

The Costs and Funding of Exhibitions

August 2002



Smithsonian Institution

Office of Policy and Analysis
Washington, DC 20560-0405

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FOREWORD

The main purpose of this report is to present information on the costs of exhibitions at the Smithsonian, although the costs of exhibitions at other museums and a brief discussion of fundraising also are presented. The Smithsonian data are based on FY 99 and 00 information collected from the museums.

Dealing with diverse sources of data, different project costing systems, and varied approaches to managing interactions among costs, schedules and performance measures is not a straightforward process. In addition, record keeping services and project files do not always provide easily retrievable data. Finally, because of the long periods of time required to develop some exhibits, personnel changes affect data collection and dissemination practices. Nevertheless, presentation of the data is intended to inform staff and increase dialogue on exhibition development issues.

Several staff from the Office of Policy and Analysis worked on this report including Andrew Pekarik, Zahava Doering, Whitney Watriss, David Karns and Jeff Sutton. I thank them.

Carole Neves
Director
Office of Policy and Analysis

INTRODUCTION

This paper, which is based on interviews with and data collected from SI and non-SI museums, summarizes OP&A's findings about the following aspects of exhibitions:

- Exhibition costs, including costs for different types of exhibitions, cost variances, and the estimation¹ of costs for exhibitions;
- Funding, including funding sources and fundraising;
- The relationship between the availability and timing of funding and exhibition development; and
- The relationship of exhibition costs and the mix of exhibition offerings.

Appendix A lists the non-Smithsonian museums and organizations interviewed for this paper. Appendix B provides selected references.

¹ Cost estimation is critical to many aspects of exhibition development, including contracting and fundraising.

THE COSTS OF EXHIBITIONS

Smithsonian Exhibitions

As part of the exhibition study, OP&A collected data on the 209 exhibitions that opened at all SI units during FY99 and FY00.² Altogether, the 209 exhibitions encompassed over half a million square feet and had total direct costs³ of \$41 million. The sizes ranged from 14 sq. ft. to 24,000 sq. ft.,⁴ and the direct costs from \$25 to \$6,500,000. For purposes of this paper, 59 of the 209 exhibitions are excluded from the database.⁵ Of the remaining 150 exhibitions, 73 were art exhibitions and the remainder non-art exhibitions.

To better understand exhibition costs at the Smithsonian, it is important to be aware of two points, both of which are related to the context within which exhibition programs are created. First, in general, art exhibitions were considerably less expensive and slightly larger than non-art exhibitions:⁶

- For the 73 art exhibitions, the average cost was \$90,000, while for the 77 non-art exhibitions the average cost was nearly \$450,000.
- The average cost per sq. ft.⁷ for the art exhibitions was \$19.40 (SD \$14.91; median \$16.50), while the average for the non-art exhibitions was \$91.89 (SD \$127.65; median \$50).⁸
- The average size for the art exhibitions was 4,200 sq. ft. and for the non-art exhibitions 3,400 sq. ft.

² The data for the 209 exhibitions are reported in detail, unit by unit, in *Capability Profiles of Exhibit Departments*, Smithsonian Institution, Office of Policy and Analysis, March 2002. The report is available at http://www.si.edu/opanda/Reports/capability_%20profile.pdf.

³ Costs as defined in the OP&A survey include only exhibition-related costs and do not include in-house staff (which most units do not track), overhead costs, publications, brochures, public programs, and advertising. Direct costs cover such things as contracts (e.g., design and fabrication) and other out-of-pocket expenses.

⁴ Average size is 5,870 sq. ft. (SD: 26,819); average cost is \$211,807 (SD: \$672,505). SD=Standard Deviation, a statistical measure indicating the extent of variance within data. In a normal distribution, about 68% of the data points are within one standard deviation of the average.

⁵ The 59 exhibitions are: 2 Folklife Festivals, 2 outdoor Horticulture gardens, 8 exhibitions with incomplete information, and 47 minor exhibitions that cost less than \$5,000 each.

⁶ The SI art museums are Arthur M. Sackler Gallery, Freer Gallery of Art, Hirshhorn Museum and Sculpture Garden, National Museum of African Art, and Smithsonian American Art Museum. The non-art museums are Cooper-Hewitt National Design Museum, National Museum of American History, National Museum of Natural History, National Museum of the American Indian, National Postal Museum, and National Zoological Park. Also included in this category are four non-art organizations that developed exhibitions that opened during FY99 and FY00: Office of Horticulture, Smithsonian Institution Libraries, Smithsonian Institution Traveling Exhibition Service, and Smithsonian Tropical Research Institute.

⁷ For reasons pointed out later in the text, cost per square foot is a rough measure. Nonetheless, its use is standard in discussing exhibition costs.

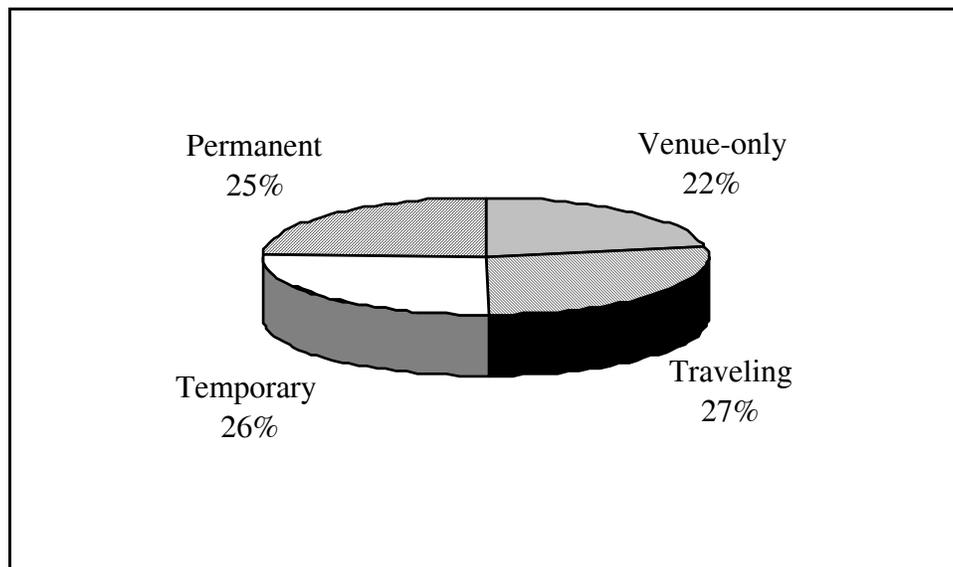
⁸ The median is the value in the center of the data, i.e., half of the average costs per square foot are higher than the median and half are lower.

