

Market Support, Operating Potential and Economic Impacts of the USS Ranger Museum

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Executive Summary

USS RANGER MUSEUM

The USS Ranger Museum Foundation proposes to locate the retired aircraft carrier USS Ranger in Fairview, Oregon as an historic ship museum and memorial. ConsultEcon, Inc. prepared a market study and operating plan for the proposed museum and evaluated its potential to create positive economic impacts for the Portland region and the State of Oregon.

Photograph of the USS Ranger



Source: USS Ranger Museum Foundation.

Location, Site, and Program

Essential aspects of the market potential of a visitor attraction are its location, accessibility, visibility, adjacent uses, site lines, site quality and program elements. The USS Ranger Museum is proposed to be located in Fairview, a suburban city in the Portland Metropolitan Area approximately 14 miles from downtown Portland. Fairview borders the Columbia River to the north, Gresham to the south and west, and Wood Village and Troutdale to the east. In 2008, Fairview had an estimated 9,800 residents, which was a 19 percent increase from 2000.

The proposed site for the USS Ranger Museum is located at Chinook Landing, the largest public boating facility in Oregon. The 67-acre marine park has six launching lanes on the Columbia River. The park also offers picnic and viewing areas, disabled-accessible docks, restrooms, and a seasonal river patrol station. The site offers excellent accessibility and good visibility. Adequate signage along interstate highways and major arterial streets will need to be developed. In addition, additional parking will need to be developed on site.

Aerial Photograph of Chinook Landing



Source: Google Earth, and ConsultEcon, Inc.

The USS Ranger Museum Foundation is in the early stages of project concept and program development. The ex-Ranger would be the centerpiece of a complex described as “an educational and civic heritage center as well as a museum and memorial.” The aircraft carrier will contain exhibits focused on military history and will be positioned as a memorial and museum to honor those who served in the military and continue to serve today. Other potential building program elements include a small theater, flight simulators, and onboard visitor center with restaurant and gift shop. A popular use will be rental of portions of the ship for personal and organizational events and receptions. Educational programs will be central the USS Ranger Museum’s mission. The museum will offer its own programs and can also serve as a satellite location for existing area educational institutions. A “live aboard” overnight program, where youth groups spend a night on the ship, will be an important element of the educational programs. Other potential onsite uses include an emergency management center, a military and reserve training facility, and a movie or television set.

Due to the recent designation of Fairview as project site, a detailed project development cost estimate has not been developed. Depending on actual project costs and the pace of project fundraising, the USS Ranger Museum may open fully developed as described in this report or, the full build-out may be achieved over time after initial opening. This study assumes full buildout at opening. If a ramp-up approach to project development occurs, a different attendance operations and revenue pattern would occur as the project ramps up to its stable year of operations. The project can achieve success in either scenario. Additional detailed development and business planning will be undertaken moving forward that will address the development period and early year operations.

Resident Market Area

The Resident Market Area is defined as the population living within a 90-minute drive of the USS Ranger Museum. The total population in the total Resident Market Area was an estimated 2.8 million in 2010. By 2015, the population is projected to increase 6.6 percent for a total of over 3 million residents. The Resident Market Area population is projected to grow at a faster pace than the populations of the State of Oregon and the United States as a whole.

Following are current demographic and lifestyle characteristics important to potential museum audiences in the Resident Market Area:

- ◆ Approximately 485,000 school-age children live within the Resident Market Area.
- ◆ Median household income is approximately \$60,000, which is over 13 percent above household incomes in the State of Oregon, and approximately 10 percent above household incomes in the United States as a whole.
- ◆ Approximately 60 percent of Resident Market Area households have incomes above \$50,000 per year, a higher proportion than in the state and the country.
- ◆ According to national survey data, residents in the Portland area rank near the national average in relevant lifestyle categories, including Go to a Museum (at least once in the past year) and Belong to a Veterans Club. Residents of the Portland area would be expected to support the proposed USS Ranger Museum that is perceived as an extension of these interests.

Visitor Market Profile and Portland Attractions

The travel and tourism industry is a major industry in Portland and the State of Oregon. Of the 22.2 million overnight trips to and within the State of Oregon, 7.2 million visitors or 34 percent spent some time in Portland Metro. Seventy-eight percent or 5.6 million visitors spent at least one night in Portland Metro and 67 percent or 4.8 million visitors considered Portland to be their main destination. Portland has year round visitation and supports a hotel inventory of approximately 15,200 rooms.

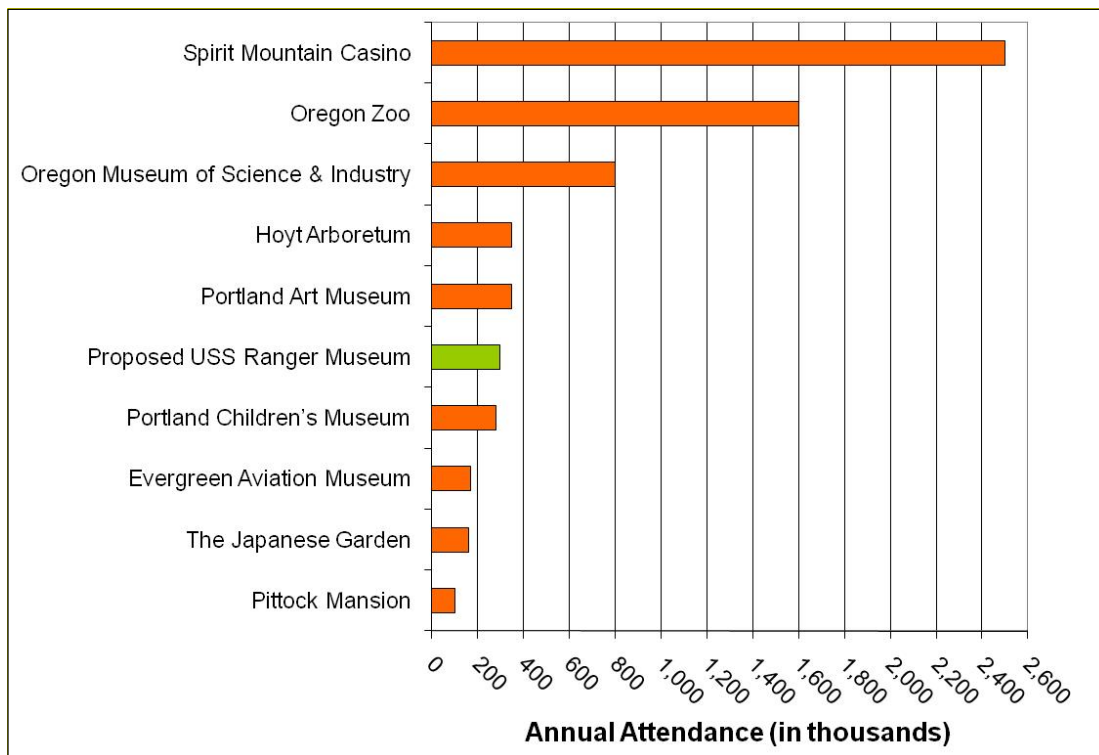
Overnight pleasure visitors and people visiting friends and family are primary audiences for the USS Ranger Museum. An estimated 80 percent of trips to the Portland area were due to travelers visiting friends and family and travelers on pleasure trips. Tourists from within Oregon comprise 29 percent of total trips to Portland Metro. Important out-of-state visitor markets include adjacent states such as Washington (30%), California (15%) and Idaho (6%). Overall, 58 percent of overnight pleasure visitors are older than 35, which would include parents and seniors, two of the museum's target audiences.

The proposed USS Ranger Museum has the potential to be among the most highly attended attractions in the Portland area (see table below). Ticket pricing for Portland area historical and educational attractions is generally affordable. Adult admission prices for most attractions are typically \$7.00 to \$12.00 with a number of free attractions.

Comparable Historic Naval Ship Museums Featuring Aircraft Carriers

There are dozens of historic ship museums throughout the United States. Of these, museums that feature aircraft carriers are the largest and generally the most popular. The market and operating experience of the five profiled historic aircraft carrier museums provides important insights to the economic potential of the USS Ranger Museum. While similar in thematic content, historic aircraft carrier museums vary considerably in their locations, programs, exhibit offerings, attendance and operating profiles. Annual attendance ranges from 51,000 to 915,000. Adult ticket prices range from \$12.95 to \$22.00.

Annual Attendance of Selected Portland Area Attractions



All operating aircraft carrier museums are World War II-era ships. The *ex-Ranger* is distinctive because of its size, being one of the first “super carriers” similar in scale to those used today, and its relevance to more recent generations. Historic aircraft carrier museums are sustained by a combination of earned and unearned revenue. Most have attained stable financial and operating status; however, one in Alameda, CA has struggled financially due to its location and an inadequate business plan.

Factors such as site location, marketing, and business savvy can make the difference between successful and unsuccessful projects. Challenges to financial success include seasonality of visitation, location issues and the high cost of maintaining these very large ships. It is clear that a successful ship museum must offer much more than just a ship tour. A broad-based experience with interactive and multiple subjects is important to appeal to many audiences and to encourage repeat visitation. To attract new audiences, museums must create unique visitor experiences that stand out among the array of leisure opportunities available in the marketplace. Despite

challenges, several historic aircraft carrier museums have successful operations, contributing to local economies and providing educational and recreational activities. The proposed USS Ranger Museum should be developed to address these current success requirements and would draw from the operating experience of the existing aircraft carrier museums.

Attendance Potential

The stabilized museum attendance potential range is 228,000 to 368,000, with a mid-range estimate of 298,000. Early years would likely experience a surge in attendance due to excitement about the new museum. The attendance potential estimate of the USS Ranger Museum is derived from the current stage of project development, available resident and visitor markets and the experience of comparable historic aircraft carrier museums. It is assumed that the project will be aggressively marketed, competently operated and will receive full community support from the public and private sectors. Developing adequate parking will be necessary to meet the attendance potential.

Operating Potential

The USS Ranger Museum will derive revenue from earned and non-earned, or contributed, sources. Most of its needed revenues will come from admissions, memberships, retail and food sales, flight simulator rides and other up-charges, facility rentals and events and an overnight program. The earned revenue potential for a stable year in current dollars is \$5.5 million. As with most museums, the USS Ranger Museum will supplement earned revenue. This plan includes contributed revenues of \$432,000 in a stable year in current dollars, for total facility revenue of \$6.0 million. The contributed revenues cited in this report should be considered a minimum and targeted to exceed these amounts. Indeed, most museums of this scale achieve higher levels of contributed revenues. Additional non-earned revenues would enhance museum operations, create a more enjoyable visitor experience and ensure long-term viability, especially with respect to periodic major capital repairs and investments.

Stable year operating expenditures are estimated at \$5.8 million in current dollars, including capital reserves and a capital investment portion of expenditures for ongoing hull maintenance and painting. Based on the analysis in this report, these amounts are consistent with those achieved at comparable facilities. Operating costs of museums and visitor attractions vary based on their size, the efficiency of their systems, seasonal operation and the relative “cost of living” in the area. The expense profile of the USS Ranger Museum is very efficient, but within the operating experience of comparable historic naval ship museums and visitor attractions.

About 11 percent or \$657,000 of the total operating budget for a stable year in current dollars would be used for an internally funded capital maintenance and improvement program, which is important to the long-run success of the project and to sustaining project potential. Improvements are not mandatory in a given year, creating budget flexibility to accommodate any temporary revenue shortfalls. Conversely, higher than expected revenues provide opportunities for further capital investment which in turn will enhance the project’s market potential and benefits.

The staffing profile includes 47 full-time and 22 part-time year-round employees and 14 seasonal employees. As a supplement, volunteers would have duties in interpretation, education, exhibits

and other important functions. As funding and operating experience allow, additional staff positions would enrich the offerings and operations of the USS Ranger Museum.

Based on the analysis in this report, the USS Ranger Museum has the potential to operate successfully. The mid-range attendance profile and earned revenues along with achievable fundraising goals would cover its operating costs and ongoing capital maintenance if the assumptions regarding quality of development and operation are achieved.

Economic Impacts Potential

The ongoing operations of the USS Ranger Museum, as it attracts visitors from resident and visitor markets, will form a stream of economic benefits to the Portland Metro Area regional economy and to the State of Oregon as a whole. These will be based on the operating budgets of the USS Ranger Museum and visitor off-site spending in conjunction with their visit. The annual impacts are from direct (first round) net new spending to a given area, and subsequent rounds of spending within the local economy. The total economic effect includes direct, indirect and induced expenditures; wages and income; and employment in the regional and State economies. The total annual direct, indirect and induced effects of visitor spending outside of the museum and the Museum's operations would result \$46.1 million in expenditures, of which \$14.7 million in wages and a total of 536 jobs¹ supported in the Portland Metro Area regional economy. For the State as a whole the economic impacts potential is nearly \$49.0 million in expenditures, of which \$16.0 million in wages will be generated and 582 jobs supported in the State of Oregon. At the Statewide level, these effects include the support of jobs and economic activity within and outside the Portland Metro Area. However, the Portland Metro Area economic activity estimated above will not be fully a subset of the statewide economic activity, as there is assumed to be some transfer of economic activity from other regions of the State to the Portland Metro Area, as some substitution of spending from other areas to the Portland Metro Area is assumed along with net new spending.

¹ Total jobs include full time and part time employment, assumed to be in ratio with the distribution of jobs between actual full time and part time for the area under consideration as a whole.

