

MULTIPLE PERSPECTIVES ON
AMERICA ON THE MOVE
AT THE
NATIONAL MUSEUM OF AMERICAN HISTORY

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In spring 2005, the Office of Policy and Analysis (OP&A) conducted three surveys at the National Museum of American History (NMAH). Two were surveys of exhibitions, *The Price of Freedom: Americans at War* and *America on the Move*. The third survey looked at visitation to major exhibitions in the museum and visitor ratings of those exhibitions and of the overall visit. This report is based on the survey of *America on the Move*. In addition, it includes OP&A staff observations at the exhibition, as well as the results of exhibition review sessions with invited Smithsonian staff peers and with OP&A high school interns.

The study involved five OP&A staff members and three interns. Zahava D. Doering and David Karns implemented all phases of the study, analyzed the data, and wrote this report. Amy L. Marino provided support in data collection, interpretation of qualitative data, reviewed and produced the report. Andrew Pekarik critiqued the report and made valuable suggestions. Sherri J. Barber, Teresa Amberley Bryant, and Shayla Shabazz, high school student interns, provided interesting viewpoints based on visiting the exhibition. I would like to express my appreciation to the eight Smithsonian staff who participated in a “Judging Excellence” panel, and to the visitors who gave us their time. I would also like to recognize the support of NMAH staff members Judy Gradwohl, Associate Director for Public Programs, Julia Garcia, Program Assistant, and Andrea Lowther, Manager of Visitor Programs, as well as the NMAH staff and volunteers that helped with data collection.

Carole M. P. Neves, Director
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INTRODUCTION

The National Museum of American History (NMAH) opened a reinstallation of its 26,000 square foot Hall of Transportation on November 22, 2003. The reinstallation, named *America on the Move* (AotM), was four years in the planning and required a major investment of funds and human resources. The exhibition occupies the largest amount of space dedicated to a single subject area in the museum and is the size of many small museums. AotM advances the idea that transportation and people in American history have had a symbiotic relationship. The exhibition was not conceived as a transportation exhibition per se, rather it is an exhibition that uses transportation as a way to understand and present American history.

The Hall of Transportation has been part of the NMAH since the building opened in 1964. The original installation resembled a large parking garage. It contained memorabilia of interest to history and transportation buffs; for example, the 90-foot-long, 260-ton Southern Railway locomotive—No. 1401—that pulled Franklin Roosevelt’s funeral train. It was full of rows of parked vehicles—horse drawn and motorized—each carefully identified. For the casual visitor, the Hall did not contain materials that related the vehicles to events or places. For example, although Locomotive No. 1401 emitted a few sound effects, nowhere could the visitor read about the critical role of the railways at the turn of the 19th century. According to the new exhibition’s project director, “These [former] exhibitions displayed artifacts chosen for their technological interest, arranged by technological category, placed on pedestals, and interpreted by labels describing technological innovations.” (Lubar 2004, 19-20¹).

The popularity of the Hall of Transportation was unquestioned for decades. For example, a yearlong study conducted at NMAH showed that transportation was one of the top three most popular exhibition areas at the museum, ranking with military history, popular culture and the First Ladies exhibitions (Kindlon, Pekarik and Doering 1996, vi).

* See Endnotes, page 40.

In designing the new exhibition, the curators wanted to continue to please visitors excited by the artifacts themselves and, at the same time, communicate the social and cultural history in which the artifacts developed and ‘lived.’ According to Lubar, the exhibition team had two major goals:

First was to fulfill the museum’s mission: “inspiring a broader understanding of our nation and its many peoples” and presenting “challenging ideas about our country’s past.” That is to say: we’re a history museum. Our exhibitions are about a variety of topics and have a variety of aims, but overall they are concerned with the presentation of American history.

Just as important was engaging our audience. We couldn’t inspire or present ideas unless we did that, after all. Learning some history is one of the reasons our audience visits, but it’s not the only one. Visitors come for many reasons and we should meet them halfway. (Lubar 2004, 20)

The first section of this report provides an introduction to the exhibition and to the OP&A studies documenting and describing the experience of visitors in *America on the Move*. It begins with a description of the exhibition and proceeds to an analysis of observations of how 151 visitor groups moved through the exhibition. To facilitate the later discussion of the observations, short names for each of the exhibition sections are in brackets.

The next section of the report contains the results of a survey of 456 visitors to *America on the Move*. In addition, the second section incorporates data from different types of conversations. First, OP&A staff conducted interviews with visitors in the exhibition. The team also had conversations with museum professionals using a more general set of criteria for exhibition excellence. This group of seven curators, educators, exhibition developers and designers were members of a panel that studied and discussed both AotM and *The Kenneth E. Behring Family Hall of Mammals*, an exhibition at the National Museum of Natural History. Finally, OP&A benefited from the perspectives of three high-school seniors. They applied the same criteria to both AotM and Mammals as the adult panel.

THE EXHIBITION²

The exhibition occupies the east end of the Museum's first floor, in a wide corridor with entrances to other exhibitions in sight (*On Time*, *Engines of Change*, and *Lighting a Revolution—Electricity Hall*). Outside is a 19th Century English steam locomotive—*The John Bull*. Behind and to the left of the locomotive, visitors see a soffit identifying The General Motors Hall of Transportation; to the left is a wide doorway marked as the *Hall of American Maritime Enterprise* [Maritime], ahead is the entrance to, “*America on the Move*.”

After a main title wall, with the title in large letters, an introductory panel and an oversized map that pinpoints locations depicted in the exhibition, visitors enter America in 1876. (See the exhibition map, Appendix A.) This is the port city of Santa Cruz, California, where a high-stack steam locomotive, called the *Jupiter*, stands (*Community Dreams*). Visitors may read that it hauled produce from Watsonville, California to the port and to the rest of the country. In the same area (*Delivering the Goods*), the produce's origins are displayed (*Watsonville-Delivering*). A reduced-scale reproduction of a Southern Pacific boxcar is in front; a farm wagon to the right is loaded with boxes of apples. On the left is an apple orchard, with strawberries planted between the rows. Two Chinese agricultural workers are picking the strawberries in the field on a hot summer day (*Watsonville-Farm*).

Visitors who move to the next area, through the doors of the Southern Pacific boxcar, find themselves —four years later — in Washington, DC (*A Streetcar City*). The place is an open-air food and produce market, Center Market, and an 1898 streetcar stands nearby. Produce in the market originates from points near and far. Shoppers arrive by streetcar, bicycle or foot. At the end of the area, visitors can view photos and maps of early suburban development, in this case, early Washington suburbs that the streetcar system supported.

Here visitors find themselves at a juncture with options to go the left, straight ahead or to the right.

To the right is a cul-de-sac that depicts America as a country built by domestic and international migration (*People on the Move*). A large electronic map invites visitors to mark where they were born, where their parents were born, and where their grandparents were born, thereby illustrating intergenerational geographic movement.

Visitors who turn left approach New York City's harbor. First, they pass a map of the city showing bridges, tunnels, and other infrastructure, and exhibit cases with stories of the city as a center of immigration and manufacturing (*The Connected City*). This represents New York harbor in the 1920s—perhaps the busiest time in its history. From there, visitors go to the engine room of the U.S. Lighthouse Service tender *Oak*, a buoy tender. Visible below the floor level is the actual engine room of the ship and engine sounds drown out conversation. *Oak* is an exhibit that is shared with the *Hall of American Maritime Enterprise* (Maritime).

Straight ahead from *A Streetcar City* is an exhibit on *Lives on the Railroad* in the 1920s. In the Salisbury, NC (*Salisbury Station*) railroad station waiting room accompanied by recorded railroad sounds and conversations. Visitors experience, through ambient sounds, what it was like for passengers to wait to board in 1927 in anticipation of their rail trip. At this point, visitors are introduced to a negative side of traveling in parts of America at the time—racial discrimination. A life-size cast figure of Charlotte Hawkins Brown, an African-American woman, is seated on a bench. A computer touchscreen enables visitors to select and listen to audio dramatizations of Brown relating her experiences while traveling in the racially segregated South. Another figure associated with an audio interactive, represents a typical white salesman who describes his experiences as a white salesman traveling on business.

Next to the *Salisbury Station*, Southern Railroad's No. 1401 stands alongside a raised station platform (*SR No. 1401*). In this section, the role of the railroad in promoting commerce is illustrated and especially the careers of key railroad personnel such as the conductor, the fireman and the Pullman porter.

Across the way from *SR No. 1401*, and next to the *People on the Move* cul de sac, is an exhibition element that introduces early 20th century cross-country travel by automobile (*Crossing the Country*). One component, intended for children, is "Bud the dog." Bud is a prominent part of an exhibit on the Winton, the early motor car that, in 1903, made the first successful U.S. cross-country trip. Dr. H. Nelson Jackson, the cross-country motorist, bought Bud for \$15 as a mascot for his cross-country trip. Jackson, his companion, Sewell Crocker, and Bud all wear goggles to

keep the road dust out of their eyes. Behind Bud, visitors see the transcontinental Winton, in *Crossing the Country: Somewhere in Wyoming*, that demonstrated that the automobile was a viable method of long-range transportation. This exhibit also tells the story of other record-making trips [e.g., the all-woman trip headed by Alice Huyler Ramsey]. In turn, these trips helped encourage the construction of highways and roads that crisscrossed the country.

By the late 1920's Americans adopted automobiles and automobile ownership (*Americans Adopt the Auto*). Here, visitors also see a 1926 Model T on its side in a 1923 "Turn-Auto," used to get at the bottom of the car for repairs. This exhibit section is also full of artifacts—toy cars, early license plates, engines, road markers, car-part inventions, mechanics' tools, and gas pumps.

Moving forward, down a slight incline, visitors move onto and into the Route 66 (*The People's Highway*) exhibit. On an actual stretch of concrete pavement from the fabled Route 66, eight travelers in 1930s vehicles relate their reasons for being on the road. The stories they relate cover the 1930's and 1940's. The historic period was the Great Depression and the stories are varied. For example, Bobby Troup, a musician, who with his wife Cynthia drove in 1946 from the East Coast to Los Angeles along the highway and subsequently wrote the song "Get Your Kicks on Route 66," is among the group.

If you ever plan to motor west
Travel my way, take the highway that's the best
Get your kicks on Route 66.
It winds from Chicago to L.A.
More than 2,000 miles all the way
Get your kicks on Route 66.
You go through St. Louie, Joplin, Missouri
And Oklahoma City looks mighty pretty.
You'll see Amarillo, Gallup, New Mexico
Flagstaff, Arizona, don't forget Winona
Kingman, Barstow, San Bernadino.
Won't you get hip to this timely tip
When you make that California trip
Get your kicks on Route 66.

Off the road, to the left, visitors can see one of the options for overnight stay, a tourist cabin (the predecessors of motels) in Muirkirk, Maryland called Ring's Rest

(*Roadside Community*). This exhibit also relates the difficulty for Black Americans of finding places to stay overnight while traveling by automobile.

Another option was traveling with your “home.” The Cate family is shown in a 1939 vacation at the Decatur Motor Camp, York Beach, on the southern coast of Maine. Mr. Cate is reading a newspaper in a sling chair outside of his Trav-L-Coach (*Family Camping*). Further on, in another part of the country (rural Indiana) and another time of the year (an early winter morning), a deep-orange school bus is parked outside the driver’s family farm’s barn. An interactive station lets visitors hear about the children who rode this bus, and how school buses changed American schools from one room to larger, central schools (*On the School Bus*).

