



Association
of Children's
Museums

2008 Children's Museums Metrics Reports[©]

Volume 1: Museum Profile

Data in the *2008 Children's Museum Metrics Reports* (Volumes 1-6) are based on the best available information provided by ACM Members in Fall 2007.

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Introduction

Association of Children's Museums (ACM) maintains a comprehensive database of statistical information on its member museums. This ACM data can be valuable for marketing, fundraising and general museum planning. All data is compiled through ACM membership surveys. Members can access the data using three resources.

- Museum Online Directory
- Query Report Service
- *2008 Children's Museums Metrics Reports*

ACM commissioned the *2008 Children's Museums Metrics Reports* to provide aggregated data suitable for institutional benchmarking, organizational planning and reporting and trend analysis. Based primarily on survey data reported in Fall 2007 by 232 ACM member museums, the complete 100+ report collection includes charts and graphs and comprehensive data in the following volumes.

- Volume 1: Museum Profile
- Volume 2: Building & Facilities
- Volume 3: Finances & Government Relations
- Volume 4: Attendance & Memberships
- Volume 5: Exhibits, Programs & Publications
- Volume 6: Staff

A note of caution: these reports reflect a diverse field. While one institution's strategic priorities might align to produce different measurable outcomes than a peer museum, it is not an indication that one museum is more "successful" than another. What is essential is to have strategic priorities in place and measure the outcomes.

All data were tabulated by AWP Research (Herndon, Virginia), an independent research firm. ACM relies on its members to complete the survey questions in full to attain the most complete and accurate data; although every effort is made to guarantee accuracy, ACM is not responsible for errors in data content.

The *2008 Children's Museums Metrics Reports* are available as online publications only. ACM members can download report volumes as PDFs for free from the Members Only section of the ACM Web site. PDF reports are available to nonmembers for \$150 per report volume.

About ACM

Founded in 1962, ACM is an international, nonprofit membership organization that builds the capacity of children's museums to serve as town squares for children and families where play inspires creativity and lifelong learning. On behalf of its members, ACM provides training and technical assistance; collects data; establishes professional standards; promotes children's museums; and manages three leadership initiatives Good to Grow!, Diversity in Action and Playing for Keeps.

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Overview

Project Background

One of the most important activities of the Association of Children's Museums (ACM) is to provide its members with information and statistics regarding all facets of children's museums. An important tool in this process is the annual *ACM Membership Directory Survey*. In the past, the survey results were provided to ACM members in directory format. The 2008 survey results have been expanded and are provided as the *2008 Children's Museums Metrics Reports*.

Survey Sample

The survey sample is based upon the 232 member institutions that responded to the *2008 ACM Membership Directory Survey*. The overall participation rate is excellent — virtually all of the ACM membership are represented in the survey sample. However, completion rates (e.g., the number of questions completed by each respondent) is not as robust. Many respondents only partially completed the survey, which placed some constraints on the type and depth of analysis possible.

Prior to implementing the analysis, the raw data were reviewed by ACM staff for anomalous responses. When found, the data were corrected after consulting with the institution in question. In cases where updated data were not available, the response was removed from the sample to avoid substantially skewing the survey results.

While this review/revision process solved the issue of strongly anomalous responses, there were many cases where the responses did not “add up.” This is most commonly seen in the financial portion of the survey, where the values provided for expense and income subcategories often do not sum to their associated line items. This is not an uncommon situation, especially in complex surveys such as this. Affected responses were adjusted or removed on a case-by-case basis during the analysis process to ensure the results were not significantly swayed by “outliers” (i.e., responses that are markedly larger or smaller than the values present in the overall sample). Additionally, the analytical techniques were selected so as to compensate for situations where the data were not in perfect agreement.

Analytical Techniques

Overall survey results are valuable illustrations of overarching trends and issues. Given the diversity of children's museums, examining the data based solely on overall results limits the scope and value of the research to these generalized trends. To fully explore the findings and metrics, it is necessary to segment the data to explore specific segments independently.

There are many potential ways to segment statistical data such as this — institution size, location, attendance, budget, programmatic activities and several others are all viable segmentation approaches, each with specific benefits. However, selecting a segmentation plan requires pragmatism as well, since there needs to be a sufficient quantity of data in every category upon which to base reliable statistics.

