Appendix 1: Impact Study Glossary

*IMPLAN Professional* is an economic impact assessment modeling system. It allows the user to build economic models to estimate the impact of economic changes in states, counties, or communities. It was created in the 1970s by the Forestry Service and is widely used by economists to estimate the impact of specific event on the overall economy.

*Input-Out Analysis*—an examination of business-business and business-consumer economic relationships capturing all monetary transactions in a given period, allowing one to calculate the effects of a change in an economic activity on the entire economy (impact analysis).

*Direct Impact*—economic activity generated by a project or operation. For construction, this represents activity of the contractor; for operations, this represents activity by tenants of the property.

*Overhead*—construction inputs not provided by the contractor.

*Indirect Impact*—secondary economic activity that is generated by a project or operation. An example might be a new office building generating demand for parking garages.

*Induced (Household) Impact*—economic activity generated by household income resulting from the direct and indirect impact.

*Multiplier*—the cumulative impacts of a unit change in economic activity on the entire economy.

## Appendix 2: Survey Detailed Report

### A2.1. Methodology

Between April 29 and May 7, intercept interviews were conducted at the Virginia Museum of Fine Arts (VMFA). Museum attendees who visited the Picasso Exhibit were asked questions about their spending related to their museum visit. Four hundred and five surveys were collected with one removed due to insufficient replies on key questions. The usable sample of 404 surveys is associated with a maximum statistical error of  $\pm 4.9\%$  at the 95% level of confidence. Results pertaining only to a subset of the entire sample will be associated with a larger maximum error.

All results presented below are based on a weighted sample of the survey results so that the sample closely matches ticket sales in terms of museum visit timing. Since visitors on weekends can have different characteristics of weekday visitors, the sample was weighted so that the mix in the sample matches the mix of ticket sales in the mix of weekday and weekend visits. Likewise, visitors in the morning can have different characteristics of visitors from later in the day; so the mix of respondents by time of day was weighted to approximately equal the mix of ticket sales by day.<sup>18</sup>

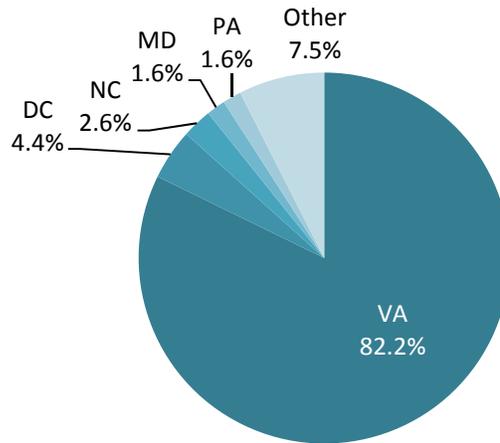
### A2.2. Demographics

The weighted survey sample includes 82.2% residents of Virginia with the next-most frequent places of residence being the District of Columbia (4.4%), North Carolina (2.6%), Maryland (1.6%), and Pennsylvania (1.6%). Taking into account the different sizes of the traveling parties from each region, survey results provide an estimate that 85.1% of the visitors to the Picasso Exhibit were residents of Virginia. This result is fairly close to ticket sales provided by the Museum as of May 11 showing that 88.1% of tickets to the Picasso exhibit were sold within Virginia.

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<sup>18</sup> The timing issue could only be dealt with approximately because we did not have information on exactly when they visited the Picasso Exhibit.