Second, the costs varied across four categories of exhibitions:

- Venue-only temporary exhibitions (i.e., exhibitions that originated outside SI)
- Traveling exhibitions (i.e., those that originated at SI units and were sent elsewhere)
- Temporary exhibitions (i.e., non-traveling exhibitions that originated at SI units and were on display for under five years)
- Permanent exhibitions (i.e., new and re-installed displays of indefinite duration)

With respect to the total number of square feet, the exhibitions were nearly equally divided among the four types, as shown in Figure 1.

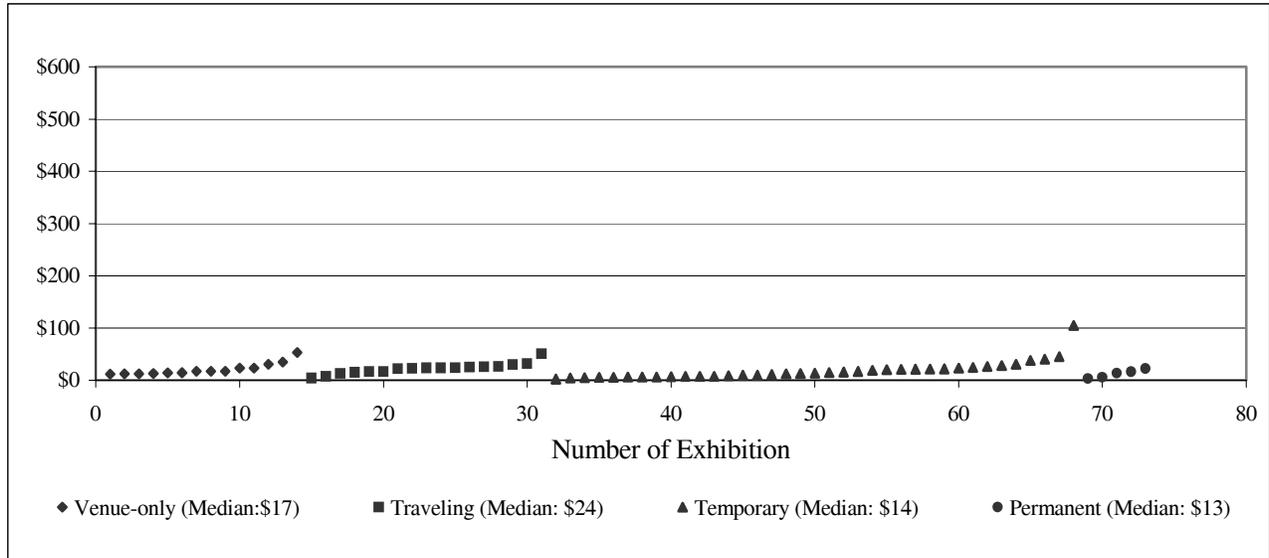
Figure 1
Distribution of FY99-00 Smithsonian Exhibitions by Type
(percent of total square feet)



Source: OP&A Exhibition Survey.

The type of exhibition did not significantly affect the cost of an art exhibition. As shown in Figure 2, the average direct cost was around \$20 a square foot, regardless of the type of art exhibition.

Figure 2
FY99-00 Direct Cost of Smithsonian Art Exhibitions, by Type
(dollars per sq. ft.)

