THE EVALUATION OF MUSEUM EDUCATIONAL PROGRAMS:

A NATIONAL PERSPECTIVE

March 2004

Smithsonian Institution

Office of Policy and Analysis
Washington, DC 20560-0405

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FOREWORD

At the request of the Smithsonian Institution (SI) National Board's Education Committee, the Smithsonian Center for Education and Museum Studies (SCEMS) asked the Smithsonian's Office of Policy and Analysis (OP&A) to undertake a study of evaluation in museum education programs in the United States. The main purpose of this report is to describe the extent to which systematic and effective program evaluation is currently being used. The results will be reviewed internally to identify best practices that may be applicable to education departments at SI.

The study is based on two groups of telephone interviews with museum education professionals, all members of the American Association of Museums' (AAM) Standing Professional Committee on Education (EdCom). We appreciate EdCom's willingness to share their membership list with us. We would especially like to acknowledge the 84 educators who took the time, in the midst of busy days, to thoughtfully reflect on their present practice and express their hopes for the future. Without their cooperation, the study could not have been conducted.

Two staff from OP&A, Zahava D. Doering and Amy Nazarov, developed the methodology, conducted the interviews and wrote this report. The comments of Andrew J Pekarik and Megan Birney, OP&A were especially helpful. Members of the SCEMS staff, including its director, Stephanie Norby, provided valuable insights. Together, OP&A and SCEMS continue to learn mutually and develop new perspectives in a fruitful, beneficial partnership.

Carole Neves
Director
Office of Policy and Analysis

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INTRODUCTION

With rare exceptions, U.S. museums, zoos and aquaria, historical societies and science centers offer educational programming to a variety of audiences: tourists, school groups, families, adults in the community with an interest in science, nature, art or history, and other audiences. Educational programs may complement exhibits or be offered independently; they include tours of historical sites for elementary-school students studying their state's history, talks given by artists or curators, interactive "family days" where children and parents make art together under the supervision of museum volunteers, visits to senior citizens' centers, where residents can examine historical artifacts and learn their significance from a museum docent, and many others.

Museum educators develop and implement these programs themselves or in conjunction with other professionals. For example, educators frequently work closely with exhibition designers in order to develop educational activities that will complement exhibit content. Educators also often partner with schoolteachers to develop the ties to museum programming that can justify the resources needed to support field trips.

Amid the tremendous diversity of program possibilities, how do museum educators decide which programs to create, keep, change, and eliminate? What methods do they use to evaluate the effectiveness of their programs? What can educators do to maximize the quality of museum education programs?

To address these and other questions, and at the request of the Smithsonian Institution National Board's Education Committee, the Smithsonian Center for Education and Museum Studies (SCEMS) asked the Smithsonian's Office of Policy and Analysis (OP&A) to undertake a study of evaluation in museum education programs in the United States. The goal of the study was to describe the extent to which systematic and effective program evaluation is currently being used to assess U.S. museum education programs and to identify best practices that may be applicable to the Smithsonian's education departments. In this study, educational program evaluation is defined as *a systematic effort to determine the characteristics and outcomes of activities or programs*.

METHODOLOGY. The study is based on two groups of telephone interviews with museum education professionals. For convenience, the term "museums" will be used throughout this paper as an umbrella term under which zoos, science centers, aquaria, and historical sites and societies fall, as well as museums themselves.

The first set of interviews was completed with professionals in a random sample of 69 museum education departments. Some 75 institutions, or nearly 20 percent of education departments with members in the American Association of Museums' (AAM) Standing Professional Committee on Education (EdCom), were selected out of a total pool of 393 departments.[1] Of the 75 departments selected, six declined to participate. Participants are listed in Appendix B.

Each interview, which averaged about 35 minutes in duration, consisted of two parts: standardized survey questions and open-ended questions. OP&A staff asked educators about the size and type of the institution where they work, the institution's annual visitor attendance, the methods used to assess how education programs are received by participants, and what becomes of the information gathered through these methods. Other questions were asked to elicit information about the ways in which educators demonstrate the effectiveness of their programming to funders; whether they regularly apply evaluative techniques to education programs; and which, if any, methods have proven effective for museums seeking to better understand the needs and wishes of the people attending their programs. This report is based primarily on the results attained from the conversations with participants in this random sample.

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[1] The categories of EdCom members deleted from the complete list of 814 names are listed in Appendix A, Table 1.

Description of Random Sample. As shown in Figure 1, the sample included museums of all kinds, although art museums predominated. Four out of five museums OP&A interviewed were either in urban or suburban areas (see Figure 2).

Figure 1. Types of Institutions in Random Sample of Museums*
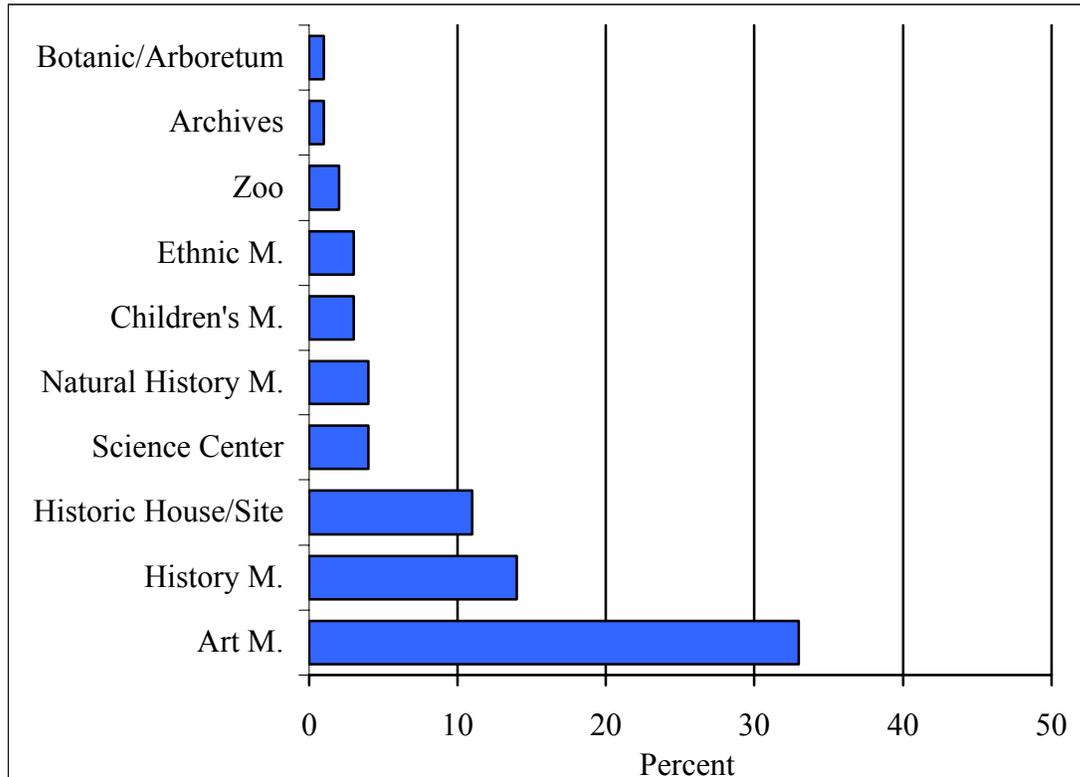
The annual attendance at these institutions varied considerably, with about one-third of the surveyed institutions reporting over 100,000 visits annually. At the low end, fourteen percent of the museum-education departments the study team interviewed said they draw fewer than 25,000 guests each year (see Figure 3). Average annual attendance was 113,000; the median was 60,000.

Figure 2. Locations of Museums in Random Sample

Rural
19%

Urban
45%

Suburban
36%
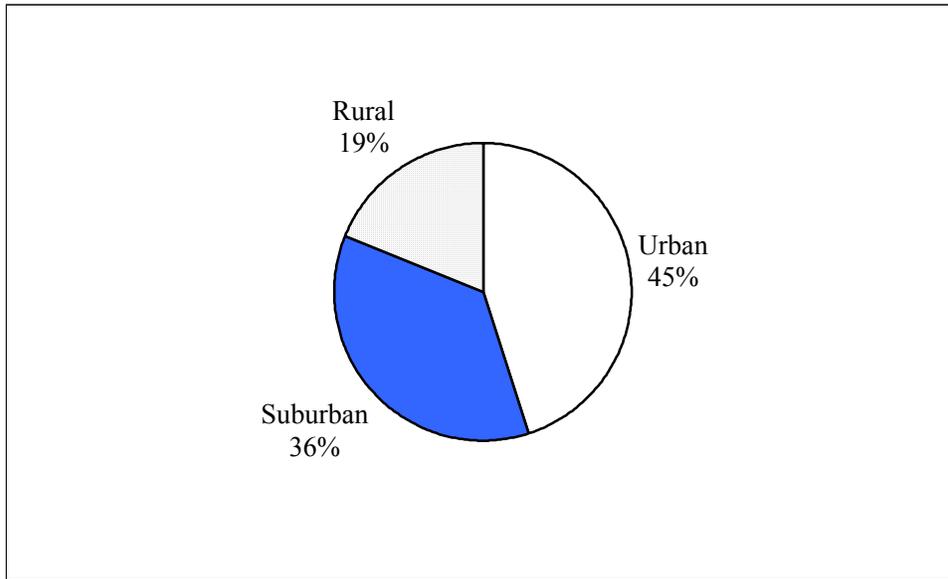
Source: Appendix C, Table 1.