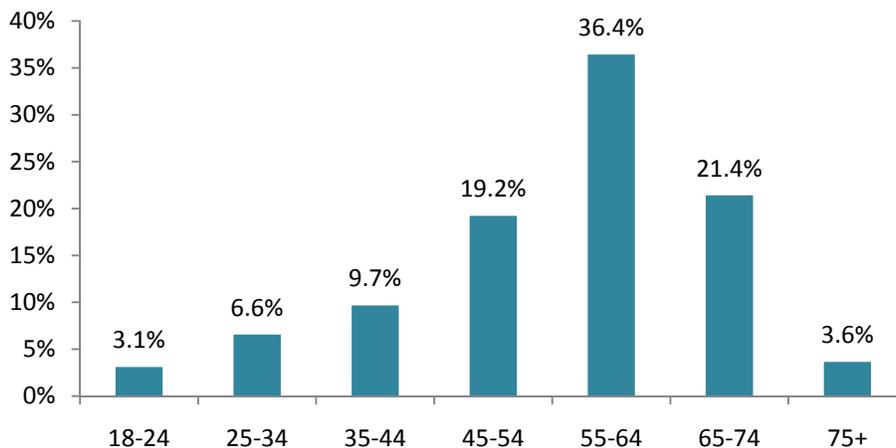
## Respondents by State



Among the Virginia respondents, most were from the Richmond metropolitan area (58.8%). The resident region of individuals was ascertained by ZIP code information provided in the survey. After Richmond, Virginia respondents were most likely from the metros of Northern Virginia (10.3%), Hampton Roads (9.9%), and Charlottesville (9.4%).

Over half of the respondents were over the age of 55, including 36.4% age 55 to 64, 21.4% age 65 to 74, and 3.6% age 75 and older. Only museum goers 18 and over were interviewed for the survey. Respondents did not give their exact age, but designated their age range. Nevertheless, given this spread of responses, it is estimated that the median age of the respondent sample was approximately 59 years. By comparison, based on data from the U.S. Census Bureau American Community Survey (2005-09), 23.4% of all residents in the Richmond metropolitan statistical area (MSA) were over 55 years old. Also, 9.7% of the survey respondents were between the ages of 18 and 35, compared with 23.2% of all Richmond MSA residents.

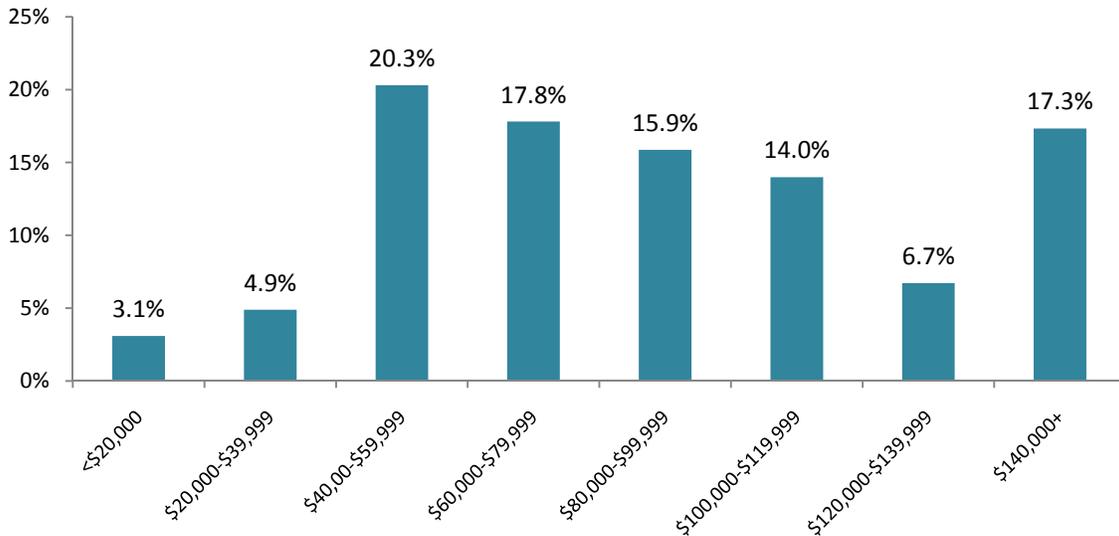
## Respondents by Age Cohort



By gender, approximately 64.3% of the respondents in the weighted sample were female and 35.7% were male.