Section I

INTRODUCTION AND ASSUMPTIONS

The USS Ranger Museum Foundation proposes to locate the retired aircraft carrier USS Ranger in Fairview, Oregon as an historic ship museum and memorial. ConsultEcon, Inc. prepared a market study and operating plan for the proposed museum.

In preparing this report, the following assumptions were made. This study is qualified in its entirety by these assumptions.

1. The size and design of the USS Ranger Museum will serve to create a high quality, stimulating attraction with broad-based audience appeal and a distinctive image. The USS Ranger Museum will be a unique attraction in the region and the nation. This distinction will give it further visibility as a “must-see” attraction. The entrances to the site will be highly visible and well signed. Additional land on the site will be used in a manner advantageous to the success of the project.
2. The facility will be competently and effectively managed. An aggressive promotional campaign will be developed and implemented. This program will be targeted to prime visitor markets. The admission price for the elements of the facility will be consistent with the entertainment and educational value offered and with current attraction admissions prices for other comparable visitor attractions.
3. There will be no physical constraints to impede visitors to the USS Ranger Museum, such as major construction activity. Changes in economic conditions such as a major recession or major environmental problems that would negatively affect operations and visitation will not occur in the near future.
4. Every reasonable effort has been made in order that the data contained in this study reflect the most accurate and timely information possible and it is believed to be reliable. This study is based on estimates, assumptions and other information developed by ConsultEcon, Inc. from its independent research efforts, general knowledge of the industry and consultations with the client. No responsibility is assumed for inaccuracies in reporting by the client, its agents and representatives or any other data source used in the preparation of this study. No warranty or representation is made that any of the projected values or results contained in this study will actually be achieved. There will usually be differences between forecasted or projected results and actual results because events and circumstances usually do not occur as expected. Other factors not considered in the study may influence actual results.
5. Possession of this report does not carry with it the right of publication. This report will be presented to third parties in its entirety and no abstracting of the report will be made without first obtaining permission of ConsultEcon, Inc., which consent will not be unreasonably withheld.

6. This report may not be used for any purpose other than that for which it was prepared. Neither all nor any part of the contents of this study shall be disseminated to the public through advertising media, news media or any other public means of communication without the prior consent of ConsultEcon, Inc.
7. Outputs of computer models used in this report are rounded. These outputs may therefore slightly affect totals and summaries.
8. This report was prepared during the period July 2010 through the date of publication. It represents data available at that time.

Section II

LOCATION, SITE AND PROGRAM EVALUATION

Essential aspects of the market potential of a visitor attraction are its location, accessibility, visibility, adjacent uses, site lines, site quality and program elements. Following is a summary of these factors as they relate to the proposed USS Ranger Museum. **Figure II-1** provides an historic image of the USS Ranger.

Figure II-1
Photograph of the USS Ranger



Source: USS Ranger Museum Foundation.

Location

The USS Ranger Museum is proposed to be located in Fairview, OR. Fairview is a city in Multnomah County, which is part of the Portland Metropolitan Area. In 2009, the Portland Metropolitan Area, which is comprised of five counties in Oregon and two counties in Washington, contained an estimated 2.2 million people. **Figure II-2** shows a map of Portland in its regional context. Portland's metropolitan area is a part of a larger urbanized region that stretches from Vancouver, British Columbia in the north to Eugene, Oregon in the south. These

cities and other urbanized areas within this region are clustered along Interstate 5, which serves as the primary regional transportation corridor. Due to the mountainous nature of the geography, this urbanized corridor is sandwiched between two mountain ranges: the Coast Range and the Cascade Range.

Figure II-2
Map of Portland, OR and Pacific Northwest



Source: Microsoft Virtual Earth

Data in **Table II-1** display the distance and travel time from cities within a day's drive to Fairview. The data show that there are many cities close to Fairview that in total contain more than 9.5 million people in total.

Table II-1
Distance and Drive Times to the USS Ranger Museum from Selected Metro Areas

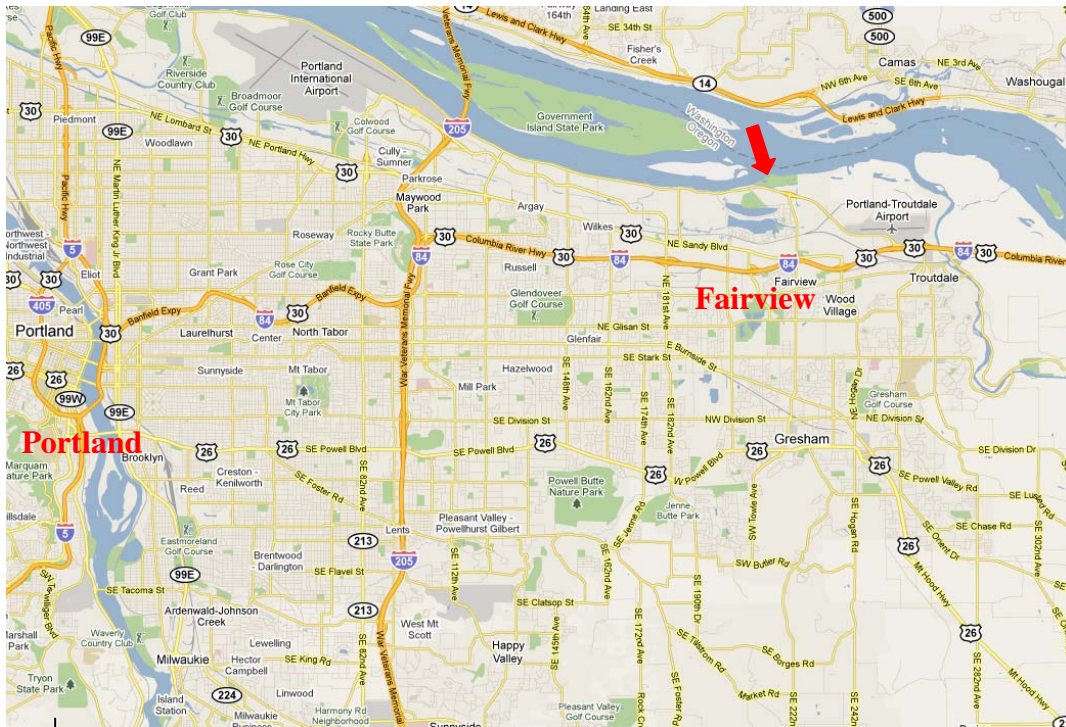
Metro Area	Distance (miles)	Time (minutes)	2009 Metro Population
Salem, OR	60	80	396,103
Olympia, WA	117	115	207,355
Eugene, OR	123	143	351,109
Bend, OR	150	190	158,629
Yakima, WA	172	187	239,054
Bremerton, WA	174	172	240,862
Seattle-Tacoma, WA	176	176	3,407,848
Kennewick, WA	200	210	245,649
Bellingham, WA	266	250	200,434
Medford, OR	287	309	201,286
Vancouver, BC ^{1/}	316	324	2,328,000
Spokane, WA	340	345	468,684
Boise, ID	417	430	606,376
Eureka, CA	425	484	128,200
Redding, CA	434	444	129,623
Chico, CA	505	516	220,577
Total			9,529,789

^{1/} Vancouver Metro population from 2009 Statistics Canada Population Estimate.

Source: Mapquest, US Census Bureau, Statistics Canada, and ConsultEcon, Inc.

Figure II-3 shows a street map of Fairview and its relationship to Portland. (The arrow points to the proposed museum location at Chinook Landing.) Fairview is approximately 14 miles from downtown Portland and 9 miles from the Portland International Airport.

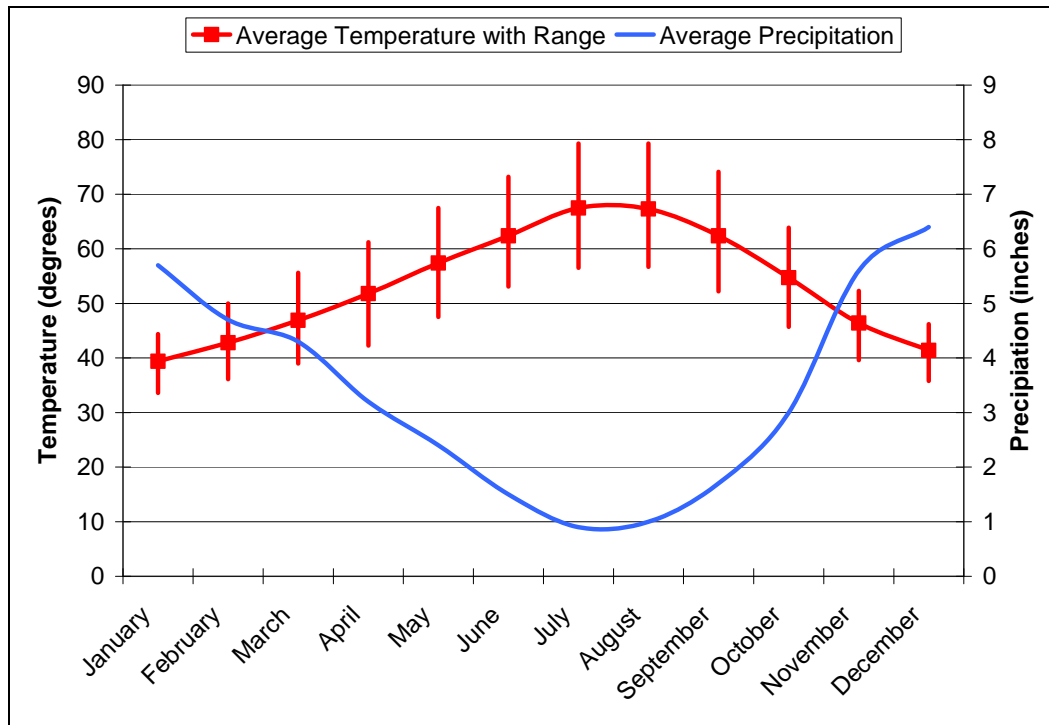
Figure II-3
Street Map of Portland, OR



Source: Google Maps and ConsultEcon, Inc.

Figure II-4 shows Fairview's weather trends for the year. Summer months are dry and warm with average high temperatures approaching 80 degrees. Winter months see the largest amount of precipitation and average low temperatures in the 30s.

Figure II-4
Annual Temperature and Precipitation of Fairview, OR



Source: www.worldclimate.com, and ConsultEcon, Inc.

Community Profile

Fairview is a suburban community that borders the Columbia River to the north, Gresham to the south and west, and Wood Village and Troutdale to the east. In 2008, Fairview had an estimated 9,800 residents, a 19 percent increase from 2000.² Fairview Village is an award-winning, 95-acre neo-traditional development described as a cohesive network of neighborhoods developed around community shopping, public parks, and civic buildings. From its inception, it was planned with a pedestrian orientation, with a variety of housing types and a mix of uses, designed to promote community interaction and energy efficiency. Other areas of the city contain residential and industrial uses.

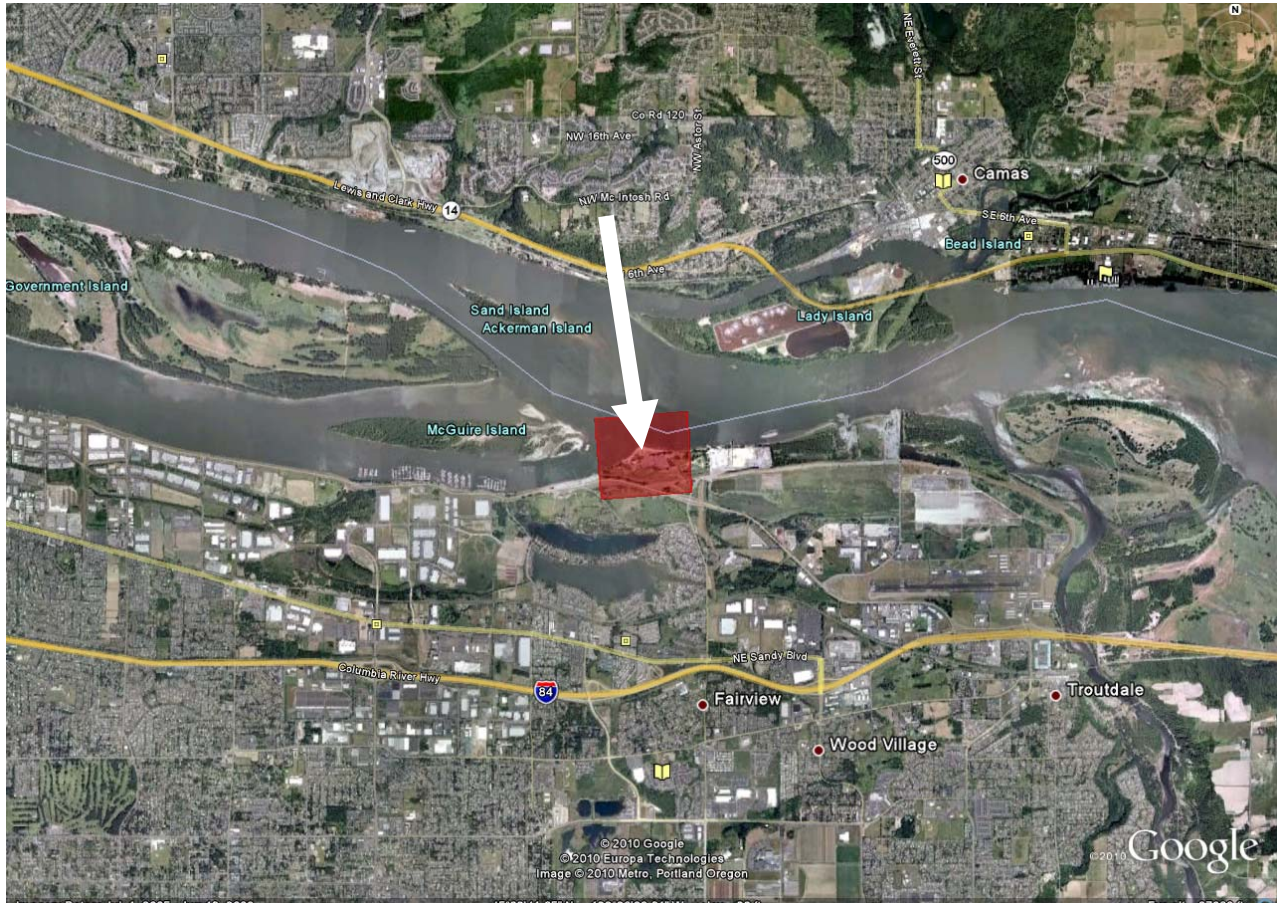
Site Description

Figure II-5 and **Figure II-6** show the proposed site for the USS Ranger Museum. The site is located at Chinook Landing, the largest public boating facility in Oregon. The 67-acre marine park

² Population Estimates and 2000 Census, US Census Bureau 2008.

has six launching lanes on the Columbia River. The park also offers picnic and viewing areas, disabled-accessible docks, restrooms, and a seasonal river patrol station.