Following extensive discussion and review among the ACM staff and leadership, it was determined that the single most significant and valuable segmentation approach should be based upon the museum’s financial scope — their operating budget. This criterion is the most often requested segmentation point when members request information from ACM, and is an excellent “marker” that drives virtually every facet of a museum’s operation. The specific budget categories used in this report mirror ACM museum membership categories, and are as summarized below.

Museum budget — operating income		
	Percentage of sample	n=
Less than \$250,000	18.1%	42
\$250,000 to \$499,999	15.9%	37
\$500,000 to \$999,999	12.9%	30
\$1 to \$2.9 million	21.6%	50
\$3 to \$4.9 million	6.9%	16
\$5 million and greater	8.2%	19
No response	16.4%	38

As you can see, the number of responses in the \$3 to \$4.9 million and the \$5 million and greater categories is fairly small (16 and 19 respectively). However, given the significant operational differences between museums of these sizes, it was determined that it would be more valuable to analyze them separately rather than group them into a “\$3 million or greater” category. The 38 institutions that did not specify their operating income were excluded from all analyses based on this segmentation approach.

In addition to museum budget size, attendance is also a key criterion to help put the data in perspective, and make it possible to benchmark results against a specific “peer group” of institutions. Several segmentation approaches were explored, with the following method receiving the greatest level of support among ACM key stakeholders:

Museum on-site attendance

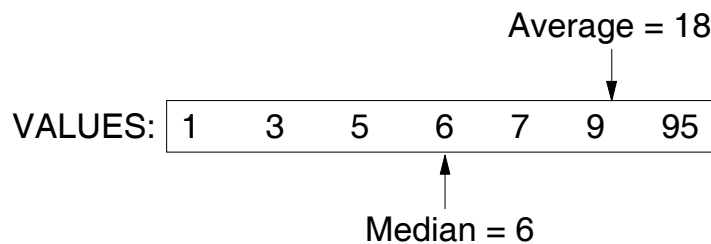
	Percentage of sample	n=
Less than 25,000	21.1%	49
25,000–49,999	17.7%	41
50,000–124,999	20.7%	48
125,000–249,999	15.9%	37
250,000 and greater	11.6%	27
No response	12.9%	30

The attendance-based segmentation is not used as extensively as the museum budget size segmentation, but is provided in many areas of the report when appropriate.

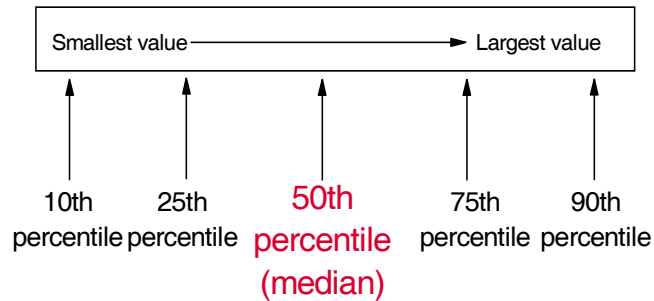
In addition to museum budget size and attendance, two other variables were used to segment the data — museum age (based upon a museum’s opening date), and museum location (using the categories of urban, suburban and rural). These two approaches are used in only a few tables in the report to illustrate specific issues/findings.

Statistical Definitions

The **average** (also called the mean) and the **median** are two summary statistics used throughout this report to describe the data collected. Though closely related, each describes a different facet of the data. The average is computed by taking the sum of all responses divided by the number of responses. The median is computed by ordering all responses, then taking the response which falls at the midpoint. As illustrated in the diagram below, the average is influenced by very large or very small numbers; the median is not. This typically makes the median a more representative indicator of the data when there are relatively small sample sizes or significant outliers.



Percentiles are a variation on the median, and are especially helpful interpretation aids. As illustrated previously, the median splits the data into two equal parts. Percentiles go one step further, splitting the data into additional parts. It is common to use either three segments (25th, 50th and 75th) or five (10th, 25th, 50th, 75th and 90th), but any number of divisions can be made.



To ensure individual data elements cannot be related to a specific respondent, a full suite of percentiles (10th, 25th, 50th, 75th and 90th) is provided only when there are at least 10 responses in the subsample. A smaller set of percentiles (25th, 50th and 75th) is provided when there are six to nine respondents in the subsample. The median is the only statistic provided when there are three to five respondents. No data are provided when there are fewer than three respondents.