Respondents were asked to indicate the range of their household income. Approximately 38.0% of the sample reported a household income of \$100,000 or more and 54.0% had an income from \$40,000 to \$99,999. The remaining 8.0% reported an income of less than \$40,000. Though exact incomes were not recorded, it is estimated that the median income of the weighted sample was close to \$85,000. By comparison, the median household income of the Richmond MSA was approximately \$57,382 according to the 2005-2009 American Community Survey. Though the survey did not ask questions about the education attainment of the visitors to the Picasso Exhibit, presumably, they had a higher education attainment than the population at large based on their higher household income.

### Respondents by Household Income



According to weighted results adjusted for the size of the traveling parties, 85.1% of Picasso Exhibit visitors were making the museum visit as part of a daytrip. Of out-of-state visitors, a little over two-thirds (68.8%) were on an overnight trip. This compares to 5.4% of in-state residents who had an overnight stay as part of their Picasso Exhibit trip.

#### Overnight Visitors

|           | In-State | Out-of-State | TOTAL  |
|-----------|----------|--------------|--------|
| Daytrip   | 94.6%    | 31.2%        | 85.1%  |
| Overnight | 5.4%     | 68.8%        | 14.9%  |
| TOTAL     | 100.0%   | 100.0%       | 100.0% |

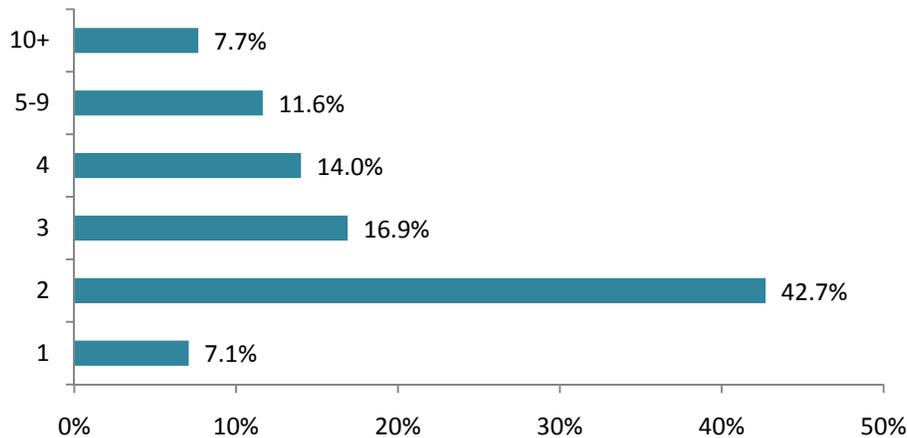
Nearly all of the respondents on a daytrip (98.6%) reported that the Picasso Exhibit was the primary motivator for their trip. For overnight visitors, about seven of every ten respondents (70.6%) said the Picasso Exhibit was the primary motivator. Looked at another way, the Picasso Exhibit was the primary motivator for 75.7% of out-of-state respondents and 97.7% of in-state respondents.

**Picasso Exhibit as Primary Trip Motivator**

|                       | Daytrip | Overnight | TOTAL  |
|-----------------------|---------|-----------|--------|
| Primary Motivator     | 98.6%   | 70.6%     | 94.4%  |
| Not Primary Motivator | 1.4%    | 29.4%     | 5.6%   |
| TOTAL                 | 100.0%  | 100.0%    | 100.0% |

For purposes of this survey, the “traveling party” was defined as a traveling group that shares expenses. By far, the most frequent traveling party among museum visitors was two people, the case among 42.7% of the respondent sample. Single visitors made up 7.1% of the sample and 30.9% of the sample consisted of a representative from a traveling party of three or four individuals.

