"Tracking the West" Front-end Evaluation Report

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for Washington State Historical Society

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INTRODUCTION

In February 2005, randomly selected museum visitors were interviewed about their interest in and knowledge about a topic for a new exhibition under development by the Washington State Historical Society (WSHS), called "Tracking the West." (Note: The working title has since been changed to "The West the Railroads Made," but this report keeps the references to the former title.)
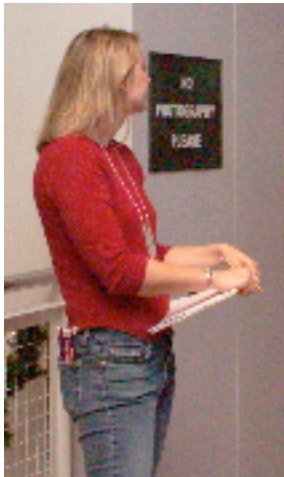
Since this is intended to be a traveling exhibition, visitors at two potential sites were interviewed: in Tacoma, Washington (at the host institution for this front-end study), and in Chicago, Illinois, at the Chicago Historical Society (CHS).

"Tracking the West" will present the transformation of two cities, Chicago and Seattle, and the land between them resulting from railroad growth between 1840 and 1930. By gauging visitors' understanding of this topic, this front-end evaluation study aims to guide the exhibit developers' plans for making an exhibition that will interest and satisfy visitors who have a range of interests and prior knowledge about the subject.

Over the weekend of February 19-21 (Presidents' Day weekend), visitors at both institutions were interviewed one-on-one with a questionnaire that gathered demographic, motivational, and knowledge-level information.

In a six-minute encounter, data collectors asked visitors several questions about themselves (e.g., gender, age, who they were visiting with, residency) and their interest, knowledge and training about railroad history. Visitors were also shown photographs and brief concepts proposed for the exhibition and asked which ones they would like to know more about.

A total of 121 questionnaires were completed: 50 at WSHS and 71 at CHS. A copy of the instrument and the research protocol are attached in Appendix A.

Data collectors intercepted visitors with the greeting:
"Hello, excuse me. The museum is doing a special survey today about plans for a new exhibition. Would you be willing to answer a few questions? It will take about five minutes, and we'll give you this souvenir pencil for your cooperation."

Most people agreed to participate in the study. Some visitors (less than 10%) declined, for reasons that included a lack of time, a need to attend to children, or inability to speak English proficiently.

DEMOGRAPHIC FINDINGS

The sample of 121 visitors contained slightly more females than males; the majority were adults visiting in groups of other adults without children. These figures were similar for both WSHS and CHS.

    Gender: Males 41%; Females 59%
    Age: Teens 3%; Adults 84%; Seniors 12%
    Group type: Adults only 74%; Adults with children 26%

Slightly more of those interviewed were return visitors to the museum (as compared to first-time visitors); the majority were residents of the local area, and the majority did not have any special interest, knowledge or training in railroad history. These figures were similar at WSHS and CHS.

    First-time visit: Yes 44%; No 56%
    Resident of local area: Yes 76%; No 24%
    Special interest in railroad history: Yes 28%; No 72%

Of those 28% who did have a special interest, the most common responses included a general interest in history, interest in model trains, or family history, e.g., they had a relative who worked on the railroad (father, grandfather, uncle).
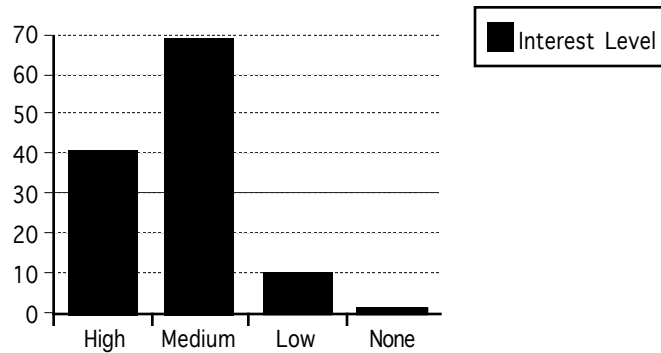