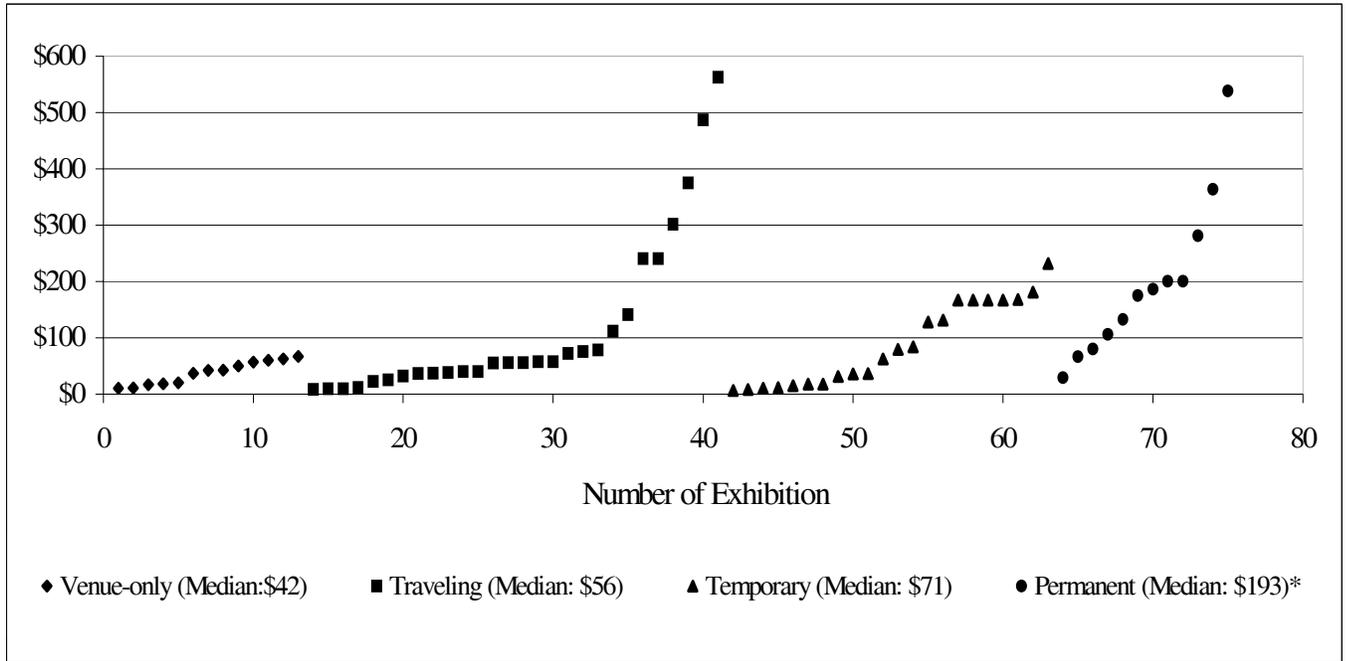


Source: OP&A Exhibition Survey.

Among venue-only art exhibitions at SI, the *Robert Gober* exhibition at the Hirshhorn Museum had a direct cost per square foot (\$17) that was equal to the median for its type. Similarly, the traveling exhibition *Lure of the West*, organized by the Smithsonian American Art Museum (SAAM), had a direct cost per square foot equal to the median for traveling art exhibitions (\$24). The Hirshhorn’s temporary exhibition *Directions: Leonardo Drew* had the median direct cost per square foot (\$14) for temporary exhibitions, and SAAM’s *Grand Salon* reinstallation had the median direct cost per square foot for permanent installations (\$13).

In contrast, as illustrated in Figure 3, the cost of non-art exhibitions varied substantially. Venue-only exhibitions had the lowest direct costs and permanent exhibitions the highest. Although venue-only exhibitions have the lowest direct costs for the host museums, originating museums incur higher costs related to the development of such exhibitions as traveling exhibitions.

Figure 3
FY 99-00 Direct Costs of Smithsonian Non-art Exhibitions, by Type
 (dollars per sq. ft.)



*Note: Two exhibitions whose costs are above \$600/sq. ft. (\$900 and \$1,000) are included in the calculation of the median, but are excluded from Figure 3 for ease of presentation and cross-comparisons.
Source: OP&A Exhibition Survey.

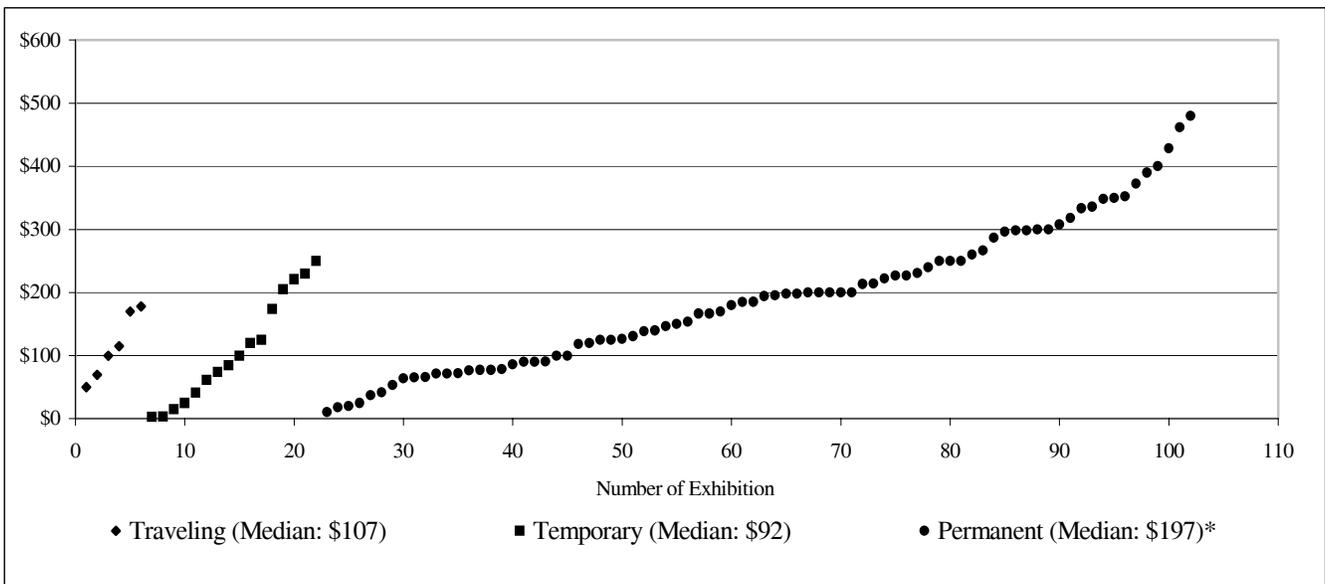
SI non-art exhibitions whose direct costs per square foot were equal or close to the median include the venue-only exhibition *The Architecture of Reassurance* at Cooper-Hewitt (\$42), the traveling exhibition *Jazz Age* from SITES (\$56), the temporary exhibition *National Design Triennial* at Cooper-Hewitt (\$79), and the permanent *Rocks Gallery* in the National Museum of Natural History (\$200).