Figure II-5
Aerial Photograph of the Proposed Site for the USS Ranger Museum



Source: Google Earth, and ConsultEcon, Inc.

Parking

There are 74 existing parking spaces plus 300 spaces for trailers (double spaces) at Chinook Landing. Parking fees are \$5.00 per day. The parking here is already well used during peak periods. As the USS Ranger Museum project is developed, additional parking will be needed to accommodate both boaters and museum-related visitors and staff. Addressing parking requirements will be necessary for project success.

Figure II-6
Aerial Photograph of Chinook Landing



Source: Google Maps and ConsultEcon, Inc.

Adjacent Uses

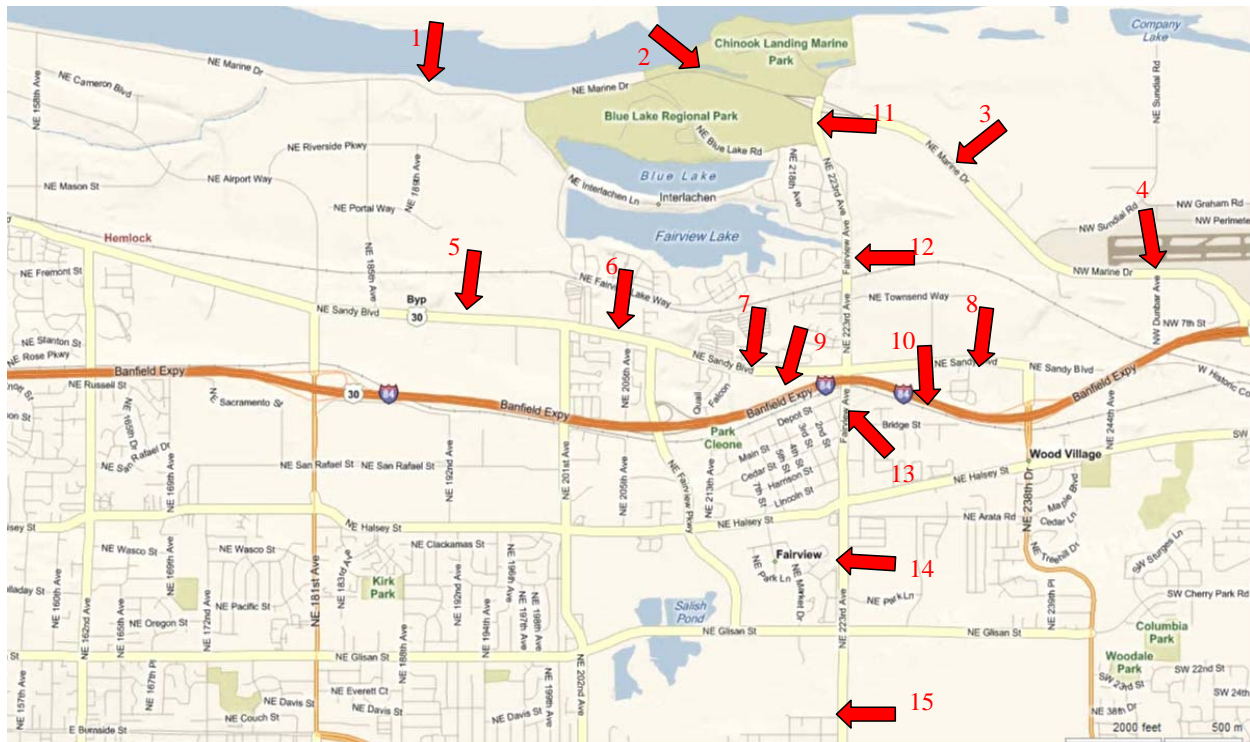
Nearby is Blue Lake Regional Park, located on 223rd Avenue, between Marine Drive and Sandy Boulevard. The park has a 64 acre lake where visitors can fish and go boating. Blue Lake Regional Park also takes picnic reservations and is home to the Lake House, an events facility. The park's Water Spray Ground is a 3,500 square foot water play place for children. Other recreational activities available at the park include basketball, archery, volleyball, softball, playgrounds, walking, and biking. Concessions are also available.

Visibility and Accessibility

The site offers easy accessibility from Interstate 84 and is an approximately 15 minute drive from downtown Portland. Interstate 84 runs east to west through Portland and connects with Interstate 5, the major highway that runs north and south from Seattle to California. Data in **Table II-2** show the traffic counts for the specific sites shown on **Figure II-7**. On average, in 2006, approximately 9,725 vehicles passed between Interlachen Lane and 223rd Avenue on

Marine Drive per day. Marine Drive is the road closest to the proposed site of the USS Ranger Museum. Over 15,000 vehicles traveled on Sandy Boulevard (SR 30 Bypass) between 201st Avenue and 207th Avenue per day. Over 67,000 cars traveled by the Interstate 84 exit nearest to the site on an average day in 2009. This is a substantial traffic pattern that could be marketed to with appropriate signage. The Portland TriMet Bus 12 also runs from the center of Portland down Sandy Boulevard every fifteen minutes. The closest bus stop leaves visitors approximately 2.5 miles away from the proposed site. Once the project is developed, enhanced bus service should be sought.

Figure II-7
Location of Traffic Counters, Fairview, OR



Source: Google Maps and ConsultEcon, Inc.

**Table II-2
Traffic Counts, Fairview, OR**

Map Placement	Location	Traffic Count	Year of Data
<i>Marine Drive</i>			
1	185th Ave and Interlachen Ln	10,757	2006
2	Interlachen Ln and 223rd Ave	9,725	2006
3	223rd Ave and Sundial Rd	8,574	2006
4	Sundial Rd and I-84	8,817	2006
<i>Sandy Boulevard</i>			
5	181st Ave and 201st Ave	10,205	2006
6	201st Ave and 207th Ave	15,348	2006
7	207th Ave and 223rd Ave	10,375	2006
8	223rd Ave and 230th Ave	7,445	2006
<i>Interstate I-84</i>			
9	0.20 miles west of 223rd Ave	67,100	2009
10	0.50 miles east of N.E. 238th Dr	50,200	2009
<i>223rd Ave</i>			
11	Marine Dr and Blue Lake Rd	5,442	2006
12	Blue Lake Rd and Sandy Blvd	6,062	2006
13	Sandy Blvd and Depot St (South of I-84)	10,002	2002
14	Halsey St and Glisan St	15,580	2004
15	Glisan St and Stark St	27,610	2002

Source: City of Fairview and ConsultEcon, Inc.

Proposed Museum Program Elements

The USS Ranger Museum is in early stages of concept and program development. The USS Ranger Museum Foundation envisions the museum to be the centerpiece of a complex described as “an educational and civic heritage center as well as a museum and memorial.” The aircraft carrier will contain exhibits focused on military history and will be positioned as a memorial and museum to honor those who served and continue to serve today in all military services.

Exhibits and Tours

The aircraft carrier, the primary attraction, will contain exhibits focused on all military services, ship, naval and aviation history. Current concepts for exhibits include memorabilia, interactive displays on the ship’s operations and historic aircraft. Other military exhibits will be presented to honor those who have served in the Navy, Army, Marine Corps, Air Force, Coast Guard, National Guard and Merchant Marine. Thematic tours are planned focusing on different areas of the ship.

Tours will be self-guided with and without audio guides and also docent-led tours. Some areas of the ship will remain closed to the public. The extent of what will be accessible is to be determined. Plans for the USS Ranger also include a “state-of-the-art” digital theater, motion simulators, interactive exhibits, and a range of flight simulators from simple less expensive computer based versions up to a “fully operational tactical” flight simulator. The up-charges for these would vary and be based on the type and duration of experience. All experiences would be thematically tied to the overall interpretive themes of the USS Ranger Museum.

Visitor Center

In addition to on-board exhibits and programming, a visitor’s center as a gateway to the ship is planned to be located either shore-side or immediately upon arrival on the ship. The visitor center will house the ticketing area, restaurant and gift shop.

Educational Programs

Educational programs will be central to the USS Ranger Museum’s mission. The museum will offer its own programs and can also serve as a satellite location for existing area educational institutions that serve all ages. Existing squadron ready rooms can serve as classrooms and include audio-video equipment. Machine shops are fully equipped and can be made operational with minimal investment for use in metal, wood, and electronics fabrication and repair. As described, the facilities can be used by students of vocational high schools, technical institutes, other skills and trade training programs and adult education centers.

A “live aboard” program will be an important element of the educational programs. The berthing and mess areas of the ship are conceived as places to hold an overnight program for youth groups. As a part of this educational program, youth learn what it is like to live aboard a ship as naval personnel. Additionally, the USS Ranger Museum would offer day programs and classes customized to the needs of youth groups.

Additional ideas for education programs include labs for the practical application of marine engineering, naval architecture and oceanographic studies.

Events and Receptions

A popular use will be rental of portions of the ship for personal and organizational events and receptions. The USS Ranger can accommodate events, performances and receptions on its flight deck or in its hangar bays. The meeting and dining capacity of the hangar deck is over 3,000 people.

Other Concepts

Other possible uses that the USS Ranger might support include an emergency management center, military, reserve, and ROTC training and television and movie sets. As an emergency management center, the USS Ranger could serve as a command and communications base in response to disasters as well as supply temporary food, water and shelter, a heliport and other staging areas.

Development Profile

Due to the recent designation of Fairview as project site, a detailed project development cost estimate has not been developed. Depending on actual project costs and the pace of project fundraising, the USS Ranger Museum may open fully developed as described in this report or, the full build-out may be achieved over time after initial opening. This study assumes full buildout at opening. If a ramp-up approach to project development occurs, a different attendance operations and revenue pattern would occur as the project ramps up to its stable year of operations. The project can achieve success in either scenario. Additional detailed development and business planning will be undertaken moving forward that will address the development period and early year operations.

Summary

The USS Ranger was in commission from 1957 to 1993 earning 13 battle stars in the Vietnam War and serving in the Gulf War. A member of the Forrestal class of supercarriers, the USS Ranger is over 1,046 feet long and could accommodate over 5,500 crew members. All existing aircraft carrier museums date from World War II and are smaller than the USS Ranger, so this class of carrier will be unique among historic naval ship museums and appeal to a younger generation. Because subsequent classes of aircraft carriers are powered by nuclear energy, the Navy will not make them available for donation. The USS Ranger is one of the last to be placed in donation status.

Reportedly, the USS Ranger is in excellent physical condition with many artifacts and equipment aboard.

As proposed, the USS Ranger would be the centerpiece of an “educational and civic heritage center as well as a museum and memorial,” containing exhibits on military services, naval ship and aviation history. Other project components may include a small theater, flight simulator, and visitor center with restaurant and gift shop. A popular use will be rental of indoor and outdoor spaces for events and receptions.

Educational programs will be central to the USS Ranger Museum’s mission. The museum will offer its own programs and can also serve as a satellite location for existing area educational institutions. A “live aboard” program, where youth groups spend a night on the ship, will be an important element of the educational programs. Other onsite uses currently being explored may include an emergency management center, a military, reserve, and ROTC training facility and movie or television production sets. These would add additional use and revenue streams to augment the project; but are not included in the museum plan of this report.

Section III

RESIDENT MARKET ANALYSIS

This report section evaluates the resident markets available to the proposed USS Ranger Museum. In this analysis, “resident market” defines that part of the population that is within easy day-trip distance of the proposed USS Ranger Museum. Primary, secondary and tertiary resident markets are defined geographically based on drive times. Once they are defined, the demographic characteristics and growth trends in these markets are analyzed.