A spreadsheet of the complete tally of the demographic findings is attached in Appendix B.
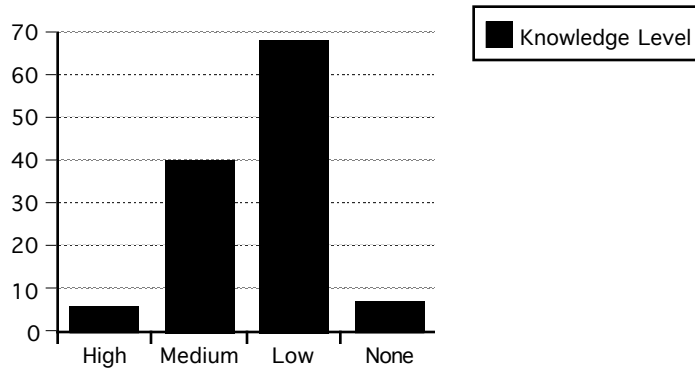
FINDINGS ABOUT VISITORS' INTEREST AND KNOWLEDGE LEVELS

Data collectors told interviewees that the new exhibition would be called "Tracking the West" and that it would be about how railroads between 1840 and 1930 transformed Chicago, Seattle, and the land between them. Visitors were then asked to rank their interest and prior knowledge levels in the topic as high, medium, low, or none.

Visitors' rankings of their interest level were skewed for medium.

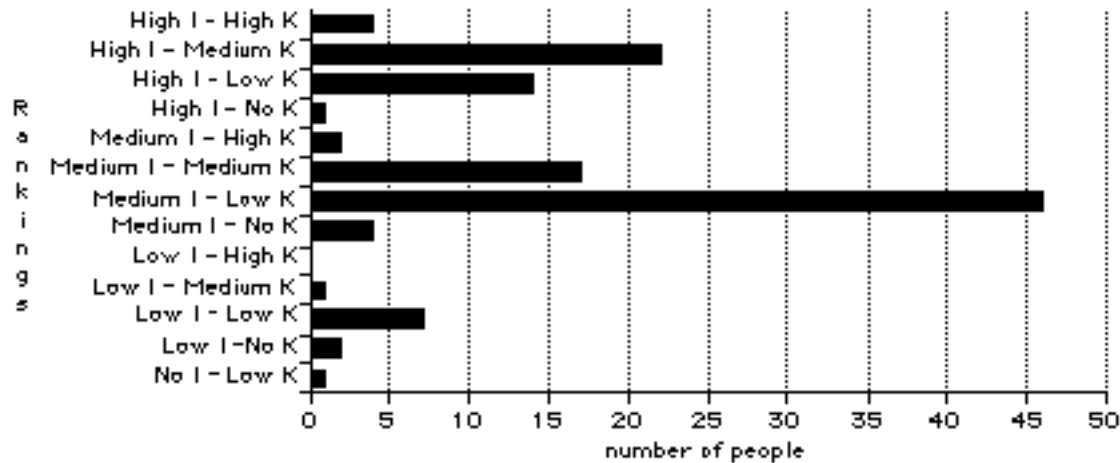and their rankings for their knowledge level were skewed for low.

Almost all visitors ranked their interest levels higher than their knowledge. Eighty-two percent (82%, 99 of 121 interviewees) ranked their interest as high or medium, and their knowledge as medium or low.

Rankings of interest and knowledge	Number of visitors
Medium I - Low K	46
High I - Medium K	22
Medium I - Medium K	17
High I - Low K	14

These data clearly suggest a strong curiosity on the part of most visitors. (Over 80% of the respondents to a question is a big number.)

Only four visitors ranked both their interest and knowledge as high. Ten people said they had "low" interest. Only one visitor claimed to have no interest. Even though the low or no interest people amounted to less than 10% of the sample, they should not be ignored. These people might come to the exhibit in the company of visitors with greater interest and motivations to attend.

For all the rankings as numbers, see Appendix C.