Why do direct costs vary across types? One factor is the complexity of the exhibition. Art exhibitions are least expensive because they generally have simpler designs, fewer elaborate furnishings, less technology, and require relatively little production. Exhibitions that include mechanical and electronic interactives, videos, or other complex, custom-made components have significantly higher costs. Traveling non-art exhibitions have higher direct costs than temporary exhibitions because of the additional costs associated with design, production, and transportation. Permanent exhibitions that are designed and built to last for several decades also have higher production costs.

Cost Comparisons with Other Museums

How do the direct costs of SI exhibitions compare to those at other museums? Setting aside the difficult question of the accuracy and comparability of the data (discussed below), OP&A constructed a limited database of the direct costs of permanent, non-art exhibitions at other museums, as shown in Figure 4.⁹ The data on the direct costs of non-art permanent exhibitions, the most expensive type, suggest that the direct costs of Smithsonian permanent exhibitions (with a median of \$193/sq. ft.) are comparable to those at other museums across the country (with a median of \$197/sq. ft.).

Figure 4
Direct Cost of Non-Smithsonian Non-art Exhibitions, by Type
 (dollars per sq. ft.)



*Note: Three permanent exhibitions whose costs are above \$600/sq. ft. (\$1,000, \$1,200, and \$1,533) are included in the calculation of the median, but excluded from Figure 4 for ease of presentation and to allow comparison across figures.

Cost Comparability and Accuracy

The data on direct costs can be compared only loosely for several reasons. First, many of the non-SI permanent exhibitions are installed in new museums, and their average size (15,000 sq. ft.) is much greater than that of the SI permanent exhibitions in the survey (5,600 sq. ft.).

Second, museums do not cost exhibitions in the same way. Even within the Smithsonian, it is impossible to compare precisely the direct costs of exhibitions because of differences

⁹ Data were available for too few traveling and temporary exhibitions to permit any conclusions to be drawn about their costs.

in the kinds of activities the museums include as part of exhibition costs and in the ways they define and account for those costs. For example, some museums count exhibition maintenance as a direct cost, while others consider it an indirect cost. The SI Inspector General highlighted this inconsistency in accounting for and reporting costs in a recent audit report on traveling exhibitions.¹⁰ Ideally, to allow for comparisons, there would need to be agreement on how to classify exhibition costs (e.g., which are direct and indirect; which are recurring and non-recurring; which are fixed and variable; and which are normal and expedited),¹¹ and which expenses should be included in calculating the cost per square foot.

Third, the SI cost figures (and, as far as can be determined, the non-SI cost figures) include only direct costs and exclude staff and support costs, as most museums do not precisely track those costs by project. In response to a question in the OP&A exhibition survey, Smithsonian units estimated the cost of the time that staff spent working on exhibitions in FY00. The total for the entire Institution for FY00 was \$30 million.¹² Still unavailable are the costs of infrastructure support, such as administrative staff, security, space and utilities, departmental operating costs, and so on. Therefore, it is probable that the direct exhibition costs, which totaled \$41 million over the two years, represent about half to two-thirds of the true costs.

Fourth, the cost figures, although they are all relatively recent, do not take into account inflation over the course of the project or cost differences in different areas of the country.

The Costing of Exhibitions

Once a museum decides to move forward with a proposed exhibition idea, its exhibition department staff estimates preliminary costs, or develops a budget, for the project. According to SI and non-SI interviewees, the first estimates are usually made by exhibition department staff on the basis of the known costs of analogous past exhibitions and calculations of the cost of discrete elements unique to the current project. As projects move forward, more detailed costing generally occurs, and the exhibition teams develop more precise, revised budgets. Even after budgets are finalized, they typically change over time. Reasons include modifications in the design, content and scope of exhibitions, e.g., in response to bids received from potential contractors or to the funding actually available.

OP&A did not discuss the details of the budgeting process with museums outside of SI, did not review the accuracy of SI cost estimates, and did not focus on the tradeoffs among cost, schedule, and technical performance. However, a range of techniques are

¹⁰ Smithsonian Institution, Office of Inspector General, *Financial Management of Traveling Exhibits*, Audit Report Number A-00-03 (Washington, D.C., September 26, 2001).

¹¹ Expedited costs are those that are higher than normal due to time limitations.

¹² According to the Smithsonian Financial System, FY00 salaries and benefits attributable to exhibition programs totaled \$29 million; FY99 exhibition salaries and benefits were \$27 million.

available that can improve the level of accuracy of cost estimating and can better integrate the costs of exhibitions with scheduling and performance requirements. For example, regression analysis can be used to estimate costs. Under this approach, data on cost and variables associated with similar projects are used to build predictive models that can yield cost estimates for current projects.

One tool that would help refine cost estimating is a central database on all exhibition costs. At SI, costing takes place within the individual units, which function independently. While there is informal sharing of cost information among exhibition department staff, there is no institutionalized way for a museum to access the experience of other Smithsonian units because there is no comprehensive, SI-wide database of cost information. Such a database would allow the individual museums to benefit from the experience of others. Similarly, there is no central cost estimator(s) whose specialized knowledge and experience can be used as a check against units' internal estimates. Finally, as mentioned, SI museums do not cost or track the time staff spends on exhibition projects. As a result, it is impossible for them to calculate the true costs of exhibitions.

FUNDING EXHIBITIONS

In most cases, the decision (at SI and elsewhere) to create a particular exhibition is based on several criteria: first, is the exhibition related to the museum's mission; second, is there a staff person whose academic expertise includes the topic; and third, is there some organization or individual who is likely to provide the necessary money? Sometimes the museum considers a fourth criterion—is it interesting to potential visitors?