Figure 3. Annual Attendance at Random Sample of Museums

Unknown
10%

Under 25,000
14%

Over 100,000
28%

25-50,000
23%

75-100,000
9%

50-75,000
16%
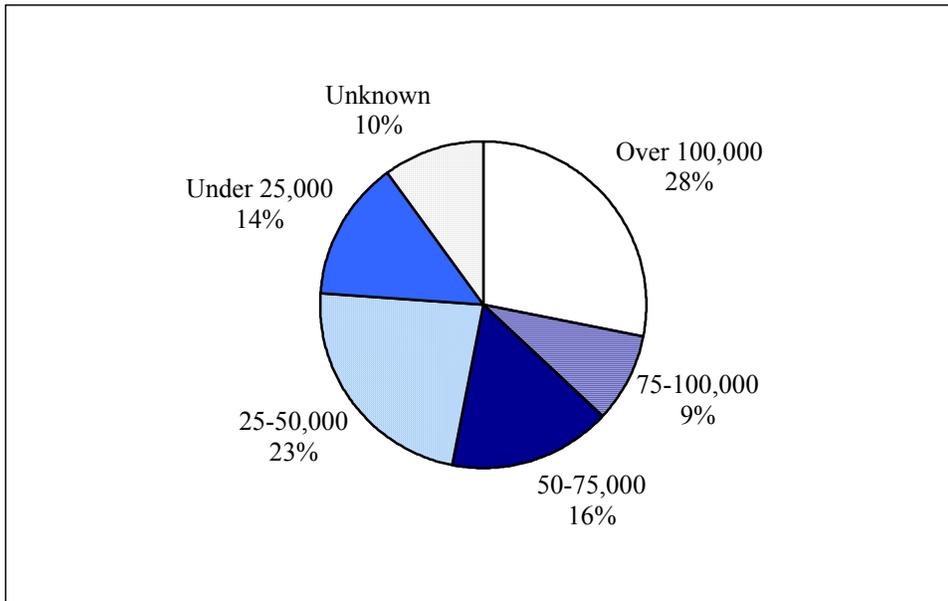
Source: Appendix C, Table 1.

The average number of full-time educators at the museums is three (see Figure 4); the average number of part-time educators is five (see Figure 5).

Figure 4. Full-Time (FT) Educators at Random Sample of Museums
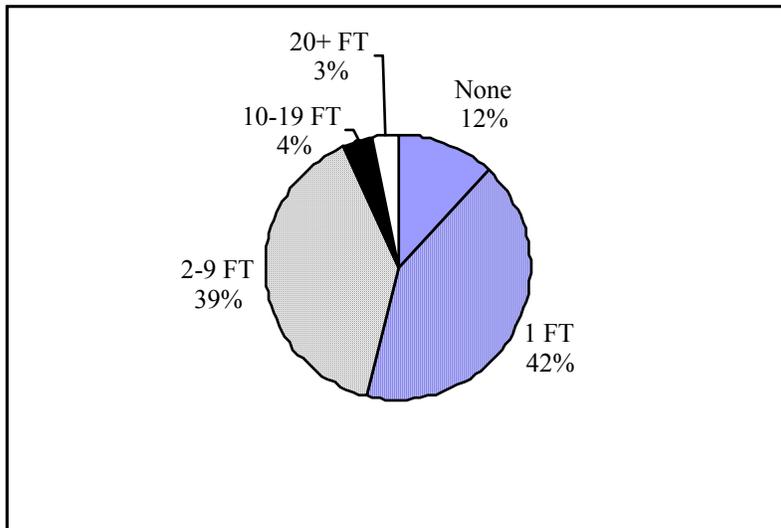
Source: Appendix C, Table 1.

Figure 5. Part-Time (PT) Educators at Random Sample of Museums
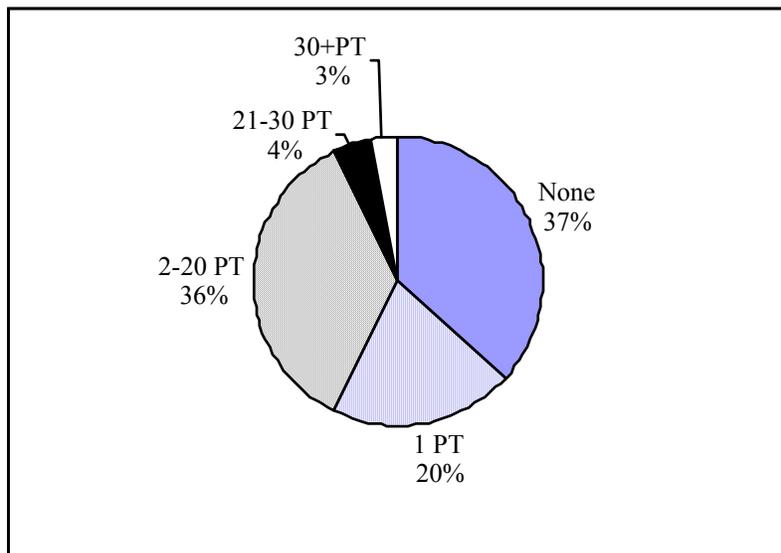
Source: Appendix C, Table 1.

Volunteers provide much needed aid to these departments; the museums' average number of volunteers assisting with educational programs is 55, though several museums say they have no volunteers in education, and one institution said it had 400 volunteers dedicated to supporting education programs; the median is 30.

For comparative purposes, a second group of interviews was conducted with educators at 15 science centers, art and history museums and aquaria recognized by their peers for their work in museum education. This group was selected by asking participants in the random sample for the names of museums and other institutions with education programs they admired and sought to emulate.[2] In telephone interviews, this group of 15 museums provided data that helped guide OP&A staff in the development of recommendations.

TERMINOLOGY. Two important distinctions of terminology arose during the interview process and must be addressed here. Many study participants used the words "evaluation" and "feedback" interchangeably, but others drew careful distinctions between the terms. Museums experienced in program evaluation tend to view gathering feedback from programs participants as a means to an end; they did not equate "evaluation" with "feedback." On the other hand, some museums tended to regard feedback-gathering as evaluation, as an end in its own right. The distinction will be maintained in this paper.

Many museum education professionals correctly distinguish between "formal" and "informal" evaluation methods, frequently using the terms to classify their institution's approach to program evaluation. Study participants cited a variety of formal evaluation methods: unobtrusively timing how long visitors engage in a particular program activity; employing sampling methods to select visitors to answer questions; and administering questions to those visitors in a set order. Formal evaluation processes also include contracting professional evaluators to conduct surveys of program participants, analyze the results and make recommendations. Nine respondents said they have employees with some evaluation experience on staff, and that these individuals design and administer

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[2] These museums were also EdCom members, but had not been selected as part of the random sample.

program evaluations using one or more of these methods, with no need for an outside contractor.

Other museum educators identified themselves as engaging in "informal" processes. These would probably involve only staff, volunteers or interns working at the museum— not contractors. Informal methods cited by interviewees include chatting with guests after a lecture offered by the museum, inviting program participants to leave a comment in a guest book, or jotting down children's reactions as they participate in an art project led by an educator. Sampling methods are generally not used, and everyone from security guards to docents to the director might report anecdotal evidence of a program's success to the education team (i.e., "The kids looked like they loved dressing up in pioneer clothing"). In some cases, museum educators get feedback even when they are off the job; study participants in some small towns report that they get an earful from local participants about the pluses and minuses of recent programs every time they are spotted in the grocery store!

Caveat. For this study, OP&A deliberately distinguished between evaluation of museum education programs and evaluation of exhibitions. The primary focus was on evaluation of programs developed and implemented by departments of education within museums. (Some of these programs, of course, were designed to complement exhibitions.)

REPORT CONTENTS. In the next section, the results of this research are summarized. First, the focus is on the types and frequency of techniques museums use to assess programs. A discussion of how the results from assessments are used, disseminated, and the obstacles to evaluation follows. Third, potential increases in evaluation and education funding are discussed. The next section is a discussion of the effects that evaluation methods, frequency and funding have on museums' programs. General conclusions are also presented. In the last section, OP&A offers recommendations for museums that want to incorporate more evaluation into their educational program planning and execution. Ancillary materials follow in a series of appendices.

Results

TECHNIQUES UTILIZED BY MUSEUMS

When museum educators seek to determine the outcomes of the programs they produce and their impact on participants, they tend to use a few tried-and-true methods.

Questionnaires filled out by teachers, and casual observation by museum educators of program participants emerged as the two most common methods; Figure 6 offers a glance at the range of common techniques in use.