After gathering general interest and knowledge information, data collectors showed interviewees five more specific issues and images related to the theme of "Tracking the West." These were:

> 1. Chicago and Seattle suddenly grew larger and more powerful than the river towns of St. Louis and Portland.
>
> 2. People from all parts of the world came via the railroads to new farms, mines, and towns that sprang up in the sparsely inhabited countryside.
>
> 3. Capitalism flourished--in the cities and in the country (farmers, ranchers, industrialists).
>
> 4. But railroads damaged the native ecology--the plants, animals and people (prairies, buffalo, Native Americans).
>
> 5. Railroads made many jobs available, but the conditions for workers were often exhausting and dangerous.

For copies of the issues and images, see Appendix D. 1 to D. 5.

WHAT VISITORS WERE MOST CURIOUS ABOUT

Visitors were asked, "Which of these five ideas are you most curious about?" and "What would you like to know more about?" Eleven people mentioned that they were curious about all five issues.

> *All of it sounds very interesting.*
>
> *Overall they all seem very interesting.*
>
> *Seems like you covered all major aspects. Give me details!*

Note: 86 people out of 121 answered this question by identifying one of the five ideas presented to them. It was not, however, a clearly quantitative question, because it's actually two questions, and the ways in which interviewees responses were recorded were not strictly systematic, i.e., complete answers were not tape recorded and transcribed. (Keep in mind that this is front-end, qualitative data, to give you ideas and direction for the development of the exhibition.)
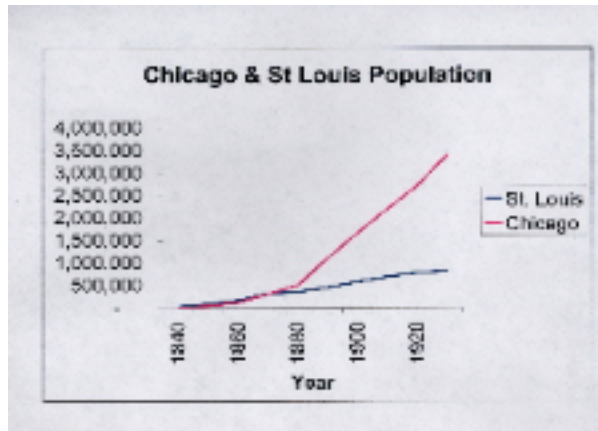
Below are listed the issue numbers and a selection of comments showing what kinds of things people wanted to know more about. They are listed from the least- to most-often mentioned issues and ideas, and the relative ranking of their "popularity" was the same in Chicago and Tacoma.

#1 Chicago and Seattle suddenly grew larger and more powerful than the river towns of St. Louis and Portland--was mentioned nine times. Cities mentioned included Chicago, Seattle, Tacoma, Milwaukee, Portland, St. Louis, San Francisco, and New York.

> *Rivalry ongoing with St. Louis "Gateway West."*
>
> *About Seattle specifically, it's something I don't know about--what difference there was in development*
> > *between Seattle and Chicago, and San Francisco and Chicago. How was Seattle affected?*

This topic was of less interest to people than the other four. Some respondents said that they found graphs and statistics "boring." It will be a challenge for exhibit designers to present population growth facts and comparisons between cities in an appealing way.

Ways to present data will be discussed below in Implications and Recommendations.

#3 Capitalism flourished--in the cities and in the country (farmers, ranchers, industrialists) was mentioned 10 times, including commerce, capitalism, Sears, Marshall Fields, and Montgomery Ward.

Commerce versus ecology.

The growth and the capitalism, how it changed the cities. I lived near Montgomery Wards in Chicago.

I'd like to see something that shows the pros and cons of the railroads.

Visitors related this topic to agriculture, architecture, immigration, and the economy. They had some interesting questions:

Did organized crime exist? Play a part?

Which stores/ businesses flourished?

How did the country change when this happened--more access to national resources and moving them where needed.

#2 People from all parts of the world came via the railroads to new farms, mines, and towns that sprang up in the sparsely inhabited countryside--was mentioned 20 times. Visitors were curious about people: who ran things; who made the decisions.

