

The Elephants in the Galleries

By John W. Jacobsen

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R. Bryce Seidl's account of downward trends in ASTC operating data since 2006 (ILR # 111) raises the major concern for the economic sustainability of our field, yet few are doing anything about this elephant in the gallery. Or rather, on closer inspection, these elephants in the science center galleries.

First, the numbers. Seidl, who is Board Chair of ASTC and CEO of the Pacific Science Center and is summarizing ASTC statistics from 2006 to 2011, reports that the global average of monthly median attendance decreased from about 42,000 visitors per month in January 2006 to 32,000 in July 2011 – a 24% decrease over 5.5 years. Larger science centers lost more than smaller ones. He further observes, “Over the last decade, 10 Chicago museums invested close to one billion dollars in infrastructure, collections storage and content. Over that same period they have seen no significant upward movement in attendance.” The Museum of Science (Boston) has never achieved the annual attendances it earned in the late 80's, despite two and a half decades of professional development and growth in population. I am really puzzled by the paradox of our field's increased professionalism and accumulation of research evidence vs. our declining operating data -- as we "get better," we are losing attendance. What does this mean for the attendance aspirations of the upcoming major science museum capital projects in Miami, Dallas and San Francisco? What does it mean for all informal science education (ISE) museums?

Second, the caveats. No one is comfortable with the accuracy and comparability of sector- and field-wide museum statistics. Dr. Philip Katz, head of research for AAM, feels that Seidl's report is overly pessimistic, citing more modest declines from the Survey of Public Participation in the Arts and the National Arts Index and modest increases from AAM's own research data, which include art and history museums as well. Declining attendance may be more of an issue for ASTC museums than for other sectors. Janet Rice Elman, CEO of the ACM, says that while their statistics are from 2010, her sense is that children's museums have not declined, and AZA's Sr. VP for Conservation & Education Dr. Paul Boyle reports that zoos and aquariums have recently increased cumulative attendance from 175 million to 180 million. “Attendance” is a fuzzy and ill-suited statistic. Some museums count a combo ticket sale as two; others as one. Some include function rentals and on-site events, and others do not, while outreach programs are not counted within on-site attendance. A more accurate, meaningful and consistent definition that totals all of a museum's annual “engagements,” such as recommended by the recently completed Museum Operating Data Standards (MODS) developed by the White Oak Institute and AAM for the IMLS, might address this problem, but broad adoption needs to get past entrenched and conflicting definitions and museum sector needs.

Nevertheless, the issue of declining attendance, particularly among large ISE museums with giant screen theaters, is a sufficiently serious issue that the ASTC board is wrestling with it. So let me describe some of the difficult and seldom-asked questions – the “elephants” – that I see in the ISE museum sector that merit closer attention and research:

- **Is the fault in us or in society?:** There are bound to be adverse external factors, such as the declining pizzazz of science, the aging and diversifying market, the difficult economy, the end of the novelty effect of science centers, the increased competition from theme parks, experiential retail and other physical destinations, and the huge growth of other museums over the last decades. However there are also positive external factors such as population growth and urbanization, the increased attention to

STEM education, the realization of the importance of non-school, family-based learning experiences, and the expansion of access to public spaces, including cultural districts. Cocooning and enhanced viewing options at home, and the wealth of information and entertainment over the Internet may explain why movie house attendance has recently hit a 16-year low, and this effect might also explain some of the decline for giant screen theaters and other on-site museum attendance. Yet, theme park attendance has been growing, and, as noted earlier, ASTC museums are suffering while children's museums, zoos and aquariums appear not to be. In any case, it is hard to do anything about such external effects, except use them as excuses. We can, however, look at the factors that are within our power to change.

- **Why can't ISE museums create their own popular attractions?:** Most ISE museum directors I have spoken with talk about blockbuster exhibitions and Hollywood DMR ® films as the sources of their occasional attendance peaks. Whether it is *Body Worlds* or *Harry Potter* in the traveling exhibition galleries, or *Avatar* or *Mission Impossible* in their giant screen theater, these attendance boosters tend to be produced and distributed by commercial for-profit ventures. Their business deals are cloaked in secrecy in part because they funnel a considerable share of the visitors' money back to the commercial sector. Not incidentally, these commercial attractions typically require higher ticket prices, and often are just front-loading future attendance, resulting in subsequent attendance valleys and a public that expects to wait to re-visit until the next popular hit. Why can't museums produce these attendance-generating traveling exhibitions and films, and keep the revenues within our sector? Sure, there are a few exceptions, such as some of the in-house exhibitions mounted by the Franklin Institute and Discovery Place, but these are seldom scalable to multi-venue installations, and many museum-produced traveling exhibitions, planetarium programs, and giant screen films have modest box office impact. Museum staff members often complain that traveling exhibitions steal attention and resources from "mission-based" permanent exhibits, but while new permanent exhibits can result in a short-term bump in attendance, they usually settle back, as did Liberty Science Center. When will we understand that our visitors want constant change, rather than the oxymoron of new permanent exhibits? More importantly, when will we understand what motivates our visitors to re-visit? And when will we learn how to provide them with a consistent stream of attractive and compelling learning experiences that are relevant to their interests? Only then can we wean ourselves from commercial vendors who are all too happy to exploit our visibility, excellent facilities and deep community trust to their financial advantage, but to our long-term economic detriment.
- **Are ISE museums overpriced or worth less?:** Gate-sharing arrangements with commercial distributors often result in increased admission prices. Wit Ostrenko, CEO of Tampa's MOSI, also notes that as declining attendance reduces earned revenue, there is pressure to jack up pricing to compensate in the short term, which results in further stratifying our audiences to the wealthy and puts downward pressure on attendance. The AZA's Boyle, on the other hand, notes that zoos and aquariums offer families good value, particularly evident during the recent 'staycation' phenomenon, and free admission has doubled attendance for many UK museums. Ultimately, however, we need to provide visitors with greater value than their outlay of time, money and stress. Sea World (\$81.99 for an adult day pass at the gate) can do it and still attract its very diverse audiences; so why can't ISE museums?
- **Are do-good messages hurting? and, For whom should we be "relevant?":** The recent emphasis on science in society, and on the public understanding of research may be leading ISE museums toward public offerings that fewer people want. The billion dollars spent in Chicago may have successfully achieved their donors' learning objectives, but perhaps at the expense of the host institutions' operating aspirations. Several ISE institutions shared millions of funding for nanotechnology education, but did those nanotechnology programs boost attendance? For that matter, do exhibits on infectious diseases, climate change, population explosion and other science and society topics attract people, or turn them away from subsequent visits? When ISE institutions are dependent on visitor revenues, how much didactic lecturing can we get away with? What's the right ratio of the sugar-coating to the pill? And are we really about dispensing "pills?" Most of us would