Figure 6. Frequency of Data-Gathering Methods*
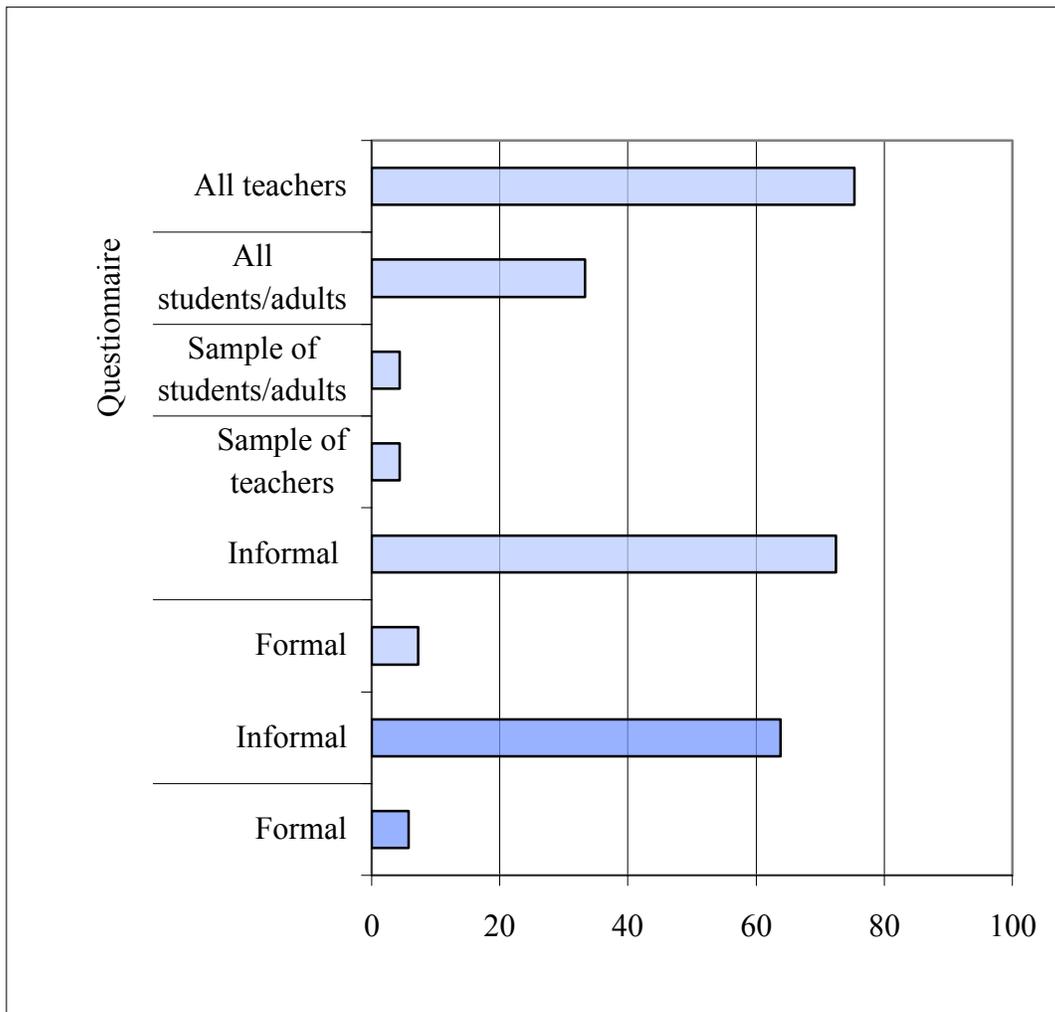
Source: Appendix C, Table 1
*Note: Total equals more than 100%, as interviewees could report using more than one method.

QUESTIONNAIRES. A set of questions handed to all the teachers bringing students to the museum, historical site or aquarium is the most frequently used method by museums educators to gauge responses to the programs they've presented. Four-fifths of interviewees said their departments administer questionnaires at least once a year to all teachers or group leaders attending educational events, while an additional four percent said they administer questionnaires at least once a year to a sample of teachers. Educators said that, on average, in the scenarios in which questionnaires were administered to teachers, over fifty percent of teachers completed them.

Two-fifths of the respondents said they administer questionnaires to students (usually in addition to giving them to the students' teachers), or to members of the general public attending a program. However, these groups tend not to return completed surveys as often as teachers do; only eleven percent of the time did students or members of the general public participating in programs return questionnaires.

When they conduct surveys, museums largely resist taking a sample of teachers attending the museum with students, adults visiting the museum alone or with other adults, or other groups of visitors. Only a handful of study respondents cited the use of sampling methods. One study participant spoke half-jokingly of her colleagues' "fear of sampling," even though she explained to her colleagues why eliciting responses from a carefully chosen sample of museum visitors could yield useful results. The fear she alluded to probably resulted from the uncertainty some educators said they feel about how to choose a sample that reflects the population of museum visitors who attend programs. As a related issue, study participants seldom understood the importance of high completion rates—as opposed to large numbers of questionnaires.

Education program participants tend to fill out questionnaires "not as completely or thoughtfully as we would hope," said one education director, sounding a familiar theme echoed by many interviewees. Some respondents said they were in the process of re-writing their questionnaires to make them shorter, or adding more probing questions they hope might elicit more constructive information.

Other interviewees said they wanted to find ways to entice more program participants to return questionnaires, or to develop more meaningful ways to analyze the data. At least three educators said they wanted to develop questionnaires for students to complete, but a handful expressed interest in using fewer questionnaires, if any, complaining that handing them out at the end of an education program tended to deflate the excitement that had been generated by the activity. "I choreograph the event to end on this great high, and when I say, 'Oh, by the way, can you quickly fill out this [questionnaire],' it is just a downer," said one educator.

Educators frequently said they longed for more constructive criticism to help them evaluate programs. Many program participants, they said, will fill in a questionnaire only if they were very happy or very unhappy with the program. An educator at a science center that offers an extensive array of educational programming had this to say:

> *The people who complete the questionnaires, if they had the best*
> *experience of their lives, they write gobs. If they had the worst, you get*
> *your socks blasted off. What about the 'middle' people?*

About two-thirds of the time, museum educators will prepare written or oral reports from information gleaned from these questionnaires. The data is typically shared with colleagues, with the director, and, with increasing frequency, with program funders, who seek to know how their dollars are or will be used. About half of the participants said their institution's board members sometimes see the evaluation reports; however, these individuals seldom request such data. It was difficult to discern from the interviewees what types of analyses were undertaken; the study team's general impression is that on average, simple counts of response categories and frequency distributions were calculated.

OBSERVATION. Most of the interviewees participating in this survey said they and their colleagues engage in *some* sort of observation, formal or informal. One survey participant said that observation is the "method that is used most frequently but documented the least." Half of the museum educators who rely on observation as a way to measure program participants' responses say they prepare some type of report—either

written or verbal—to share their findings with colleagues; the other half prepares no report.

Three-fourths of the museums, zoos and historical societies interviewed identify themselves as engaging in what they call "informal" observation, in which the observer makes no effort to keep his presence or intent hidden from participants (thereby potentially influencing their behavior), and no random sample of people is selected. Only seven percent of the museums describe themselves as using formalized observation techniques, in which educators might observe a selected sample of program participants without the subjects' knowing it, use a stopwatch to time how long they are engaged in a project, or track their movements through an activity to see what draws their attention.

Generally speaking, study participants said they observed programs to see if the children and adults taking part looked "happy" or "engaged," "confused" or "frustrated." For educators pressed for time and dollars, the observational effort seems to reassure them that their work is having the desired impact, or points them toward features of the program that might need to be changed.

INTERVIEWS. Only four interviewees said they "formally" interview program participants—with a sampling method, a questionnaire, and possibly a recording device to capture their answers—while the visitors are still on site at the museum.

A much larger group of museum educators —two-thirds—said they informally chat with education program participants during and after programs. Many of the educators participating in the study said this informal approach most often yields meaningful feedback for use in assessing programs. These conversations almost always take place without using a questionnaire or discussion guide, deemed by several respondents to be intimidating to program participants.

Five of the study participants say they contact program participants by telephone after a program has taken place to interview them about their thoughts and opinions on the event's subject matter, format and educational value. By and large, educators believe that

if an interview or conversation is going to lead to useful comments, it needs to take place while the event is still fresh in participants' minds.

FOCUS GROUPS. Six of the museum-education departments said they have used focus groups to evaluate educational programming. However, convening and conducting such sessions typically requires more skilled personnel, space and financial resources than other methods do, which may explain their relatively infrequency. It's simply easier to jot down program participants' reactions or comments as they walk out the door than it is to secure a room, design a format, offer refreshments, moderate a discussion and solicit people to participate in a focus group.

Museum educators may develop the focus group goals, questions, activities and participants' list in-house, or they may contract with an outside education or evaluation specialist to develop the protocol and lead the group. Focus groups may be comprised of students, teachers, adults taking part in education programs, or local people who neither visit the museum nor take part in its educational programming.

Respondents typically said they received more useful, critical feedback about their education programs from teachers participating in focus groups than they did from teachers completing questionnaires, formal interviews or casual chats. The comments gathered in a focus group are generally more detailed than those gathered from teachers who visited the museum with a class, since those teachers are often preoccupied with "herding" students or other logistical matters, and can't take the time to fully explain their and their students' reactions to a program.

Also, teacher feedback in a focus group was generally perceived as more nuanced than that coming from children or from adults attending a program other than a school tour. The latter, perhaps constrained by a societal emphasis on good manners, respondents said, typically only participated in an evaluation if they had a positive experience to share. "It's a small town," sighed one educator, lamenting the lack of constructive criticism from program participants. "No one wants to be mean!"