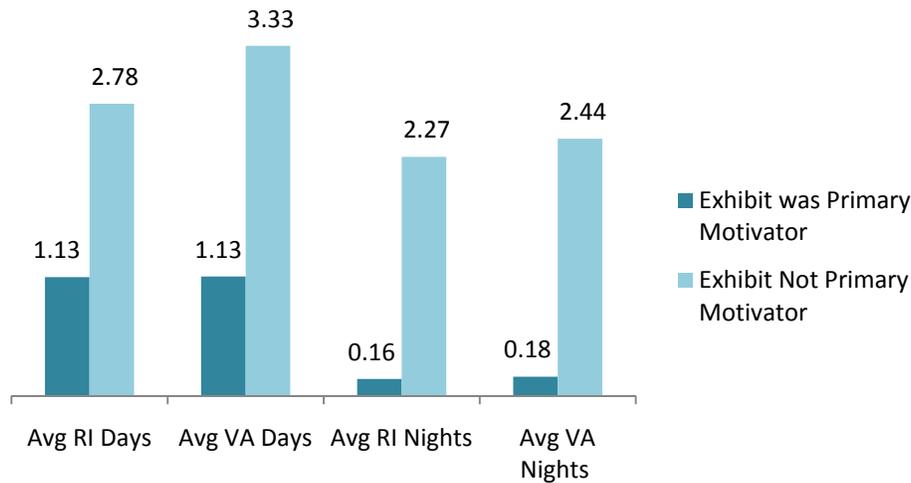
**Traveling Party Size**



Overall, the average traveling party consisted of 4.72 persons. The average size of the traveling party was considerably bigger among those whose primary motivation was visiting the exhibit (4.85) compared with those traveling primarily for other reasons (3.30). One reason for the difference is that the former group included some traveling parties with twelve or more persons, presumably individuals who were part of a group visit to the museum.

Visitors whose primary motivation for travel was visiting the Picasso Exhibit on average spent 1.13 days in Richmond and 1.13 days in Virginia during their exhibit-related trip. Though most of these visitors were on a daytrip, the average visitor primarily traveling to see the exhibit spent 0.16 nights in Richmond and 0.18 nights in Virginia. Visitors whose primary motivation was not the Picasso Exhibit, on average, were on much longer trips. These visitors spent an average 2.78 days in Richmond and 3.33 days in Virginia, also spending 2.27 nights in Richmond and 2.44 nights in Virginia.

## Average Length of Exhibit-Related Trip within Richmond and Virginia



### A2.3. Spending Patterns

Spending patterns were computed separately for the two groups of those primarily traveling to visit the Picasso Exhibit and those primarily traveling for other reasons. Spending was computed on a per-person, per-day (or per-night) basis; total spending for the trip was computed as the product of per-day (or per-night) spending times the average number of days or nights spent in the Richmond region and Virginia.

Travelers for whom the Picasso Exhibit was the primary motivation for travel spent a per-person average of \$48.37 in the Richmond region and \$52.90 in Virginia. The largest spending items were entertainment/attractions—which included the price of admission into the Picasso Exhibit<sup>19</sup>—and food/drink. These individuals were mainly on daytrips and so did not spend money on lodging; furthermore, 35% of all overnight travelers indicated spending no money on lodging. Presumably, they had arrangements other than at hotels such as staying with family or friends. (Note that some individuals purchased packages that included exhibit admissions in the cost of the hotel—these costs are presented here under the lodging category.)

Travelers for whom the Picasso Exhibit was not the primary motivation for travel spent more days in Richmond and Virginia and were more likely to stay overnight; thus, they spent much more, on average, during their trip. These travelers spent an average of \$204.82 in Richmond and \$247.51 in Virginia per person during their entire stay. The food/drink category accounted for a little over half of the spending for these individuals with lodging being the next largest component. In terms of shopping, these travelers and those who were primarily motivated by the Picasso Exhibit spent similarly per person per day, but those not primarily motivated for travel by the exhibit spent more on shopping overall due to spending more days in the Richmond region and Virginia.

<sup>19</sup> Some respondents did not indicate spending on entertainment and attractions when they should have included admissions to the Picasso Exhibit. In such cases—except Museum members who were charged no admissions and those purchasing lodging/admissions packages—a minimum of \$16 per person was assumed for this category.