> *Who decided and why, where it would go, that it would be built?*
> *Who were the guys that made it all happen? What was the entrepreneurial effort? Like Leland Stanford with the Union Pacific? What was the government support?*
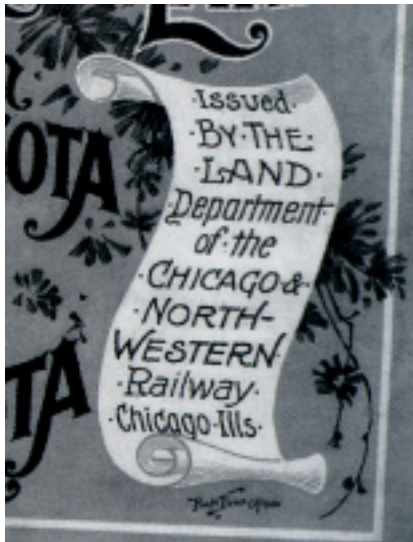> *Profiles of the railroad's businessmen, the railroads historical figures.*
> *The railroads sure built things up, but some of the people who ran things--they were vicious.*
> *Most curious about PEOPLE. The lives of people like us who lived before us.*
> *The people. Show me what they brought, how they traveled, what were hopes? realities? difference? print out diaries - let me read more than one page!*
> *How the railroads were built and brought people to the countryside. I'd like to see pictures of 'then' and 'now.'*

This topic lends itself well to "Universal Human Concerns": family life, making difficult decisions, facing hardships, working together, joy, etc. While respondents mentioned "ethnic groups" and "diversity," the exhibit design and content should keep these issues embedded in the larger story to avoid creating too many sub-stories.

#5 Railroads made many jobs available, but the conditions for workers were often exhausting and dangerous--was mentioned 22 times. Specifically, "working conditions" were of interest to people. Ethnic issues and labor problems were mentioned.

> *Migration of different ethnic groups.*
>
> *Should be a lot about Pullman--that is uniquely Chicago and most people don't even know it existed.*
>
> *Want to know about Pullman cars--riots? Workers?*
>
> *Ethnic breakdown of homesteaders, exploitation of farmers.*
>
> *RR brought jobs, but they were so dangerous.*
>
> *Especially relevant to African Americans in the South. Especially because it was an upgrade to farming jobs.*
>
> > *They did not get the recognition that they (African Americans) deserved.*
>
> *The large cities on each coast like San Francisco and New York--the railroads really took advantage of the*
>
> > *Chinese on the West Coast, and mostly the Irish on the East Coast.*

People pointed out that labor problems were not unique to the railroads, that these issues were part of the industrial revolution. And, there was some confusion about the photos of activities "off the train." One person thought that the postal sorting was taking place *on* the train. Again, keeping these sub-stories closely tied to the main idea will be important.

#4 But railroads damaged the native ecology--the plants, animals and people (prairies, buffalo, Native Americans)--was mentioned 25 times as being "most curious about." Responses indicated concern for the environmental impacts and telling the whole story.

> How we took over someone else's land.
> Ecology, effect on animals, landscape.
> Show the good and the bad.
> How it affected the environment.
> Railroads damaged native ecology.
> The prosperity that damaged the environment isn't discussed much.
> The impact on the environment was an important missed aspect.

This topic generated the most controversy among respondents. While many people are familiar with part of the story, they had reactions and suggestions, too.

> I know a little about the extermination of the buffalo and the Indians. As pioneers moved West, they took over Indian lands and destroyed their way of life, and shot buffalo from the windows of the train.
> Its not the railroads that did this--it's the railroads that brought people and their ideas about Manifest Destiny.
> Too much time condemning them--what about how they improved the landscape?
> Would like BEFORE & AFTER for ecology. Actually SEE what we've done.

This issue would benefit from being presented in more detail from a variety of different viewpoints, since visitors are bringing some prior knowledge and conflicted feelings about it.

Perhaps the less-popular #1 idea could be wrapped into the other four. The two cities could serve as anchors for the story of what happened to the people at each end and in between.

Many people mentioned that they were just curious about the general history of railroads.

What was the plan? How did it fit into the whole philosophy of the US at the time - the ideas of westward expansion and Manifest Destiny?

Basic history, evolution of RR. Changing technology of trains

Evolution of the railroad stations--how they changed over the years.

How did the whole thing get started? What caused rail in the first place? Why was it so successful?