In a nearby section, in postwar Portland, Oregon a young couple admires a 1950 Buick Roadmaster while they negotiate its sale in an auto dealership (*Suburban Strip*). Outside the dealership is a streetscape with several vehicles from around 1950. One of the several vintage motorcycles nearby is being ridden by a life-size figure that resembles Marlon Brando in the 1953 movie *The Wild One*. Other vehicles—a Greyhound Silversides bus, a Studebaker Champion Coupe, a GMC pickup truck, and the red Ford hot rod Elvis Presley drove in the 1957 movie *Loving You* complete the scene.

In a shift of geography, nearby, visitors are taken to Park Forest, Illinois, a new Chicago suburb in the 1950’s. A station wagon and moving boxes sit in front of a new house. A neighborhood kid approaches the new kids on the block. One of the options for visitors is seeing a documentary film about Park Forest and expanding suburbs made possible by automobiles (*City and Suburb*). Around the corner, the commuting experience in 1950s Chicago is represented. The exhibit on the Chicago Transit Authority in the 1950s includes an authentic Ravenswood line “L” car, with a full-screen video of people boarding and talking about current events and transportation issues as they were on Dec. 15, 1959. The train sits in a re-creation of the Madison and Wabash elevated station. As these conversations are carried on, the car vibrates and squeals, lights flicker and the shadows of Chicago buildings appear to flash by as the “L” car seems to move. Displayed with more traditional didactic materials, a 1959 green-and-white CTA bus is down the ramp. An interactive allows visitors to select and listen to portions of an oral history recorded by a retired CTA bus driver.

The next set of stories unfolds in the section relating the creation of the Interstate highway in the 1960's (*On the Interstate*) through the 1990's. Depicted in the exhibition is a portion of Interstate 10 in Los Angeles with a variety of vehicles are on the highway, each representing a different story. They include a Honda Civic, a Peterbilt truck, a Dodge minivan, and a Pontiac Grand Prix. Traffic is snarled because a California Highway Patrol motorcycle officer has one line of traffic blocked off because of an accident ahead. The focus is that interstate highways changed residence, commerce and travel.

After that, the exhibit shifts northwest to San Francisco and Oakland in the 1960s. The story here is transformation in origins and mobility of goods and services brought about by containers and container ships and trucks. The setting includes the Golden Gate and Bay Bridges (*Transforming the Waterfront*).

In the last section, visitors return to Los Angeles, a "global city," representing the present as music of the Red Hot Chili Peppers, Ozomatli, and Jurassic 5, and LA residents create the cacophony of sounds in this finale. Multiple video screens, music, voices, and a large satellite image of Los Angeles give this area a different tone from the rest of the exhibition (*Going Global*).

TECHNIQUES

The exhibition is built around stories, as the exhibition curator wrote, "We were doing an exhibition that used transportation as a way to understand and present American history. Automobile, railroad and maritime museums have traditionally been concerned with the vehicles first, and only after that, and only occasionally, the vehicles' roles in history. We wanted to turn that around. Our exhibition would be about context: who drove the vehicles, what they carried, where they went, how they fit into the wider world. And of course, why those things happened the way they did, and why it still matters (Lubar, 2004, 22)."

One of the main techniques used in the exhibition is the presence of dozens of life-sized, cast figures. Many of these subtly colored figures are positioned so that visitors, especially the younger set, can touch them. While NMAH has used mannequins in other exhibitions, AotM is the first exhibition to break the boundary between exhibit and visitor by putting cast figures into the visitor's space. Some of the cast figures are adjacent to interactive stations where visitors may select and listen to the

“characters” talk about their experiences; others are in settings where visitors “listen in” on conversations. And, especially near the beginning of the exhibit, the figures are in the visitor’s space.

For some of the stories, NMAH created more immersive settings. For example, in the Watsonville setting visitors walk through a freight car façade to enter the next section. In Washington, DC, visitors are in the city’s Center Market. In New York, visitors can walk on the desk of the (recreated) *Oak*, and look down into the (authentic) engine room, and out into the (photographically reproduced) harbor. Visitors can enter the General Waiting Room in *Salisbury Station*. Chicago contains a complete immersive setting, the “L” train described above.

America on the Move includes three computer interactive stations called “The Bigger Picture” positioned slightly out of the main flow. Each station covers a broad time period (1800-1900, 1900-1950, and 1950-2000) in a series of three short videos: one on technology, one on infrastructure, and one a general overview. Each of the three interactive stations also includes a game—for example, comparing where food came from in 1950 and 2000. In addition, interactive maps illustrate the change in waterway, road, rail and air transportation networks. The exhibition also includes a mini theatre showing film clips (e.g., car chase scenes) and memorable movie moments depicting how transportation vehicles have become part of America’s popular culture.

In designing the exhibition, the team hoped that the settings, the videos and the immersive experiences would tell the bulk of the story. It was hoped that a simple walk-through, without reading a label or an object description, would get across the major points NMAH wanted visitors to understand.

AotM has extensive label copy. Each of the exhibition’s 19 sections (except the introduction) has a major label, printed on an 11-foot tall pylon that resembles a partly unfolded map. On the map is:

- » An inset map of the United States with a star and a date, showing where and when that story is taking place.
- » A title giving name and date, and a two- or three-word summary of the big story.
- » A short label describing the historical story.

- » A short label describing how this particular story fits into the bigger picture of American history.
- » A simple touch-screen video that allows the visitor to select the label in any of four languages, or (for the visually impaired) to have it read aloud, along with an audio description of the exhibit section and its contents.

Other labels are in the exhibition, mostly on reader-rails but some in cases on walls or in vitrines, include:

- » Historical narratives, describing the context.
- » Photos and captions, sometimes including the photos that the scene was based on; sometimes with additional or contrasting stories. When appropriate, a video monitor provides more imagery.
- » Object labels, each with a tactile image for the visually impaired.
- » Tactile maps of landscapes, where appropriate, for the visually impaired and those who are not.
- » “Bud” labels that are intended to direct a kid’s attention to an element of the scene that captures the point of the section. (“Bud” is something of an exhibition mascot).
- » For visitors interested in historical perspective, a half-dozen labels ask: “What happened next?” At about 250 words each, these labels are the longest in the exhibition, and address big historical questions.
- » “What about you?” labels suggest ways that visitors’ lives today reflect some of the issues raised by the exhibition.

The exhibition has eight “soundscapes” with scene-setting ambient environmental and vehicle sounds. As visitors wind their way through the space, there are a few places for resting, reflecting and carrying on conversations. Visitors can join the figures in *Salisbury Station* on benches, or sit and watch movie clips across from *On the School Bus*. And, like all contemporary exhibitions, a few feet past the exit is the ubiquitous museum shop.

I. TRACKING VISITOR BEHAVIOR IN AMERICA ON THE MOVE

The goals of the observation study were limited: (a) to identify locations that engaged visitors sufficiently so that they stopped there, i.e., rather than just walked by, (b) to see if specific sections were not visited; and (c) to estimate the total time visitors spent in the exhibition. These data, aside from their intrinsic value, provide background for other studies of AotM. To collect the data, staff used a simplified map of the exhibition with shorthand names for various sections. In some cases, exhibition areas were subdivided into more specific locations to identify stops.

The areas of AotM (and specific locations) where visitors were tracked were:

<i>Transportation in America: Before 1876</i>	<i>Roadside Communities: Ring's Rest, Muirkirk, MD, 1930's</i>
<i>Community Dreams: Santa Cruz, California, 1876</i>	<i>Family Camping: York Beach, ME, 1930's</i>
<i>Delivering the Goods: Watsonville, California, 1895</i>	<i>On the School Bus: Martinsburg, IN, 1939</i>
<i>Watsonville-Delivering</i>	<i>Suburban Strip: Sandy Boulevard, Portland, OR, 1949</i>
<i>Watsonville-Farm</i>	
<i>A Streetcar City: Washington, D.C., 1900</i>	<i>Buick Dealership</i>
<i>People on the Move</i>	<i>Cars and Motorcycles</i>
<i>The Connected City: New York, N.Y., 1920's</i>	<i>City and Suburb: Chicago and Park Forest, IL, 1950's</i>
<i>New York City</i>	<i>Park Forest</i>
<i>Oak</i>	<i>CTA "L" Car</i>
<i>Lives on the Railroad: Salisbury, N.C., 1927</i>	<i>On the Interstate: I-10, 1956-1990</i>
<i>Salisbury Station</i>	<i>Transforming the Waterfront: San Francisco and Oakland, CA, 1960-1970</i>
<i>SR No. 1401</i>	<i>Going Global: Los Angeles, CA, 2000</i>
<i>Crossing the Country: Somewhere in Wyoming, 1903</i>	
<i>Americans Adopt the Auto</i>	
<i>The People's Highway: Route 66, 1930's-1940's</i>	

Based on preliminary observations that many visitors enter AotM through the official exhibition exit rather than the entrance, entering visitors were selected for tracking both at the official entrance and at the exhibition exit. Staff tracked the selected visitors through the space, noting demographic characteristics (gender, approximate age, group composition) and the entrance time, traced the visit route and marked each stop. Visitors were tracked until they exited. Information on the maps was coded and data analysis files were created.

TRACKING STUDY: RESULTS

OP&A staff tracked 151 visitor groups—89 that entered at the AotM entrance and 62 that entered at the exit (*Going Global*)³. Based on timed counts of groups entering at the two locations, slightly more than half of all visitor groups (54%) enter at the entrance compared to 46 percent entering at the exit⁴.

While visitors were tracked beginning at one of two locations, many chose to leave the exhibition through Maritime. Tracking was terminated when the visitor group left AotM. As Table A shows, there was no clearly predominant pattern, although slightly more may follow the traditional path from entrance to exit than from exit to entrance (the differences are not statistically significant). Only three out of eight (37%) visitors entered through either the official entrance or exit and left through the other portal. Some visitors left from the same portal through which they had entered after seeing only a little of AotM, while other visitors went through most of AotM and left through the same portal. Some visitors wandered throughout most of the exhibition and then exited where they entered. Some visitors entered either through the official entrance or exit portals and exited through the Maritime exhibition. As Table A illustrates visitors move throughout AotM and see much of the exhibition regardless of where they enter and exit. Two out of three visitors see at least half of AotM regardless of entrance and exit, although many of those who enter and leave through the same portals leave after a very short visit either in terms of the extent of the exhibition seen or the time spent in AotM.

Entrance	Exit	Visitor Groups	Extent of AotM Visited				Total
			0-25%	25-50%	50-75%	75-100%	
Location	Location	(%)	(%)	(%)	(%)	(%)	(%)
Entrance	Entrance	17	57	4	18	21	100
Entrance	Exit	21	0	18	41	41	100
Entrance	Entrance	16	30	19	26	26	100
Exit	Exit	16	0	5	43	52	100
Exit	Entrance	13	41	18	41	0	100
Exit	Exit	17	0	18	59	23	100
Total		100	20	13	38	29	100

Table A. Entrance and Exit Patterns

HOW LONG DOES AN AVERAGE VISITOR SPEND IN AOTM?

On the average, visitors to AotM spend 11 and a half minutes in the exhibition and stop for more than two seconds about 15 times during their visits. Reporting average visitor behavior tends to obscure significant differences in visit behavior. For example, the longest time that a visitor was tracked in the exhibition was 55 minutes (although two visitors had not finished their visits before the OP&A tracker had to leave for the day)⁵. Conversely, at least one visitor spent less than 30 seconds in AotM. Some visitors made no stops, but one visitor made 42 stops longer than two seconds.

We can also segment the tracked visitor groups into four categories based on where they entered (regardless of where they exited) and whether they visited most of the sections in AotM or not. Visitors who walked through most of the exhibition spent an average of between nearly 12 minutes (entered at exit) and slightly over 15 minutes (entered at entrance). However, the average number of stops was essentially equal (17.5 and 16.7, respectively). Visitors who visited only a few areas spent significantly less time in AotM and made significantly fewer stops. (See Appendix B, Table 1.)