**Average Spending of Picasso Exhibit Visitors, Per Person**

|                           | Exhibit was Primary Motivation | Exhibit not Primary Motivation |
|---------------------------|--------------------------------|--------------------------------|
| Richmond Spending         |                                |                                |
| Lodging                   | \$1.48                         | \$53.86                        |
| Food/Drink                | \$16.93                        | \$104.52                       |
| Transportation            | \$3.96                         | \$4.97                         |
| Shopping                  | \$9.26                         | \$23.60                        |
| Entertainment/Attractions | \$16.47                        | \$17.87                        |
| Other                     | \$0.27                         | \$0.00                         |
| <b>TOTAL</b>              | <b>\$48.37</b>                 | <b>\$204.82</b>                |
| Virginia Spending         |                                |                                |
| Lodging                   | \$1.68                         | \$57.93                        |
| Food/Drink                | \$17.00                        | \$125.25                       |
| Transportation            | \$8.10                         | \$14.61                        |
| Shopping                  | \$9.30                         | \$28.29                        |
| Entertainment/Attractions | \$16.55                        | \$21.42                        |
| Other                     | \$0.27                         | \$0.00                         |
| <b>TOTAL</b>              | <b>\$52.90</b>                 | <b>\$247.51</b>                |

The transportation spending reported here is the aggregate of two components: (1) local transportation spending, as reported directly by respondents and (2) mileage traveled in automobiles owned by the respondents for the purpose of attending the exhibit. In order to not include miles driven outside of the regions being studied for impacts (Richmond and Virginia), these regions were given mileage limits of 20 miles one-way for Richmond and 69 miles one-way for Virginia.<sup>20</sup> By these results—expressed per person, not per traveling party—the average person who was primarily motivated by the exhibit traveled 5.69 miles in Richmond (total, two-ways) and 13.81 miles in Virginia by personal automobile. The average person not primarily motivated by the exhibit traveled 9.74 miles in Richmond and 28.65 in Virginia. These mileages were converted into costs using the Internal Revenue Service (IRS) standard mileage rate for 2011 of 51 cents per mile.

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<sup>20</sup> For Virginia, 69 miles is the approximate distance from the museum to the closest border near Dahlgren. Twenty miles for Richmond is an approximate radius representing the Richmond study region.



**A2.4. Survey Instrument**

Hello. I'm \_\_\_\_\_. We are conducting a survey of visitors for the Virginia Museum of the Fine Arts. All answers are kept strictly confidential.

**SCREENER**

1. Are you at the museum today to see the Picasso Exhibit? **IF NOT, THANK & TERMINATE**
2. **(SKIP IF OBVIOUS)** We are only supposed to interview people 18 years or older. Are you 18 or older?  
**IF NO, THANK & TERMINATE**

**MAIN QUESTIONNAIRE**

3. Including yourself, how many people are in your traveling party, that is, *the group with whom you share expenses?* \_\_\_\_\_ **(IF THE # IS VERY LARGE, BE SURE THEY UNDERSTAND THE DEFINITION)**  
99 DK/REF
4. Is your visit to the museum today part of a daytrip, or will you be staying overnight?  
01 Daytrip                      **→ IF DAYTRIP, SKIP TO Q12**  
02 Overnight  
99 DK/REF

5. What is the total length of your trip in days and nights?  
\_\_\_\_\_ 01 days & \_\_\_\_\_ 02 nights      99 DK/REF
6. How many of those days will be spent in the Richmond area?<sup>21</sup>  
\_\_\_\_\_ days                      99 DK/REF      **→ IF Q5 days=Q6, SKIP TO Q8**
7. How many of those days will be spent in Virginia?  
\_\_\_\_\_ days                      99 DK/REF
8. How many nights will be spent in the Richmond area?  
\_\_\_\_\_ nights                      99 DK/REF      **→ IF Q5 NIGHTS=Q8, SKIP TO Q10**
9. How many nights will be spent in Virginia?  
\_\_\_\_\_ nights                      99 DK/REF
10. For your entire trip, how much will your party spend on lodging? **(IT IS OK IF THEY ESTIMATE. ROUND TO NEAREST DOLLAR. INCLUDE ALL COSTS ASSOCIATED WITH THE ROOM – E.G., ROOM, TAXES, INCIDENTALS, ETC. DO NOT INCLUDE MEALS CHARGED TO THE ROOM.)**  
  
01 Total    \$ \_\_\_\_\_                      **OR**      02 Per Night    \$ \_\_\_\_\_  
99 DK/REF

<sup>21</sup> "Richmond area" is Richmond City, Henrico, Hanover, Chesterfield, and New Kent.

