



Association
of Children's
Museums

2008 Children's Museums Metrics Reports[©]

Volume 6: Staff

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 sections as PDFs for free from the Members Only section of the ACM Web site. PDF reports are available to nonmembers for \$150 per report section.

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

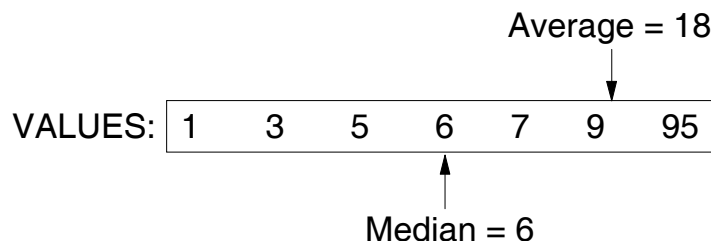
	Percentage of sample	n=
Less than 25,000	21.1%	49
25,000–49,999	17.7%	41
50,000–124,999	20.7%	48
125,000–249,999	15.9%	37
250,000 and greater	11.6%	27
No response	12.9%	30

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.

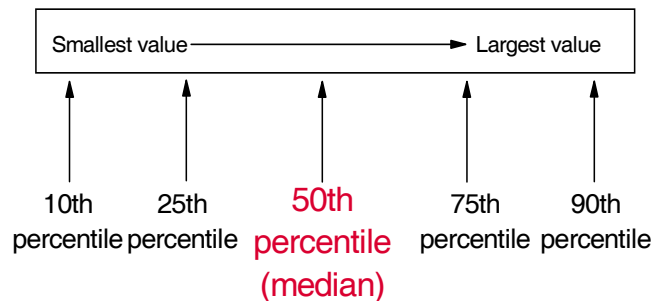
In addition to museum budget size and attendance, two other variables were used to segment the data — museum age (based upon a museum’s opening date), and museum location (using the categories of urban, suburban and rural). These two approaches are used in only a few tables in the report to illustrate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

VI. Staff

Volume 6 explores staffing levels within each institution, using four major staff categories: full-time, part-time, volunteers, and board members. Exhibit 6.1 provides an overview of responses, and shows that the typical museum has seven full-time staff, 12 part-time staff, 75 volunteers, and 16 board members.

In addition to using these four categories, a full-time equivalent (FTE) category was created from the data. The FTE values are approximations, using the formula of FTE being equal to the sum of all of the full-time and one-half of the part-time staffers. This method assumes that all the part-time staff work half as many hours as their full-time counterparts — a situation that may not be the case in all institutions. Still, this method yields a generally accurate depiction of staffing levels, and is a more convenient metric to use for many ratios.

The actual number of FTE staff is provided in Exhibit 6.3, segmented by museum budget size and attendance. The data are also expressed as an expense ratio in Exhibit 6.4. This table explores the total personnel costs (from Volume 3) divided by the number of FTE staff, and shows that the median cost per FTE staff is \$28,266.

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Exhibit 6.1: Museum Personnel Overview

	10 th percentile	25 th percentile	50 th percentile (median)	75 th percentile	90 th percentile	n=
Full-time	1.0	2.0	7.0	15.8	42.0	216
Part-time	3.0	5.0	12.0	20.0	43.0	219
Full-time equivalent (*)	2.5	6.0	11.0	24.0	62.6	228
Volunteers	10.0	28.0	75.0	200.0	408.0	203
Board members	7.4	11.0	16.0	23.5	30.6	213

(*) = FTE values calculated as the sum of all full-time and one-half of all part-time staff.

**Exhibit 6.2: Museum Personnel Overview by
Museum Budget and Attendance**

All data are medians.

		Full-time	Part-time	Volunteers	Board members
	Overall	7.0	12.0	75.0	16.0
Budget (operating income)	< \$250,000	2.0	5.0	23.5	12.0
	\$250,000–\$499,999	3.0	7.0	40.0	15.0
	\$500,000–\$999,999	6.0	12.5	90.0	17.0
	\$1–\$2.9 million	12.5	19.0	200.0	20.0
	\$3–\$4.9 million	31.0	38.5	87.5	25.0
	\$5 million+	61.0	48.5	266.5	33.0
Attendance (on-site)	< 25,000	2.0	4.0	27.0	14.0
	25,000–49,999	3.0	7.0	45.0	13.0
	50,000–124,999	8.0	13.0	129.0	16.0
	125,000–249,999	18.0	23.0	200.0	25.0
	250,000+	42.0	46.0	175.0	28.0

Exhibit 6.3: FTE Personnel

Data are the total full-time equivalent (FTE) personnel. FTE values calculated as the sum of all full-time and one-half of part-time staff.

	10 th percentile	25 th percentile	50 th percentile (median)	75 th percentile	90 th percentile	n=	
Overall	2.5	6.0	11.0	24.0	62.6	228	
Budget (operating income)	< \$250,000	1.5	2.5	4.0	6.7	10.2	41
	\$250,000–\$499,999	4.0	5.5	6.5	8.0	8.6	37
	\$500,000–\$999,999	6.6	8.9	12.5	15.1	17.4	30
	\$1–\$2.9 million	13.0	17.4	20.8	29.0	41.2	50
	\$3–\$4.9 million	25.5	42.8	55.0	72.1	86.0	16
	\$5 million+	33.5	64.0	91.0	190.0	292.0	19
Attendance (on-site)	< 25,000	1.5	2.5	4.0	6.5	9.6	48
	25,000–49,999	4.0	6.0	7.5	8.8	16.8	41
	50,000–124,999	7.0	10.1	16.0	19.5	24.3	48
	125,000–249,999	15.1	20.8	30.5	50.0	74.8	37
	250,000+	27.5	33.5	69.5	91.5	214.0	27

Exhibit 6.4: Museum Personnel Expense Ratios

Data are the total personnel costs divided by the total number of full-time equivalent (FTE) personnel. FTE values calculated as the sum of all full-time and ½ of part-time staff.

	10 th percentile	25 th percentile	50 th percentile (median)	75 th percentile	90 th percentile	n=
Overall	\$13,640	\$20,478	\$28,266	\$36,653	\$43,844	167
< \$250,000	\$3,601	\$10,393	\$16,400	\$22,864	\$30,078	35
\$250,000–\$499,999	\$13,676	\$18,343	\$23,400	\$27,218	\$37,017	31
Budget (operating income)						
\$500,000–\$999,999	\$19,678	\$26,116	\$28,540	\$36,446	\$48,047	25
\$1–\$2.9 million	\$21,568	\$26,429	\$34,748	\$43,024	\$63,143	45
\$3–\$4.9 million	\$24,282	\$30,053	\$34,190	\$41,288	\$48,110	16
\$5 million+	\$25,456	\$29,971	\$37,525	\$44,386	\$52,201	15
< 25,000	\$4,411	\$11,211	\$20,237	\$27,013	\$38,591	34
25,000–49,999	\$13,041	\$16,888	\$22,555	\$29,498	\$40,309	32
Attendance (on-site)						
50,000–124,999	\$19,317	\$26,512	\$30,375	\$37,811	\$57,424	39
125,000–249,999	\$21,164	\$25,692	\$33,404	\$41,005	\$46,214	32
250,000+	\$25,451	\$29,072	\$37,084	\$44,626	\$53,743	21