It would be interesting to know more about, not just the main lines out west, but the smaller railroad companies and the growth of the whole system--the interconnectedness of everything.

It was the beginning of the age. I would like to know more about all of them. About the different railroads and how they began. What happened to all the different railroads?

What happened after the RR continued on? What happened after it died?

Some people, given their lack of knowledge about the topic, were not sure what to be curious about.

I have no idea what I would like to know more about.

Not that I know to ask.

What do I know. It's a vast country.

For a complete list of the answers to the individual issues/photos, see Appendix E, and for answers to the "most curious" question, see Appendix F.

OTHER SUGGESTIONS AND COMMENTS

The final question in the interview was, "Do you have any other suggestions or comments about the new exhibition?" Many of the responses were similar to those given just above, including wanting more information about the history, evolution, impact of railroads on people and the environment, and the current status of the railroad.

This person echoed many of the WSHS exhibit developers' ideas for inclusion:

> *It would be interesting to learn about the railroad companies like Union Pacific and Santa Fe and how they transformed capitalism. What kind of employers they were. Important to show how railroads brought the country together. How it allowed settlement and unified the country based on President Lincoln's vision and support.*

People desired information that included these other topics:

> *Tunnels, mountain passes, avalanches.*
>
> *Economics of creation of RR? Who paid? Sense of where tracks went? Map of states? Where did it go? Progression!*
>
> *Eminent domain? How did they get the land? Different kinds of trains. Interior of passenger cars? Cost? How train travel has changed.*
>
> *Great Lakes connected to the West! Now whole country connected and goods coming via ocean/lake could get to the middle.*
>
> *How military used railway to subdue natives? For war?*
>
> *It would be interesting to see what other incentives there were for people to go out west (like for vacation)--not just the industrialization of it all.*
>
> *Missing history of land grants, who got rich?*

People also had suggestions and comments about their desire for certain design features and educational activities in the new exhibition:

> *Anything to make it personal. Diary from passenger? 1st person experiences most interesting. HANDS ON-- actual life stories, personalize! Large photos of family and then tell us their story. Where did they go? What did they bring? What faced? How survived and flourished.*
>
> *Hands-on/models for kids--make it for the kids. All signs--keep in both Spanish and English. Please make things interesting enough for the kids so we parents have time to read what's interesting to us.*
>
> *RR badge for children would make it fun.*
>
> *Have more photos.*
>
> *Humanize it to be appealing.*
>
> *Impact of 1876 transcontinental RR make it for KIDS!! Interactive. Kids love trains! Puzzle--linking city to city from Chicago-Seattle. If it's something the kids like--you'll get 2 paid adult admissions!*
>
> *Let me touch tools, books, etc., actual items.*
>
> *Models--moving (through prairie, buffalo, little villages, rivers, bridge). How built bridges!!*
>
> *Need lots of maps! Relate to where things happened. Distances, stick storyline to timeline.*
>
> *Would like to see a lot of pictures, videos.*

Many people commented favorably on the idea of the exhibition and their intentions to come to see it:

> *Good idea, I would come back for that.*
>
> *I think you have a good theme there.*
>
> *Think it's cool.*
>
> *It's the kind of exhibit I would care to see.*
>
> *Interesting topic. Not as a permanent exhibit.*
>
> *Would see it if I was here, but wouldn't make a trip to see it.*
>
> *I think it would be marvelous. Check with the railroad museum in Union IL. I'm sure they could be involved.*

Some of their comments provide actual words for great subtitles for the exhibition:

> *Railroads were the new 'river'*
> *Capitalists and their catalogs*
> *Where the train stopped, they got off*
> *End of the line for buffalo and Indians*

And two people had the same great idea for a promotional gimmick:

> *A raffle to win a trip to Seattle?*
> *Free ticket to Portland OR!*

For a complete list of responses to "suggestions," see Appendix G. For the transcription of all the open-ended responses by sample number, see Appendix H.

IMPLICATIONS AND RECOMMENDATIONS

The comments in this section are largely the opinion of the evaluator, based on the data from this study and other studies in her many years of experience. They are meant as suggestions, for you to take or leave, or to use as discussion points during the development of "Tracking the West."