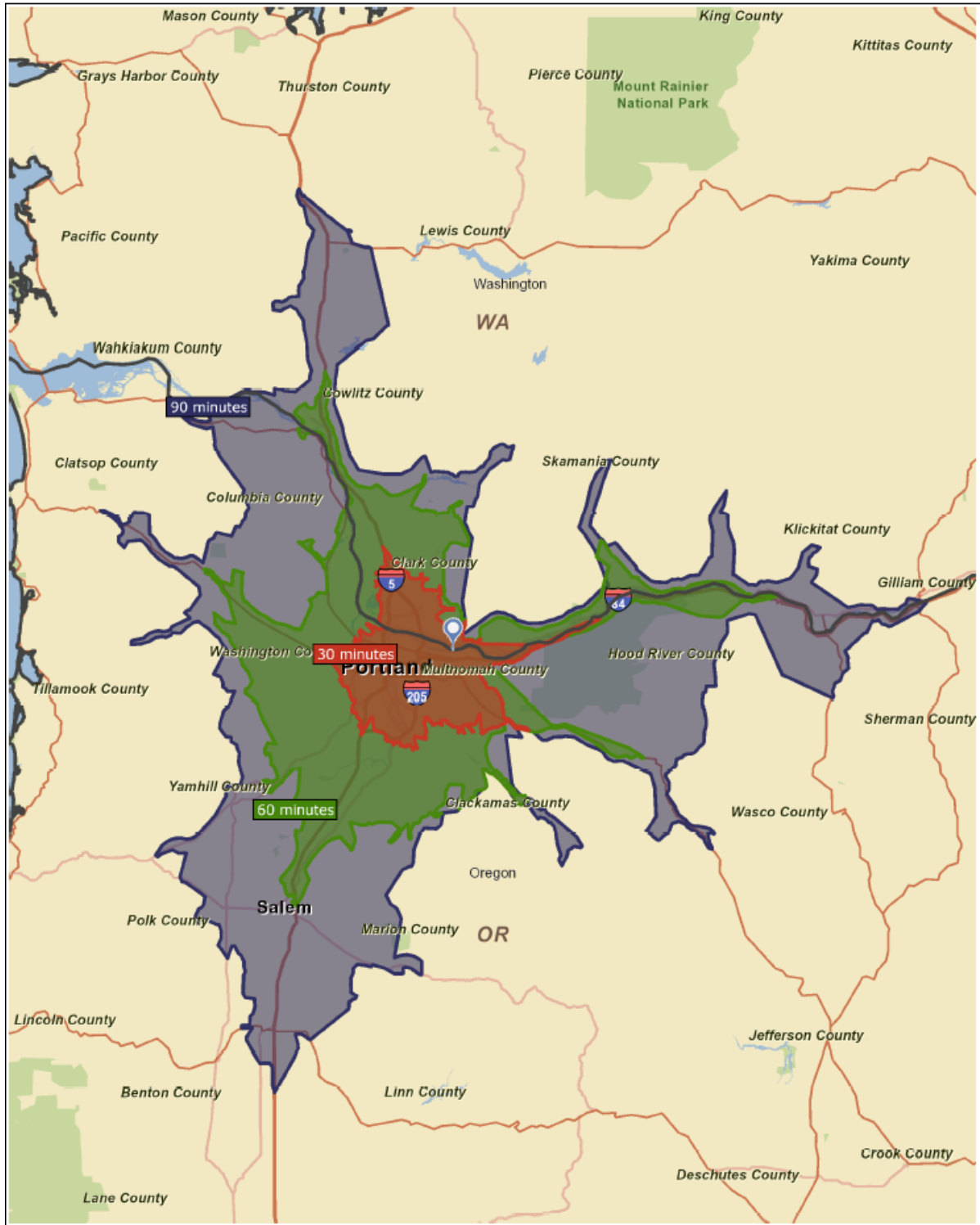
Resident Market Definition

The resident market for a project such as the USS Ranger Museum is defined as the area whose residents would readily visit the attraction as part of a day trip. Visiting the USS Ranger Museum would be a primary purpose or an important part of the day trip. Resident markets are analyzed within a “gravity model” context, which means that the closer residents live to an attraction, the more likely they are to visit it. On its periphery, the resident market changes over to the visitor, or tourist, market.

The drawing power of a visitor attraction’s resident market can be limited by the presence of similar attractions on the periphery of or within the market area. Therefore, the presence of such attractions in Portland may affect the market penetration and the draw of day-trip visitors, depending on the differentiation of the program and visitor experience at the USS Ranger Museum.

The Resident Market Area is defined as the area within a 90-minute drive of the USS Ranger Museum. It is comprised of Primary, Secondary and Tertiary Market Areas. The Primary Market Area for the USS Ranger Museum consists of the area within a 30-minute drive of the project site. The Secondary Market Area includes the area between a 30-minute and 60-minute drive from the project site. The Tertiary Market Area consists of the area between a 60-minutes and 90-minute drive from the project site. These resident markets are shown in **Figure III-1**.

Figure III-1
Resident Market Area for the USS Ranger



Source: ESRI and ConsultEcon, Inc.

Population

Data in **Table III-1** show the estimated 2010 population in the Resident Market Area and projections for the population in 2015.

Table III-1
Resident Market Area Estimated 2010 and Projected 2015 Population

	2010 Estimated Population	2015 Estimated Population	Percent Change, 2010-2015
Primary Market Area	1,439,183	1,532,911	6.5%
Secondary Market Area	833,947	896,385	7.5%
Tertiary Market Area	543,792	572,384	5.3%
Total Resident Market Area	2,816,922	3,001,680	6.6%
<i>State of Oregon</i>	<i>3,865,839</i>	<i>4,069,317</i>	<i>5.3%</i>
<i>United States</i>	<i>311,212,863</i>	<i>323,209,391</i>	<i>3.9%</i>

Source: ESRI and ConsultEcon, Inc.

The Portland area has a growing population. The Primary Resident Market population is estimated at 1.44 million in 2010. An increase of 6.5 percent is expected between 2010 and 2015, expanding the Primary Market Area population to a projected 1.53 million residents. This rate of growth is higher than the projected population growth in the State of Oregon and in the United States as a whole. The Primary Market Area population represents approximately 51 percent of the total Resident Market Area population. The Secondary Market Area population represents approximately 30 percent of the total Resident Market Area population and is projected to have the fastest growth of all submarket areas. The Tertiary Market Area population represents 19 percent of the total Resident Market Area population and is projected to have the least growth, 5.3 percent, among the resident submarket areas from 2010 to 2015. This rate of growth still matches that of the State of Oregon and is higher than that of the United States.

Age Profile

As an attraction primarily focused on military history and heritage, the USS Ranger Museum will likely have broad appeal to multiple age segments including school-age children, families with children and older adults. Data in **Table III-2** show the population by age group of the Resident Market Area in 2010.

Table III-2
Percent of Population in Resident Market Area by Age Group, 2010

	0 to 17	18 to 24	25 to 34	35 to 54	55 +
Primary Market Area	23.0%	9.5%	15.3%	28.5%	23.7%
Secondary Market Area	26.7%	8.8%	14.2%	28.6%	21.7%
Tertiary Market Area	24.2%	9.5%	12.8%	27.0%	26.4%
Total Resident Market Area	24.3%	9.3%	14.5%	28.3%	23.6%
<i>State of Oregon</i>	<i>22.9%</i>	<i>9.4%</i>	<i>13.6%</i>	<i>27.6%</i>	<i>26.4%</i>
<i>United States</i>	<i>24.3%</i>	<i>9.7%</i>	<i>13.3%</i>	<i>28.0%</i>	<i>24.7%</i>

Source: ESRI and ConsultEcon, Inc.

Approximately 24.3 percent of the population in the overall Resident Market Area is under the age of 18. This proportion of young people is higher than the State of Oregon but reflective of the entire country. The Primary and Secondary Market Areas have a higher percentage of young adults aged 25 to 34 than both the state of Oregon and the United States. The percentage of residents in the 35 to 54 year old group, which is an age group likely to have school age children, is slightly higher in the Resident Market Area than the state and country. However, the proportion of the population over 55 years old in the Resident Market Area is considerably lower than the state and country as a whole, especially in the Secondary Market Area.

School-Age Children

School groups will be an important source of visitation for the proposed USS Ranger Museum due to the educational programs planned, children's interests in history and the family-oriented nature of the facility. The vast majority of the school groups that will visit the USS Ranger Museum will come from the Resident Market Area. The potential for the USS Ranger Museum to attract school groups from beyond the 90-minute drive time edge of the Resident Market Area will depend upon targeted marketing and planning by museum management. School-age children typically take field trips during the fall, winter and spring and on weekdays, when other visitor segments are not at their peak. These visits may have potential to spark interest in a family visit to the USS Ranger Museum at a later date. Data in **Table III-3** profile the number of school-age children in the Resident Market Area in 2010 and 2015. The number of school-age children in the Resident Market Area is projected to increase 5.7 percent, from 485,000 to 513,000 between 2010 and 2015.

Table III-3
Resident Market Area School-Age Children, 2010 and 2015

	2010 Estimated School-Age Children	2015 Estimated School-Age Children	Percent Change, 2010-2015
Primary Market Area	233,180	245,750	5.4%
Secondary Market Area	156,675	167,790	7.1%
Tertiary Market Area	95,145	99,134	4.2%
Total Resident Market Area	484,999	512,675	5.7%
<i>State of Oregon</i>	<i>636,101</i>	<i>662,260</i>	<i>4.1%</i>
<i>United States</i>	<i>54,332,642</i>	<i>55,855,191</i>	<i>2.8%</i>

Source: ESRI and ConsultEcon, Inc.

Households

An analysis of households in the Resident Market Area is helpful to the make-up with regards to potential families and children available to visit the USS Ranger Museum. For instance, larger household sizes often reflect the presence of children in the household. Data in **Table III-4** profile the number of households in the Resident Market Area.

Table III-4
Resident Market Area Household Profile, 2010

	Estimated Number of Households	Estimated Number of Family Households	Percent of Families to Total Households	Average Household Size
Primary Market Area	575,137	346,667	60.3%	2.46
Secondary Market Area	300,990	212,622	70.6%	2.75
Tertiary Market Area	198,695	140,553	70.7%	2.67
Total Resident Market Area	1,074,822	699,842	65.1%	2.58
<i>State of Oregon</i>	<i>1,508,399</i>	<i>979,636</i>	<i>64.9%</i>	<i>2.51</i>
<i>United States</i>	<i>116,761,140</i>	<i>78,333,359</i>	<i>67.1%</i>	<i>2.59</i>

Source: ESRI and ConsultEcon, Inc.

In 2010, there were an estimated 1.0 million households in the Resident Market Area.

Approximately 65 percent of households in the Resident Market Area were family households. The average size of households in the Primary Market Area is the smaller than the state of Oregon and the United States. Similarly, the Primary Market Area contains a smaller proportion of family

households than the State and the United States. Conversely, the Secondary and Tertiary Market Areas have larger households and a higher proportion of family households, indicating that areas further from the USS Ranger Site have higher proportions of family with children. However, as shown by data in Table III-3, the Primary Market Area has a greater number of school age children because of the relative sizes of the population in each submarket.

Household Income

Higher incomes are associated with visitation to cultural and educational attractions such as the proposed USS Ranger Museum, both in terms of ability to visit (disposable income, available transportation and leisure time) and the desire to visit, as higher incomes frequently reflect higher educational attainment. Several measures of income are provided in the following tables. Data in **Table III-5** profile median household income for the Resident Market Area.

Table III-5
Median Household Income in Resident Market Area, 2010 and 2015

	2010 Median Household Income	2015 Median Household Income	Percent Change, 2010-2015
Primary Market Area	\$59,932	\$67,709	13.0%
Secondary Market Area	\$62,790	\$70,681	12.6%
Tertiary Market Area	\$56,029	\$61,277	9.4%
Total Resident Market	\$60,011	\$67,372	12.3%
<i>State of Oregon</i>	<i>\$53,104</i>	<i>\$61,033</i>	<i>14.9%</i>
<i>United States</i>	<i>\$54,442</i>	<i>\$61,189</i>	<i>12.4%</i>

Source: ESRI and ConsultEcon, Inc.

In 2010, the median household income for the Resident Market Area was estimated at approximately \$60,000. The Resident Market Area had a median household income about 13 percent above that of the State of Oregon and 10 percent above that of the United States. An increase of 12.3 percent in median household income is expected by 2015, which will raise the median income for the Resident Market Area to \$67,400. It is important to note that the median household income data reflect gross income and do not account for personal tax and non-tax payments such as personal income taxes and personal contributions to social insurance (i.e. Social

Security, Medicare). Further, the cost of living in a given area affects the amount of disposable income a household has. Portland has a moderate cost of living that is somewhat above the national average but not out of scale to its urban context.

Data in **Table III-6** provide household income in the Resident Market Area according to income groups. These data present a broad picture of the income characteristics of the households in the Resident Market Area.

Table III-6
Percent of Households in Resident Market Area by Income Group, 2010

	Less than \$25,000	\$25,000- \$34,999	\$35,000- \$49,999	\$50,000- \$74,999	\$75,000+
Primary Market Area	16.9%	8.2%	15.4%	23.7%	35.7%
Secondary Market Area	14.8%	7.3%	14.8%	24.3%	38.7%
Tertiary Market Area	18.7%	9.0%	16.7%	24.8%	30.8%
Total Resident Market Area	16.7%	8.1%	15.5%	24.1%	35.6%
<i>State of Oregon</i>	<i>20.3%</i>	<i>9.7%</i>	<i>16.5%</i>	<i>23.0%</i>	<i>30.5%</i>
<i>United States</i>	<i>20.8%</i>	<i>9.7%</i>	<i>15.0%</i>	<i>21.6%</i>	<i>32.9%</i>

Source: ESRI and ConsultEcon, Inc.