Comparing AotM data to other exhibitions at NMAH must be made with considerable caution. Tracking data were collected in studies of visitors in *Science in American Life* (SAL); *Information Age* (Info Age) and *The American Presidency* (TAP). There are major differences between AotM, SAL, Info Age and TAP. First, TAP had ticketed admission times, unlike any of the others, and had a high level of publicity through paid advertising, and attention from the coinciding election and Inauguration when the study was conducted. Second, the total space and the type of presentation differed across exhibitions (TAP is 9,000 sq. feet, Info Age is 13,000 sq. feet and SAL is 10,000 sq. feet.) Of the exhibitions studied, TAP held visitors the longest, with an average length of visit of 35.7 minutes, followed by Info Age (18.9 minute average) and SAL (14.7 minute average)⁶.

WHICH EXHIBITION AREAS ARE VISITED BY THE LARGEST NUMBER OF VISITORS?

AotM is an exhibition with exhibits near the entrance, near the exit and in the middle of the exhibition that are entered into, passed through, or visited by large percentages of AotM visitors. That is, visitors are exposed to these sections of the exhibition, consistent with the essentially linear (temporal) path between entrance and exit followed by visitors who moved from entrance to exit or vice versa⁷.

On the Interstate had the highest exposure to visitors in the exhibition (79% visited) (see Table B). The second most visited area, *Crossing the Country*, is located near the middle of the exhibition and was viewed by three-quarters of all visitors (75%). Three exhibits exposed to large percentages of visitors are *Going Global* (68%), located at the exit, and *Transportation in America* (69%) and *Community Dreams*, (67%) located at the entrance, since visitors entering or exiting through the official portals had to pass through these areas. Only three exhibit areas—*Family Camping* (32%), *Transforming the Waterfront* (31%), and *People on the Move* (13%)— were visited by less than one-third of all AotM visitors.

Likewise, more visitors stopped for more than two seconds at *On the Interstate* (56%), partially reflecting that it was the most visited exhibition area, and *The Connected City* (51%) than any other section of the exhibition. Conversely, fewer than a quarter of all visitors stopped in several exhibit areas—*On the School Bus*, *Roadside Communities*, *Family Camping*, *People on the Move*, *Park Forest*, *Salisbury Station*, *Suburbs and Streetcars*, the *Buick Dealership*, and the *Watsonville Farm*.

A measure of the pull of exhibition elements in engaging visitors is the percentage of visitors who stopped or interacted with the element while visiting in its exhibition area. Using this measure of engagement, most areas of AotM succeeded in engaging more than half the number of visitors visiting⁸. In some cases, exhibition elements that were visited by small numbers of visitors engaged a large percentage of persons visiting (*Transforming the Waterfront* and *Salisbury Station*).

AotM visitors were more likely to visit exhibits near the portal where they entered the exhibition than exhibits farther from their entrance. For example, visitors entering at the official entrance and visiting many AotM exhibits were more likely to visit the exhibits from *Transportation in America* to the *Connected City* (average of 66% visiting and 44% stopping) compared with the areas from *Crossing the Country* to *On the School Bus* (average of 58% visiting and 34% stopping) and the areas from *Suburban Strip* to *Going Global* (average of 57% visiting and 35% stopping). Conversely, visitors entering at the designated exit were most likely to visit *Suburban Strip* to *Going Global* (average of 72% visiting and 52% stopping), followed by *Crossing the Country* to *On the School bus* (average of 61% visiting and 39% stopping) and *Transportation in America* to the *Connected City* (average of 36% visiting and 22% stopping). The number of visitors who entered through the designated egress, saw most of AotM and then, exited through Maritime affected the lower values for *Transportation in America* to the *Connected City*.

Exhibit Element	All Visitors		Engagement (%) (% Stopped/% Visited)
	Visited	Stopped	
	(%)	(%)	
Transportation in America	69	17	25
Community Dreams	67	36	54
Delivering the Goods	39	28	70
Watsonville-Delivering	33	23	69
Watsonville-Farm	9	7	71
A Streetcar City	64	49	77
Washington, DC	61	45	74
Suburbs & Streetcars	35	19	54
People on the Move	13	10	78
The Connected City	61	51	84
New York City	55	37	67
Oak	43	36	85
Crossing the Country	75	37	66
Lives on the Railroad	54	46	85
Salisbury Station	29	24	84
SR No.1401	44	36	82
Americans Adopt the Auto	44	29	66
The Peoples' Highway	64	33	52
Roadside Communities	41	21	52
Family Camping	32	17	54
On the School Bus	55	22	41
Suburban Strip	49	42	85
Buick Dealership	28	17	60
Cars and Motorcycles	45	35	78
City and Suburb	65	47	72
Park Forest	46	25	54
Suburb Panel	60	21	36
CTA "L" Car	63	44	70
On the Interstate	79	56	71
Transforming the Waterfront	31	29	93
Going Global	68	45	66

Table B. Visitor Attraction and Engagement in AotM Exhibit Elements

PATHS THROUGH THE EXHIBITION

As noted earlier, AotM was designed as essentially a linear exhibition following the historical timeline through the community depictions. There is one point, however, where visitors can choose either to continue straight ahead from the *SR No.401* to *The People's Highway* to *Family Camping* and *Roadside Communities* (the historical path) or to turn to the right past *Americans Adopt the Auto* which connects directly to *Transforming the Waterfront* and the exit. A visitor who turns to the right could exit the exhibition without seeing the period from the late 1930s through the 1960s.

Examination of the tracking maps showed that AotM visitors followed many different paths as they wandered through the exhibition, frequently backtracking by returning to an exhibit that they had already viewed. While there is great complexity in individual paths, most individual paths through AotM can be described in three groups: extended paths, short paths, and other paths.

Extended paths. The first, and most common path, was a complete path that wandered through all sections of AotM so that visitors were exposed to the whole exhibition. One quarter (28%) of the visitors followed this complete path. In the other extended paths, the visitor moved throughout most of the exhibition, but excluded the areas most distant from the entering portal before exiting through that same portal. These two extended paths—entering at the designated entrance and visiting all except *Going Global* (14%) or entering through *Going Global* and not extending past *Crossing the Country* (14%)—accounted for two-sevenths of visitors. Combined, these extended paths accounted for more than half of the visit patterns (56%).

Short paths. A total of 34 percent of visitors took relatively short paths, entering and exiting quickly. One short path described visitors who entered at *Transportation in America* and walked into AotM no farther than *Streetcar City*, and then retreated back out through the entrance (9%). A second short path represented visitors who entered through *Going Global* and walked towards *Americans Adopt the Auto*, but no farther (7%). The third short path began at the official entrance portal and exited through the Maritime exhibition (8%). Finally, one out of ten visitors entered through the egress, moved through the bypass between *The People's Highway* and *Americans Adopt the Auto* (10%) and exited through Maritime.

Other paths. Less than one out of ten visitors (9%) followed a path between the entrance and the exit portals that went through the bypass and skipped the exhibition sections on Chicago, Portland, etc. The remaining few visit patterns ran between

Going Global and *Maritime* while entering the sections between *The People's Highway* and the *City and Suburb* (2%).

The choice of path determined how much of the exhibition was available to the visitor. The exhibits between *The People's Highway* and the *City and Suburb*, for example, were available to more than half of the visitors, because most visitors, whether they entered through the entrance or through the exit, did not choose the bypass link in front of *Americans Adopt the Auto*. At the same time, the exhibits from *The People's Highway* to the *City and Suburb* were not available to the one quarter of all visitors (26%) who followed one of the three paths from the official exit to either the official entrance or *Maritime*.



Image 1. Visitors to *America on the Move*, *The People's Highway*. NMAH Photo.

DISCUSSION: VISITOR BEHAVIOR

The observations of visitors in *America on the Move* suggest several questions, which may require research, beyond this study, to fully answer. Why do half of AotM visitors enter through the exit at *Going Global*? Is it because they are attracted by the music and multimedia presentations as they leave adjacent exhibitions? Is it because they are unaware of where the entrance is located—or may not care? Why do many visitors exit through Maritime rather than visiting the remainder of AotM?

These observations of behavior are consistent with the hypothesis that visitors spend more time with exhibition elements near an entrance and less with later elements, perhaps reflecting tiredness, overload, or an interest in saving time for another exhibition. AotM is fortunate that as many visitors enter through the exit as through the entrance so that the full visitor load is distributed throughout the exhibition.

Since visitors chose many different paths through the exhibition, some exhibit areas were more visited than others, and among those visited, some were more successful in encouraging visitors to stop there. Generally, areas that have major artifacts were more visited, however, several of the non-artifact areas were quite successful in engaging visitors—even though fewer people visited the areas. For example, *Transforming the Waterfront*, *Salisbury Station*, and *People on the Move* are among the least visited areas, however, all three have higher than average engagement rates.

Finally, the presence of a direct path between the *Transforming the Waterfront* and *Americans Adopt the Auto* allowed a significant number of visitors to bypass the exhibits between *The People's Highway* and the *Chicago "L" Car*. Since the tracked visitors were not interviewed, it is not possible to identify why they chose to follow this bypass rather than moving through the whole exhibition.

The observations do not answer questions about visitor reactions to the locations they visited, which of the stops they found most impressive, and how they reacted to the exhibition overall. Those questions are addressed in the next section of this report, based on conversations with visitors and museum professionals, and on results from a self-administered survey of visitors.

II. VISITORS TO AMERICA ON THE MOVE

This section is based on the comments and reactions of 456 individuals sampled from general public visitors to AotM, a panel of eight professionals invited from throughout the Smithsonian, and three high school student interns. The methodology used with each of these groups is described in Appendix C.

VISITOR STUDY: RESULTS

Visitors entering any museum, especially a large one, make choices about where to go, what to see, and what to do. As another recent study shows, AotM was visited by forty-five percent of NMAH visitors⁹. This section describes visitors to the exhibition in demographic terms, based on the survey. (The questionnaire is in Appendix D, supporting data are in Appendix E).

Almost half (46%) of the visitors were making their first visit to the Smithsonian and, by extension, to NMAH. Another fifth (21%) were first-time visitors to NMAH although they had visited other Smithsonian museums previously (see Appendix D, Table 1).

Adults constituted more than nine out of ten of AotM visitors studied¹⁰— one-third (33%) came with other adults but no children, another third with children (38%), alone (15%), or with an organized group (6%). More men (57%) than women (43%) visited the exhibition. Compared to visitors to the museum as a whole during the same period, AotM drew a larger percent of adults with children and a larger percent of men. (For comparisons with other NMAH studies, see Appendix B, Table 2).

Members of the Later Baby Boom Generation (39-49 years old) and Generation Y (under 27 years old) formed the largest groups of visitors (29% and 27%, respectively). Senior citizens (59 and older, 17%), Generation X visitors (28 to 38 years old, 17%) and Early Baby Boom visitors (50-58 years old, 11%) are smaller groups. Relatively few visitors reported having vision, hearing, or physical impairments (9%).

The vast majority of visitors lived in the United States (94%). Although they were widely distributed across the country, almost half (47%) were from the Southeast and Mid-Atlantic regions.

As noted in the tracking study, visitors entered the exhibition from different points: some through the adjacent Maritime exhibition, some through the official entry portal, while others through the official exit section, *Going Global*. They also reported spending varying amounts of time in the space. One-third (31%) reported spending less than 15 minutes, another 45 percent between 15 to 30 minutes (see Figure 1). These self-reported estimates of time spent in AotM are considerably higher than amount of time that visitors were observed to spend in the exhibition during the tracking study. A comparison of the two sets of data is not possible as there are differences between them. Specifically, the tracking study does include visitors who entered through Maritime and the current survey study does not include visitors who exited through Maritime.