There was a spectrum of opinion among museum professionals on the priority or relative weight given these criteria for exhibition selection. All interviewees agreed that museums took their missions into account as part of the exhibition approval process, while acknowledging that “mission” can be interpreted very broadly. Most interviewees also acknowledged that attractiveness to potential funders is taken into consideration. Many of them (especially at SI) felt that in-house subject-matter expertise is essential. Audience interest was often a low priority, although some interviewees believed strongly that after mission, audience interest should come first, funding availability next, and in-house subject-matter expertise last.

This section focuses on external funding, which all interviewees agreed is critical to moving exhibitions forward. Nearly all museums rely heavily on external funding to design and produce exhibitions and frequently cannot proceed without it, no matter how mission-appropriate they consider the project. Most museums allocate internal funds when they believe strongly that an exhibition must go forward, but those resources are limited. Interviewees at SI and elsewhere generally did not describe the considerable staff time museums devote to exhibition projects as an allocation of internal resources.

The interviews conducted for this study reveal three major issues relating to fundraising and exhibition development:

- An increasingly difficult fundraising environment;
- The effect that fundraising and the timing of the commitment of funds have on efficient exhibition development; and
- The need for strategies to handle funding shortfalls.

The Fundraising Environment

Fundraising for exhibitions is taking place in an increasingly competitive environment. Across the country the number of museums continues to increase. A recent count is not available, but the number is approximately 12,000. At the same time, the number of exhibitions developed by museums has risen as part of efforts to increase museum attendance. The growth in the number of both museums and exhibitions has meant greater competition for exhibition funding.

Increasingly, as public sector support for exhibitions has decreased, museums have turned to the private sector. Although data on sources of exhibition funding are not

available either for the current year or for comparisons across time, some clues emerge from an examination of museum funding in general. The American Association of Museums (AAM) collected detailed financial and operational data through surveys in 1988, 1996, 1997, and 1999.¹³ All four surveys collected information about income from diverse funding sources. Between the years 1988 and 1999, earned income and investment income as a percentage of overall income remained about the same (30% and 29%, and 12% and 11%, respectively), government funding decreased (from 39% to 28%), and private funding increased (from 19% to 32%).

Within private funding sources, the AAM survey data indicate that the key funders of museums (in order of the total dollars they provide) are individuals, foundations, and corporations.¹⁴ Analysis of the trends in giving across these sources is difficult, however, because of inconsistent data across the four AAM surveys.¹⁵

Data external to AAM indicate that during the booming 1990s, when both the numbers of foundations and their grants expanded and corporations were affluent, there was ample support for expanded museum activity. In 2000, grantmaking foundations provided an estimated \$3.7 billion for the arts, culture, media, and the humanities, more than double the 1996 level (in unadjusted dollars).¹⁶ Even though the number of foundation dollars going to the arts, culture, media and the humanities doubled in the period 1996-2000, this did not indicate an increase in share –the arts, culture, media and the humanities received about 13-15% share of all fundraising dollars in the 1980s compared to 12-13% during the period 1996-2000. In terms of the total share of foundation dollars provided for arts, culture, media and the humanities in 2000, the largest share went to performing arts (32%), followed by museum activities (29%).

With respect to *all* charitable giving in 2001, by the four major categories of non-government funding sources, contributions from individuals accounted for 76%, from foundations 12%, from bequests 8%, and from corporations 4%. Over the past six years, as shown in Figure 5, the proportion from bequests and foundations increased, while that from corporations decreased slightly, and that from individuals fell somewhat more. With respect to where the dollars went, support for the arts from both foundations and corporations remained relatively constant.

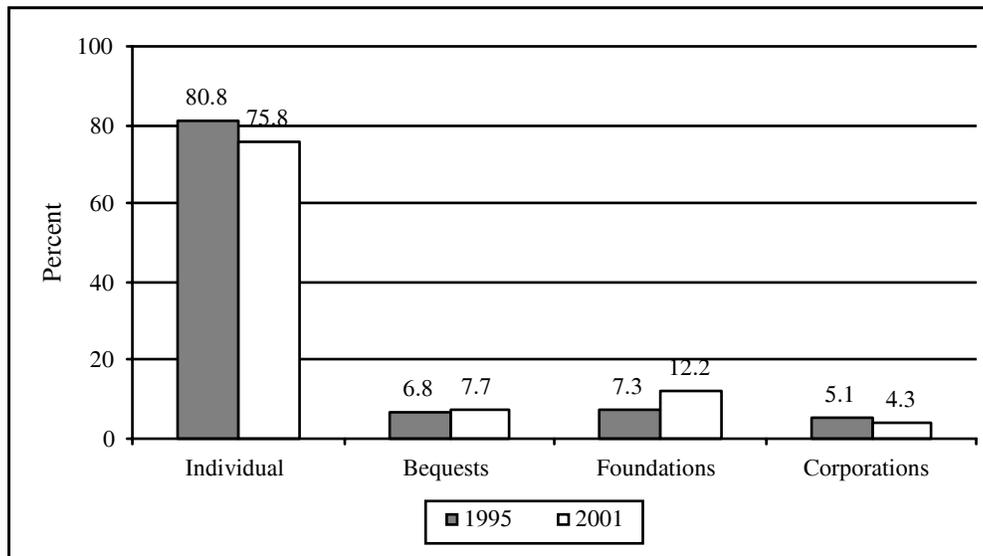
¹³ American Association of Museums, *1999 AAM Museum Financial Information: A Report from the National Survey* (Washington D.C.: American Association of Museums, 2000).

¹⁴ The data for corporations refers to tax-allowable contributions. They do not include commercial sponsorships that are not tax-deductible, because there is no reliable source on the frequency or dollar value of sponsorships that go to support non-profit organizations.