An estimated 59.7 percent of Resident Market Area households have incomes greater than \$50,000 per year, a proportion that is over 5 percent higher than the proportion of households in the State as a whole. Secondary Market Area households exhibit higher income levels than the Primary and Tertiary Market Areas, though the Primary Market Area still has 59.4 percent of its households earning over \$50,000. The highest percentage of residents in lower income brackets live in the Tertiary Market Area. Admission pricing at the facility should be affordable to a majority of residents in the available resident markets. Providing good value for the experience offered is critical to success in markets with these characteristics.

Portland Lifestyle Index

In addition to the demographic characteristics of the Resident Market Area, lifestyle characteristics are particularly useful to consider in development phases of a project such as the proposed USS Ranger Museum. One indicator of lifestyle interests is provided by the SRDS *Local Market Analyst*, which includes a compilation of annually updated demographic and lifestyle profiles from

household surveys in all Designated Market Areas (DMA) in the United States. The lifestyle profile provides an overview of the rate of household participation in lifestyle and leisure-time activities within a particular market. While the Portland DMA covers a wider geographic area than the defined Resident Market Area, it is still insightful because most of the population in the DMA is included in the Portland area. Residents in the Portland DMA rate near the average in several lifestyle categories that may be associated with potential support for the proposed USS Ranger Museum. The index for Go to a Museum (at least once in the last year) is 103, which is slightly above the national average of 100. The data indicate an estimated 42.6 people per 100 households visited a museum at least once in the past year. The index for Belong to a Veterans Club is 97, which is slightly below the national average. The data indicate an estimated 6.71 people per 100 households belong to a veterans club. Based on the above lifestyle categories, residents of the Portland area would be expected to support the proposed USS Ranger Museum that is perceived as an extension of these interests.

Summary

The Resident Market Area is defined as the population living within a 90-minute drive of the USS Ranger Museum. The total population in the total Resident Market Area was an estimated 2.8 million in 2010. By 2015, population is projected to increase 6.6 percent for a total population of over 3 million residents. The Resident Market Area population is projected to grow at a faster pace than the populations of the State of Oregon and the United States as a whole.

Following are current demographic and lifestyle characteristics important to potential museum audiences in the Resident Market Area:

- ◆ Approximately 485,000 school-age children live within the Resident Market Area.
- ◆ Median household income is approximately \$60,000, which is over 13 percent above household incomes in the State of Oregon, and approximately 10.2 percent above household incomes in the United States as a whole.
- ◆ Approximately 59.7 percent of Resident Market Area households have incomes above \$50,000 per year, a higher proportion than in the state and the country.
- ◆ According to national survey data, residents in the Portland area rank near the national average in relevant lifestyle categories, including Go to a Museum (at least once in the past year) and Belong to a Veterans Club. Residents of the Portland area would be expected to support the proposed USS Ranger Museum that is perceived as an extension of these interests.

The attendance potential from the Resident Market Area is dependent on a number of factors, including pricing, competitive context, the quality of the visitor experience and marketing, among others. Attendance potential is evaluated later in this report.

Section IV

VISITOR MARKET PROFILE

Tourists comprise an important visitor segment for the USS Ranger Museum. This section reviews the tourist markets available to the USS Ranger Museum at its potential location in Fairview. This includes a review of statewide and regional tourism trends and a review of tourism in the Portland area. The data utilized in this section represent the latest and most relevant data available for the area under consideration.

For this study, tourist³ market segments will include:

- ◆ Visitors to Portland Metro⁴
 - Destination leisure visitors
 - Business travelers, including meetings and convention visitors
 - Individuals visiting friends and relatives (VFRs) in the area
- ◆ Pass-through visitors
 - Visitors passing through the Portland area en route to other regional destinations

Data for the analysis of the Portland visitor market in this section is derived from the Portland Oregon Visitors Association (POVA), the State of Oregon and reports they commissioned, including *Regional Analysis from the 2004/2006 Oregon Visitor Studies, Economic Impacts of Travel, 2009, Portland, OR*, and *Oregon Travel Impacts, 1991-2009p*.

TOURISM IN OREGON

Leisure visitors go to Oregon to experience its beaches, mountains, outdoor activities, historic sites and communities and to visit friends and relatives. In 2006, there were an estimated 21.2 million overnight trips to and within the State of Oregon, according Longwoods International. According to Dean Runyan Associates, there were an estimated 17.7 million overnight trips to and within the State in 2009. While these estimates of visitor volume are not directly comparable due to different methodologies and purposes for which they were generated, they are indicative of the decline in

³ The terms “visitor,” “tourist” and “traveler” are used interchangeably; “trip” and “visit” are used interchangeably.

⁴ In this case, Portland Metro is defined as Clackamas, Multnomah, and Washington Counties.

touristic activity in recent years. Since 2006, the United States and Oregon have experienced an economic recession, which has had a significant impact on the tourism industry. Nationally, according to travel forecasts from the US Travel Association, the number of domestic leisure travelers declined 1.5 percent between 2006 and 2009. Over the same period, the number of domestic business travelers declined 15.1 percent, for an overall decline in domestic visitor volume of 4.9 percent.

Economic Impact of Tourism in Oregon

Tourism is an important component of the Oregon economy. Statewide in 2009, total direct travel spending was estimated to be \$7.7 billion, a 7.5 percent decrease from 2008, reflecting a decline in touristic activity and declines in travel-related prices due to the economic recession that began in December 2007. This direct spending resulted in wage earnings of \$2.0 billion, 88,000 total jobs and \$717 million in federal, state and local tax receipts. Of total direct spending, an estimated \$803 million or 10.4 percent was spent on arts, entertainment and recreation, which generated \$277 million in industry earnings, and 16,300 jobs.

Economic Impact of Tourism in Portland Metro

Tourism is an important component of the Portland economy. In 2009 in the Portland Metro area, total direct travel spending was estimated to be \$3.5 billion, a 7.1 percent decrease from 2008. This direct spending resulted in wage earnings of \$821 million, 28,900 total jobs and \$141 million in state and local tax receipts. Of total direct spending, an estimated \$170 million or 4.9 percent was spent on arts, entertainment and recreation, which generated \$59 million in industry earnings and 2,500 jobs. Spending on cultural tourism, which includes zoos, museums, art exhibits, science exhibits, historic sites, theaters and music venues totaled 53 percent or \$90 million of spending in arts, entertainment and recreation.

TOURISM IN PORTLAND METRO

Portland is Oregon's largest city and a regional center for business, the arts, entertainment and other industries. It is also a major travel destination within the state. Of the 22.2 million overnight trips to and within the State of Oregon, 7.2 million visitors or 34 percent spent some time in Portland Metro. Seventy-eight percent or 5.6 million visitors spent at least one night in

the Portland Metro and 67 percent or 4.8 million visitors considered Portland to be their main destination. Following is a profile of overnight visitors to Portland Metro.

Trip Purpose

The Oregon Tourism Commission tracks overnight tourists in three major trip purpose categories: business, visiting friends and relatives (VFR) and “pleasure.”⁵ Data in **Table IV-1** present the total visitation by trip purpose. An estimated 80 percent of trips were due to travelers visiting friends and family and travelers on pleasure trips. This proportion is lower than that of the state (87%) most likely due to the fact that Portland Metro is the center of business activity and has the largest population within the State.

Table IV-1
Number of Overnight Visitors to Portland Metro by Trip Purpose (in Millions)

Purpose	Portland Metro Trips	Percent of Metro Trips	Percent of Oregon Trips
Visiting Friends and Family	3.4	47%	43%
Pleasure	2.4	33%	44%
Business	1.4	20%	13%
Total	7.2	100%	100%

Source: Longwoods, and ConsultEcon, Inc.

Pleasure and VFR Visitors

“Pleasure” visitors can include couples and families on vacation, seasonal visitors and international tourists. Data in **Table IV-2** show the primary trip purpose of overnight pleasure visitors to the Portland Region compared to statewide norms.

⁵ Pleasure trip is defined as the type of trip that can be most influenced by marketing. Term can be used interchangeably with leisure.

Table IV-2
Trip Purpose of Overnight Pleasure Visitors to Portland Region and Oregon

Purpose	Portland Metro	Oregon
Special Event	24%	17%
Touring	23%	20%
Business & Pleasure	19%	7%
City	14%	5%
Outdoors	10%	29%
Beach	6%	13%
Other ^{1/}	4%	9%

1/ Other includes: casino, cruise, ski, theme park, or country resort.

Source: Longwoods, and ConsultEcon, Inc.

Pleasure travelers would be prime candidates for visitation to the proposed USS Ranger Museum. This travel market segment is the most likely to visit a museum or other public attractions since they have the time, desire and financial resources. In addition, those visitors whose primary trip purpose is VFR are an important group for visitation to attractions such as the museum because hosts often bring their guests to visit the best attractions a region has to offer.

Business Travelers

Business travelers are typically less likely to visit attractions such as museums because they usually have limited time and interest. Business visitors comprised 20 percent of trips to the Portland Region. There is a greater possibility of visitation by convention visitors. Often large conventions hold special events or evening functions at museums or conventions may host tours at a museum for spouses of participants. In 2009, there were 49 conventions that accounted for a total of 143,500 room nights in Portland area accommodations.

Origin of Overnight Visitors to Portland

Data in **Table IV-3** show the top states in which overnight pleasure visitors to Portland and Oregon reside. Portland is a destination that serves primarily residents on the West Coast who are generally within a driving distance. Tourists from within Oregon comprise 29 percent of total trips to Portland Metro. Important out-of-state visitor markets include adjacent states such as Washington (30%), California (15%) and Idaho (6%).

Table IV-3
Origin of Overnight Pleasure Visitors to Portland Region and Oregon by State, 2006

Origin	Portland Metro	Oregon
Washington	30%	21%
Oregon	29%	49%
California	15%	12%
Idaho	6%	4%
New Jersey	3%	0%
Texas	3%	0%
Maryland	2%	0%
Florida	2%	0%
Other States	10%	14%

Source: Longwoods, and ConsultEcon, Inc.

Data in **Table IV-4** show the top urban areas in which overnight pleasure visitors to Portland reside. Top metro markets for Portland visitors include Portland (25%), Seattle-Tacoma, WA (15%) and San Francisco-Oakland-San Jose, CA (10%). Several of the top metro areas for Portland overnight pleasure visitor origin are major western metro areas and metro areas within a few hours' drive. These markets are expected to be important sources of visitors to the USS Ranger Museum.

Table IV-4
Origin of Overnight Pleasure Visitors to Portland Metro by Urban Area, 2006

Origin	Portland Metro
Portland, OR	25%
Seattle-Tacoma, WA	15%
San Francisco-Oakland-San Jose, CA	10%
Yakima, WA	9%
Boise, ID	5%
Eugene, OR	4%
Sacramento-Stockton-Modesto, CA	3%
Philadelphia, PA	3%
Idaho Falls-Pocatello, ID	2%
Spokane, WA	2%
Houston, TX	2%
Baltimore, MD	2%
Los Angeles, CA	2%

Source: Longwoods, and ConsultEcon, Inc.

Length of Stay

Overnight pleasure visitors to Oregon that spend at least some time in Portland stay an average of 4.3 nights in the state. In this timeframe, visitors stay an average of 2.2 nights in Portland and the remainder elsewhere in the state.

Seasonality of Visitation

Data in **Table IV-5** show seasonality of visitation to Portland and the State by overnight pleasure visitors. Portland has a temperate climate which allows for year round visitation. For overnight pleasure tourists to Portland, the peak season is April through September, in which 68 percent of visitation occurs. The months of January through March are the slowest months. Visitation to the USS Ranger Museum by tourists will likely be similar to this pattern of seasonality. Most Portland attractions can be enjoyed year round. The seasonality of visitation to Portland is less peaked than visitation to the State as a whole, which received over three-fourths of its tourists between April and September.

Table IV-5
Seasonality of Visitation to Portland Metro and to the State of Oregon
by Overnight Pleasure Visitors, 2006

Season	Portland Metro	Oregon
January to March	14%	10%
April to June	30%	27%
July to September	38%	49%
October to December	17%	14%

Source: Longwoods, and ConsultEcon, Inc.

Lodging

As a regional business center, Portland has a large hotel supply. According to data from Smith Travel Research, there are 6,296 rooms in 33 hotels in Portland's central city and 15,161 rooms in 110 hotels in the entire Portland market. For January through November of 2009, Portland central city hotels had an occupancy rate of 70.7 percent and the whole Portland market had an occupancy rate of 63.8 percent. These rates are higher than the entire U.S. hotel market which had an average occupancy rate of 56.1 percent. Over the same period, the average daily room rate was \$120 per night in central city hotels and \$100 per night in the entire Portland market.

Data in **Table IV-6** show the lodgings used in Portland Metro and Oregon by overnight pleasure visitors who reported having visited Portland on their trip. Approximately 54 percent of overnight pleasure trip nights were spend in a hotel or motel. Both hotel-staying leisure visitors and VFRs are strong prospective candidates for visitation to the museum.