WHAT IMPRESSED VISITORS?

Visitors were asked to indicate which of the exhibitions sections “really impressed” them. On average, visitors marked two exhibition sections. As detailed in the list below, the sections sorted into two groups: those selected by more than a sixth (17%) of visitors and those selected by fewer than an eighth (12%) of visitors:

23%	<i>The Connected City</i>
22%	<i>The People’s Highway</i>
21%	<i>A Streetcar City</i>
20%	<i>Community Dreams</i>
19%	<i>Family camping</i>
19%	<i>Lives on the Railroad</i>
18%	<i>Chicago “L” Car</i>
17%	<i>Crossing the Country</i>
12%	<i>On the School Bus</i>
10%	<i>On the Interstate</i>
10%	<i>Going Global</i>
8%	<i>Roadside Community</i>
8%	<i>Suburban Strip</i>
8%	<i>Transforming the Waterfront</i>
6%	<i>Delivering the Goods</i>
5%	Other (written comments)

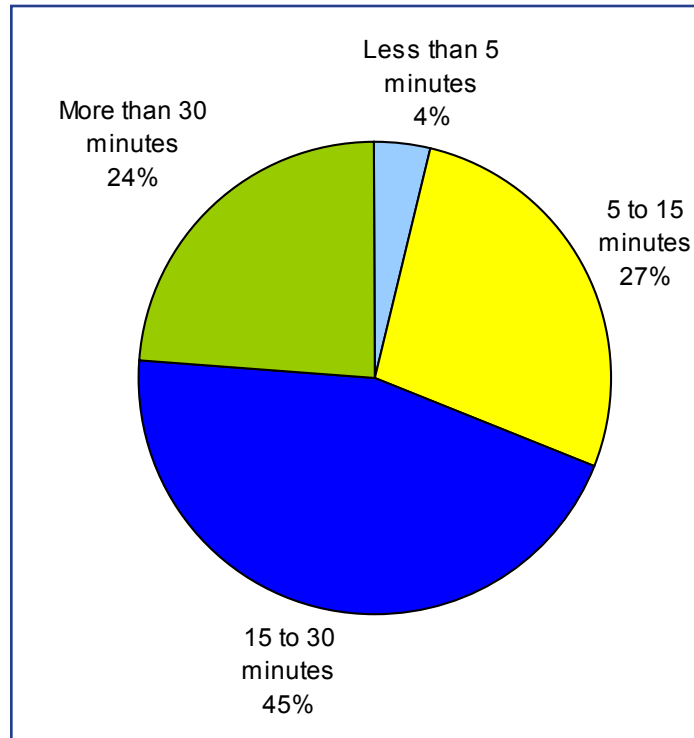


Figure 1. Visitors' Estimates of Time Spent in AotM

With the exception of The People's Highway, the Chicago "L" car and the Family Camping, the areas in the first group are in the first half of the exhibition. With one exception, Delivering the Goods, the sections selected by few visitors are in the second half of the space. While most visitors indicated that they found one to three sections that really impressed them, few failed to mark at least one section (4%). There was no pattern in the sets of things that people picked.

VISITOR VOICES

While the survey did not ask visitors why specific sections impressed them, some hints are found in conversations with the museum professionals, high school student interns, and visitors interviewed informally. One visitor summarized his impressions of the exhibition,

I look at this as enjoying it in two ways. One is I'm learning information by reading something and the other is I'm just connecting with my past -- the emotional part and then the part where I'm learning something new.

The exhibition had a nostalgic appeal for two brothers, well into their 70s, from the Midwest. As the visitors walked through AotM with an interviewer, they shared personal stories:

We're getting up to stuff that I can remember from my childhood ... It used to be when the new cars came out you went and looked at everybody's and you knew who built what. So you'd come down the road, you'd see it from an angle of the taillights, you'd see it from the front ... you knew what it was. I defy you to do that now without reading a name. They're generic.

Almost everyone we talked to had some tale they recounted,

Well, I thought that [the exhibition] was kind of like telling my family story. Because my grandfather had a Buick, my other grandfather worked on trains, was a conductor on the train ... traveled by ship. My father lived in Chicago ... I felt like it was an American story ... I couldn't believe it. I thought I had gone to heaven when I was in the second part of the exhibit. And that little video they had about cars in America ... from movies and stuff ... I wish I had done that. That was fun. [SI Panel member]

It's the personalization, the connection ... and that's what [another person] and I found so interesting about AotM because it brought up stories where you could say, 'When we were in Chicago ... blah, blah' If you identify someone in the family that's a connection ... [SI Panel member]

And then the traffic area was fun, I liked that traffic area, but I wish I could have gotten in the car though. That was so cool. They had a Mustang down there or whatever it was; I was like "VOOOOM! I want to get in it." They also had the school bus, and I wanted to get on that motorcycle. [High school student intern]

Well, the motorcycles again, I'm a motorcycle lover, and I just like the transformation between the little, like how they started with little -- what do you call those little things -- mopeds, and how they like transformed into, like, actual motorcycles and things like that. It was, like, really cool because I'm into the whole riding-wild, hair-blowing-in-the-wind type thing, so it was kind a cool to see the different kind of styles of motorcycles they have and things like that. [High school student intern]

... in the transportation section there was a display case that had a Pullman Conductor's uniform and some of his tools and a list of his duties and all that. My grandfather was a Pullman Conductor....in New York, so that was very special to me. I have never seen him [grandfather] in his uniform; there is only one picture of him that I know of, just him sitting in a chair. I've heard stories from my father... and umm.... So that was just was very special to me. That was worth the trip just to see that. I was very, very surprised and pleased to see that. [Local visitor]

VISITOR REACTIONS TO DESIGN ELEMENTS

As indicated in the exhibition description and more extensively in techniques, the NMAH team incorporated various approaches into the interpretive strategy (see p. 10 above).

More than three-quarters of visitors reported that four techniques -- sounds of transportation (e.g. train whistles), historic film footage, large [11ft.] panels explaining sections of exhibition, and polyurethane figures -- enhanced their exhibition experience (Figure 2). The background conversations at displays were viewed as somewhat less effective in enhancing visits, while less than half the visitors found that the Bud the dog signs enhanced their visits¹¹. Missing the technique (marking "no effect" or "did not notice") was more common. In every instance, only between 2 to 4 percent indicated that the immersive technique detracted from their visit. In every

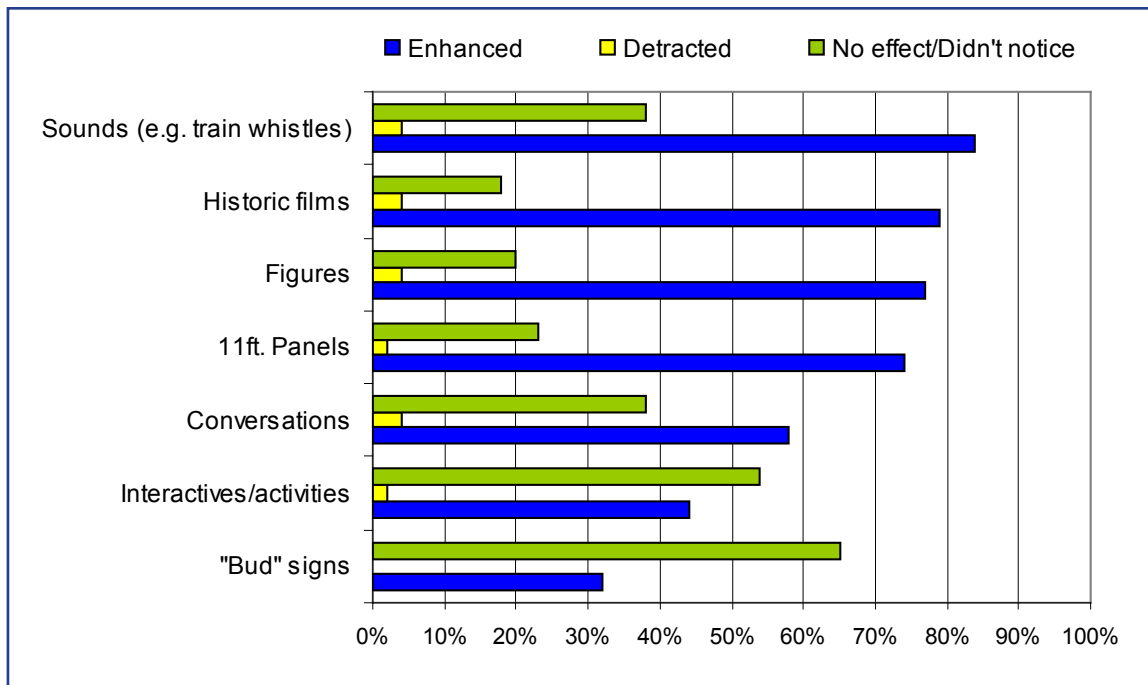


Figure 2. Influence of Specific Elements on Visit

case, “distracted from my experience” comments were no more than a trivial percentage, and were far outweighed by the percentages for “enhanced.”

Understandably, conversations among the staff panel viewing the exhibition focused on design elements and interpretive techniques. The Smithsonian staff panel had mixed reactions to the sounds, but appreciated the effort that went into incorporating sound into the exhibition.

There were so many sounds that I got easily distracted. Whether it was ambient sounds or whether it was attached to a diorama or whether it was the narrative for -- I guess for blind or folks that couldn't really read very well -- there was this audio description ... and there was actually a lot more information in there than was anywhere else. So I enjoyed listening to those, but they didn't have it at all in the places where I wanted it to be so ... I was frustrated that I wasn't getting information unless ... like I had to read this long text panel to get some information when in some areas you could just push the audio thing and listen to it. But then that ... that competed with the ambient sound or the diorama sound. [SI Panel member]

There were lots of subtle things. The sound. We actually had a tour since we went through it with some of the curators and they were telling us about how the sound was done. It's actually very complex, multi-level ... but can be misconstrued as too much. [SI Panel member]

The soundscape didn't bother me. I liked the soundscapes and the different things and somehow I wasn't distracted as much by it as maybe I should have been [SI Panel member]

Noise bleed -- like at the very first section ... I could hear the rock music from the last section ... that really kind of ruins that atmosphere in the first community section. So they had some noise bleed problems. [SI Panel member]

Some visitors also objected to the sounds,

Both of us [adults] enjoy reading. I could probably spend the whole day until I'm exhausted just in one exhibit. We were commenting how expansive and informative this exhibit is. And, in some places -- not in all places -- that it was sometimes difficult to concentrate ... My thought

was, “Well maybe young kids now who are used to multimedia and many different kinds of stimuli coming in may be less intimidated by all these stimuli coming in at the same time.” But me, I like to concentrate on something and it’s not as easy to ignore all the outside voices. [NMAH visitor]

The high school interns, in contrast, were quite in tune with the sounds in the exhibition:

I like things loud. I don’t know if it’s because I’m the younger generation where we like things loud, but I find myself always going “What? What that person just say?” Or sometimes I’m talking and then because it’s like low I might miss it. So I like things loud. I didn’t find that it was too loud. I liked it. [High school student intern]

Some visitors offered additional positive comments on the sounds,

I like the sounds ... you can hear the motorcycle sounds and the bus sounds, but only subtly. That’s cool. [NMAH visitor]

That’s neat. Listen! You can hear the truck! And as we were standing there looking at the motorcycles and the hot rod and the bus, you could hear a few of those sounds and I said, “That’s cool.” It feels like you’re there, so that’s really nice. [NMAH visitor]

I love it! It’s a personal touch and it kind of adds to the flavor of the exhibit. [NMAH visitor]

Like visitors, the high school interns liked the large panels and especially the introductory material:

When you got to “America on the Move” the introduction was right there and it basically told you about the main idea they wanted you to get from it and it helped you when you went through it to pick out. [High school student intern]

One Smithsonian panel member appreciated the language in the labels:

I liked the uncluttered panel designs -- usually easy to relate labels to objects. Sometimes a little light on artifact information -- Why was a safety bike called that? -- but there’s a lot here to read, well organized, well presented. [It is] a pretty good balance of text and images. [SI Panel member]

The interactives were a lengthy topic of discussion among the SI panel, as well as among the interns. As shown in Figure 2 above, while nearly half (44%) of all visitors saw them as enhancing the experience, more (54%) felt that they had no impact on their visits or simply didn't notice them, and very few (2%) saw the interactives and other activities directed at children as distracting. In the case of interactives and activities, nearly two-thirds of visitors accompanied by children (63%) reported that the interactives/activities enhanced their visit.