Percentiles help in data interpretation by providing a snapshot overview of the full sample. For example, the following values are seen when exploring the adult admission price:

- ▶ 10th percentile = \$3.00
- ▶ 25th percentile = \$4.62
- ▶ 50th percentile (also known as the median) = \$6.00
- ▶ 75th percentile = \$7.50
- ▶ 90th percentile = \$9.00

This means that while the “typical” museum in the sample charges \$6 for an adult admission, there is a wide distribution of responses — one in ten museums charge \$3 or less, and one in ten charge \$9 or more.

This approach is used extensively throughout the report, and provides a quantitative quick overview of the data scope. More importantly, it allows you to quickly benchmark your institution against the overall sample and, in many cases, against your peer group based on operating income and/or admission.

I. Museum Profile

This volume of the report addresses the “basics” about children’s museums — where they are located, how long they have been open, admission prices and others. While these data can be used for general benchmarking purposes, their main role is to illustrate the scope and breadth of institutions that participated in the survey.

Exhibit 1.1 shows that while children’s museums comprise the great majority of the sample, other institutions are also represented, such as science/technology centers, specialized museums, history museums and so forth. Exhibit 1.2 summarizes the main segmentation variables (see the Overview section for a discussion of how and why these segments were chosen), and Exhibits 1.3 to 1.4 outline where the respondents are located.

How long an institution has been open has a definite impact on many metrics. Exhibits 1.5 to 1.7 show that the sample has a good representation of institutions of all ages, with opening dates ranging from prior to 1950 to this year. To help examine trends, the institutions are grouped into three categories — those that opened before 1990, those that opened from 1990 to 1999, and those that opened from 2000 to 2008. The “typical” museum in the sample opened its doors to the public in 1994. Not surprisingly, the largest museums are the oldest — the median opening date for those with budgets in excess of \$5 million is 1979.

Exhibits 1.8 and 1.9 explore milestone dates and pre-opening planning time. The data indicate that pre-planning time is increasing — museums that opened prior to 2000 report they spent a median of three years planning their opening. This increases to 4.4 years among museums that opened after 2000.

Urban areas are the most popular location for the museums in the sample, with nearly two-thirds characterizing their location as urban. Exhibits 1.10 to 1.11 show that the small museums (in terms of both attendance and budget) are the ones most likely to be found in rural areas. These exhibits also highlight the fact that the younger museums (those opening after 2000) are far more likely to be part of a downtown revitalization program than those opening more than a decade ago.

The museums in the sample serve all ages but, as illustrated in Exhibits 1.12 and 1.13, some age groups stand out as being more popular targets — 0 to 8 years, 0 to 10 years, and 0 to 12 years are the most commonly targeted age groups overall.

Admission pricing spans a wide range, with the median charge reported as \$6 for adults and \$5 for children and seniors. Exhibits 1.14 to 1.16 explore basic admission pricing across museum budget sizes.

Exhibit 1.1: Museum Classification

	Percentage of sample	n=
Aquarium	0.4%	1
Arboretum/Botanical Garden	0.0%	0
Art	0.9%	2
Children’s/Youth	87.1%	202
General	0.9%	2
Historic House/Site	0.0%	0
History	1.7%	4
Natural History/Anthropology	1.7%	4
Nature Center	0.0%	0
Planetarium	0.0%	0
Science/Technology	4.3%	10
Zoo	0.0%	0
Specialized	2.2%	5
Other (*)	0.9%	2
TOTAL RESPONSES		232

(*) = the “other” responses consist of:

- Natural Sciences/Education
- History, Science/Technology, Water Museum

Exhibit 1.2: Segmentation Criteria

Museum budget — operating income			Museum on-site attendance		
	Percentage of sample	n=		Percentage of sample	n=
Less than \$250,000	18.1%	42	Less than 25,000	21.1%	49
\$250,000 to \$499,999	15.9%	37	25,000–49,999	17.7%	41
\$500,000 to \$999,999	12.9%	30	50,000–124,999	20.7%	48
\$1 to \$2.9 million	21.6%	50	125,000–249,999	15.9%	37
\$3 to \$4.9 million	6.9%	16	250,000 and greater	11.6%	27
\$5 million and greater	8.2%	19	No response	12.9%	30
No response	16.4%	38			