¹⁵ The last three surveys provided a breakdown of the “private” sources, and any related data from the 1988 survey are not, according to AAM staff, suitable for comparison with the later three surveys. Those three later surveys produced data on private sources broken out by foundations (private, community, and corporate), corporations, and individuals (excluding memberships and admission fees). The most recent survey, 1999, added three subcategories: parent, auxiliary, and fundraising events. Given these discrepancies, it is impossible to tell if the change in private funding noted above resulted from real shifts or shifts in classification.

¹⁶ Loren Renz, *The Foundation Center’s 2002 Arts Funding Update* (New York, NY: The Foundation Center, 2002).

Figure 5
Contributions by Source, 1995 and 2001



Source: Giving USA, 2002: The Annual Report on Philanthropy for the Year 2001. 47th ed.

Some museums did not see a decline in corporate funding. The development director at one museum said, “We don’t fit the norm. The national norm for all nonprofits is 83% individual, 12% foundations, and about 5% corporations. Normally we get 60% from corporations, 20% from individuals, 10% from foundation and 10% from government. It has been about the same throughout the decade.” A few interviewees suggested that corporations might have an increasing incentive to sponsor exhibitions: “We know that a lot of corporations are interested in having their industries represented [in museums]; or they want to provide models for youth; or they have a bad PR image to correct; and [thus] they might want to support an exhibition here.”

Museum development officers both inside and outside SI emphasized what they saw as the changing nature of exhibition sponsorship by corporations. In particular, they saw a shift in sponsorship from corporate foundations to corporate marketing departments and, as a consequence, a shift in interest from the museums’ missions toward the potential for a particular exhibition at a particular museum to enhance corporate revenues. One museum director, for example, described a meeting with representatives of a national corporation that had taken over a local corporation that formerly had been a major supporter of the museum. The museum director “met with the new people – highly placed in the corporation – and walked away from them. They were only interested in how many ‘butts in seats’ the collaboration could put. We don’t do that.”

A nationally known fundraiser offered a somewhat different perspective on corporate giving. He did not see a change in orientation on the part of local corporations because “home grown corporations” contribute to cultural organizations as a way to strengthen their local support and to benefit the local labor force. However, when a local

corporation merges with or is bought by a national corporation, or moves its corporate headquarters from the community, the corporate interest in the local community may no longer exist, and giving patterns may change. This fundraiser believes that museums should not ignore mid-sized and small local businesses, because those companies can offset changes in the giving of larger, outside corporations. The fundraiser agreed with the four goals of corporate grantmakers cited in a report by the Foundation Center:¹⁷ gaining brand recognition, influencing decision makers, being good corporate citizens, and improving the quality of life of their employees.

Comments by most interviewees in this study supported the growing importance to corporate givers of expanding brand recognition and influencing decision-makers. They noted that at the same time that some corporate staff continue to believe that the association of their corporations' names with museums will enhance corporate images, they may exert increasing pressure on museums to provide greater visibility for their sponsorships. This is particularly true when advertising budgets are tight and marketing departments need to justify their methods of influencing potential customers and decision-makers. For example, according to interviewees, typically less than 10 percent of visitors can name the sponsor of an exhibition they just exited, the standard of sponsorship visibility that corporations use. Even in the case of an exhibition with a marketing budget equal to about 25 percent of its total cost, only about 25 percent of visitors were able to identify the sponsor.

Development specialists interviewed across the country stated that corporate marketers may be uninterested in supporting even a likely blockbuster during periods when sales are good, because they have no incentive to burnish their image, and sometimes fear that a particular exhibition might involve them in controversy or expose them to some kind of unanticipated negative publicity. For example, one museum fundraiser stated that an exhibition on prenatal development is not likely to obtain corporate support. The museum is not sure it can secure foundation or private funding either, because "the material is too controversial... there are religious objections, and sponsors may not want to be affiliated." The museum will try to obtain funds from the government, e.g., the National Science Foundation or the National Institutes of Health.

As a result of these changes, as well as the recent decline in corporate revenues, the share of exhibition support provided by corporate sources is likely to shrink, while the share of support from foundations and individuals closely aligned with museum's missions will increase. As one interviewee commented, "We have seen a slight decrease in corporate funding, but an increase in individual contributions. We are now mounting a campaign. In the last campaign, 1995, 32% was individual, we are now anticipating 42%. Corporate funding was 15%; we are planning on 5% corporate."

¹⁷ Loren Renz, Caron Atlas, and John Kendzior, *Arts Funding 2000: Funder Perspectives on Current and Future Trends* (New York, NY: The Foundation Center, 1999).

Fundraising and Exhibition Development

Internal Competition

Internally, fundraising for exhibitions competes with fundraising for capital projects, operating expenses, and other activities and projects. These competing priorities are especially apparent at SI because of the current importance assigned to construction and renovation projects and the relative flatness of federal operating budgets. This internal competition raises important questions for exhibition development. How should a museum's development staff resources be allocated? How involved should development staff be in the actual exhibition process? Who should have responsibility for exhibition fundraising? At the Smithsonian, and at other multi-museum complexes, a further complication exists: coordinating fundraising so that individual units do not compete with each other.

The Relationship of Development and Exhibition Offices

As exhibitions have become more dependent on external funding, the role of fundraisers has increased in importance. Across museums, both at SI and elsewhere, there was considerable variation in the links between development officers and exhibition staff. Some museums, especially small ones, include the development director on the committee in the museum responsible for selecting exhibitions and developing exhibition schedules. In other cases a fundraiser is part of the team that develops an exhibition. When a fundraiser is not part of the exhibition team, the development office's perspective and input were typically solicited early in the exhibition development process.