agree that "relevance" is an essential component of a museum's public value, but who determines what is relevant? Perhaps we have paid too much attention to the messages that foundations and the scientific community wish to impart to the general public, and not enough to the kinds of quality-time learning experiences that families want to have together in our institutions.

- Why are economic indicators (outputs) segregated from learning impacts (outcomes)?** VSA and informalscience.org do a good job of archiving education studies, but no one gathers marketing studies, and the two kinds of evaluation have very different methods and purposes. Yet both are important and should be integrated: Effective free-choice learning experiences should also be popular visitor experiences. Some disagree with aspects of this integration. Dr. John Fraser, CEO of the New Knowledge Organization, a non-profit research institute, says "We shouldn't measure social services by the revenues they generate – that is playing into the corporatization of third sector institutions and misleads everyone into believing that a better or worse society is a commodity no different than two pairs of shoes." Dr. Alan Friedman, editor of the NSF's "Framework for Evaluating Impacts of Informal Science Education Projects," notes that a museum can boost its operating numbers by screening *Batman*, but that says nothing about its learning impact. Fraser believes that any paid museum can only be judged as free-choice for a narrow band of the upper-middle class who have enough discretionary spending to enjoy museum visits at will. These are valid considerations, but not enough in my opinion to merit tossing out all operating data as inadmissible evidence. In a free choice marketplace, I hypothesize that operating data are more than just outputs -- they have the potential to be indicators of impact at a community level. To deny free-choice learning institutions the use of their marketplace numbers as evidence of their impact is to insult the capacity of families and teachers to make responsible and meaningful learning decisions by voting with their time and money. We can't call something a good learning experience if no one shows up, or if it kills the host financially. Marketplace appeal is the fundamental difference between formal and informal learning (i.e., between no-choice and free-choice), and we should not expect to use the same evaluation tests for both. In recognition of this difference, I believe that NSF ISE and other granting solicitations should include evaluation of both learning outcomes and operating objectives to encourage proposers to think about and be judged by their deliverables' learning effectiveness, by their ability to attract "free-choice" audiences and to clearly admit who and what are being supported by the public purse in the true fiscal reality of museum operations today. We are producing learning experiences that we hope our audiences with 'buy' with their money, time and/or effort, and what I call *product development research* truly pays off in visitor learning and attendance -- Val Crane's 1987 studies resulted in a very different version of *Ramesses the Great* (1988) at the Museum of Science that had both the learning that visitors thought was relevant to them in a science museum context, and resulted in 700,000 visitors in four months. The damage with the segregated approach is that exhibit and education staff focus on whether their messages get across, leaving the marketing folks with the challenge of selling these message-laden things through packaging. My call is for the VSA evaluation community to use their skills to integrate education and marketing studies and to help us create effective learning experiences that the public wants to buy.
- Are science centers as we know them a dying breed of museum?:** This is the most troubling elephant. Fraser asks "Are the funders of STEM learning museums just keeping these daytime-only exhibit warehouses going when maybe some should be allowed to die as no longer relevant in a media-rich 24-7 learning world?" Is our focus on science learning primarily at the museum building as our "core purpose" too limiting and not sufficiently compelling to motivate growing visitation? Do we need to expand beyond STEM learning to take on active roles as community gathering places, economic development agencies and institutions serving a much wider range of social purposes in order to survive? or, Do we need new creativity and innovative ways of engaging a larger public audience in science learning well beyond any building? As Fraser says, "Evolution is not always slow and predictably based on past success. Sometimes a cataclysmic change in an ecology results in radical die-off of species that seemed to be stable for the long term. Sudden change can result in the emergence of completely new types of life that are more suited to the changed world." Friedman says

“The next generation of science museums may not be science museums at all but far broader institutions in which the sciences, the arts, and the humanities are inextricably bound together in exploring vital questions about the universe and its inhabitants¹.” Maybe some significant evolution/re-invention along these lines will return us to the vitality ISE museums enjoyed in the ‘80’s and 90’s – but only, I believe, if we first face difficult questions like these.

You, dear reader, and I are likely to have different opinions on these questions, but I hope we can agree that these elephants now deserve meaningful research and thoughtful discussion. I am particularly encouraged that the ASTC board is addressing the question of declining attendance, and I hope that museum professionals, government and private funders, and the evaluation community also understand the seriousness of the issue and bend their agendas to help solve the problem, even if it means a significant shift in their purposes and operating cultures. Without that shift, I fear ISE museums will continue their downward spiral.

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¹Friedman, A.J in Physics Today downloaded from http://ptonline.aip.org/journals/doc/PHTOAD-ft/vol_63/iss_10/45_1.shtml.

All other quotes are personal communications to the author, reviewed before publication