And then I looked around the corner and there was a computer, like the touch screen computer, where you can play a game and this was educational as well. So that was, like, good to the younger folks, for the kids so they can have fun as well. You had to touch everything and lift one thing up and all that, but it was real good cause it had visual stuff and then it had audio as well, so it was good for disabled people as well. [High school student intern]

I found a lot of things not working actually. The first interactive I went to wasn't working and then wasn't working a week later when I went to it and that was frustrating. But the ones that worked were interesting. ... The very first Big Picture ... it starts up and then it just freezes. But the last one, because there are three, was cool with the map where you could ... I mean the timeline. You could scroll through and see how the roots change. Very cool. We'd like to use that for something. [SI Panel member]

I thought that the interactives were ... that there was a nice diversity and that they were multi-sensory but they were kind of predictable and sort of flat. [SI Panel member]

If there had been lots of people in there and people were pushing everything, I probably would have been distracted because those audio descriptions were LOUD. [Reply from another SI Panel member]: They were loud but they had the best information about what was going on in that spot, I thought. [First SI Panel member]: Well they just REALLY describe everything around you ... [group laughter].

Visitors were also asked to offer opinions about several general design issues: crowding, size of the space, number of objects, and amount of technical and historical information. As the survey was conducted in the spring, before the summer visitor influx, comments on crowding were tempered. Only four percent felt the space

too crowded, while two percent thought it too empty. Size was an issue for only four percent of visitors. In fact, six percent thought it too small.

In contrast to visitors, both the professional staff and the interns critiqued the exhibition's size:

Well let's see ... the size and scope would be overwhelming except that the open design, once you get past the first two sections, enables you to see what lies ahead so you can scope through and look at only what you want... [SI Panel member]

Easy to focus on what interests you and breeze past the rest. Larger things may get lost because you don't ... because you really have to pick and choose what you read. It is overwhelming in terms of the amount of information that's in there ... Individual exhibits stand up well on their own. And there is a lot there that interests me and keeps me coming back and picking away at different parts of it. Although if I was a one-time visitor I'd probably have a different impression, but I had the luxury of going back a lot, which I do ... so ... [SI Panel member]

The exhibit to me was very good and enlightening and it was very overwhelming because like they [the other interns] both said it was a very large exhibit and there was just so much stuff thrown at you -- so much three-dimensional stuff. But it was a good thing because I am a visual learner and I like things like that 3D, I like picture stuff, but everywhere you looked there was just figure here, trains here, cars here, this here, that there ... [High school student intern]

I mean I loved it all and I guess I'd be inclined to go back. I don't know, by the end ... I mean, I spent two hours in there and I just whisked through the end because I just couldn't do anymore. [SI Panel member]

When it came to objects, technical information and historical information, more visitors wanted more, compared to those who felt there was too much. Those who felt the installation was appropriate were in the majority (ranging from 78-84%). (Figure 3) (see Appendix D, Table 1).

In the case of objects, twice as many visitors (11%) wanted more objects compared to those who felt the exhibition had too few (5%). Similarly, those who felt there was not enough technical information (14%) were almost twice the size of the group that felt there was too much (8%). In the case of historical information,

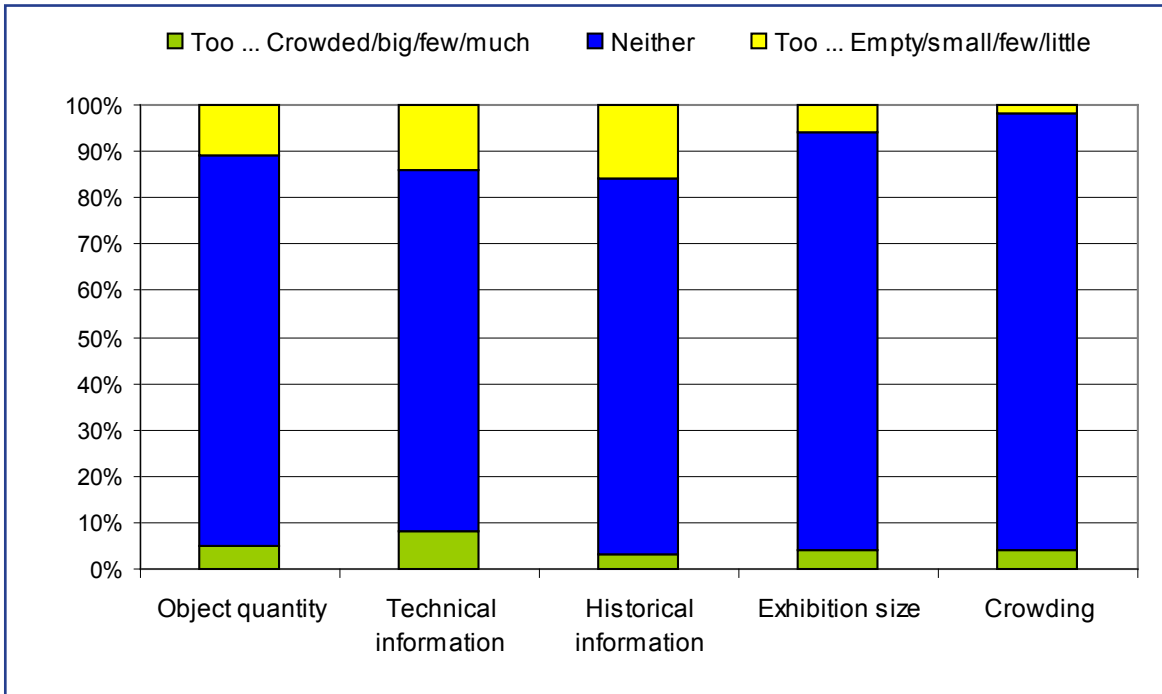


Figure 3. Assessment of Specific Elements

the discrepancy was larger, with 16 percent feeling that there was too little historical information compare to those who wanted less (3%).

Part of the conversation, both with museum staff and the student interns, concerned the overall comfort of the exhibition. As elaborated in Appendix B, the protocol used by the panel members considers a broad definition of comfort as essential to a successful exhibition:

They should have had more seating, because it was large and you had to walk all the way over here to all the way down the other ramp to go to the other side of the exhibit to see some more stuff. [High school student intern.]

Well the thing is, you didn't know what to expect, so I, like, I took a lot of attention in the first third and then turned that corner and it goes off and I'm like {huff} ... OH NO! But then low and behold there's a bench so it's like at least they knew by then you'd get tired. And then the benches just got more and more frequent as you went on ... so that was good. [SI Panel member]

[In response to a “too dark comment”] Interesting, but I found the vignettted lighting warm and actually if there had been ... I felt if the lighting level was more there was so much going on it would have been overwhelming. But it’s almost like they spotlighted things for you to look at and helped guide you that way. [SI Panel member]

As a theatre person I loved the theatricality and the environment of the exhibit. I felt very comfortable and I thought that there were -- I’m not really someone that goes around looking at locomotives and stuff -- but the theatricality of the way it was presented intrigued me. And I found, just in terms of comfort, that’s why I felt comfortable intellectually with that in a way that I didn’t think I was going to. But just physically to be able to sit ... and I found that it was very comfortable. It’s a huge show. But if I got tired I could sit or you could also hit the “L” ... [SI Panel member]

The Smithsonian staff panel did include one overall dissenting voice:

And I was starting to get overwhelmed with reading about halfway through so I was looking for the fast track of the exhibit, but I couldn’t find it. I didn’t know ... I couldn’t pick which things to read to get the overall view. So that was frustrating. So I just didn’t feel comfortable at all. [SI Panel member]

In the SI Panel conversations, the only section that came up for extensive discussion was the last section, *Going Global*. One panel member was quite adamant and stated,

I do have to say that I hated the exit area ... [group chimes in] ... I hated that hall completely ... I like the map, I could look at that for half an hour but the rest of it I just hated. [SI Panel member]

Another, trying to be more conciliatory but agreeing that the section was weak suggested,

I wish they had had a changing exhibit space there instead, where they could bring in some of the other vehicles every now and again and show them off like they used to in the old exhibit hall. I think that’s a major weakness of this gallery because it’s not very easy to change ... [SI Panel member]

RATING THE EXHIBITION

To provide context for comments about design, as well as information in its own right, visitors were asked to rate their overall experience in the exhibition. The scale [”Superior,” ”Excellent,” ”Good,” ”Fair,” and ”Poor”] has been used by OP&A across museums for several years. In rating AotM, visitors who gave the exhibition a very

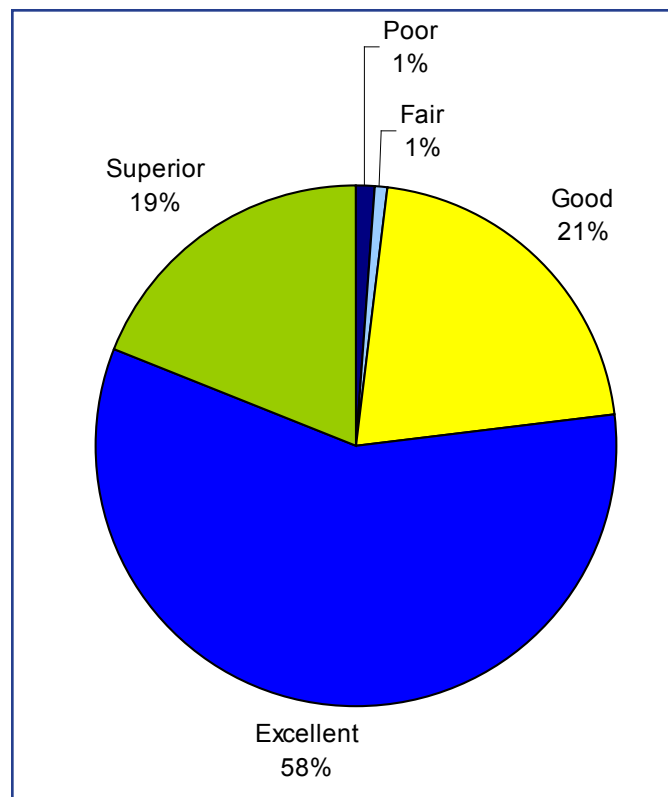


Figure 4. Overall Rating of AotM

high rating (”Superior” 19%) were equal in proportion to those who gave it more modest rating (”Poor” <1%, ”Fair” 1%, and ”Good” 21%). (Figure 4) while over half rated it as ”Excellent” (58%).

AotM was also rated on the NMAH exit survey mentioned earlier¹². In comparison to ten other NMAH exhibitions, AotM ranks in the lower third when ratings are sorted by the highest category, ”Superior.” It ranks precisely in the middle when ”Excellent” and ”Superior” are combined (i.e., five exhibitions are ranked lower and five higher).