Fundraising generally takes place simultaneously with concept and design development. When the fundraising actually starts is, however, somewhat idiosyncratic, based on when fundraising and exhibition staff believe they have enough information to present to potential donors. Interviewees in the same museum described a case where a good idea for an exhibition was presented verbally and funded immediately and another case for which fundraising did not begin until well into the design development phase.

Prospect identification at both SI and non-SI museums emerged as an informal and unstructured process, with personal knowledge of individual, foundation, or corporate interests paramount in identifying appropriate potential sponsors. Most frequently in art museums, curators identified prospects. The current trend in museums nationwide, however, is toward more systematic approaches, e.g., using computer software for donor tracking.

As a general rule everywhere, development and exhibition staff collaborate in producing "case statements" that showcase the exhibition project and highlight the benefits of support. These vary from a few typed notes to elaborate multi-media presentations. In some instances, a statement is the primary source of communication with a potential donor. Some development directors who were interviewed have, however, moved away from using case statements, believing that elaborate statements are ignored. Instead, they

use the museum's annual report and magazine as "calling cards" and rely on personal presentations.

In larger institutions, where multiple projects are underway, fundraising strategies that prioritize or 'bundle' funding options are sometimes used. One museum makes an assessment of a potential donor or sponsor's maximum capability and presents projects in decreasing order of size or in decreasing order of importance to the museum.

The Flow of Funding

In an ideal world, fundraising and exhibition development would move in sync, so that resources become available when needed. The reality, both at SI and elsewhere, is messier. It is quite common for museums to move forward with exhibitions before full funding is committed or in hand and to find themselves having to modify exhibition projects, sometimes dramatically, because the targeted amounts cannot be raised.

There is no real way to avoid the erratic nature of funding commitments on the part of donors or sponsors, and exhibition-funding shortfalls are relatively common. Despite that reality, only a few museums regularly include contingencies in their plans and budgets (this issue is discussed in more detail below). In addition, information regarding exhibition schedules and funding commitments is not always well integrated. Most Smithsonian museums lack a rigorous project control system that provides information regarding progress toward the accomplishment of project goals, including fundraising.

While many museums both inside and outside the Smithsonian make an effort to document changes in detail, interviewees feel that the systems and resources to do so comprehensively are not available. Without a rigorous project control and planning, it is impossible to know when a project reaches the point at which it is no longer feasible from the point of view of its intended outcome. If changes in budget likely will result in an exhibition that will be too small or too basic to achieve its intended goal, then the question must be asked whether it should be produced. At what point should such a decision be made? What data are required to make such a decision? How will the exhibition management system provide that data?

In a report on a study conducted for one particular exhibition, the Office of Policy and Analysis offered some recommendations to support the financial side of exhibition development.¹⁸ These included:

- "Set a time limit for the concept development stage (ideally six months)...
- Ensure that resources are adequate and focused enough to meet that time limit.
- Involve fundraisers in the concept development process so the project has a head start on fundraising.

¹⁸ Smithsonian Institution, Office of Policy and Analysis, *Three Studies of Explore the Universe, A New Exhibition at the National Air and Space Museum* (Washington, D.C., April 2002). The report is available at <http://www.si.edu/opanda/Reports/ETU.pdf>

- Set a reasonable time limit on fundraising (two years), and cancel the exhibition if goals are not met or provide internal resources if the topic is considered critical.
- Complete fundraising before investing in the design development stage.”

These recommendations were written in the context of a much wider issue throughout SI regarding the integration of exhibition development with fundraising.

Responses to Funding Shortfalls

In discussions regarding the present relationship between exhibition design, development, implementation, and fundraising, most interviewees inside and outside SI talked about strategies for coping with funding shortfalls. Exhibition-makers typically choose among the following options when funding falls short:

REDUCE COSTS

1. Scale back complementary activities, such as marketing, outreach, and public/education programs (very common);
2. Scale back the size of the exhibition (somewhat common);
3. Scale back the use of high-cost exhibit items, e.g., interactives (somewhat common);
4. Scale back the quality of the installation or materials (somewhat common);
5. Scale back the number of objects in the exhibition by reducing loans (somewhat common).

APPLY ADDITIONAL RESOURCES

6. Supplement with institutional funds (common);
7. Charge (or increase) an admissions fee (somewhat common for temporary exhibitions--although not at SI--but uncommon for permanent exhibitions).

DELAY

8. Delay the opening of the exhibition (somewhat common);

CANCEL

9. Cancel the exhibition (very uncommon).

With respect to item #1 above, complementary exhibition activities such as marketing/promotion and public/education programs are, at times, parts of most original budget estimates for exhibition projects and are components of the funding packages presented to potential donors (the exhibition direct costs presented in this paper, however, exclude these items). Most interviewees stated that these budget items are the first to be eliminated to cope with shortfalls in exhibition funding.

Each of the above options has hidden costs; e.g., opportunity costs in using internal funds, the sixth alternative, and inflation costs in delaying the exhibition, the eighth

alternative. Delaying an opening is also, according to museum staff, quite costly with respect to the museum's relationships with funders and communities. As a protective strategy, some museums publish tentative dates and do not set final dates until they feel secure. With respect to the option of scaling back an exhibition, special attention should be given to whether it would be more advisable to cancel it. As noted, scaling back can reach a point where the likelihood of achieving the exhibition goal is compromised.

One major museum contacted for this study copes with uncertainty by building alternative scenarios into the design. It designs its exhibitions to be modular and to be redundant with respect to the exhibition goal, so that it is easy to scale back the overall exhibition without damaging its potential effectiveness. That is, by planning alternative scenarios in advance, it minimizes the impact of funding shortfalls on exhibition outcomes. The director of a regional museum indicated that "When we submit a proposal, there are contingencies that we develop. For example, we can curtail a component – perhaps we cut back. With each exhibition I think of a minimum exhibition plan. Basically, the decisions are made on an individual case basis."