Museum educators experiment with incentives like food, shop discounts or other items to try to get teachers together in a forum in which they'll have time and inclination to share candid reactions to a program. A museum educator in a Midwestern city convened a focus group of teachers, and was pleased with the results:

> *I came up with ten questions I really wanted the answers to and had a few people with me from the education department [to administer the questions and lead the discussion]. We paid the teachers a small stipend to come in and gave them breakfast. It was a really, really helpful conversation.*

Understandably, study respondents did not mention the negative aspects of focus group methodology, e.g., the influence of a strong personality on the group dynamics.

CONSULTANTS. About half of the study participants have hired outside education or evaluation consultants to help them gauge guests' responses to programs; some consultants have conducted the evaluation with the help of education staff, docents, or other museum personnel.

Typically, consultants are brought in on a project basis: they might evaluate a teacher's guide, design a questionnaire to administer to program participants and analyze the results, or lead a focus group. They are often brought in when a grant stipulates that the funded program be evaluated by an outside contractor, to ensure greater objectivity than if the project was conducted by internal staff.

Professional evaluators regularly provide evaluation support to prominent museums and science centers, but smaller institutions—when they can afford to hire consultants—have also clearly benefited from an evaluator's expertise. Consider the comments of this educator at one of the children's museums in the sample:

*We use an outside evaluator when the grant we are working on demands
it. The last one I worked with was [a local cultural-development group in
this educator's state]; the evaluator is to come from [a local university]. I
am managing four grants at the moment with varying duration. Some have
little pots of money, some big.*

COMMENT BOOKS AND CARDS. Only 13 percent of survey participants said they used
comment books and cards to gather reaction to programs for evaluative purposes. In most
museums, cards are made available so that visitors may comment on diverse aspects of
their museum visits: not just programs, but parking, food service facilities, cleanliness of
bathrooms, etc. Often the distribution and collection of these cards falls under the
purview of the visitor-services, membership or marketing teams within museums; the
data gathered are not necessarily shared with education staff.

FREQUENCY OF EVALUATIVE ACTIVITY

Museum educators endeavor to offer a wide range of programming options. While some
of the smallest institutions in this study offer one or two programs a year, larger museums
offer dozens every month. On average, the museums canvassed said they currently offer
five or six different programs per year.[3]

Considering that museum education departments typically juggle several public and
school programs, the extent to which these programs are evaluated is limited. While
virtually all of the respondents said they engage in formal evaluation, informal evaluation
or a mixture of both, few said they evaluated programs on a regular basis. Just under half
of the museum-education departments included in this study said that program-evaluation
is part of their annual planning. In many cases, resources are not available for
implementation of evaluation processes.

Priority of evaluation initiatives generally goes to grant-funded programs; nearly three-
fourths of the time, evaluation of a program is mandated by the organization underwriting

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[3] At all museums, many of the programs, especially those geared towards schools, are offered multiple
times in the course of the year.

the event. Clear indicators of prioritization, other than funding, did not emerge in the course of the study. Some respondents said that they wanted to evaluate their most successful programs to gauge why they struck a chord with participants, while others opted to evaluate programs that are not attracting the staff's anticipated number of participants. Multiple factors, including amount of resources available to conduct evaluations, level of interest in examining a given program, senior management support for evaluation, etc., determine how museum-education departments decide which programs to evaluate and how often.

Educators might undertake one evaluation of a single program, or they might repeat evaluations of the same program in order to track responses over time. With large-scale programs, such as an annual re-enactment of an historic event, educators appear to be more willing to build in an evaluative component than they are for a program that is repeated each week. An annual program has a finite beginning and end; for a smaller museum, an annual program might be the highlight of its programming year, the vehicle into which it pours the bulk of its yearly program resources. The decision to evaluate a program on a recurring basis demands not only that educators delineate evaluation goals, but also that they back them up with resources sufficient to implement the studies. Many of the museum educators interviewed said that competing demands on their time, coupled with the scarcity of dollars and limited knowledge of how to perform evaluations, preclude consistent assessments of programs.

Only a handful of institutions—13 percent—have someone on staff that spends all or part of his or her time on evaluation of exhibits or programs. Among museums without a full-time paid evaluation person on staff, the average percentage of time education staff members spend on evaluation activities—such as designing, administering, tabulating, analyzing and reporting on evaluations—is a mere five percent, on average, ranging from zero to three-fourths of the staffer's time.

Several respondents said that their education departments have decided to dispense with evaluation altogether. Educators in these institutions tend to offer programs based on their personal convictions that the programs benefit their intended audiences. A number

of educators and their directors tend to agree that it's better to offer more educational programs than to expend resources evaluating them.

Some interviewees offered a rationale that sounded logical to them: the more people exposed to the informal learning opportunities these programs offer, the better. Not necessarily so, say other study participants. "The pressure is on to develop more programs and bring in more people," acknowledged an education curator in the South, but "my counter-argument has been that if we use evaluations, we can more effectively target people, and we will build attendance."

APPLICATION OF EDUCATION PROGRAM EVALUATION

In spite of the relatively limited amount of evaluative activity that takes place, virtually all (97 percent) of the respondents, said that evaluation or feedback—both formal and informal—leads to at least minor changes in education programming. Tweaks are made to program narratives, a sculpture is added or a painting withdrawn from a tour of an art museum, or the duration of an art workshop is increased, for example. About 40 percent of respondents said that evaluation led to what they termed "major" changes in education programming. Examples included scrapping a program, re-working program content to appeal to a different age range, or developing a new program for an audience whose participation has not been sought before, such as senior citizens or at-risk teenagers. In other words, when efforts are made to critically assess an activity, room for improvement is almost always found.

Some educators believe that it's worthwhile to evaluate even "proven," successful programs that have been offered for many years. For example, since 1997, one museum has offered a program built around the following scenario: a Mayan artifact has been donated to the museum, and curators suspect it may be incorrectly labeled. Students view the object, research its origins, study Mayan history, and, at the conclusion of the unit, present findings to the museum staff. They initially receive the object in their classroom, but they also visit the museum and communicate with museum staff via e-mail over the project's duration.

While the museum has modified the program over the years, it recently sought to assess the degree to which its learning objectives are being met. With an outside contractor, this institution undertook a three-year evaluation of the program, which the staff hopes will explain certain discrepancies in teachers' responses to it. In the words of the assistant director of education who described this project, "Some teachers have come for three or four years [of subsequent classes], and some have come once and not come back." The evaluation will also "support the museum in its application for accreditation and move the museum closer to its short-term educational goal to increase use of the museum for research."

In other cases, museums might launch a program, enjoy a period of favorable responses to its content and format, and then watch in puzzlement as fewer participants sign up. Or educators may invite a provocative artist to show slides of his or her work and to lead a discussion on modern art, yet he or she may draw only a small audience. Consider the predicaments of these educators, one at a college art museum, and one at a multi-use facility that includes an art gallery:

> *If I could figure out why people come to [certain programs], my life would*
> *be a lot better. We used to have these huge crowds at Family Day, and for*
> *whatever reason now they are not so popular.*

> *Our events are poorly attended. There were six people that showed up*
> *[for an event] last week. I was banging my head against the wall.*

What would trigger a drop-off in education program attendance? It could be that the craft project offered was too difficult for the children who attended, the speaker at the event droned on too long, or everybody who wanted to take part in the program had already done so. Why might the turnout be low for a publicized talk? Again, there are several possible explanations: potential program participants say they "don't like modern art" and choose not to attend; the subject matter of the slide show looked too arcane to potential attendees; or the event took place on a night when holiday dinner preparation took precedence. Museum educators said they use evaluation methods like interviewing

and observing—and sometimes bringing in outside consultants—to attempt to understand the reasons participation dwindles, surges, stays the same, or never materializes.

When museum educators evaluate programs using a combination of methods, they tend to uncover aspects of program content that call for fine-tuning. A museum educator at a large history museum told us that his organization "is cutting back on the number of programs we are doing so we have a greater impact" with those that remain. This educator, who evaluates programs with surveys, participant interviews, and focus groups both in-house and in partnership with contractors, believes that offering a few stellar programs and evaluating them carefully tends to yield more meaningful data about what visitors want to see and do when they visit the museum to participate in programs.

The reality is that educational programs can be expensive to produce, and most museums cannot afford to offer a program no one will attend. Evaluation can be a means by which to assess which features of a program (the opportunity to take home an art project, or to contribute to a mural that will stay behind for future visitors' enjoyment, for example), which topics (sharks' behavior versus types of sea anemones) and which formats (a costumed re-enactment versus a lecture by an historian) tend to attract participants.

DISSEMINATING OF RESULTS. Educators in museums often share oral or written reports of their evaluative activities with colleagues. (See Figure 7, next page). Educators state that they share the results of educational program evaluation to help inform the work of other departments, to provide feedback to curators, keepers and other staff members, or to convince directors that education programs are having a positive impact in the community.

Three-fourths of the educators surveyed shared evaluation findings—the reports and summaries created in-house or by contract evaluators—with colleagues in marketing, development and other departments; 92 percent share findings with the museum's director. But one educator admitted hiding comment forms in her desk so that they cannot be altered: "I squirrel them away so they can't be stolen or changed," she said. "[Curators or docents] might want to doctor them up. People don't always like what you do, and they are going to complain about it."