Table IV-6
Percent of Overnight Pleasure Trip Nights by Type of Accommodations, 2006

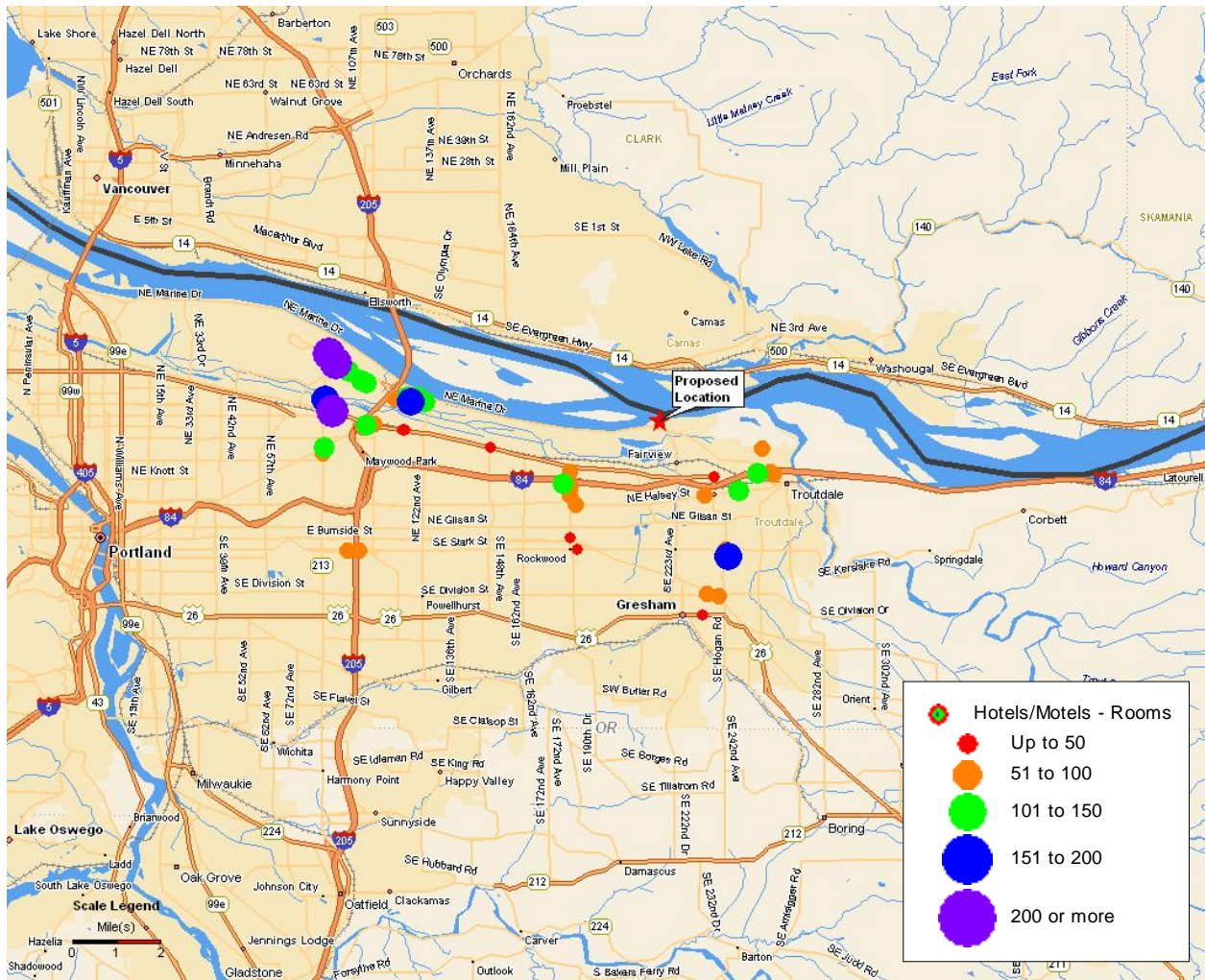
Lodging	Portland Metro	Oregon
Hotel	37%	24%
Friend or Relative	20%	14%
Motel	17%	12%
Rented Campground	4%	13%
Other	4%	11%
Time Share	3%	4%
Own House	3%	2%
Country Inn	3%	1%
Cruise/Commercial Ship	3%	1%
Guest Ranch	2%	0%
RV Park Site	1%	12%
Wilderness Campsite	1%	5%
Bed & Breakfast	1%	1%

Source: Longwoods, and ConsultEcon, Inc.

Nearby Lodgings

According to information supplied by the West Columbia Gorge Chamber of Commerce, there are approximately 4,800 hotel and motel rooms in 51 establishments, located near the proposed location for the USS Ranger Museum. These overnight accommodations are largely located near the Portland International Airport and along Interstate 84 in Portland, Gresham and Troutdale. **Figure IV-1** is a map of the location of nearby hotels and motels.

Figure IV-1
Map of Hotels/Motels Near Proposed Location of USS Ranger Museum by Number of Rooms



Source: West Columbia Gorge Chamber of Commerce and ConsultEcon, Inc.

Note: Does not show hotels/motels in or near downtown Portland, reflecting only data provided.

Profile of Portland Overnight Pleasure Visitor Demographics

The demographic profile of Portland overnight pleasure visitors is somewhat similar to visitors to Oregon. Portland is a large and diverse city with a broad array of reasons for visiting, and attractions for visitors. Data in **Table IV-7** show an age profile of overnight pleasure visitors to the Portland Metro and to Oregon. The largest share (29%) of overnight pleasure visitors to the Portland Metro is between the ages of 25 and 34. Compared to Oregon overnight pleasure visitors, Portland's age profile is stronger in this age group and slightly stronger for visitors 45 and older. Overall, 58 percent of overnight pleasure visitors are older than 35 which would include parents and seniors; two of the museum's target audiences.

Table IV-7
Portland Visitor Age Profile, 2006

Age Group	Portland Metro	Oregon
18 to 24	13%	17%
25 to 34	29%	24%
35 to 44	15%	18%
45 to 54	19%	17%
55 to 64	11%	12%
65 and up	13%	12%

Source: Longwoods, and ConsultEcon, Inc.

Additional facts about overnight pleasure visitors to Portland include the following:

- ◆ 51 percent are female.
- ◆ 65 percent are married.
- ◆ 64 percent live in households of one or two people.
- ◆ 36 percent have some college; 33 percent have college degrees; 18 percent have completed some post-graduate work.
- ◆ 67 percent of households earn over \$50,000 annually and 40 percent earn over \$75,000.

SUMMARY OF VISITOR MARKET PROFILE

The travel and tourism industry is a major industry in Portland and the State of Oregon. Of the 22.2 million overnight trips to and within the State of Oregon, 7.2 million visitors or 34 percent spent some time in Portland Metro. Seventy-eight percent or 5.6 million visitors spent at least one night in Portland Metro and 67 percent or 4.8 million visitors considered Portland to be their main destination. Portland has year round visitation and supports a hotel inventory of approximately 15,200 rooms.

An estimated 80 percent of trips were due to travelers visiting friends and family and travelers on pleasure trips. Overnight pleasure visitors and people visiting friends and family are primary audiences for the USS Ranger Museum. Tourists from within Oregon comprise 29 percent of total trips to Portland Metro. Important out-of-state visitor markets include adjacent states such as Washington (30%), California (15%) and Idaho (6%). Overall, 58 percent of overnight pleasure

visitors are older than 35 which would include parents and seniors; two of the museum's target audiences.

REVIEW OF PORTLAND AREA ATTRACTIONS

The Portland area has numerous visitor attractions, a number of which are well attended. These include a number of important historic structures, museums and education centers. **Table IV-8** shows attendance data, admission fees and descriptions of top attractions in Portland.

Table IV-8
Selected Portland Area Attractions
Ranked by Attendance

Name / Location	Annual Attendance	Adult Price	Description
Spirit Mountain Casino Grand Ronde	Over 2.5 million	n/a	The Spirit Mountain Casino, operated by the Confederated Tribes of Grand Ronde, is the largest tourist attraction in Oregon. The complex includes 254 hotel rooms, 5 restaurants, and 90,000 square feet of slot and table gaming.
Oregon Zoo Portland	1.6 million	\$10.50	The zoo is operated by Metro, a directly-elected regional government that encompasses three counties and 25 cities in the region. The Oregon Zoo is home to animals from all corners of the world, including Asian elephants, Peruvian penguins and Arctic polar bears, and is a center for wildlife preservation and field research. Education programs serve more than a half-million people both at the zoo and at schools, senior and community centers around the region.
Oregon Museum of Science and Industry (OMSI) Portland	800,000	\$12.00	One of the nation's top science museums, OMSI is comprised of 219,000 square feet of exhibit space, including an IMAX theater, planetarium, and the USS Blueback, a diesel-powered submarine. OMSI offers a variety of camps and classes as well as one of the largest outreach programs in the nation, taking science and technology education "on the road" to students, teachers and the public in seven Western states.
Portland Art Museum Portland	350,000	\$12.00	In 2005, the museum completed renovation of the Mark Building, a former Masonic Temple, which houses a new Center for Modern and Contemporary Art, two ballrooms, a study center and library, a film center, and curatorial and administrative offices.
Hoyt Arboretum Portland	350,000	Free	Owned by the City of Portland, this arboretum features over 1,100 species of trees.
Portland Children's Museum Portland	280,000	\$8.00	This museum features hand-on exhibits for children of all ages. The museum features group activities, and a full calendar of programming in arts and education. In addition, the museum sponsors a public charter school for students in preschool through grade 5.

**Table IV-8 (cont.)
Selected Portland Area Attractions
Ranked by Attendance**

Name / Location	Annual Attendance	Adult Price	Description
Evergreen Aviation and Space Museum McMinnville	167,000	\$20.00	This museum's primary attraction is the Spruce Goose in addition to a vast collection of aircraft and space artifacts from different periods of aviation history. Gift shop, restaurant, wine tasting room, and archives and research library.
The Japanese Garden Portland	160,000	\$9.50	The Japanese Garden opened in 1967 and is operated by the Japanese Garden Society of Oregon, a not-for-profit organization. Located in Washington Park, the Garden is near the Zoo and the International Rose Test Garden.
Pittock Mansion Portland	100,000	\$8.00	Completed in 1919, this historic house museum was home to Henry and Georgiana Pittock, early Portland pioneers. Collection includes period furnishings, art, and artifacts.
Pearson Air Museum Vancouver	60,000	\$7.00	Located on one of the oldest active airfields, this museum features 14 aircraft on display.
The Old Church Society Portland	50,000	Free	Built in 1883, this church operates as a historic site in downtown Portland.
World Forestry Center Discovery Museum Portland	46,500	\$8.00	Located in Washington Park, the Discovery Museum educates the public on trees of the Pacific Northwest and sustainable forestry.
Oregon Historical Society Portland	40,000	\$11.00	The Society's collection includes over 85,000 artifacts related to Oregon's history and it operates a research library.
Museum of Contemporary Crafts Portland	20,000	\$3.00	Founded in 1937, the museum promotes appreciation of craft arts from the 20 th century onward.
Oregon Sports Hall of Fame and Museum Portland	10,000	\$4.00	Hall and museum honor contributions of Oregon athletes from wide range of sports.
Douglas F. Cooley Memorial Art Gallery, Reed College Portland	5,500	Free	The mission of the Douglas F. Cooley Memorial Art Gallery is to enhance the academic offerings of Reed College with a diverse range of scholarly exhibitions, lectures, and colloquia in its role as a teaching gallery.
Washington County Museum Portland	5,000	\$3.00	Features history and exhibits on Washington County.
The Berry Botanic Garden Portland	3,000	\$5.00	Living plant museum features species from the Pacific Northwest and from around the world. Visitation by reservation only.

**Table IV-8 (cont.)
Selected Portland Area Attractions
Ranked by Attendance**

Name / Location	Annual Attendance	Adult Price	Description
Oregon Maritime Museum Portland	n/a	\$5.00	Housed in the sternwheeler Portland along the downtown waterfront, the maritime museum collects, preserves, and displays maritime objects to preserve Portland and Oregon's port and maritime history.
Portland Classical Chinese Garden	n/a	\$7.00	Located in Old Town/ Chinatown in downtown Portland, the Garden opened in 2000. The Garden covers a city block and includes architecture, landscaping, and native Chinese plants.
3D Center of Art and Photography Portland	n/a	\$5.00	The 3D Center of Art and Photography, a non-profit museum/gallery, features the best in antique and contemporary 3D imagery. The Center houses everything from antique stereocards to View-Master, contemporary 3D photography, lenticulars, anaglyphs, and computer generated 3D art.
International Rose Test Garden Portland	n/a	Free	Founded in 1917, Portland's International Rose Test Garden is the oldest official, continuously operated public rose test garden in the United States. Located in Washington park.
Portland Spirit	n/a	\$28.00 to \$94.00	Lunch and dinner cruises on the Willamette River.
Mount Hood Skibowl Winter Resort and Summer Action Park Mt. Hood	n/a	\$59.00	Ski resort during winter and adventure park, with thrill rides, during the summer.

Source: Official Museum Directory, Sources Profiled, and ConsultEcon, Inc.

The most highly attended tourist destination in Oregon is Spirit Mountain Casino which draws over 2.5 million visitors every year. The most highly attended attractions in Portland are the Oregon Zoo with over 1.6 million annual visitors and the Oregon Museum of Science and Industry with 800,000 annual visitors. Other popular attractions include The Portland Art Museum (350,000), Hoyt Arboretum (350,000) and The Portland Children's Museum (280,000).