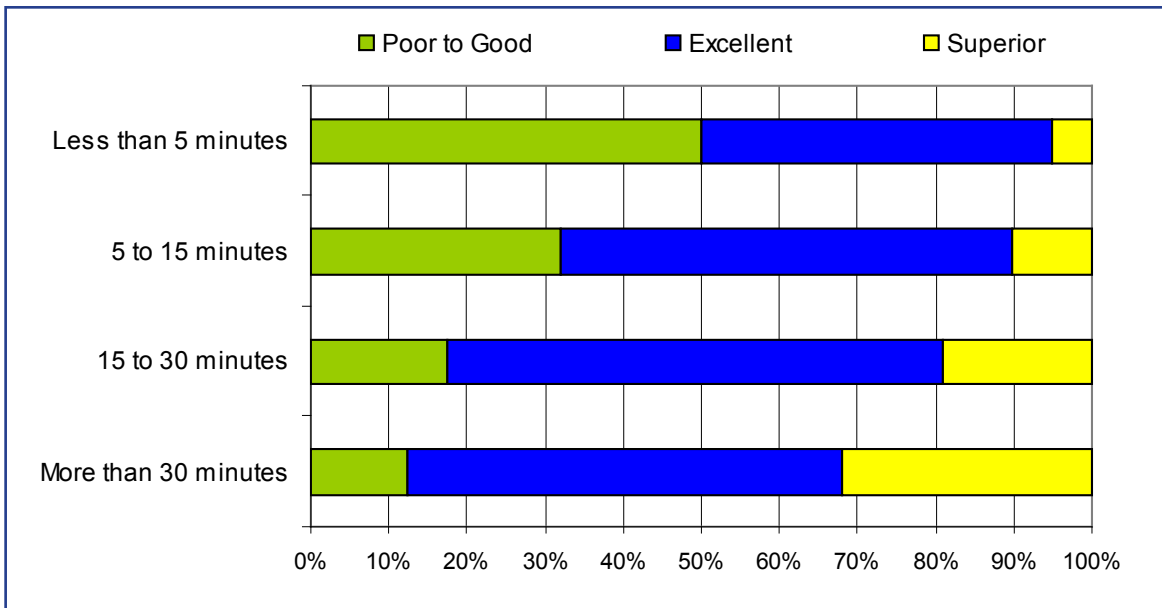


Figure 5: Estimated Time in AotM and Exhibition Ratings

The longer that a visitor reported staying in AotM, the more satisfying was his/her rating of the experience (Figure 5). A consequence of the association between time spent in AotM and satisfaction was that some apparently less impressive exhibition sections like the Roadside Communities and Transforming the Waterfront were significantly associated with visit satisfaction: visitors who found such sections especially impressive tended to spend longer in the exhibition. Or, it may be that those who stayed longer in the exhibition were more likely to find them impressive.

While the Smithsonian staff panel and the high school students did not use a rating scale—ratings are implicit in their comments:

It seemed like most everybody was stoned in there was I was there. Everybody was smiling ... I couldn't believe it ... completely; everyone was having such a great time in there. [SI Panel member]

I think I felt so surprised to be engaged. Because maybe I was too idealistic about it, but it was because again it was because of the environmental approach to it that I felt very comfortable looking at stuff that usually doesn't ... I mean, I never went to see big locomotives before, except

when I got lost ... so I was just overwhelmed by being so attracted by it.
[SI Panel member]

There seemed to be things for families to focus on too, because the transportation theme isn't a particularly rich one for kids, but I saw parents pointing out different things to the kids and bringing them over to show them the particular things ... They were enjoying it. [SI Panel member]

Although the uniformly high level of "enhanced" associated with the various immersive design elements makes it difficult to say reliably that most of the elements increased visit satisfaction, it is clear that the life-sized, polyurethane figures made a positive contribution to the visitors' experiences. Nearly three out of ten visitors (29%) who said that these figures enhanced their experience rated their overall experience as "Superior." In contrast, visitors who did not notice the figures, said that the figures detracted, or that they figures had no effect were less likely to rate their overall experience as "Superior" (did not notice = 9%, detracted 11% and no effect = 6%).

Visitors seemed to enjoy the figures, many of whom took advantage of the "in the scene" photo opportunity. One woman said:

It adds a bit of realism to it and I like the color, they're gray ... they're not sticking out or taking away from the exhibit itself, but they're sort of reminding you that people did interact with these things at one point.
[NMAH visitor]

The SI panel and the high school students also made comments about the life-sized polyurethane figures and understood their use:

I'm not a big fan of the dioramas with those white mannequins, but what I did like were the areas where you could almost, like, walk into the diorama the way they used mannequins or the barrels to be the barrier. So you didn't feel there was anything between the exhibit and you. They blurred that ... over at the train station where you could go in and sit on the bench, so I thought that was nice. [SI panel member]

I think they [figures] added a little bit. It kind of helped you paint a picture in your own head. Actually seeing it and saying how they interacted with a certain kind of car, and just like setting your own little picture, ... I think that is kind of cool like the manikins helped you paint your little picture. So it was tight. [High school student intern]

For me I think the manikins painted a mood of how those situations or those time periods or how things were. You know, if they were smiling, then, of course they were happy, but then if the lady--for instance in the train section when they had the white man and the black man on the other side--he looked happy, like real proud, like "I'm used to this. I'm gonna have fun on the train." But she looked more like--not really hurt--her face was more of a serious more like, she was hard, like she had been through a lot to get on this train. She is gonna get on this train today and "I am gonna be proud that I'm on this train". It wasn't like she was having fun. It wasn't like a good. It was more of like "I'm not in the mood. Please don't come sit." She didn't have a come-sit-next-to-me kind of face and it was, like, every area that you went in, and you saw the person's face kind of painted a picture. It made you want to get in the mood, to make you think how she was or get happy like that person. [High school student intern.]



Image 2. Visitors to *America on the Move, Community Dreams*. NMAH Photo.

DISCUSSION: VISITORS TO AMERICA ON THE MOVE

AotM ranks in the middle of NMAH exhibitions rated by visitors. Although the *Hall of Transportation* is the largest exhibition space in the museum, the distribution of visit times was closer to that of a smaller exhibition. No visitors were very unhappy with their experience. Nearly everyone found some section that was “especially impressive.”

The immersive design elements adopted by the exhibition design team all made a positive contribution to visit experiences; however, many visitors did not notice them or felt that they had no effect on their visits. AotM also raises an issue of whether visitors are experiencing the exhibition according to the implicit timeline used by the exhibition designers. Many visitors enter either through the official exit or the adjacent Maritime exhibition. Visitors who do not enter through the official entrance may not fully understand the context of Bud the dog signs, for example. (Nearly a quarter of all visitors said that they did not see the Bud signs.)

In summary, AotM is an exhibition that allows visitors to shape their visit as they wish. It offers something impressive for everyone, while failing to dazzle. It is difficult to tell whether the exhibition succeeded in “inspiring a broader understanding of our nation and its many peoples” and whether visitors encountered “challenging ideas about our country’s past,” the history-related goals set for it since these issues were not included in the questionnaire. It was clear that the exhibition engaged some visitors, while others were not.

One local visitor compared AotM to the previous installation:

It’s different from the previous transportation exhibit. I hadn’t been to this section for six or seven years. I think it’s always told a great story. I’ve never had a problem with the story or thought something could be done differently. But it’s just obvious that someone’s put a lot more time into spreading things out, making it a little more user-friendly for people that are walking by and looking. That struck me right away when I came back in. [NMAH visitor]

As one of the panel members commented,

These kinds of exhibits that are centered on specific locations typically don't appeal to me. And for some reason this one did. I have a certain interest in some of the subject matter and that certainly has a lot to do with it. And also because this gallery was so big and so sweeping there was probably something somewhere in that exhibit in one of these vignettes that would appeal to almost anybody because there were so many of them. If there were only three or four I think I would have been hugely disappointed, but there were so many of them that ... if you're from Chicago, there was something from Chicago or if you're from California, there was something on Santa Cruz ... the DC one ... to me that's what made that work because of its size and the number of things that it covered. [SI Panel member]

AotM is enigmatic in that everything that the exhibition planners included does work, but the visitor experience is not the sum of all the parts. Analytically, it is difficult to identify any aspects that worked better than others because the visitor experiences are so uniform across design elements (thus reducing variance to correlate with satisfaction) and visitors are so diverse in identifying the sections that impress them. This exhibition presents visitors with so many options and so many enhancements that it is difficult to identify features that are especially successful or disappointing; none really dazzle – but none really disappoint. The data do not allow us to reach definite conclusions about exhibition elements or techniques--beyond noting that visitors responded positively to the transportation sounds, historic film footage, the large [11ft.] panels, and polyurethane figures. Visitors were not asked to comment on the openness of the floor plan, except to comment on crowding and size. Neither was an issue.

In their conversation, the Smithsonian panel members raised issues about the tradeoffs that have to be made between objects and stories, size and coherence, a single story and multiple stories. One SI panel member felt the exhibition developers had failed:

I really felt like the volume of really large objects was counterproductive to telling a good story about one item. I thought the jumping around to different cities and different places was counterproductive to telling a moving story across the country ... if you take the name of the exhibit literally or try to fit in it to what they were trying to do. [SI Panel member]

Another colleague however, defended the exhibition's approach:

But see that's what's so nice ... instead of telling the same old story about cars and about trains, they actually took a different approach. They picked some places I've never heard of and obviously places I've heard of like Washington DC, and they kind of wove it into the story and I thought that was neat and also emphasizing their collection which is the whole reason why people come here is the objects. Again this is something we're running into right now with an exhibit we're working on because the curator is trying to do the history of [a particular subject matter] and you know, how boring can that be? But we have such cool objects and each object has its own story ... you know, some quirky story and I'm trying to encourage her to bring that out instead of like a historic recitation ... boring, boring, boring ... [SI Panel member]

There was sympathy for the speaker and another member noted:

We run into that problem all the time is trying to tie cool and quirky stories or cool and quirky stuff together. And in every case, it seems like it boils down to that problem. Do we display stuff or do we tell a story? And trying to mesh them together, in this case I thought was counterproductive. [SI Panel member]

AotM highlights the point that history has different perspectives. For some visitors reliving their own history, even the "stuff" isn't exactly what they remembered. One visitor criticized the way an object had been restored:

Back in the 30s you couldn't afford to paint these [pickup trucks]. You never painted one a shiny red like that. You didn't have that kind of paint. You take a current restorer, now they use the current painting methods: 3, 4, 5 coats of lacquer, 2 or 3 coats of clear coat and it makes them look good forever. But if you're trying to sell somebody that this is a 1936 delivery vehicle ... in the oil fields? [laughter] This is original paint on this one ... you can see where his arm's been riding on the window, took the paint off ... it's that type of thing. Restorers get carried away. [NMAH visitor]

SI Panel members were asked to summarize their experience in AotM. Most typical of the comments were the following:

How do I summarize? High level of meaningfulness for me because of my interest in the history of road travel, reinforced what I already knew,

introduced me to new aspects. Nothing was especially profound or life altering, but a very engaging exhibition to visit and to turn to again and again. [SI Panel member]

I thought that each major object had a relevant story to tell. And I learned things in the exhibit but I would not say that my beliefs were changed in any way. [SI Panel member]