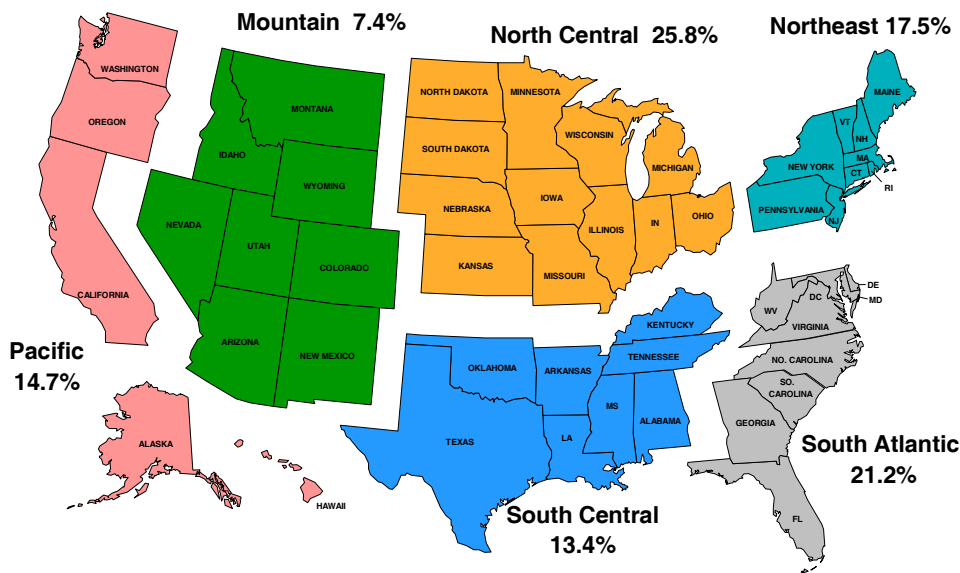
Geographic Location



North America 96.1% Canada Mexico USA	South America 0.4% Ecuador	Asia 1.2% Korea Japan Taiwan	Middle East 0.4% Jordan	Europe 1.2% The Netherlands Portugal UK	Australia 0.4% New Zealand
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Exhibit 1.3

USA Regional Breakout



USA accounts for 93.5% of the North American respondents.

- Top States:**
 California — 8.8%
 North Carolina — 7.4%
 Texas — 6.9%
 Illinois — 6.5%
 New York — 6.0%
 Florida — 5.1%

Total of 43 states (plus the District of Columbia and Puerto Rico) are represented.

Exhibit 1.4

Museum Opening Date

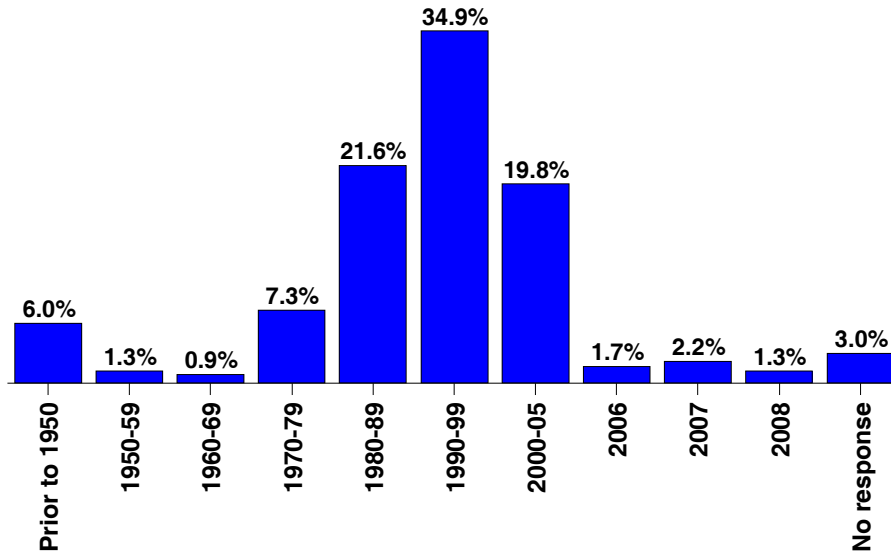


Exhibit 1.5

Exhibit 1.6: Museum Age Categories (Date of Opening)

	Percentage of sample	n=
Before 1990	37.1%	86
1990 to 1999	34.9%	81
2000 to 2008	25.0%	58
No response	3.0%	7

