2012 Science Center and Museum Statistics

The Association of Science-Technology Centers (ASTC) is a global organization providing collective voice and professional support for science centers, museums, and related institutions, whose innovative approaches to science learning inspire people of all ages about the wonders and the meaning of science in their lives. ASTC collects and publishes data about science centers and museums to help its members plan and manage their operations, and to provide basic information to those with an interest in the field. Of ASTC’s over 600 members, 485 are science centers and museums operating or under development in 45 countries. Every U.S. state has at least one member; California alone has 36. The following information is based primarily on data collected from 202 ASTC science center and museum members from late December 2012 through April 2013.

Science engagement around the globe

The map below reflects the worldwide distribution of ASTC members. In addition, ASTC partners with regional science center networks around the world.

Locations of ASTC science center and museum members, worldwide
In 2012, 192 science centers and museums reported total attendance of almost 80 million visits in their most recent fiscal year (64 million on-site and 15.8 million through off-site events and programs, such as school outreach). In the United States, total attendance for 146 centers was 45 million. Extrapolating from reported data to include all ASTC science center and museum members, ASTC estimates that there were 93.4 million visits to member science centers and museums worldwide last year. An estimated 66.8 million visits were made to ASTC’s 384 science center and museum members in the United States.

Median on-site attendance at individual centers was 196,085, with 53.5% of respondents reporting an increase over the previous year. Paid on-site attendance decreased, however, for 50.6% of the 166 respondents providing that data.

In surveys of ASTC governing members over the past decade, we have found attendance fluctuates with the seasons, extremes of weather, disruptions caused by construction, special events, and changes in public policies, practices, and funding. On occasion, an exhibition or giant-screen film also may contribute to a significant change in attendance.

A science center for every community

Science centers vary widely in scale, from very large institutions, like the United Kingdom’s National Museum of Science & Industry (with over 700,000 square feet of exhibits), to very small centers, like Florida’s Pensacola
MESS Hall (with 1,500 square feet of interior exhibits). Among the institutions reporting this data for 2012, the median size was 30,000 square feet of interior exhibit space. In addition to the hands-on, experiential exhibits and programs that are the hallmark of science centers, 44.6% of respondents also have large-format theaters and/or digital domes.

**An integral part of the global educational infrastructure**

School groups make up a significant percentage of science center and museum attendance. At the 181 institutions that reported both total on-site and school on-site attendance, school groups accounted for a median 16.8% of total on-site attendance.

Extrapolating from reported data to include all ASTC science center and museum members, the **estimated school group attendance was 19.3 million worldwide in 2012 (13.3 million in the United States)**. But field trips are just the beginning. Most science centers offer demonstrations and workshops, school outreach programs, professional development for teachers, curriculum materials, and programs for home schoolers.

**Connecting science with the community**

Science centers offer places where science and citizens can meet. Many centers have scientists on staff, and some feature research facilities on-site. Through exhibits and programming, such as lecture series and science cafés, science centers help to bring current research findings to the public and encourage discussion and debate of current issues. Science centers also encourage the public to become involved in research projects themselves.

Science centers reach a wide audience. Most (90%) have membership programs, including family memberships. On average, member visits accounted for 25% of paid on-site visits to the 144 institutions providing this data.
Adding value to the local economy while enriching lives

As cultural amenities, science centers add value to their local economies. While they count on public funding, 45 cents of every operating dollar comes from ticket sales, program fees, facility rentals, and other “earned income” sources; 27 cents comes from public funds; 25 cents from private donors; and 3 cents from endowment income.

On average, earned income, which comes primarily from ticket sales and program fees, is the largest source of operating revenue. Most centers (93.6%) charge for general admission, with adult admission prices ranging from $0.29 to $29.00 ($2.00 to $25.00 among U.S. institutions). The median admission charge worldwide is $9.50, $7.51 for children.

Public revenue sources (average % of total)

- **All respondents (n=193):**
  - Earned income: 45.2%
  - Private funds: 24.6%
  - Public funds: 26.9%
  - Endowment income: 3.4%

- **U.S. only (n=148):**
  - Earned income: 47.9%
  - Private funds: 27.5%
  - Public funds: 20.3%
  - Endowment income: 4.3%

Public funding constitutes, on average, 27% of an institution’s operating revenue (20% in the United States). On average, worldwide, 31% of institutions’ public funds are from federal/national governments, 28% from states/provinces, 40% from local governments, and 1% from tribal/other public sources. In the United States, a larger portion (47%) of public funding comes from local governments.

The scale of operations varies widely among science centers and museums: 10% of respondents report operating expenses of $402,198 or less; 10% report operating expenses of more than $23,696,129. Median reported operating expenses were $3,781,536. In the reported fiscal year, most institutions (77%) operated with a balanced budget or a surplus.

Science centers also bring jobs to their communities; 25,031 paid employees were reported by 202 institutions (155 U.S. respondents reported a total of 15,405 paid employees). The median number of full-time equivalent employees at individual institutions was 55. On average, personnel costs constitute 55% of operating expenses.
Supported by volunteers

Volunteers make extraordinary contributions to science centers. Most science centers and museums (90%) have volunteer programs. Volunteer programs are even more common in the United States—where 95.5% of institutions have them—than in other countries.

In 2012, 177 institutions worldwide reported a total of 101,791 volunteers. The number of volunteer hours reported by 164 institutions worldwide totaled 3,292,848. Among 135 U.S. respondents, volunteer hours totaled 2,581,624—a contribution worth $57 million.

Responding to change

The oldest institution responding to the survey, Cincinnati Museum Center, Ohio, dates back to 1818. For the most part, however, science centers are an invention of the 1960s, with development in the United States peaking in the 1980-1990s. In 2012, 27.5% of respondents reported plans to open new buildings by January 2016.

Although building has slowed, science centers continue to invest in expansion and renovation of facilities and renewal of exhibits: 25.9% reported plans to begin expansions between 2013 and 2016, 36% are beginning facility renovations, and 64.5% plan to begin redevelopment of one or more exhibit halls or exhibitions.

ASTC members are also responding to change by examining their organizational structures—12.2% are planning to implement a major reorganization within the next three years.

Science center opening dates
About the 2012 ASTC Statistics Survey

This document is based primarily on data collected in a survey carried out from late December 2012 through April 2013. The survey was distributed by mail and email to the 481 science centers and museums that were then members of ASTC. By the time data entry closed, we had received 202 responses, a response rate of 42%.

The breakdown of respondents by location generally reflected that of the ASTC membership as a whole. Seventy-seven percent of respondents were U.S.-based, compared with 80% of members. Science/technology centers and museums are somewhat overrepresented, making up 61.9% of respondents, compared with 53.2% of ASTC members. Institutions with budgets under $1 million, however, are underrepresented among respondents to the survey, making up only 23% of respondents, compared with 47.2% of ASTC members. Institutions with budgets over $3 million are overrepresented—54.5% of respondents, compared with 30.3% of ASTC members.

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