<u>Capitalize on interest, but don't assume prior knowledge.</u>

Data from this front-end evaluation suggest that visitors will have an interest in the topics and issues of "Tracking the West," but that they do not have a lot of prior knowledge about the subject. They are curious about many points, but the exhibition cannot assume that they have the background to engage with too many new ideas.

<u>It is easy to be overwhelmed.</u>

Visitors with medium interest and low knowledge levels can become overwhelmed in exhibitions that present a large amount of unfamiliar or complex new concepts. Exhibit developers should not assume visitors can sustain an interest in the topic if it is too demanding, that is, if it contains too much information.

<u>Define the theme and stick to it.</u>

Railroad history is a huge topic with many potential themes, stories, issues, places, people, technologies, comparisons, numbers/figures, maps, objects and artifacts. Different people are curious about different aspects of it: model train lovers will want to see model trains; people with family ties to the railroad industry will want to hear those stories; families visiting with children will want hands-on opportunities for them to become engaged; and engineers will want to know the details of bridge-building. How can you satisfy everyone? You can and you can't.

<u>Ways to satisfy everyone:</u>

• Start by communicating clearly to visitors what the exhibition is about (and thereby implying also what it is not about), so that people will have expectations that will match their actual experiences with the exhibits. Make everything relate to the "Big Idea." This way you can avoid visitors saying, "Why didn't they have more information about X?"

• Make the topic clear and focused. Keep it elegantly simple. This does not mean making it juvenile, simplistic, or shallow.

• Present information (concepts, ideas, stories) in a variety of modalities (objects, text, photos, audio, video, interactives) to appeal to different learning styles--but aim the vast majority of exhibit elements at a level of understanding that does not assume prior knowledge or specialized vocabulary. Assume a motivated, interested visitor who knows how to read but has very limited knowledge of railroad history. This way you can appeal to visitors across the broadest possible spectrum of abilities.

• Provide in-depth experiences (such as reading railroad workers' diaries) as sit-down options for visitors who have more time to spend. Make these options tangential to, but still clearly related to, the exhibition's main theme. Avoid the temptation to provide "more information for the more interested visitors." There are fewer of them than you'd like to think, and those options are intimidating to the vast majority of the nonspecialist visitors. Don't try to cover everything. Specialists in railroad history will still find new and amazing things in your exhibition, primarily through the objects that you will show--the unique, beautiful, rare, valuable, useful, or just plain quirky.

• In terms of time, if you gear the number of exhibit elements and the amount of time required to absorb all of them to a maximum of 120 minutes, most visitors will be able to sample enough of the components to feel like they've covered the choices thoroughly and not feel as if they've missed too many things.

• By putting more exhibit development time and formative evaluation efforts into fewer exhibit elements, the quality of the experiences and visitors' use of them will provide both the developers and the users with the most bang-for-the-buck.

Don't try to satisfy everyone.

If "everyone" includes amazing your academic colleagues instead of focusing on creating comfortable, engaging, reinforcing, meaningful visitor-centered experiences, you'll have a problem.

Make the most of the lore and affect.

What is it about railroads and railroad history that makes it so interesting to people? What is it about seeing a train, or hearing a whistle at night that gives you goose bumps? Capitalize on the mystique and nostalgia as well as the dirty underside. Visitors' comments revealed many questions that relate to telling the good and the bad sides of railroad history, and they are prepared to be challenged by issues that don't have easy answers.

<u>Answer visitors' questions (not the curators' questions).</u>

How did they get across mountains and rivers? Who got rich? Who got hurt? How did they get the land? What kind of employers were the railroad companies? What towns between Chicago and Seattle are the result of the railroad? If you can answer specific questions like these with interesting photos and objects, visitors will stay engaged longer than dealing with some of the larger more generalized or unfamiliar questions, such as historical epochs, or too many important but unfamiliar facts or people, and too many railroad letters (TRRR, EPSWRR, UPRR, CPRR)!