Exhibit 1.7: Opening Date by Museum Budget

	Percentage of sample					n=	
	10 th percentile	25 th percentile	50 th percentile (median)	75 th percentile	90 th percentile		
Overall	1973	1984	1994	2000	2004	225	
Budget (operating income)	< \$250,000	1989	1995	1999	2003	2005	41
	\$250,000–\$499,999	1980	1990	1996	2003	2004	37
	\$500,000–\$999,999	1986	1987	1992	2001	2004	29
	\$1–\$2.9 million	1973	1979	1987	1994	1998	49
	\$3–\$4.9 million	1919	1962	1989	1997	2004	16
	\$5 million+	1923	1939	1979	1986	1994	18

Exhibit 1.8: Milestone Dates by Museum Budget

	Year incorporated		Year first opened to the public		Year of most recent expansion/move into a larger facility		
	Median	n=	Median	n=	Median	n=	
	Overall	1990	195	1994	225	2002	140
Budget (operating income)	< \$250,000	1997	38	1999	41	2005	25
	\$250,000–\$499,999	1993	34	1996	37	2000	19
	\$500,000–\$999,999	1989	28	1992	29	2000	19
	\$1–\$2.9 million	1983	46	1987	49	2000	36
	\$3–\$4.9 million	1984	15	1989	16	2003	10
	\$5 million+	1974	15	1979	18	2001	15

Exhibit 1.9: Pre-opening Planning Time by Museum Budget and Age

All data are expressed in years.

	Low	Median	High	n=
Overall	0.5	3.0	20.0	187
Budget (operating income)	< \$250,000	0.7	2.5	39
	\$250,000–\$499,999	0.5	2.8	34
	\$500,000–\$999,999	0.5	4.0	27
	\$1–\$2.9 million	0.5	3.0	37
	\$3–\$4.9 million	1.0	5.0	13
	\$5 million+	0.8	3.6	11.0
Museum age (date of opening)	Before 1990	0.5	3.0	60
	1990–1999	0.5	3.0	72
	2000–2008	0.7	4.4	53

Museum Location

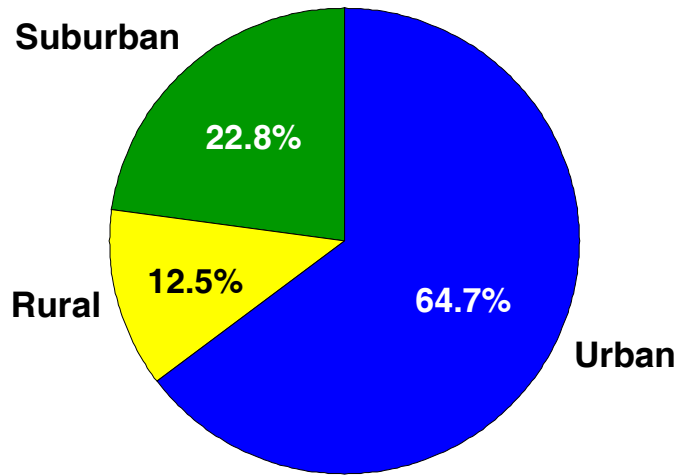


Exhibit 1.10

Exhibit 1.11: Museum Location by Museum Budget, Age and Attendance

	Location			Located in a mall?	Part of a downtown revitalization program?	
	Urban	Suburban	Rural			
Overall	64.7%	22.8%	12.5%	6.5%	35.3%	
Budget (operating income)	< \$250,000	45.2%	19.0%	35.7%	7.1%	33.3%
	\$250,000–\$499,999	40.5%	43.2%	16.2%	8.1%	32.4%
	\$500,000–\$999,999	73.3%	16.7%	10.0%	10.0%	53.3%
	\$1–\$2.9 million	80.0%	18.0%	2.0%	4.0%	40.0%
	\$3–\$4.9 million	68.8%	31.3%	0.0%	0.0%	25.0%
	\$5 million+	94.7%	5.3%	0.0%	5.3%	21.1%
Museum age (date of opening)	Before 1990	76.7%	22.1%	1.2%	7.0%	23.3%
	1990–1999	60.5%	19.8%	19.8%	2.5%	39.5%
	2000–2008	53.4%	27.6%	19.0%	12.1%	46.6%
Attendance (on-site)	< 25,000	38.8%	28.6%	32.7%	8.2%	26.5%
	25,000–49,999	56.1%	31.7%	12.2%	4.9%	48.8%
	50,000–124,999	72.9%	20.8%	6.3%	10.4%	41.7%
	125,000–249,999	83.8%	16.2%	0.0%	5.4%	27.0%
	250,000+	85.2%	14.8%	0.0%	7.4%	22.2%