Pricing for Portland attractions is generally modest, as historical and educational attractions in the area tend to be relatively affordable. Adult admission prices for most attractions are typically \$7.00 to \$12.00. There are a number of free attractions but these are not considered a discouragement to fee-charging attractions. The number and scale of Portland attractions help to create a critical mass of leisure opportunities.

Tourism Development and Veterans

Veterans comprise a market segment that is particularly well-suited for visitation to the USS Ranger. The United States Department of Veterans Affairs estimates that there were approximately 24 million living veterans across the United States in 2009. Approximately 977,000 veterans live in Washington and Oregon combined. Veterans' organizations such as the Veterans of Foreign Wars (VFW) and the American Legion as well as individual military units and people that served on the same naval ships hold regular reunions that draw veterans from across the country to destinations. The USS Ranger Museum will be able to draw on this market for event and reunion business.

Summary of Tourism Market

The travel and tourism industry is a major industry in Portland and the State of Oregon. Of the 22.2 million overnight trips to and within the State of Oregon, 7.2 million visitors or 34 percent spent some time in Portland Metro. Seventy-eight percent or 5.6 million visitors spent at least one night in Portland Metro and 67 percent or 4.8 million visitors considered Portland to be their main destination. Portland has year round visitation and supports a hotel inventory of approximately 15,200 rooms.

An estimated 80 percent of trips were due to travelers visiting friends and family and travelers on pleasure trips. Overnight pleasure visitors and people visiting friends and family are primary audiences for the USS Ranger Museum. Tourists from within Oregon comprise 29 percent of total trips to Portland Metro. Important out-of-state visitor markets include adjacent states such as Washington (30%), California (15%) and Idaho (6%). Overall, 58 percent of overnight pleasure visitors are older than 35 which would include parents and seniors; two of the museum's target audiences.

The proposed USS Ranger Museum has the potential to be among the most highly attended attractions in the Portland area. Ticket pricing for Portland area historical and educational attractions is generally affordable. Adult admission prices for most attractions are typically \$7.00 to \$12.00 with a number of free attractions.

Section V

RELEVANT MUSEUM INDUSTRY EXPERIENCE

Historic aircraft carrier museums provide a baseline of relevant experience for the development of the proposed USS Ranger Museum in Fairview, Oregon. However, there are no perfect comparables to this project. Existing aircraft carrier museums are located in a wide variety of situations and in different market contexts. The ship museums themselves vary widely in terms of on-board exhibits and programs, operating budgets and overall organizational scale. Nonetheless, important insights and lessons can be gained not only in market potential of the USS Ranger Museum but also in the best practices and success requirements for aircraft carrier museums by reviewing the experience of other historic aircraft carrier museums. Each ship tells a story not only of its military history, but also of its unfolding history of preservation that is constantly evolving.

The review of selected historic aircraft carrier museums focuses on projects that provide aspects of comparability in terms of the physical characteristics of the attraction, the overall market and operations. The profiles include (as data are available) site and facility descriptions, program elements, market characteristics, visitation patterns and budget summaries. This analysis focuses on U.S. Navy aircraft carrier museums, as well as selected battleship museums. The industry experiences learned from these museums will help to provide operating assumptions for the USS Ranger Museum.

The facilities profiled include many of the best known and most visited historic ship museums in the country. In general, the selected profiled visitor attractions reflect many of the current trends in historic aircraft carrier museums and provide models that can inform the development profile of the proposed USS Ranger Museum. They also illustrate the challenges that are faced in this class of museums. The specificity of the information provided varies and is largely dependent on the amount of information each organization was willing or able to provide. If recent information was unavailable, information from prior periods was used.

History and Background

Military warships have played an important role in the history of the United States military and the country's economy. Historic naval ships are of interest to the general public for a number of reasons, including their central roles in American military conflicts, our country's maritime heritage, technological advances in shipbuilding, the 'human' stories related to the ships, and the sheer size and uniqueness of the naval ships. According to the Historic Naval Ships Association (the organization dedicated to the promotion and preservation of naval ships and vessels), the first warships to be exhibited to the public were the frigate USS Constitution in 1905 and the USS Oregon in 1925. Though there were only 18 ships in the Association in 1980, the number has since jumped to over 150. These are operated and maintained by an array of private, state and federal organizations. Not surprisingly, historic naval ships have been a popular and growing segment of the museum industry. While many historic ships have been established successfully as museums, some ships have floundered. There are identifiable reasons for both outcomes. However, historic naval ships have a unique set of challenges, such as:

- ◆ Acquiring the ships from the Navy's mothball fleet.
- ◆ Creating an appropriate berth and reconditioning the ship.
- ◆ Creating exhibits and programs that give meaning to the large steel vessels.
- ◆ Attracting funding to accomplish the above tasks at project outset when the natural constituencies – retired Navy seamen – are not necessarily in a position to provide the major funds needed.
- ◆ Creating a museum organization commensurate with the large scale of the ships and able to interpret effectively and build large audiences and high attendance.
- ◆ Maintaining the ship on an ongoing basis – a major undertaking.
- ◆ Maintaining the relevance of the ship to new audiences beyond the generation that the ship directly served.
- ◆ Attracting new capital dollars over time to enhance the ship and to make major and minor repairs and maintenance.

Besides the effort to berth the aircraft carrier *ex-Ranger* permanently in Fairview, there are a number of similar initiatives across the country that are trying to achieve similar objectives with other historic ships. The preservation and operation of these ships for tourism historical and educational purposes can bring positive economic impacts including job growth and stimulation of the tourism economies of a number of cities and towns where these vessels are located. The level of

success in these projects can be dependent on a number of variables which are highlighted below. The accumulated experiences of these facilities help to inform market and operations planning.

Experience of Historic Aircraft Carrier Museums

Historic aircraft carrier museums are located throughout the United States in coastal communities. Following is an overview of the five existing historic aircraft carrier museums, shown in **Table V-1**.

Table V-1
Overview of Historic Aircraft Carrier Museums

Name and Location	Aircraft Carrier	Description of Components
Intrepid Sea, Air & Space Museum New York, NY	Ex-Intrepid	Aircraft carrier, submarine, 26 aircraft, 3 different flight simulators, gift shop, visitor center, education center, rock wall, and theater.
Patriots Point Naval & Maritime Museum Mount Pleasant, SC	Ex-Yorktown	Aircraft carrier, destroyer, submarine, over 24 aircraft, Medal of Honor Museum, Vietnam Support Base, Cold War Memorial, theater, 2 snack bars, vending machines, and gift shop.
USS Midway Museum San Diego, CA	Ex-Midway	Aircraft carrier, 22 aircraft, 3 different flight simulators, café, and gift shop.
USS Hornet Museum Alameda, CA	Ex-Hornet	Aircraft carrier, 12 aircraft, flight simulator, café, and gift shop.
USS Lexington on the Bay Museum Corpus Christ, TX	Ex-Lexington	Aircraft carrier, 19 aircraft, flight simulator, large format theater, café, and gift shop.

Source: Facilities profiled, and ConsultEcon, Inc.

Performance vs. Resident Market Size

Data in **Table V-2** show price, attendance, market population and the attendance to resident market ratio of the five profiled historic aircraft carrier museums.

**Table V-2
Historic Aircraft Carrier Museum Market Summary**

Name	City	Adult Admission Price	Estimated Annual Attendance	Metro Population Size	Ratio of Attendance to Population	Strong Tourism Market?
Intrepid Sea, Air & Space Museum	New York, NY	\$22.00	915,000	19,070,000	0.05	Yes
Patriots Point Naval & Maritime Museum	Mount Pleasant, SC	\$16.00	241,000	659,000	0.37	Yes
USS Hornet Museum	Alameda, CA	\$14.00	45,000	4,318,000	0.01	No
USS Midway Museum	San Diego, CA	\$18.00	818,000	3,054,000	0.27	Yes
USS Lexington Museum on the Bay	Corpus Christi, TX	\$12.95	260,000	416,000	0.63	Yes

Source: Facilities profiled, US Census Bureau 2009 Population Estimates, and ConsultEcon, Inc.

The ratio of attendance to resident market size varies considerably among the five profiled aircraft carrier museums. In terms of market size, the museums most comparable to the proposed USS Ranger Museum are the USS Midway Museum and the USS Hornet Museum, which are largely at opposite ends of the spectrum of annual attendance. While it is beneficial to have a large resident market (more potential visitors), a high attendance to market size is not necessarily indicative of high resident market penetration. Often, there can be very low resident market penetration but the attendance to resident market size ratio will be high due to a strong tourist visitation. This is the case at the Patriots Point Naval and Maritime Museum, which has attendance of 41 percent of the Charleston area population, and at the USS Lexington Museum, which has attendance of 63 percent of the Corpus Christi metropolitan area population. Smaller markets tend to have higher attendance to resident market population ratios. Also, projects in large metro areas, such as the carriers located in New York City and San Diego, will have smaller ratios because larger markets tend to have more competition for the leisure time activities of residents. Among the profiled aircraft carrier museums, the Intrepid Sea, Air & Space Museum had the highest attendance of approximately 915,000 visitors in 2009, followed by the USS Midway Museum at 818,000 visitors in the same year.

The case of the USS Hornet Museum is particularly important in planning a new museum. This facility is located in Alameda, which is a relatively remote location in the San Francisco Bay Area. It was proposed as a “world class naval museum offering a great deal more than was being offered in other historic vessels including ‘multi-sensory and multi-media techniques,’ ‘exciting temporary exhibits,’ ‘state of the art movie and video theaters’ and ‘crew members to guide and interpret the exhibits, instead of merely having passive displays.’” However, this level of

exhibitory was not accomplished, and in fact, the primary attraction of the USS Hornet Museum in its current state is the ship itself. The museum's low attendance pattern is based on a difficult site and a failure to implement the most important factors for project success – visitor experience and accessibility. Currently, the USS Hornet Museum receives most of its business from special events and overnight camps.

Admission Prices

As shown in **Table V-3**, the admission prices for profiled museums vary considerably. The Intrepid Sea, Air & Space Museum charges the highest adult admission price of \$22.00, an increase of 33 percent from its ticket price before it dry docked for extensive renovations in 2007. The USS Lexington Museum on the Bay charges the lowest adult admission price of \$12.95, an 8 percent increase since 2007. Admission prices do not always correspond to the quality of the visitor experience or the amount of military equipment on site. Prices are set based on a wide variety of factors including the organization's financial goals, market demographics, local competition and governance, among others.

Table V-3
Historic Aircraft Carrier Museum Admission Prices

Museum	Adult	Child	Senior	Military
Intrepid Sea, Air & Space Museum	\$22.00	\$17.00	\$18.00	free
Patriots Point Naval & Maritime Museum	\$16.00	\$9.00	\$13.00	\$13.00 ^{1/}
USS Midway Museum	\$18.00	\$8.00	\$10.00	\$10.00 ^{1/}
USS Hornet Museum	\$14.00	\$6.00	\$12.00	\$12.00
USS Lexington Museum on the Bay	\$12.95	\$7.95	\$10.95	\$10.95

^{1/} Active duty personnel in uniform are admitted for free.

Source: Facilities profiled, and ConsultEcon, Inc.

Membership Programs

Memberships to a museum or institution such as a historic naval ship provide visitors an opportunity to visit for free when making repeat visits and often provide discounts for special events or retail items. In addition, it often makes visitors feel like they are making a small contribution to a worthy institution. For the museum, selling memberships helps to establish a visitor base, increase interest and volunteers, and provide additional revenue. Membership prices among the profiled historic

aircraft carrier museums are in line with other similarly priced museums. Data in **Table V-4** show the price and number of members of the profiled museums. Membership costs range from \$65.00 to \$140.00, and in general, reflect the cost of memberships at museums and cultural institutions in the particular market area. Owing to its recent opening and continuing popularity, the USS Midway Museum has the largest number of members with 13,000. Patriots Point has the smallest number of members, with 200. Management indicates that there is an opportunity for the expansion of membership program.

Table V-4
Historic Aircraft Carrier Museum Membership Summary

Museum	Family Membership Price	Number of Members
Intrepid Sea, Air & Space Museum	\$140	1,300
Patriots Point Naval & Maritime Museum	\$90	200
USS Midway Museum	\$90	13,000
USS Hornet Museum	\$75	3,500
USS Lexington Museum on the Bay	\$65	1,200

Source: Facilities profiled, and ConsultEcon, Inc.

Overnight Programs

All of the profiled historic aircraft carrier museums feature overnight programs. For many of the museums, the overnight program is an essential part of the facility's educational mission, as well as important source of earned revenue. Patriots Point has the largest overnight program among the aircraft carrier museums with over 23,000 campers per year. Overnight program prices range from \$49 per night onboard the USS Lexington to \$120 at the Intrepid Sea, Air & Space Museum. Scouting programs are an important source of overnight program participants. Data in **Table V-5** shows information on overnight programs at the profiled historic aircraft carrier museums.

**Table V-5
Historic Aircraft Carrier Museum Overnight Program Summary**

Museum	Annual Campers	Price	Cost per Capita
Intrepid Sea, Air & Space Museum	NA	\$120	NA
Patriots Point Naval & Maritime Museum	23,100	\$60	\$17
USS Hornet Museum	7,000	\$60	NA
USS Lexington Museum on the Bay	20,000	\$49	\$18
USS Midway Museum	5,000	\$75	\$46

NA = Not Available.