11. Did your lodging price include a package with Picasso Exhibit admission?  
 01 YES  
 02 NO  
 99 DK/REF

**ASK EVERYONE:**

12. Was a visit to the Picasso Exhibit the primary motivator for your trip?  
 01 YES      02 NO      99 DK/REF
13. For the entire trip, how much do you estimate you will spend [on average per day] [for your entire party] for...? **(ROUND TO NEAREST DOLLAR, USE 9999 FOR DK/REF)**  
 a) Food & Drink      \$ \_\_\_\_\_  
 b) Local Transportation (e.g. car rental, taxi, gas)      \$ \_\_\_\_\_  
**→ b2) IF \$0 on local transportation, ask if they drove their own car; if yes, about how many miles both ways TOTAL for the trip:<sup>22</sup> \_\_\_\_\_**
14. [For your traveling party,] how much do you estimate you will spend in total for the entire trip for...? **(ROUND TO THE NEAREST DOLLAR, USE 9999 FOR DK/REF)**  
 a) Shopping (gifts, clothing, personal items)      \$ \_\_\_\_\_  
 b) Entertainment and attractions (museums, etc)      \$ \_\_\_\_\_  
 c) Other (any other expenses)      \$ \_\_\_\_\_
15. Are you a member of the museum (The Virginia Museum of the Fine Arts)?  
 01 YES      02 NO      99 DK/REF
16. What state do you live in? **(DO NOT READ LIST, ACCEPT ONLY ONE RESPONSE)**  
 01 \_\_\_\_\_ → What is your zip code? \_\_\_\_\_ 99999 DK/REF  
 96 If no state, specify country: \_\_\_\_\_  
 99 DK/REF
17. Which category does your age fall into? **(SHOW CARD<sup>23</sup>)**  
 01 A) 18-24      04 D) 45-54      07 G) 75+  
 02 B) 25-34      05 E) 55-64      99 DK/REF  
 03 C) 35-44      06 F) 65-74
18. Which of these categories includes your total household income before taxes last year? **(SHOW CARD)**  
 Include your own income plus all members of your household living with you.  
 01 H) Less than \$20,000      04 K) \$60,000 - \$79,999      07 N) \$120,000 - \$139,999  
 02 I) \$20,000 - \$39,999      05 L) \$80,000 - \$99,999      08 O) \$140,000+

<sup>22</sup> This is so we can estimate their gasoline expenditures (and yes, if we estimate this way, we will estimate for the total trip rather than the average per day).

<sup>23</sup> The categories for age and income will be labeled with capital letters so the respondent can indicate an answer via the letter (to lessen hesitancy to respond).

03 J) \$40,000 - \$59,999

06 M) \$100,000 - \$119,999

99 DK/REF

*Those are all the questions I have. Thank you very much for your participation!*

RECORDED BY INTERVIEWER

19. **GENDER OF RESPONDENT:** 01 Female      02 Male

20. **WHEN SURVEY WAS COMPLETED:** a) Time of day of survey: \_\_\_ : \_\_\_    01 AM   02 PM  
 b) Date \_\_\_\_\_

21. **INTERVIEWER:** \_\_\_\_\_

| AGE      | HOUSEHOLD INCOME         |
|----------|--------------------------|
| A: 18-24 | H: Less than \$20,000    |
| B: 25-34 | I: \$20,000 - \$39,999   |
| C: 35-44 | J: \$40,000 - \$59,999   |
| D: 45-54 | K: \$60,000 - \$79,999   |
| E: 55-64 | L: \$80,000 - \$99,999   |
| F: 65-74 | M: \$100,000 - \$119,999 |
| G: 75+   | N: \$120,000 - \$139,000 |
|          | O: \$140,000+            |