Ages Targeted

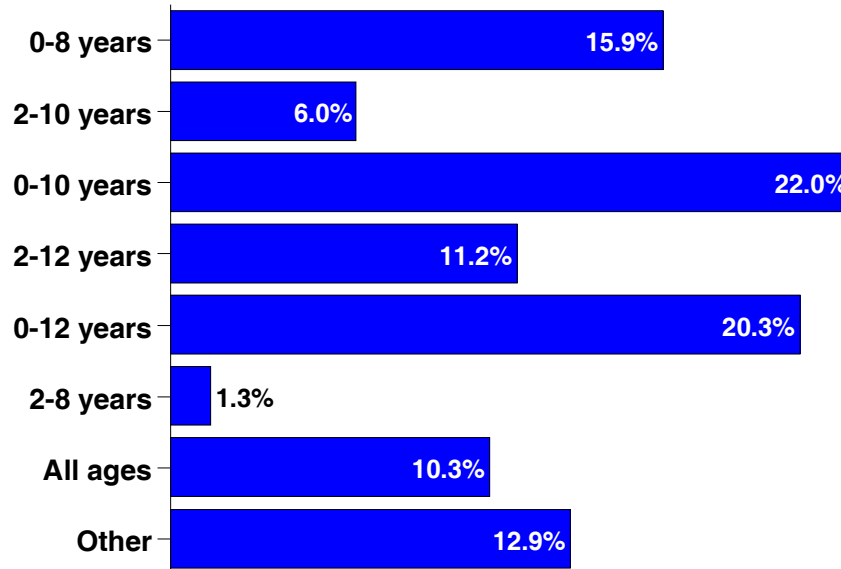


Exhibit 1.12

Exhibit 1.13: Ages Targeted by Museum Budget, Age and Attendance

	0-8 yrs	2-10 yrs	0-10 yrs	2-12 yrs	0-12 yrs	2-8 yrs	All ages	Other
Overall	15.9%	6.0%	22.0%	11.2%	20.3%	1.3%	10.3%	12.9%
Budget (operating income)	< \$250,000	14.3%	21.4%	23.8%	21.4%	2.4%	4.8%	4.8%
	\$250,000–\$499,999	21.6%	8.1%	27.0%	10.8%	10.8%	0.0%	16.2%
	\$500,000–\$999,999	26.7%	10.0%	23.3%	6.7%	20.0%	0.0%	6.7%
	\$1–\$2.9 million	16.0%	2.0%	26.0%	8.0%	26.0%	2.0%	14.0%
	\$3–\$4.9 million	12.5%	12.5%	18.8%	18.8%	25.0%	0.0%	6.3%
	\$5 million+	10.5%	0.0%	21.1%	0.0%	26.3%	0.0%	31.6%
Museum age (date of opening)	Before 1990	14.0%	5.8%	20.9%	7.0%	20.9%	2.3%	12.8%
	1990–1999	12.3%	4.9%	18.5%	18.5%	23.5%	1.2%	12.3%
	2000–2008	22.4%	8.6%	29.3%	8.6%	13.8%	0.0%	12.1%
Attendance (on-site)	< 25,000	18.4%	6.1%	18.4%	20.4%	16.3%	0.0%	14.3%
	25,000–49,999	14.6%	14.6%	19.5%	17.1%	17.1%	2.4%	9.8%
	50,000–124,999	20.8%	2.1%	18.8%	2.1%	31.3%	2.1%	12.5%
	125,000–249,999	16.2%	2.7%	29.7%	16.2%	16.2%	0.0%	13.5%
	250,000+	7.4%	0.0%	22.2%	3.7%	29.6%	0.0%	25.9%