Figure 7. Disseminating Evaluative Data and Reports*
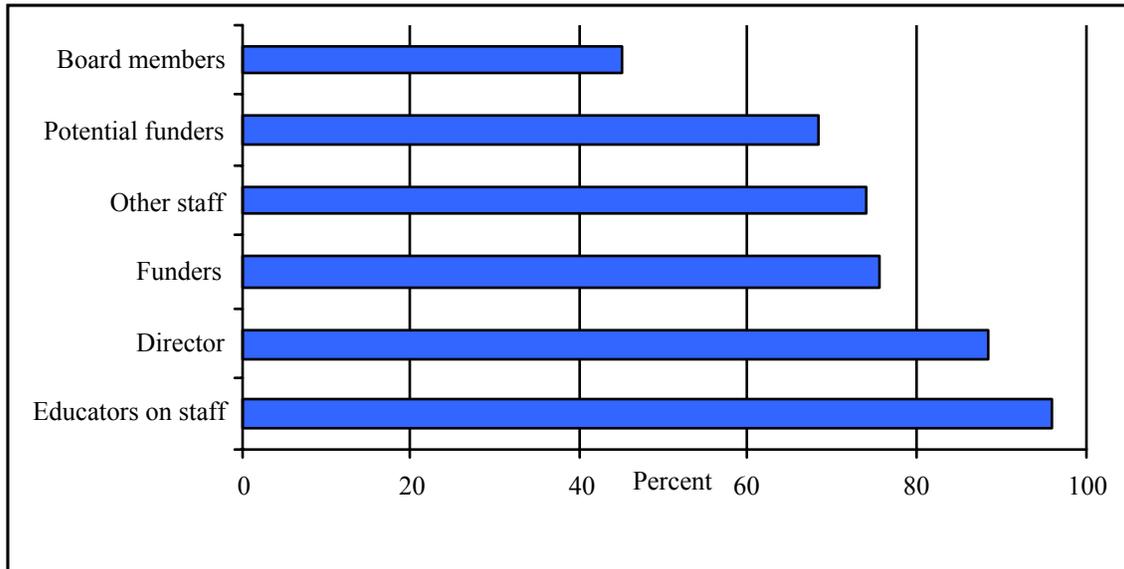
OBSTACLES TO PROGRAM EVALUATION

Limited resources to pay for or execute evaluation, lack of knowledge about how to evaluate, and management's resistance to evaluating programs are the top reasons cited when museum educators discuss why they don't evaluate programs.

Several respondents said they were first exposed to evaluation techniques and case studies at AAM meetings. While they reported being intrigued by what they heard, they also expressed concern over the staff resources they believed evaluation would entail. Said one education curator at an art museum in the Midwest:

> *The evaluation process was so time-consuming that when you have a staff our size doing the number of programs we are doing, I did not see how we could implement [evaluation].*

Or this education director at a historic house and museum:

> *I remember going to [an AAM meeting] and hearing about exit interviews*
> *being administered and I thought, 'Who can do that?' When times were*
> *better for us, we could take a good look at [our education programs.]*
> *They have been running on autopilot for a while.*

In fact, this educator, who wears many hats at her small institution, views the
evaluation process as a burden. "I feel resentment at putting my limited amount
of energy into this," she said, referring to list of program outcomes she had to
generate for a potential funder to examine.

Financial shortfalls, larger for many of the respondents' institutions in the past year or
two, are another key reason many museums are reducing programming and/or evaluation,
or nixing programs or evaluation outright, as discussed further below.

PROGRAM EVALUATION VS. EXHIBITION EVALUATION. Almost half of the respondents
said that program evaluation gets more support at their institution than does exhibition
evaluation. Nevertheless, many large museums with in-house evaluators still say that it's
easier to make the case for exhibition evaluation than it is for program evaluation.
Economics demands it; a million-dollar exhibit might warrant a $5,000 evaluation
provided by a contractor, but would a $5,000 weekend of pioneer role-playing for
families demand the same? Said an educator at a prominent institution in the West:

> *[The educators here] are not evaluating programs comprehensively.*
> *There is a ways to go before education program evaluation is as*
> *entrenched as it is in exhibitions evaluation. Exhibitions are higher-*
> *profile.*

Due to cost-cutting, an in-house evaluator at another museum said her boss has asked that
she focus primarily on exhibition evaluation, not program evaluation, in part because
"exhibits are tangible and programs are more ephemeral." However, she echoed other
educators in the study when she said that program evaluation would likely have its day:

People were somewhat skeptical of exhibition evaluation at first, but then
they saw that it could be very worthwhile and became real champions of
it. We have not had the chance to go through that in same way with
program evaluation.

MANAGEMENT RESISTANCE. The reasons some museums don't evaluate programs often start at the top. If a director balks at the idea of earmarking scarce dollars for evaluation, evaluation will probably drop down on the list of competing priorities. Nearly one-fifth of study participants reported some kind of resistance from a director or board members to the prospect of evaluating programs.

Some museum directors refuse to support evaluation for ideological reasons, respondents said. Directors resist changing the ways programs have always been structured, or they are wary of committing staff resources to what they may scorn as a purely academic exercise. Regarding some education programs at an historical society, programs that have been offered for a number of years, "there is reticence to tinker with them," said an educator there.

One education curator, this one at a mid-sized art museum, described how her peers and director view both exhibition and program evaluation:

[My director] has made comments about front-end exhibition evaluation
that have been very negative. He thinks it should be the curator's vision
of the show, the public reacts to it and then the education department
builds bridges between. I have to tread very cautiously with him in this
area. I have also had some issues with my own education staff that does
not see the value of program evaluation.

Another educator, who works at a small institution in the Northeast, said:

I am working with an old-style director who is a fly-by-the-seat-of-your-
pants guy. He thinks we are the experts and we will tell [program

*participants] what they need to know. But my staff and some [others]
really see the value of evaluation. It is a little difficult, but I am making
inroads.*

An unexpected thread to emerge in the course of the study's data-collection has been the
wave of guilt evident among museum educators, who contend that the evaluation they
do—or don't do—is not up to snuff.

Many survey participants sounded apologetic during the interviews. "The evaluations we
did in the past were sort of shallow," said one educator at a college-campus art museum.
"[Evaluation] is not something we are strong in," said another educator, this one at a
museum in the Plains states. "We have no formal recording or follow-up processes with
our gallery materials." And, a director of education at a museum in a major city said,
"We are not as sophisticated as we should be. We need to evaluate our programs."

In some small museums, such as one in the Southwest, educational programming—let
alone evaluation of it—by necessity takes a back seat to building repairs and other costs
associated with keeping the museum's doors open. "Right now, we have some moisture
problems in our building, and everything is being funneled into repairs," said the director
of this organization.

A final obstacle to evaluation that warrants comment is some educators' belief that an
evaluation of the educational programs they created would in fact be a referendum on
their job performance, a mechanism by which they themselves would be judged.

POTENTIAL INCREASES IN EVALUATION

As stated, nearly 70 percent of respondents said that their organizations place more
value—though not necessarily more resources—on program evaluation now than at any
other time in the past. One of the primary reasons for this increased focus on program
evaluation is that funding for the programs often hinges on it; funding issues will be
addressed below.

One educator said that evaluation should be built into program plans. "I prefer to think about it as a built-in element, like sourdough-bread starters: you take those ideas and put them into the next [program]," she said. However, she and other educators acknowledge that an evaluative component is frequently tacked onto a program at the last minute.

Other educators echo this person's comments about introducing evaluation earlier into the process of planning educational programming. "We are trying to move in the direction of becoming more evaluative in the ways we do things," said the chair of an education department at an east-coast museum. "The importance of getting visitor feedback to what we are doing to improve the quality of education offerings we have can't be underestimated."

A public-programs director at a historical society said that she and a colleague have "spearheaded—some might say nagged!—about evaluation for some time now." She added that the "nagging" has paid off: "On the school programs side, [evaluation] is evolving drastically."

Another director of programs said:

> *I would like to increase evaluation a lot. It is new to me, but I am now attending museum meetings. I am now up to my eyeballs in evaluation books. We are learning a lot more and I am seeing the power of it [evaluation] and how to use it. It lets you go to the administration and say, 'This is the direction we need to go.'*

The pressure on museums to validate their worth in the community and to provide services to different constituencies also informs the shift toward a higher level of evaluation. "We have been ignorant about [it]," said another educator, this one at an urban historical society. "We had been a very inward-looking institution. But now we have a public focus like we never had before."

DIRECTORS' SUPPORT. Many educators said they have made strides selling program evaluation to the top brass at their respective organizations. Some of them are museum-

education professionals who describe themselves as the lone supporter at their institution in favor of implementing more rigorous program evaluation (or in some cases, any program evaluation at all); others are educators whose directors embrace program evaluation. This education director's supervisor, for example, supports regular evaluation:

> *Our director is very proactive about wanting to separate the wheat from the chaff. She [came to me months ago and said] that for some programs, for the amount of people coming, 'I am not sure we are getting enough out of [the programs].' I looked at our spotty evaluation data and took it to the educational committee. The recommendation in both camps was, let's re-evaluate what we are offering, maybe offer something a little more streamlined.*

Another educator said she helped make evaluation a regular part of the program planning. She credits her director with keeping the momentum going.