EXHIBITION COSTS AND THE MIX OF EXHIBITIONS

A number of interviewees suggested that Smithsonian non-art museums should produce fewer permanent exhibitions in favor of a greater number of temporary exhibitions. Their reasons included the need to draw more repeat visitors and new audiences, the tendency of information to become outdated, and the long development times and high costs of permanent exhibitions.

Traditionally, the intent of the permanent exhibition was to display the institution's collection, and the exhibition changed over time only in minor ways because the collection itself did not change substantially. That is, museums often aspired to have their permanent collections serve as "reference works" or "encyclopedias" and usually arranged the objects according to the generally accepted academic categories of the subject matter discipline (e.g., artist nationality/school, historical chronology, scientific classification, etc.). In contrast, museums saw temporary exhibitions more as "essays" that frequently focused on narrow topics; they tended to be more thematic.

As museums have become more visitor-focused, the trend has been to move away from academic, encyclopedic presentations. Many museums now aspire to have all their exhibitions – whatever their type and whether using their own permanent collection or borrowed materials – meet similar standards of thematic coherence, interesting approach, exciting design, layered interpretation, etc. The standard they aim for is that for temporary exhibitions. As museums move in this direction, their visitors may, in turn, come to expect this higher level of presentation in all exhibitions.

The Smithsonian faces a somewhat unique situation with respect to its visitors that bears on what it does with its permanent exhibitions and the mix of exhibition types it makes available. At present, the attitude of visitors to the Smithsonian toward types of presentations and changes in permanent exhibitions is not entirely clear. Repeat SI visitors, (traditionally half of the audience at the larger museums), may be interested in having changing exhibitions on a regular basis, so that having more frequently changing exhibitions may draw more repeat local visitors. On the other hand, many visitors to SI are tourists who live outside the area and are coming back to SI for the first time since childhood. They come with the expectation that they will delight in seeing some of the highlights of their childhood as they remember having seen them, and of sharing that same experience with the children or grandchildren who accompany them.

Thus, SI museums face a complicated decision about when and how much to change their permanent exhibitions – whether to refurbish and re-install them or to re-envision them. *First Ladies* at NMAH is an example of an important exhibition that was completely re-done, but that managed to retain its dedicated audience. A core museum in the Smithsonian (e.g., American History, Natural History, or Air and Space) needs to have a mix of familiarity and newness, both permanent and temporary exhibitions. The question is, what is the right balance?

The question of how to structure an overall exhibition program for a museum, including the best mix of permanent and temporary exhibitions and the appropriate duration of both types of exhibitions, can be viewed from two perspectives: what visitors want and what the museum is able to do. In comprehensive visitor surveys in the past, only a very small percentage of Smithsonian visitors criticized SI exhibitions for their age, except at the National Museum of American History (NMAH).¹⁹ In a recent study of SI visitors, however, about one-quarter felt that updating old exhibitions would attract more visitors to NMAH.²⁰

The ability of a museum to change its exhibitions frequently to please its visitors, attract more repeat visitors, and appear up-to-date is strongly influenced by practical realities. One science museum planned to change some of its small exhibitions weekly and to redo all of its large exhibitions every five years. It found that this goal was very difficult to meet over a long period because of the resources required. It is still aiming to redo its main exhibitions every five years, but short-term changes are less frequent.

If a museum determines that it should replace some permanent exhibitions with temporary exhibitions, it will need to take into account the impact of such a shift on resources. As noted, the median cost per square foot of a permanent non-art exhibition both inside SI and outside of SI is more than twice that of a temporary non-art exhibition. Interviewees in the exhibition study indicated that permanent exhibitions tend to take considerably longer to prepare than temporary exhibitions, suggesting that they have substantially higher indirect costs. Assuming, speculatively, that the total cost of a permanent non-art exhibition is as much as four times the cost of a temporary exhibition of the same size, the same resources would be required to put up four temporary non-art exhibitions as would be required to put up one permanent exhibition in a given space. Thus, in theory, a twenty-year permanent exhibition could be replaced by four five-year temporary exhibitions without affecting the overall level of resources.

¹⁹ National Air and Space Museum (1994) 2%; National Museum of Natural History (1994-95) 3%; National Museum of American History (1994-95) 11%; Freer Gallery of Art and Arthur M. Sackler Gallery (1994-95) 4%.

²⁰ Smithsonian Institution, Office of Policy and Analysis, *Lure the Visitor: A Report for the National Museum of American History* (Washington, D.C., July 2002).

APPENDIX A

Non-Smithsonian Museums and Organizations Interviewed

American Association of Museums
American Museum of Natural History
Americans for the Arts
Arizona Science Center
Art Institute of Chicago
Autry Museum of Western Heritage
California Academy of Sciences
Carnegie Museums of Pittsburgh
Chicago Historical Society
Cincinnati Art Museum
Cincinnati Museum Center
Colonial Williamsburg
Detroit Institute of Arts
Discovery Place, Charlotte
The Exploratorium
Field Museum of Natural History
Fort Worth Zoo
The Foundation Center
Great Lakes Science Center
Maryland Science Center
Missouri Historical Society
Museum of Television and Radio
Museum of Science, Boston
Museum of Science and Industry, Chicago
Natural History Museum of Los Angeles County
Nelson-Atkins Museum of Art
New Jersey Historical Society
New Orleans Museum of Art
Newark Museum
Orlando Science Center
Philadelphia Museum of Art
Royal Ontario Museum
Science Museum, London
Science Museum of Minnesota
Virginia Museum of Fine Arts
Virginia Historical Society
Walker Art Center
Wildlife Conservation Society

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