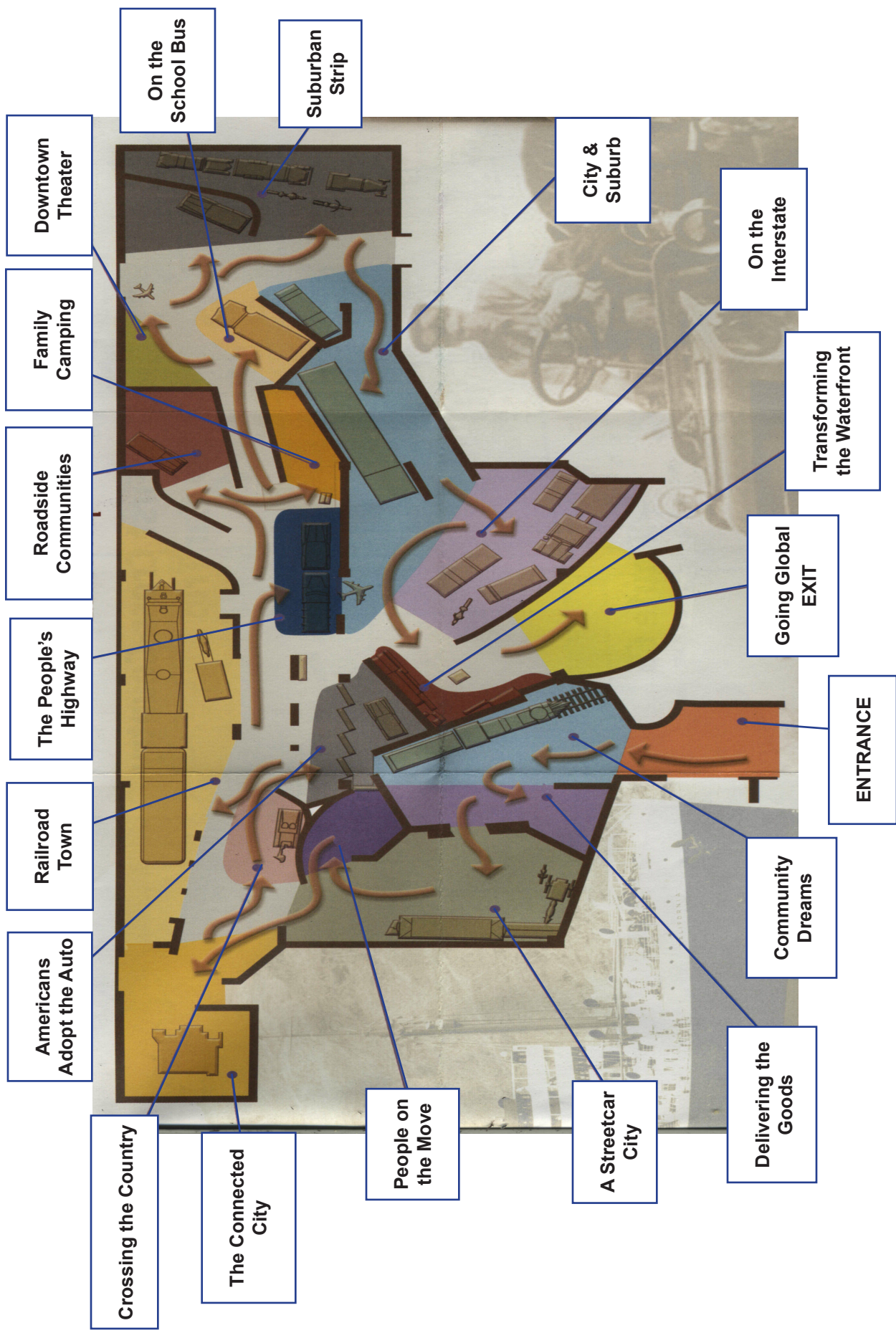
Love this exhibit, with exception of final room—wish it was a space for changing displays. Multi-textured and multi-layered -- it can be appreciated on many levels. Could go through just listening to sounds. There is so much here that you can't take it all in on a single visit. I find interesting new things every time I come back. Exhibits structured around a series of places or "case studies" often aren't my favorite, but this pulls it off well, maybe because of sheer size of exhibit and number of vignettes—everyone likely to find something fascinating. Fun to explore! [SI Panel member]

I thought this was the American story. I thought it was really cool. It didn't matter, Chinese, Japanese, Hispanic, European ... there was something in there for you. Not only in the content but also in the way the exhibit was presented. It also seemed that the people who developed the exhibit were really trying to connect with many different kinds of people but without forcing it too much. I thought it was great. And it was a fantastic use of the collections. [SI Panel member]

§

ENDNOTES

- 1 Originally motivated by an invitation to address a museum studies class, Steve Lubar, the project director of AotM, a curator and former chair of the Division of the History of Technology at the NMAH, wrote a case study that described curatorial concerns, challenges and goals as well as solutions to problems encountered along the way. The case study, subsequently published as Steven Lubar, "The Making of American on the Move at the National Museum of American History," Curator: The Museum Journal, 47 (1): 19-51, presents his perspective on how a cross-functional exhibition team replaced the 40-year-old transportation exhibition over a four-year period (1999-2003) and with about \$20 million.
- 2 Most of this section is based on the AotM online exhibition, <http://americanhistory.si.edu/onthemove/exhibition/> (last accessed July 12, 2005).
- 3 The 151 visitor groups consisted of individuals visiting alone, adults groups and groups of adults and children. In each group, only one visitor was observed.
- 4 The observations of the 151 visitor groups were weighted to represent this distribution.
- 5 In two cases, the OP&A staff had to terminate its tracking because the visitors remained in the exhibition for such a long time that the tracking staff had to leave for other commitments.
- 6 A discussion of tracking studies on pages 78-79 in Office of Policy and Analysis (2001). *Studies of Visitors at The American Presidency*. Washington, DC. Smithsonian Institution.
- 7 In the terminology of this report, a visitor is said to have "visited" an exhibition element if their path passes close to that element.
- 8 Engaged is = Stopped/Visited
- 9 See *Visitor Ratings of Exhibitions at the National Museum of American History*, Office of Policy and Analysis (2005).
- 10 Visitors under twelve and visitors exiting AotM with an identifiable, organized group were not eligible for this survey.
- 11 Differences between visit groups with and without children were not found in reactions to Bud.
- 12 *Visitor Ratings of Exhibitions at the National Museum of American History*, Office of Policy and Analysis, 2005.



APPENDIX A. AMERICA ON THE MOVE EXHIBITION MAP

APPENDIX B. TRACKING TABLES

Visit Length (Mean)	VISITED FEW AREAS		VISITED MANY AREAS		All Visitors
	Entry Point:		Entry Point:		
	Entrance	Exit	Entrance	Exit	
N	21	8	59	61	149
Mean	02:34	08:09	15:07	11:50	11:39
Median	01:57	05:00	14:00	12:00	10:03
Standard Deviation	02:17	09:05	05:45	05:36	08:20
Standard Error	00:30	03:12	01:17	00:44	00:41
95% CI for Mean (LB)	01:31	00:34	12:42	10:21	10:18
95% CI for Mean (UB)	03:37	15:43	17:33	13:18	13:00
Minimum	00:00	01:00	00:00	01:00	00:00
Maximum	07:00	28:00	55:00	29:00	55:00
Number of Stops (Mean)	Entrance	Exit	Entrance	Exit	All Visitors
N	21	8	59	61	149
Mean	3.40	7.60	16.70	17.50	14.70
Median	2.00	6.00	16.50	17.00	14.30
Standard Deviation	4.02	3.99	9.15	9.84	10.04
Standard Error	0.88	1.41	1.19	1.26	0.82
95% CI for Mean (LB)	1.50	4.20	14.30	15.00	13.00
95% CI for Mean (UB)	5.23	10.92	19.02	20.02	16.30
Minimum	0	3	0	0	0
Maximum	16	14	41	42	42

Note: CI - Confidence Interval (CI) ~ Time in Minutes:Seconds, One minute = 01:00, One stop = 1.0

Table 1. Time Spent in AOTM and Number of Stops Made

Exhibit Area	Entered at Entrance		Entered at Exit		Entered at Entrance		Entered at Exit	
	Visited Many Areas		Visited Many Areas		Visited Few Areas		Visited Few Areas	
	Visited	Stopped	Visited	Stopped	Visited	Stopped	Visited	Stopped
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Transportation in America	100	27	39	2	95	43	0	0
Community Dreams	98	58	41	15	81	52	0	0
Delivering the Goods	65	48	21	10	33	30	0	0
Watsonville-Delivering	58	38	13	8	33	30	0	0
Watsonville-Farm	15	15	8	2	0	0	0	0
A Streetcar City	100	82	46	30	43	30	0	0
Washington, DC	100	78	39	25	38	25	0	0
Suburbs & Streetcars	46	23	32	15	25	24	0	0
People on the Move	29	22	0	0	10	10	0	0
The Connected City	69	54	74	64	25	25	0	0
NYC	69	47	59	39	25	19	0	0
Oak	38	31	61	52	19	19	0	0
Crossing the Country	98	50	87	41	0	0	13	13
Lives on the Railroad	67	58	66	54	0	0	13	13
Salisbury Station	33	25	38	34	0	0	0	0
SR 1401	52	42	57	46	0	0	13	13
Americans Adopt the Auto	44	33	49	36	0	0	38	25
The Peoples' Highway	76	35	82	48	0	0	0	0
Roadside Communities	42	18	59	34	0	0	0	0
Family Camping	39	15	41	28	0	0	0	0
On the School Bus	61	25	75	30	0	0	0	0
Suburban Strip	56	42	66	61	0	0	0	0
Buick Dealership	22	15	48	26	0	0	0	0
Cars and Motorcycles	50	33	62	53	0	0	0	0
City and Suburb	75	52	87	64	0	0	0	0
Park Forest	53	22	61	39	0	0	0	0
Suburb Panel	73	22	77	32	0	0	0	0
CTA El Car	73	46	83	64	0	0	0	0
On the Interstate	85	56	98	72	0	0	88	75
Transforming the Waterfront	31	29	41	38	0	0	38	38
Going Global	56	29	100	72	0	0	100	75

Table 2. Visitors in AotM exhibits
Visited and Stopped by Where Entered and Relative Number of Areas Visited

APPENDIX C.

SURVEY AND PANEL METHODOLOGY

Section two of the report is based on the survey responses of 456 individuals sampled from general public visitors to AotM, informal conversations with visitors, a panel of seven professionals invited from throughout the Smithsonian, and three high school student interns. The methodology used with each of these groups is below.

SURVEY METHODOLOGY

OP&A designed and tested the one-page self-administered questionnaire used in the study (Appendix D). Between April 12 and April 24, NMAH staff and volunteers, trained by OP&A in standard survey procedures, intercepted eligible visitors exiting the exhibition's entrance and exit. Survey sessions were rotated between the two locations. Eligible visitors excluded visitors under the age of 12 and persons who were visiting NMAH as part of an organized group. This study, therefore, is based on a sample of "voluntary" visitors to the exhibition, although it includes some visitors who came to the National Mall museums with organized groups (e.g. tour or school visits), but who visited AotM as individuals.

Of the 740 visitors selected to participate, 456 completed questionnaires, for a cooperation rate of 62 percent. The survey data were weighted to control biases due to visitors who chose not to participate as well as those who cooperated. Thus, the results presented in this report are statistically representative of AotM visitors during the spring of 2005. If every visitor exiting AotM were interviewed, there is a 95 percent probability that percentages for the entire population will be within five percent of the survey percentage (given the sample size).

As part of designing the survey, OP&A staff held informal conversations with visitors exiting AotM. Quotations from those interviews are used to illustrate some of the points made in the report.

SMITHSONIAN-WIDE "JUDGES PANEL" AND TEEN-AGE PANEL

In an effort to engage staff from throughout the Smithsonian in interdisciplinary conversations about exhibition excellence and to explore a new methodology, OP&A

invited a group of professionals involved in exhibition-making to participate in a peer panel. As a basis for the discussions, a framework developed outside the Smithsonian was used.