Admission Prices

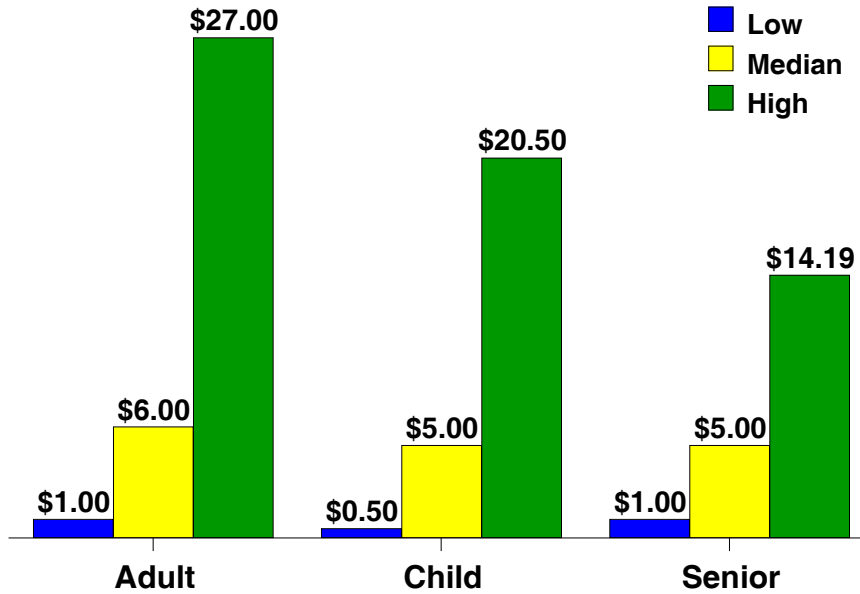


Exhibit 1.14

Exhibit 1.15: Admission Prices (Detail View)

	10 th percentile	25 th percentile	50 th percentile (median)	75 th percentile	90 th percentile	n=
Adult	\$3.00	\$4.62	\$6.00	\$7.50	\$9.00	220
Child	\$3.00	\$4.37	\$5.00	\$7.00	\$8.00	221
Senior	\$3.00	\$4.00	\$5.00	\$7.00	\$8.00	202

Exhibit 1.16: Admission Prices by Museum Budget

		Adult					
		10 th percentile	25 th percentile	50 th percentile (median)	75 th percentile	90 th percentile	n=
Overall		\$3.00	\$4.62	\$6.00	\$7.50	\$9.00	220
Budget (operating income)	< \$250,000	\$2.00	\$3.00	\$4.00	\$5.00	\$5.00	40
	\$250,000–\$499,999	\$4.00	\$4.50	\$5.00	\$6.00	\$7.00	35
	\$500,000–\$999,999	\$5.00	\$5.93	\$6.00	\$7.00	\$7.95	30
	\$1–\$2.9 million	\$5.00	\$6.00	\$7.00	\$8.00	\$8.95	48
	\$3–\$4.9 million	\$5.00	\$5.87	\$8.00	\$9.00	\$10.82	16
	\$5 million+	\$7.25	\$8.00	\$10.00	\$10.95	\$14.75	19
		Child					
		10 th percentile	25 th percentile	50 th percentile (median)	75 th percentile	90 th percentile	n=
Overall		\$3.00	\$4.37	\$5.00	\$7.00	\$8.00	221
Budget (operating income)	< \$250,000	\$3.00	\$3.00	\$4.00	\$5.00	\$5.00	41
	\$250,000–\$499,999	\$4.00	\$4.00	\$5.00	\$6.00	\$7.00	35
	\$500,000–\$999,999	\$4.10	\$5.37	\$6.00	\$7.00	\$7.45	30
	\$1–\$2.9 million	\$4.90	\$5.79	\$7.00	\$7.50	\$8.54	48
	\$3–\$4.9 million	\$3.00	\$5.00	\$7.00	\$8.00	\$10.82	16
	\$5 million+	\$5.00	\$7.00	\$7.95	\$10.00	\$14.19	19

Table continued on following page

Exhibit 1.16: Admission Prices by Museum Budget

		Senior					
		10 th percentile	25 th percentile	50 th percentile (median)	75 th percentile	90 th percentile	n=
Overall		\$3.00	\$4.00	\$5.00	\$7.00	\$8.00	202
Budget (operating income)	< \$250,000	\$2.00	\$3.00	\$4.00	\$5.00	\$5.00	32
	\$250,000–\$499,999	\$3.00	\$4.00	\$5.00	\$5.00	\$6.50	34
	\$500,000–\$999,999	\$3.40	\$5.00	\$5.75	\$6.87	\$7.00	28
	\$1–\$2.9 million	\$4.00	\$5.00	\$6.00	\$7.00	\$8.10	47
	\$3–\$4.9 million	\$4.10	\$5.00	\$7.00	\$8.00	\$9.67	15
	\$5 million+	\$5.80	\$6.87	\$8.00	\$10.23	\$13.34	18