> *[My director] is very supportive of evaluation, very gung-ho about it. If we have a program and we don't plan the evaluation part, he says, 'Well, how are you going to evaluate it?' When I started getting interested in evaluation, he was completely on board. I started the ball rolling, and he kept it rolling whenever possible.*

PEERS' SUPPORT. One public-programs manager at a historical society described the struggles she has faced getting her colleagues to understand how evaluation might help them refine their programming and attract more visitors. Her comments are illustrative of a larger trend in which educators are working to teach peers about evaluation's role and purpose, and are making strides in doing so.

> *When I arrived… there was no evaluating going on. I would ask [staff members], how do you know the program is doing well? [They would say] that '20 people said it was wonderful.' But you have to ask how many total were there to begin with! They did not want to know; they wanted to do what they felt good about. But if you have hard*

data that shows you are not reaching a community, it is suddenly hard to say you are doing good stuff. It has taken me two years of harping day in and day out to barely start getting an evaluation process in place, or for people to understand the value of doing it.

Evaluation appears to beget more evaluation, respondents indicated. "I think what we will see is that as our confidence grows and the success continues with the programs, the place where we will try new things is in our changing exhibitions… perhaps by changing the educational programming offered with them," said one respondent, echoing themes sounded by others.

In some cases, evaluation is increasingly due to educators' willingness to learn about how it works and whether it's applicable to their own programming efforts. Some educators are channeling their self-professed ignorance about evaluation's role and purpose into concentrated efforts to take small steps toward the creation of an in-house evaluation capability. Reading books, attending conference sessions on evaluation, and talking to peers at other museums were some of the ways respondents cited they are trying to become conversant in evaluation.

THE FUNDING LINK

As many survey participants observed, and as stated earlier in this paper, funding for education programs is becoming more contingent on showing measurable outcomes. Grants from the National Endowment for the Humanities (NEH), the Institute of Museum and Library Services (IMLS) and other federal entities require data showing which audiences benefited from the program created with the funds, and how those benefits were measured. The requirement to show evidence of outcomes is also becoming more common these days among private foundations and corporations that fund programs.

Nearly three-fourths of the study participants said that program evaluation is clearly linked to funding; many, however, indicated that they would evaluate programs anyway, for their own insight, even if grantors did not mandate it. Many museums engage in a mix of this "edification" evaluation and grantor-mandated evaluation.

OP&A asked interviewees to estimate the percentage of program evaluation they undertake that is linked to funding. On average, among those museum educators who say that program-evaluation is linked to funding, about one-fourth of the programs are evaluated as a condition of funding requirements. Yet among the 15 science centers, museums, and aquaria well regarded for their work in education, almost half of the evaluations they conduct are funding-linked. Most of this second group said they, too, would evaluate programs even if funders did not mandate they do so.

THE IMPACT OF BUDGET CUTS. In the wake of the difficult economic climate of recent years, several museums that have not been evaluating programs regularly report they now find themselves at a bit of a disadvantage when it comes to competing for grant dollars. For example, as appropriations from this historical society's state government have fallen, foundation grants have not risen accordingly, according to one public-programs manager:

> *A lot of times we can't go to a funding body and point to the last few years
> [of evaluation records], because we have nothing to show them! Now
> everybody wants to go get grants, and they are realizing they have shot
> themselves in the foot [by not evaluating].*

An education director at a small museum that is moving into a larger building said that the institution "had just gotten shot down for an IMLS grant," so:

> *...we are trying to get an NEH grant now. This has been kind of a sleepy
> museum, and the previous director did not emphasize [grant-seeking.]
> One factor is being scared to death about not being able to cover the cost
> of the new building. Grantors are going to be looking at qualitative
> evaluation, and we need to make sure we do a better job of reporting that.*

The next respondent, a program director at a history museum, said she welcomed funders' increased emphasis on evaluation as a means to measure long-term learning.

I'm glad we have this push from granting agencies. I come out of a research background, and you have to evaluate all the time [in that world]. If you don't know what's working, then the kids leave at 2 o'clock and if you haven't made arrangements to hook up with them again, how do you know what they are learning?

An education director at another history museum said she was bringing a speaker prominent in museum education to come talk to the staff members about how evaluation works. "I am hoping I can change some minds with [the evaluator's visit]," she said. "I am hoping our director will attend. The state and city funders have not gotten much into the whole performance-based thing yet, but I think they will as funding gets tighter."

Educators cautioned that diverse funding sources should be sought, especially as competition for dollars increases. One educator said that one of his museum's long-time private foundation partners has begun recently to request results-based outcomes as a condition of its funding. Even though the museum has been slowly implementing more evaluation projects and the museum's new director supports this initiative, the museum is scrambling to meet the new challenge set forth by the foundation, he said.

Several respondents said they are in good shape, funding-wise. One educator at an art museum in the Southeast discussed the happy scenario in which she and her staff find themselves; with the development team going into overdrive last year in 2003 to raise money from a wide variety of sources, and in-house evaluation on the rise in order to back up those funding requests, cuts in city funds did not reverberate through the museum as deeply as they might have. This educator expects to offer the same if not more programming in the current year as was offered last year, and at least one other educator with diverse funding sources made similar comments.

Once educators are forced to evaluate programs in order to draw funds, evaluation will be more accepted. "[Evaluating] is not part of our organizational culture," said an official from a Southeastern art museum. But "if we get [a grant] that is project-focused and requires us to think in those terms," it will go a long way toward increasing the use of program evaluation at the museum.

DISCUSSION AND CONCLUSIONS

Most of the 84 museum educators who were interviewed for this study, i.e., those from both samples, said that their greatest professional satisfaction comes from the presentation of educational programs. Some respondents said they know a program is successful because of the waiting list of groups who have signed on to participate in it, because teachers ask for it every year, or because participants often send thank-you notes. Other educators cite specific content-related reasons they believe a program is successful, such as "The kids love to dress up in the costumes we give them," or "The parents are sometimes amazed that their kids get so engrossed in an art project, or "The people who participated came away with the feeling that we were there to help them learn." In some cases, these educators' explanations for the success of their programs are supported by the evaluation they conduct or the feedback they collect; in other cases, those explanations have not received such support.

As stated earlier in this paper, evaluation leads to minor and major changes in educational programming. The educators interviewed reported they added programs that have been well received, or dropped those past their prime. They said they increased attendance, gotten more attention from local media, and found ways to use staff's time more efficiently as a result of program evaluation. Many of these educators are convinced that program evaluation and feedback can benefit them and their organizations, and they have worked hard to make it a part of their museums' institutional philosophy. They explained that assessment and evaluation helped the education staff set priorities and get better acquainted with visitors' needs and with the museum's role within the local community. In some cases, they reported that museums staffers' sense of working toward a set of common goals expanded.

INCONSISTENCY OF EVALUATIONS. Many museums do not consistently examine their educational programs. Faced with problems ranging from too few staff, too few dollars or too little support from management or board members, museum education departments often put forth minimal effort to evaluate the programs they offer. When educators engage in program evaluation, they may not utilize the findings.

Yet, used over a period of months or years, evaluation has the potential to offer rich insights into a program's evolution and the audience it serves, as it did at this western art museum, with surprising results. A deputy director there said:

> *We did a three-year teacher training program. We met quarterly, and those teachers truly steered how the program developed. I was also doing a research study on how teachers were responding to the information we were giving them about object-based learning. When I got the results back, I was surprised to see how they [the participating teachers] were nowhere near ready to start teaching other teachers.*

In this case, evaluation helped the program designers learn that their approach was not working as they had hoped, and they were able to modify the program accordingly.

Not every museum has the resources or ability to conduct program evaluations such as the one described above. What's more, some educators questioned program evaluation's efficacy in light of the difficulty of measuring the long-term effects museum programs may have on their visitors.

Museum educators are sensitive to this conundrum. Some say they take evaluation with a grain of salt because of it. One educator at a small urban art museum pointed out that "education is a fluid affair. A seed you plant may grow 20 years later." The executive director of another fine-arts museum echoes his words:

> *You can give them all the numbers and questionnaires you want, but the real measure of success is going to come some years down the pike. You are doing your everyday thing, but you are holding in trust a kind of cultural output. You are a guardian. Your target audience is, yes, the people walking through the door, but another piece of your audience maybe hasn't been born yet.*

And a third participant, the director of education in a museum in the Midwest, said that she is gratified when she hears that multiple generations are coming to the same program her museum has offered for many years:

> *We get feedback to this day. 'I was here when I was a third-grader, and we churned butter.' If we hear they are coming back with their own kids, we perk up!*

For this educator, there's no greater proof of a program's educational impact, and no greater professional satisfaction.

LONG-TERM EFFECTS OF MUSEUM EDUCATION. Almost one-third of the study participants mentioned that they often think about the ways in which museum-education programs might shape participants' long-term grasp and application of knowledge. Because of the value educators ascribe to the importance of taking the long view, they believe that evaluation is not the only way to measure informal learning; indeed, a high level of program participation, demand from teachers or parents for certain school programs, and thank-you notes from program participants may also carry weight with educators. However, many educators agree that evaluation as currently undertaken is a valuable tool to have in their arsenal. The challenge for the research community is to develop methods and techniques with which to evaluate and understand long-term benefits. The educational research literature is beginning to experiment with long-term studies, as well as to develop new measurement techniques.