Originally developed by Beverly Serrell and a group of 15 museum professionals, “Judging Excellence” was originally aimed at science museum exhibitions. With minor adaptation, the framework works in other settings. The thrust of the approach is for participants, the “judges,” to take the visitor’s experience as a focus, rather than a discipline-specific perspective.

The use of this approach does not replace evaluation that relies on systematically collected feedback from visitors. Most evaluations look for evidence that the exhibition’s objectives were met and defines success in those terms. Evaluation usually compares visitor feedback about the exhibition to the exhibit developer’s intentions and objectives. The main basis for saying an exhibition is “good” is to find out what the exhibition was supposed to do and then see whether it was doing it (Shettel 1994)¹.

The Process. The OP&A invitation outlined the process and the time commitment. Panel members were referred to the Excellent Judges website and encouraged to read the materials, prior to the first meeting. An orientation meeting allowed participants to become familiar with the framework and to reach a common understanding of definitions and procedures before judging the exhibition.

Participants then visited *America on the Move* individually, recorded their impressions and, after the visit, rated its on four different criteria. Is the exhibition: Comfortable? Engaging? Reinforcing? Meaningful? Basic definitions are given below; details are on the website².

1. Comfortable. An excellent exhibition helps the visitor feel comfortable--physically and psychologically. Good comfort opens the door to other positive experiences. Lack of comfort prevents them.

1 Shettel, Harris. “What Can We Learn from ‘N=1’?” *Exhibitionist*, Vol 13, No. 1, Spring 1994, pp.12-13, as cited on <http://www.excellentjudges.org/article.html>. Also see Shettel, Harris. “An evaluation of existing criteria for judging the quality of science exhibits.” *Curator*, 11 (2), 1968, pp. 137-153.

2 Judging Excellence, see <http://www.msu.edu/~dillenbu/EJ/home.html> (last accessed July 15, 2005).

2. Engaging. An excellent exhibition is engaging for visitors. It entices them to pay attention. Engagement is the first step toward finding meaning.

3. Reinforcing. In an excellent exhibition, the exhibits provide visitors with abundant opportunities to be successful and to feel intellectually competent—beyond the “wow” of engagement. In addition, the exhibits reinforce each other, providing multiple means of accessing similar bits of information that are all part of a cohesive whole. Visitors are confidently on their way to having meaningful experiences.

4. Meaningful. An excellent exhibition provides personally relevant experiences for visitors. Beyond being engaged and feeling competent, visitors find themselves changed, cognitively and affectively, in immediate and long-lasting ways.

At a second meeting, each judge’s ratings were recorded and used as a catalyst for discussion. Ratings were not kept nor was there an effort to assign a global rating to the exhibition. At the end of the conversation about the exhibition, judges were asked to comment about the process.

The scenario described here was also used with the three high-school interns.



Image 3. Visitor to *America on the Move, Suburban Strip*. Photo courtesy of Marilyn Koschik.

APPENDIX D. QUESTIONNAIRE

America on the Move: Exhibition Exit Survey

#:-----

1. Is TODAY your first visit to the Smithsonian?
 - Yes
 - No, but my first visit to this museum
 - No, and I have visited this museum before
2. Where did you enter this exhibition?
 - Maritime entrance
 - At the Santa Cruz, CA section (large map, Jupiter locomotive, vegetable shipping)
 - At the Los Angeles, CA section (music, video screens, near the shop)
 - Not sure
3. About how much time did you spend in this transportation exhibition, America on the Move?
 - Less than 5 minutes 15 - 30 minutes
 - 5 - 15 minutes More than 30 minutes
4. Please rate your overall experience in this transportation exhibition today:
 - Poor Fair Good Excellent Superior
5. The section of America on the Move that really impressed me was: (Mark one or more) _____
 - Santa Cruz, CA and the Jupiter locomotive
 - Family campsite in Maine
 - Watsonville, CA [strawberry field]
 - 1939 yellow school bus
 - Washington, DC streetcar & market
 - Portland, OR suburban car dealer
 - New York harbor & ship engine
 - Chicago CTA "El" car
 - 1903 Winton car crossing the country
 - Interstate I-10 traffic jam
 - Salisbury, NC & the 1401 locomotive
 - Container shipping
 - Route 66 [road stories & surface]
 - Los Angeles Going Global
 - Roadside cabin in Muirkirk, MD
 - Other: _____
6. In the America on the Move exhibition, how did EACH of the following affect your visit?

	Detracted	No Effect	Enhanced	Did Not Notice
Background conversations at displays	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Historic film footage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Bud" the dog signs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interactives/activities for children	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Large [11ft.] panels explaining sections of exhibition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Life-size figures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sounds of transportation (e.g. train whistles)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Tell us more about America on the Move. Mark ONLY ONE response for each item:
 - Was the space ... too crowded..... too empty... neither?
 - Was the exhibition ... too big..... too small.... neither?
 - Did it have ... too many objects..... too few..... neither?
 - Was there ... too much technical information.. too little..... neither?
 - Was there ... too much historical information... too little..... neither?
- * 8. With whom are you visiting today? (Mark one or more)
 - Alone With youth (children or teens)
 - With adults Organized tour
- * 9. Where do you live? (Mark ONE only)
 - U.S. zipcode Other country (specify): _____
- * 10. What is your gender? Female Male * 11. What is your age?
12. Mark any long lasting conditions that you have:
 - Blindness or severe vision impairment Physical impairment (limits walking, climbing stairs, etc.)
 - Deafness or hearing impairment None

Administrative use only: _____

	Status	Complete	Refusal: language	Session	Segment	Interviewer
ID		Ineligible	Refusal: other			
			Refusal: time			

APPENDIX E. RESULTS FROM THE SURVEY OF VISITORS TO AMERICA ON THE MOVE

Note: Results listed in topical order, generally following questionnaire order. Question numbers indicate the original order. Per question, where applicable, responses are listed in decreasing order.]

1. Is today your first visit to the Smithsonian?

- 46% Yes
- 21% No, but my first visit to NMAH
- 33% No, and I have visited NMAH before
- 100% TOTAL**

Visitors who said they entered at LA

- 39% intercepted at entrance
- 61% intercepted at exit (LA)
- 100% TOTAL**

2. Where did you enter this exhibition?

- 34% Maritime entrance
- 21% Santa Cruz entrance
- 11% Los Angeles exit
- 34% Not sure
- 100% TOTAL**

Visitors who weren't sure where they entered

- 41% intercepted at entrance
- 59% intercepted at exit
- 100% TOTAL**

Visitors who said they entered at Maritime:

- 24% intercepted at entrance
- 76% intercepted at exit
- 100% TOTAL**

3. About how much time did you spend in *America on the Move*?

- 4% Less than 5 minutes
- 27% 5 to 15 minutes
- 45% 15 to 30 minutes
- 24% More than 30 minutes
- 100% TOTAL**

Visitors who said they entered at Santa Cruz

- 34% intercepted at entrance (Santa Cruz)
- 66% intercepted at exit
- 100% TOTAL**

4. Please rate your overall experience in *America on the Move*

- <1% Poor
- 1% Fair
- 21% Good
- 59% Excellent
- 19% Superior
- 101% TOTAL**

5. The section of *America on the Move* that really impressed me was: [Mark one or more]

- 23% New York harbor & ship engine
- 22% Route 66 [road surface & stories]
- 21% Washington, DC streetcar & market
- 20% Santa Cruz, CA and the Jupiter locomotive
- 19% Family campsite in Maine
- 19% Salisbury, NC & the 1401 locomotive
- 18% Chicago ETA "EI" car
- 17% 1903 Winton car crossing the country
- 12% 1939 yellow school bus
- 10% Interstate I-10 traffic jam
- 10% Los Angeles going global
- 8% Roadside cabin in Muirkirk, MD
- 8% Portland, OR suburban car dealer
- 8% Container shipping
- 6% Watsonville, CA [strawberry field]
- 5% Other (written comments)

Number of exhibitions marked

- 4% None
- 49% One
- 17% Two
- 15% Three
- 7% Four
- 2% Five
- 6% Six to fifteen

6. How did each of the following affect your visit?

Background conversations at displays

- 4% Detracted
- 27% No effect
- 58% Enhanced
- 11% Did not notice

100% TOTAL

Bud the dog signs

Overall, w/Children

- 4% Detracted
- 42% No effect
- 32% Enhanced
- 23% Did not notice

101% TOTAL

Interactives/activities for children

Overall, w/Children

- 2% Detracted
- 30% No effect
- 44% Enhanced
- 24% Did not notice

100% TOTAL

Large [11ft.] panels explaining sections of exhibition

- 2% Detracted
- 15% No effect
- 74% Enhanced
- 8% Did not notice

99% TOTAL

Life-size figures

- 4% Detracted
- 16% No effect
- 77% Enhanced
- 4% Did not notice

101% TOTAL

Historic film footage
 4% Detracted
 12% No effect
 79% Enhanced
 6% Did not notice
101% TOTAL

Sounds of transportation (e.g. train whistles)
 4% Detracted
 9% No effect
 84% Enhanced
 3% Did not notice
100% TOTAL

7. Tell us more about *America on the Move*

Was the space ...
 4% Too crowded
 2% Too empty
 94% Neither
100% TOTAL

Was the exhibition ...
 4% Too big
 6% Too small
 89% Neither
99% TOTAL

Did it have ...
 5% Too many objects
 11% Too few objects
 84% Neither
100% TOTAL

Was there ...
 8% Too much technical information
 14% Too little technical information
 78% Neither
100% TOTAL

Was there ...
 3% Too much historical information
 16% Too little historical information
 81% Neither
100% TOTAL

8. With whom are you visiting today? [Mark one or more]

15% Unaccompanied adult
 1% Unaccompanied youth
 33% Group of adults
 17% Adults with youth
 21% One adult with youth
 4% Group of youth
 6% Adult with organized group
 4% Youth with organized group

9. Where do you live?
 94% USA
 6% Other country
100% TOTAL

USA
 6% Metro Washington
 26% Southeast
 16% Mid Atlantic
 12% Midwest
 16% New England
 5% Mountain Plains
 15% West
96% TOTAL

10. What is your gender?

43% Female

57% Male

100% TOTAL

11. What is your age?

17% 59 and older [Senior citizens]

11% 50 to 58

29% 39 to 49

17% 28 to 38 [Generation X]

27% 27 and younger [Generation Y]

101% TOTAL

12. Mark any long lasting conditions that you have:

1% Blindness or severe vision impairment

4% Deafness or hearing impairment

5% Physical impairment (limits walking, climbing stairs, etc.)

91% No physical, sight or hearing impairment

101% TOTAL

Characteristic	AotM Spring 2005	PoF Spring 2005	NMAH Spring 2005	NMAH Summer 2004
Residence				
Metro Washington	6	8	10	8
Southeast	26	18	19	26
Mid-Atlantic	16	15	19	17
Midwest	12	14	14	13
New England	16	12	9	4
Mountain Plains	5	8	8	10
West	15	18	13	13
Outside US	6	8	8	9
Total	100	100	100	100
Visiting with ...				
Alone	16	18	14	13
Adult(s) w/o Children	33	42	50	44
Adult(s) w Children	38	29	27	35
Other	13	13	10	8
Total	100	102	100	100
Gender				
Male	57	53	50	49
Female	43	47	50	51
Total	100	100	100	100
Age [Generations]				
Pre Baby Boom [59+]	17	14	19	9
Earlier Baby Boom [50-58]	11	17	15	16
Later Baby Boom [39-49]	29	28	28	24
Gen X [28-38]	17	14	13	20
Gen Y [12-27]	27	28	25	31
Total	100	100	100	100
<i>Note: * PoF is Price of Freedom survey</i>				

Table 1. Demographic Characteristics of Respondents, NMAH Surveys