<u>Make interactives for adults and kids.</u>

Visitors typically perceive interactive devices as meant for children, because often the interaction is gratuitous. To make interactive elements appealing to adults, games should involve more than guessing; interactions should mimic or embody the content; intergenerational group participation should be encouraged; and interactive experiences should be reinforcing reiterations of content elsewhere in the exhibition. For example, a "feedback station" where visitors can write comments to be posted for other visitors to read could ask, Did someone in your family history work for the railroad? Have you ever imagined yourself working for the railroad? Interactive elements must go through formative evaluation during design development to guarantee their effectiveness (comprehensibility, durability, meaningfulness).

<u>What to do about graphs and charts of data (e.g., population statistics)?</u>

Personally, I find graphs and charts very informative and useful ways to present information graphically. I suspect we're dealing with two potential audiences: people like me who like 'em and those who don't. Go ahead and use charts (sparingly and not large), but make the same information available in other formats and different locations as well, such as "before-and-after" images or stories, or straight text, e.g., "In 1920, Chicago's population grew to over 3 million while St. Louis only had one million." If someone is bored or repulsed by a graph of numbers, they can ignore it, but they won't miss getting the information another way. Others will be pleased to have that option included.

<u>Is there a contradiction between providing "in-depth" experiences and not providing "more information"?</u>
No, and decisions about what to offer depend on, and should be guided by, the Big Idea. In-depth experiences are those that provide more examples of relevant objects or ideas that are directly linked to the Big Idea. "More information" is typically tangential--additional concepts and knowledge-based information. In-depth experiences should occur in a modality that does not create an overwhelming density of experiences. (For example, sitting down and reading a book of diaries does not take up real estate or create visual clutter in an exhibition, but putting those diaries on display or on wall labels would.) If you think about the difference as more-things-to-do/experience for visitors who have more time, instead of more-things-to-learn/know for visitors who want more information, you will make more visitors happy.

One more thought about the "more information" issue: Museums that have made resource areas in exhibitions have typically had those spaces underutilized. Instead of taking up real estate in an exhibition, why not provide exhibit-related resources and information in one permanent site in the museum about all present and past exhibitions, including evaluations? That way, even if visitors missed a temporary show, they could come and see what it was about. If they did see it and wanted more information, that would be there, too. Staff could use the resources for a variety of purposes, including planning new exhibitions.

LIMITATIONS OF THIS STUDY'S METHODOLOGY

Training: Surveys for this front-end evaluation were collected simultaneously in Tacoma at WSHS and in Chicago at CHS on February 19, 20, and 21. The data collection instrument was tested in Chicago, but not in Tacoma. Ideally, training and trying out the instruments would take place in person at both collection sites.

Data collection: Recruiting and interviewing visitors is not an easy task. Stopping people and asking for their participation requires tact and skill; after all, visitors are being interrupted and "tested"--not normal activities for them in a museum. There are advantages to having more than one data collector, but there are disadvantages too. Data collectors vary in their personalities and skills to probe in a nondirective way to get visitors to talk. The thoroughness of note-taking, clarity of handwriting, and spelling are other variables.

Data analysis: We agreed that we would lump all the data for the report, and not try to do WSHS/CHS comparisons. Data that were collected through limited-option questions, such as demographics and interest levels, could be analyzed quantitatively and compared between the two data collection sites. Data collected with open-ended questions were subject to more qualitative analysis. A confounding variable was that the issues/ideas data were collected/recorded somewhat differently at WSHS and CHS.

Bias of visitors: Visitors who agree to participate in a survey are predisposed to be nice to the data collector. There is a well-known "courtesy bias" to their answers, in that typically they want to tell the data collector what they think he or she wants to hear. For this reason, we avoided questions such as, "What do you think of this topic?" or "Would you come to see this exhibition?" Visitors nevertheless volunteered this information in a positive way--liking the topic and saying they would come. This is gratifying for the exhibit planners, but needs to be understood in context.

Bias of data analysis: All of the raw data and all of the transcriptions are provided to the client (WSHS) for their review, since the analysis presented in this report is subject to the bias of the author. We tend to see and hear what is important and meaningful to ourselves, so it is a good idea to thoroughly examine the range of responses recorded in the survey, found in the Appendixes.

THANKS TO WSHS, CHS, THE DATA COLLECTORS, and THE VISITORS
WHO HELPED WITH THIS REPORT.
--Beverly Serrell