As museums compete head-to-head with movie-watching, video game-playing, Web-surfing, and other activities that consume people's leisure time, education program evaluation can serve as a means to help museums determine how best to retain current visitors, attract new ones and maximize the abundant informal learning opportunities available in their institutions. Evaluation can also help schools justify field trips to local museums and historical sites by attempting to measure the degree to which museum programs help satisfy state curriculum requirements and supplement classroom learning.

Museums' active roles in informal education of all age groups frequently depend on requests for funding from grant-making agencies and non-profit organizations. In the face of growing competition for funds, federal bodies such as the IMLS and NEA, as well as philanthropic groups such as the Jessie B. Cox Foundation and the Freddie Mac Foundation, are implementing evaluation requirements to which grantees must adhere. Organizations must be prepared to measure the success of underwritten programs in quantifiable ways, in order to help prove that people are learning and benefiting from the programs in creative, intellectual or social ways. By way of example, the Web guidelines for Jessie B. Cox grants, which some of this survey's participants have applied for and received, include the stipulation that "applicants must identify benchmarks against which progress towards identified goals can be measured."

Diamond (1999, 163) observes that evaluation is a means to attain an intimate understanding of what museum visitors want, and of what a given museum is able to offer:

> *Evaluation is less about data collection than it is about immersion. It is about becoming so familiar with an institution, exhibit, or program that it becomes second nature. Whether the data you collect is qualitative, quantitative or a combination of the two, it will be your own intuitive understanding of the opportunities and limitations of the informal [learning] culture that will be a primary guide for your study.*

IDENTIFYING PROBLEMS. Too often, museum educators don't know what they want to know about their programs. But focusing on a problem —"Why do fourth-grade classes flock to our fossil program but not to our introduction to sculpture?" say, or "What can we do to attract more women to our artist lecture series?"—and designing evaluative activities around seeking its answer can pay off handsomely.

One educator sought to find out from fourth-graders who had recently taken a guided tour of the cluster of historic buildings that comprise her site what they remembered about their visit; she said she wanted to find out what features would

make the site more appealing to children. She and her colleagues interviewed ten classrooms of children, and were delighted with the uncensored feedback they received from the kids.

> *We asked the teachers <u>not</u> to prepare the children. We wanted to see what the kids absorbed… We told them, 'we are here to have you teach us.' That really threw them for a loop. We asked them to tell us about people, places, feelings, things, memories, anything you can think of. We told them it was okay if you only remember what you bought at the store. That helped prompt the memories of other kids, and it [led to] fantastic brainstorming sessions. They talked about history, specific buildings, object names, George Washington, stoves.*

The children's comments—they wanted more access to historic houses, they wanted to be able to peek behind closed doors, they wanted to taste food being prepared in a cooking demonstration—gave staffers a jolt of inspiration and new ideas with which to modify the long-standing program. This educator said that because of this evaluation project, different classes from schools already visiting the site and some brand-new schools are signing on for programs. While no professional evaluator would say that attendance alone should be taken as the leading indicator of a program's success, a program that has been closely examined, tested, adjusted and changed according to participants' needs will likely draw larger crowds, as this example demonstrates.

Another museum educator, who works at an historic site in the Northeastern U.S., uses program evaluation to adjust interpreters' communications with visitors. She said, "Evaluation has led to changes that are sometimes subtle but highly meaningful to me [in terms of historical accuracy.]"

From a museum educator at a well known museum in the South:

> *There was no problem getting people engaged with us on the floor. One of us did the interview and the other recorded it. It was very valuable to be able to listen to things together.*

Recently, Weil (2003, 53) summed up key reasons why museums must consider paying more attention to evaluation now than they have tended to historically:

> *Museums are no longer their own excuse for being. As the resources they require have become greater and greater, so, too, have the expectations of those called upon to provide those resources. What is demanded today is that organizations perform, deliver, and demonstrate their effectiveness.*

Evaluation is no magic bullet. The facts remain: ten percent of the museums said that educational staff positions have been cut, and another 16 percent said that dollars allocated for museum education are also being slashed. At most museums, staff members are spread thin, charged as they are with performing a wide range of tasks. Museum upkeep, renovations or repairs often relegate programming and other features of museum education to the back burner. Nor do professional evaluators' services come cheap.

Several educators acknowledged that the virtual availability of museum resources online is a factor with which they must grapple. But they also expressed confidence that the social and educational aspects of informal learning in a museum setting cannot be duplicated on the Web as can a picture of T.Rex's bones or a painting by Rembrandt. One study participant said:

> *I was a museum lover as a kid myself. Visiting the Field Museum, I was content staring at the elephant [dioramas] for hours, pretending I was in Africa. But I am a million years old! Today kids can get that on the Web. We have to figure out how to make them come to museums again.*

Program evaluation can increase educators' understanding of what makes a program resonate with participants, and to gain a more comprehensive grasp on why, how and what people learn in informal settings. In the succinct words of one educator at a large urban historical society, "the opinion of people who work in a museum is *not* what is needed" to decide what educational programs to offer.

It is programs' unique combination of objects, architecture, and design, educational and curatorial expertise that can continue to attract people young and old—whether they are participating in the program as part of a class assignment or just out of personal interest. And as long as educators attempt to look critically at their programs and to uncover what makes them work, or what makes them flop, they may rightfully support their claim that they have a unique informal learning experience to offer everyone who walks through a museum's doors. This educator works at a science museum where evaluation is a part of everyone's job description:

> *There are lots of ways to inform your thinking and understanding of your programs… but [ask yourself] what could we practically do that we can live with day to day? You just keep asking these questions: what is working and what isn't?*

Not only is program evaluation a way for museum educators to sharpen the focus on what the museum is trying to accomplish with its programs, but it is a way to gather and apply the opinions of the constituency without which historical societies, aquaria, zoos or museums cannot survive: their visitors.

CONCLUSIONS

Museum educators interviewed for this study, as well as their Smithsonian peers, seek to achieve similar goals with respect to the quality of their work: to look objectively at the educational programs they offer and make decisions to benefit the visiting public. Yet, resource and skill constraints, combined with lack of support from senior management present serious challenges. In reflecting on the conversations held for this study and the data collected, these following general conclusions follow:

- To be effective, support for program evaluation must come from top management.
- Museum staff is unclear about program evaluation's use, value and application.
- The level of technical expertise in conducting evaluation is low among educators. As a result,
  - Criteria by which to determine what to evaluate are not defined.
  - Program evaluation tends to lack continuity.

- ▪ The results of studies are not integrated into the ongoing work of education departments.

▪ Funders will continue to demand data relating to performance and the pressure for evaluation will continue.

▪ In looking at data collected from 'exemplary' museum education departments, it is clear that they:

- ▪ Have the support of top management for evaluation;
- ▪ Always include evaluation in museum strategic plans;
- ▪ View evaluation as integral to their success; and
- ▪ Evaluate high percentages of education programs.

RECOMMENDATIONS

There are both simple and complex steps that can be taken to encourage greater use of evaluation in museum educational programs. OP&A recommends that the American Association of Museums (AAM) and especially some of its Standing Professional Committees, the Association of Science and Technology Centers (ASTC), the Museum Education Roundtable, the Association of Art Museum Directors and similar professional organizations play a prominent role to help museums implement the following measures.

DISCUSSIONS. The major professional organizations, at both the national and regional levels, might encourage their members to plan staff discussions about what evaluation is and how it might be perceived as a benefit, not as a burden. If educators and other museum personnel build evaluation into programs from the bottom up, it's likely that evaluation will become a habitual part of museum operations. "Every manager is responsible for evaluation of their programs," said an education staffer at a science center that was named by several respondents as an institution whose educational programming they admired. Even this educator acknowledges that not every program can be thoroughly evaluated every time; "how often [evaluation] happens varies due to funding

and the nature of the program and where it is in development," she said. "But doing what you can is so much better than doing nothing at all."

Professional evaluators could lead discussions among museum staff members; they might be asked to teach interviewing techniques, sampling methods and other skills that can be taught to museum staff looking to develop more evaluative approaches to their work. For example, an educator at an art museum in the East said that she had contracted with a well known evaluation expert to "give us an overview of where the museum stands now and to prime the staff on evaluation." Staff-wide discussions also might go some way toward alleviating some educators' anxiety that evaluation is really an effort to measure job performance. It can be threatening for educators to have their programs evaluated when they harbor the belief that, in fact, it is they and their job performance that are really under the microscope, not the program itself. Separating the program from its creators must be a goal museum staffers exploring evaluation strive to meet with sensitivity and objectivity.

Museum educators should also be brought into early-stage discussions about upcoming exhibitions, so they are better equipped to develop complementary programs that include evaluative components.

UTILIZING EXPERTISE. Museums' board and committee members may have valuable insights to share in terms of applying evaluation institution-wide. For example, members of a committee charged with community outreach might be able to bring their insights about reaching out to new audiences with educators' efforts to design and evaluate programs aimed at them. Bringing committee members together with educators in an informal setting to share ideas could further both groups' goals.

UNIVERSITY TIES. Many of the study's participants spoke of efforts to reach out to local colleges and universities to create partnerships; perhaps there is a role for museums' professional organizations to help cultivate these ties.

While some museums' overtures have had limited success (often due to logistical reasons, such as students' class schedules conflicting with the times they are needed to

help out with evaluation), others have been fruitful. "We have had a couple of interns in recent years," said one museum educator. "One was an art history student, and it worked out well to have her for a semester. We would love to formalize an internship program with some of the colleges."

Another educator said he would prefer to hire graduate students to design evaluations, administer questionnaires and participate in other evaluative activities. "We have plenty of universities around here, some of which have recently started museum-studies programs," he said. "I don't think [museum] volunteers are able to be neutral, since they often have a pretty clear idea of how things should be."

Some respondents described bringing on university students to design evaluations, tabulate data, and write curriculum units that adhere to state standards. There is a wealth of skills and knowledge waiting to be tapped in colleges' and universities' education, psychology, statistics and other academic departments. Students need projects to help them apply the concepts they are learning, while professors need real-life situations to help them illuminate the points they are trying to make. Museums' educational programming can provide a real-life laboratory where students can put into practice the skills they learn in the classroom, while museum educators get access to the skills and energy of a pool of talented would-be young sociologists, psychologists and teachers and their academic advisors.

PROFESSIONAL DEVELOPMENT. There is much for museum educators to learn on their own, and museums can draw up lists of resources for independent study. A wide variety of books, articles and journals that deal with many of the technical, personnel and other issues surrounding evaluation are available. AAM, ASTC, and specialized professional groups routinely present sessions on evaluation at their annual meetings, where museum educators can meet peers who can discuss their evaluation failures and successes.

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Appendix A

Table 1. Source of Sample for OP&A Study

Category	Number
Initial EdCom List Study	**814**
Not qualified for OP&A Study:	
Multiple staff from a member museum	111
Misc.: Includes volunteers, registrars, artists, Smithsonian employees, etc, ...	85
Students and faculty (art, museum studies, etc.) ..	76
For-profit arts and education consultants..............	64
Individuals unaffiliated with a museum................	43
Staff of museums outside the U.S.	35
Staff of museums open less than one year, or not yet opened	7
Total not qualified	421
Eligible for OP&A Study	**393**

* OP&A selected 75 of these 393 museums, or almost 20 percent for the study.

Appendix B

Institutions Participating in OP&A Study

Adams Museum & House, Deadwood, SD
Alabama Historical Commission, Montgomery, AL
Aldrich Contemporary Art Museum, Ridgefield, CT
Art Institute of Chicago, IL
Bay County Historical Society, Bay City, MI
Birmingham Museum of Art, Birmingham, AL
Boise Art Museum, Boise, ID
Brooklyn Children's Museum, Brooklyn, NY
Buttonwood Park Zoo, New Bedford, MA
Cape Museum of Fine Arts, Dennis, MA
Central Washington University Anthropology Department Museum, Ellensburg, WA
Chappell Hill Historical Society, Chappell Hill, TX
Chicago Architecture Foundation, IL
Chicago Historical Society, IL
The Children's Museum, Boston, MA
Children's Museum at Holyoke, MA
Children's Museum at Saratoga, Saratoga Springs, NY
Chrysler Museum of Art, Norfolk, VA
The Contemporary Museum, Honolulu, HI
Country Music Hall of Fame and Museum, Nashville, TN
Davenport Museum of Art, Davenport, IA
Dennos Museum Center, Northwestern Michigan College, Traverse City, MI
Denver Art Museum, CO
Desert Caballeros Western Museum, Wickenburg, AZ
Detroit Institute of Art, MI
EcoTarium, Worcester, MA
Ella Sharp Museum, Jackson, MI
Ellen Noel Art Museum, Odessa, TX
Faulconer Gallery at Grinnell College, Grinnell, IA
Field Museum, Chicago, IL
Fine Arts Center, Colorado Springs, CO
First Division Museum at Cantigny, Wheaton, IL
The Franklin Institute, Philadelphia, PA
Fred Jones Jr. Museum of Art, University of Oklahoma, Norman, OK
Gaston County Museum, Dallas, NC
Genesee Country Village & Museum, Mumford, NY
Glencairn Museum, Bryn Athyn, PA
Grounds for Sculpture, Hamilton, NJ
Henry Ford Museum and Greenfield Village, Dearborn, MI
High Museum of Art, Atlanta, GA
Indiana Historical Society, Indianapolis, IN
Intel Museum, Santa Clara, CA

Japanese American National Museum, Los Angeles, CA
Jimmy Carter Library and Museum, Atlanta, GA
John P. McGovern Museum of Health & Medical Science, Houston, TX
Knoxville Museum of Art, Knoxville, TN
Kreeger Museum, Washington, DC
Louise Wells Cameron Art Museum, Wilmington, NC
Lyman Allyn Art Museum, Connecticut College, New London, CT
Michigan State University Museum, East Lansing, MI
Minnesota Historical Society, St. Paul, MN
Morris Museum of Art, Augusta, GA
Morton Arboretum, Lisle, IL
The Museum at Warm Springs, Warm Springs, OR
Museum of the American West, Los Angeles, CA
Nantucket Historical Association, Nantucket, MA
National Building Museum, Washington, DC
Nevada Historical Society, Reno, NV
Norton Museum of Art, West Palm Beach, FL
Oberlin Heritage Center, Oberlin, OH
Old State House Museum, Little Rock, AR
Peabody Essex Museum, Salem, MA
Peninsula Fine Arts Center, Newport News, VA
Philadelphia Zoo, Philadelphia, PA
Rahr-West Art Museum, Manitowoc, WI
Rhode Island Historical Society, Providence, RI
Sam Noble Oklahoma Museum of Natural History, Univ. of Oklahoma, Norman, OK
Senator John Heinz Pittsburgh Regional History Center, Pittsburgh, PA
Shadows-On-The-Teche, New Iberia, LA
Shedd Aquarium, Chicago, IL
Sheldon Memorial Art Gallery, University of Nebraska, Lincoln, NE
St. Louis Science Center, MO
Strawbery Banke, Portsmouth, NH
Tech Museum of Innovation, San Jose, CA
Terra Museum of American Art, Chicago, IL
Trout Gallery, Dickinson College, Carlisle, PA
University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia, PA
Utah Museum of Fine Arts, University of Utah, Salt Lake City, UT
Washington Crossing Historic Park, Washington Crossing, PA
Weatherspoon Art Museum, University of North Carolina, Greensboro, NC
William R. & Clarice V. Spurlock Museum, University of Illinois, Urbana, IL
World Bank Art Program, Washington, DC

Appendix C

Table 1. Characteristics of Sample Museums

Characteristics/ Categories	Number	Percent
Museum Location		
Urban	31	44.9
Suburban	25	36.2
Rural	13	18.8
	69	100.0
Museum Type*		
Art	33	47.8
History	9	13.0
Historic House/Site	10	14.5
Science Center	3	4.3
Natural History	4	5.8
Children's	3	4.3
Ethnic/Religious	3	4.3
Zoo	2	2.9
Archives	1	1.4
Arboretum/Botanic Garden	1	1.4
	69	100.0
*Includes 15 university/college museums		
Annual Attendance		
Over 100,000	19	27.5
75-100,000	6	8.7
50-75,000	11	15.9
25-50,000	16	23.2
Under 25,000	10	14.5
Unknown	7	10.1
	69	100.0

Characteristics/ Categories	Average	Std.Dev.	Median
Staff Types			
Educators: Full-Time	3.2	9.9	1.0
Educators: Part-Time	4.6	12.5	1.0
Educators: Total	7.9	75.1	3.0
Number of volunteers	54.6	7.2	30.0
Volunteer hours. worked/mo.	7.0	0.4	5.0

Table 1. Characteristics of Sample Museums (cont.)

Characteristics/ Categories	Number	Percent "Yes"
Type of Evaluation		
Conduct formal evaluation	31	44.9
Conduct informal evaluation	61	88.4
Evaluation in strategic plans	32	46.4
Method used: Observation		
Formal	5	7.2
Informal	50	72.5
Oral summary	18	26.1
Written summary	16	23.2
Method used: Teacher questionnaires		
Census	52	75.4
Sample	3	4.3
50%+ response rate	36	52.2
Oral summary	24	34.8
Written summary	19	27.5
Method used: Students/Non-teacher adult questionnaires		
Census	23	33.3
Sample	3	4.3
50%+ response rate	8	11.6
Oral summary	12	17.4
Written summary	11	15.9
Comment books	9	13.0
Oral summary	3	4.3
Written summary	2	2.9
Method used: Personal interviews		
Formal	4	5.8
Informal	44	63.8
Questionnaire used	4	5.8
Census	15	21.7
Sample	6	8.7
50%+ response rate	4	5.8
Oral summary	17	24.6
Written summary	7	10.1

Table 1. Characteristics of Sample Museums (cont.)

Characteristics/ Categories	Number	Percent "Yes"
Education Program Evaluation vs. Exhibition evaluation		
More than exhibition	31	44.9
Same as exhibition	27	39.1
Less than exhibition	6	8.7
Who conducts evaluations		
Museum staff	66	95.7
Volunteers	35	50.7
Students	42	60.9
External educ. specialist	24	34.8
External eval. specialist	9	13.0
Who receives results?		
Director	61	88.4
Education staff	66	95.7
Other staff	51	73.9
Board	31	44.9
Potential funders	46	66.7
Funders	52	75.4
Partner organizations	22	31.9