Source: Facilities profiled, and ConsultEcon, Inc.

Retail Sales

Retail sales are another important source of revenue for historic aircraft carrier museums. Due to the popularity of such ships souvenirs, clothing and models sell well. Gross retail sales can generate significant amount of income at the profiled historic aircraft carrier museums. Highest per capita sales occur at Patriots Point (\$6.46) followed by the USS Hornet Museum (\$5.52). Retail sales are a function of many factors including products sold, market demographics, and effectiveness of marketing. Because most gift shops are accessible by non-admission paying customers, the actual sales per visitor would be lower. Some of the profiled projects also sell products online. Data in **Table V-6** show retail sales and per capita sales for the profiled historic aircraft carrier museums.

**Table V-6
Profiled Historic Aircraft Carrier Museum Retail Sales**

Museum	Gross Retail Sales	COGS	Percent COGS	Gross Sales Per Visitor
Intrepid Sea, Air & Space Museum ^{1/}	NA	NA	NA	\$4.00
Patriots Point Naval & Maritime Museum ^{2/}	\$1,556,222	\$678,278	44%	\$6.46
USS Hornet Museum	\$292,791	\$252,200	86%	\$5.52
USS Lexington Museum on the Bay ^{3/}	\$829,915	\$356,450	43%	\$3.19
USS Midway Museum ^{1/}	NA	NA	NA	\$3.62 - \$5.31

NA = Not Available.

^{1/} A concessionaire operates the retail stores at the Intrepid Sea, Air & Space Museum and the USS Midway Museum. The latter organization receives 15-22% of gross retail sales and earned \$652,000 in net revenue from the retail operation.

^{2/} Gift shops are accessible by non-admission ticket holders, so actual sales per paid visitor would be lower. Patriots Point, for example, is also a departure point for vessels to Fort Sumter National Monument. In addition, figures may include sales from online sales.

^{3/} Includes revenue and costs associated with vending machines.

Source: Facilities profiled, IRS Form 990, and ConsultEcon, Inc.

Marketing

Marketing is an important function for all museums to sustain awareness about the facility and attract new visitors. Among the profiled projects, there was significant variability in the level of marketing. The USS Hornet Museum spends the least amount of money among all the museums with \$2,000 in marketing expenses. Patriots Point and the USS Midway Museum spent approximately \$450,000 on marketing while the Intrepid Sea, Air & Space Museum spent \$1.67 million. The profiled historic aircraft carrier museums have made brochures and print ads and participate in cooperative advertising through their local convention and visitors' bureau. Occasionally, they will produce radio and TV advertisements, usually for special events. Several museums advertise their overnight program in scouting magazines. Data in **Table V-7** show the marketing budget and marketing per visitor for the profiled projects, as data was available.

Table V-7
Profiled Historic Aircraft Carrier Museum Marketing Budgets

Museum	Marketing Budget	Marketing Budget Per Visitor
Intrepid Sea, Air & Space Museum	\$1,670,000	\$1.83
Patriots Point Naval & Maritime Museum	\$450,000	\$1.87
USS Hornet Museum	\$2,000	\$0.04
USS Lexington Museum on the Bay	\$276,000	\$1.06
USS Midway Museum	\$440,000	\$0.54

Source: Facilities profiled, and ConsultEcon, Inc.

Revenue

Data in **Table V-8** show the total revenue and earned revenue at the profiled historic aircraft carrier museums. Earned revenue is generated by income-producing activities such as admissions, gift shop and food services sales, memberships, special events and facility rentals, lease income, and education and overnight programs. With the exception of the Intrepid Sea, Air, and Space Museum, earned revenue at most aircraft carrier museums accounts for over 90 percent of total revenues. Total revenue per visitor ranged from \$17.66 at the USS Midway Museum to a high of \$34.66 at Patriots Point, which receives a significant share of revenue from lease agreements on its 455-acre, waterfront land holdings.

Table V-8
Profiled Historic Aircraft Carrier Museum Revenue Profile

Museum	Total Revenue	Earned Revenue ^{1/}	Percent Earned Revenue	Revenue per Visitor
Intrepid Sea, Air & Space Museum	\$20,639,150	\$9,144,151	44%	\$22.56
Patriots Point Naval & Maritime Museum	\$8,353,915	\$8,353,915	100%	\$34.66
USS Hornet Museum	\$1,646,702	\$1,486,335	90%	\$31.07
USS Lexington Museum on the Bay	\$4,844,325	\$4,536,416	94%	\$18.63
USS Midway Museum	\$14,442,947	\$13,000,109	90%	\$17.66

^{1/} Earned revenue is generated by income-producing activities, such as admissions, gift shop and food services sales, memberships, special events and facility rentals, lease income, and education and overnight programs. For the purposes of this analysis, earned income does not include interest income, miscellaneous, or other revenue categories.

Source: Facilities profiled and ConsultEcon, Inc.

Budget and Employment

As shown in **Table V-9**, operating budgets differ greatly among the profiled historic aircraft carrier museums from a high of \$18.0 million at the Intrepid Sea, Air, and Space Museum to a low of \$1.8 million at the USS Hornet Museum. Operating budgets are dependent on many factors including available revenue, programs offered, employees, maintenance required, as well as many other operational characteristics. Facilities with low budgets are often financially constrained and depend heavily on unearned revenue. Museums such as Patriots Point have had success spending money in order to make money; while they spend heavily on marketing and gift shop expenses, it usually results in stronger attendance and retail sales. It should also be noted that some of the budget numbers might be misleading due to differences in how facilities report their expenditures. Data in Table V-9 include a comparison among the museums in terms of the ratio of budget dollars to displacement in tons, attendees and full time equivalents (FTE). It also shows a ratio of visitors per FTE. These ratios provide some insight into operating efficiencies. The USS Midway Museum and the USS Lexington Museum on the Bay, both of which are considered successful projects, have the lowest ratios of budget to visitors.

**Table V-9
Historic Aircraft Carrier Museum Budget and Employment Summary**

	Operating Budget ^{1/}	Displacement (tons)	Budget Per Ton	Budget Per Visitor	FTE Employees ^{2/}	Temporary Seasonal Employees	Budget Per FTE	Visitors per FTE	Number of Volunteers ^{3/}
Intrepid Sea, Air & Space Museum	\$17,982,922	33,292	\$540	\$20	85	NA	\$211,564	10,765	NA
Patriots Point Naval & Maritime Museum	\$8,643,611	33,292	\$260	\$36	69	up to 30	\$125,270	3,493	NA
USS Hornet Museum	\$1,807,607	41,200	\$44	\$34	25	NA	\$72,304	2,120	180 to 200
USS Lexington Museum on the Bay	\$4,309,110	33,000	\$131	\$17	45	4 to 5	\$95,758	5,778	40 to 75
USS Midway Museum	\$9,959,887	45,000	\$221	\$12	70	85 to 90	\$142,284	11,686	350

NA = Not Available

1/ Does not include depreciation. Some of these budgets do not include in-kind service provision that covers necessary costs. Data for the most recent fiscal year available.

2/ FTE stands for Full Time Equivalent. Part-time employees are assumed to be 50% of 1 FTE. First number is FTE estimate of permanent full-time and part-time employees.

3/ Museums have lists of potential volunteers greater than the number listed, which is number of volunteers that work on a regular basis.

Source: Facilities profiled, GuideStar, Historic Naval Ships Association, and ConsultEcon, Inc.

It is important to note that the Intrepid Sea, Air & Space Museum, the USS Midway Museum and the Patriots Point Naval and Maritime Museum operating budgets reflect bigger operations. The Intrepid Sea, Air & Space Museum includes the aircraft carrier ex-*Intrepid* and the submarine ex-*Growler*. It is located in Manhattan and therefore deals with the budget premiums associated with the location. The USS Midway Museum's budget is reflective of the size of its attendance, its events business and ongoing development of its exhibitry. In addition to the ex-*Yorktown* aircraft carrier, Patriots Point is home to the ex-*Laffey*, a World War II destroyer, and the ex-*Clamagore*, a diesel-powered attack submarine. The operating planning for the USS Ranger Museum has factored these differences in industry experience.

Individual Aircraft Carrier Museum Operating Profiles

Data in **Table V-10** through **Table V-14** provide detailed descriptions of the profiled historic aircraft carrier museums, including attendance and operating trends.

Table V-10
Intrepid Sea, Air & Space Museum

Facility Name and Location	Intrepid Sea, Air & Space Museum, New York, NY
Date Opened to Public	1982
Description of Facility and Collections	<p>The Intrepid Sea, Air & Space Museum includes the aircraft carrier ex-<i>Intrepid</i>, the submarine ex-<i>Growler</i>, and thirty aircraft. The ex-<i>Intrepid</i> itself is 900 feet long, and has exhibits in the hangar bay and throughout the ship. On the deck of the carrier are aircraft. Popular aircraft include the Concorde and the Blackbird, both of which are, notably, not naval aircraft.</p> <p>A typical museum visit starts with a film presentation, <i>Story of the Intrepid</i>, which was created specifically for the museum and was newly introduced after the museum's restoration, which it underwent in dry dock from 2006 to 2008. The 16-minute film is shown in a 245-seat theater. New to the museum is the 12,240 square-foot interactive Exploreum – which contains 18 different hands-on exhibits – that teaches guests about the different properties of the sea, air, space and living at sea as each relates to the ship <i>Intrepid</i>. In the Exploreum, guests can experience a flight simulator, climb a cargo net, transmit messages using Morse code, crawl through living quarters of crewmembers, learn how the <i>Intrepid</i> turned salt water into fresh water and perform various tasks while wearing space gloves. The museum's redone exhibits include new interactive timelines, ship schematics and inner workings, and cruise books that feature the ship's life and events. Panels and artifacts take visitors from the <i>Intrepid</i>'s construction in 1941 to its decommissioning in 1974. The rotating exhibit space features more than 100 artifacts, including ship's logs, uniforms, diaries, from private collections, museums and veterans who served on the <i>Intrepid</i>.</p> <p>In addition to new interactive exhibits, the <i>Intrepid</i> features immersive experiences. "Kamikaze: Day of Darkness, Day of Light" takes visitors to the day during WWII, when the <i>Intrepid</i> was struck by two kamikaze suicide planes, through a multimedia experience, with audio, video, lighting controls, smoke and flame effects, projectors and five synchronized video screens. For an additional fee, visitors can ride one of three flight simulators or take an audio tour in one of seven different languages.</p>
Site	Located on Pier 86 on 12 th Ave. and 46 th St. in Manhattan near the Circle Line Tours. This site is excellent in terms of accessibility to a large tourist market although the closest subway stop is a good distance away. Parking is virtually non-existent, which is generally the case in Manhattan.
Hours of Operation	<p><u>April 1 through September 30</u> Monday through Friday 10:00 a.m.-5:00 p.m. Saturday, Sunday and Holidays 10:00 a.m. - 6:00 p.m.</p> <p><u>October 1 through March 31</u> Tuesday through Friday 10:00 a.m.-5:00 p.m. Saturday, Sunday and Holidays 10:00 a.m. - 5:00 p.m. Closed Mondays, Christmas and Thanksgiving</p>

**Table V-10 (cont.)
Intrepid Sea, Air & Space Museum**

<p>Admission</p>	<ul style="list-style-type: none"> ◆ Adults \$22.00 ◆ Seniors and US college students \$18.00 ◆ Youth (ages 3-17) and Veterans \$17.00 ◆ Active Military, Retired US Military, Children Under 3 free <p>All tickets are subject to a \$2.00 facility fee. Simulators and audio tours are an additional charge.</p> <ul style="list-style-type: none"> ◆ G-Force Simulator \$10.00 ◆ XD Theater \$8.00 ◆ Transporter FX \$8.00 ◆ All three simulators \$21.00 <p>The simulator capture rate is 30%.</p>
<p>Market Size</p>	<p>New York City Metropolitan Area – 19.07 million population</p>
<p>Attendance and Attendance Trends</p>	<p>Between 2004 and 2006, the museum’s annual attendance increased from about 550,000 to 750,000 visitors. This was attributed to a change in management and a shift in marketing strategy – see marketing section below. Attendance surged to 915,000 visitors between November 2008 and November 2009, the first 12 month period since the Intrepid’s re-opening.</p>
<p>Visitor Characteristics</p>	<p>Management estimates that 45% of visitors are from the local market and 55% are tourists. A typical peak weekend draws 5,000 visitors, while on a low day there are 350 visitors. Peak season runs from May through September with holidays also busy. Visitor demographics follow general trends New York City tourism. The breakdown of ticketing is as follows: adults 48%, adult or student groups 22%, children 15%, events 7%, seniors 5%, and students 4%.</p>
<p>Marketing</p>	<p>Marketing is provided through special events, brochures, hotel publications, New York City tourist magazines, tour operators, and partnerships with both the city and regional tourism organizations. Occasionally, the museum will advertise in local newspapers’ museum sections and also on radio ads, especially with cooperative sponsorships. In 2003, the core audience was veterans and veterans’ families; the museum was lacking visitation from women and repeat local residents. Management shifted its focus to upper middle class women with children by overhauling its brand. In order to capture more repeat business, the museum focused on creating more programming to draw a wider local audience. Customer satisfaction surveys have shown that women are more satisfied with the museum experience than men because they had lower expectations upon entering the museum.</p>
<p>Membership price/number</p>	<p>Family memberships cost \$140. There are an estimated 1,300 members of the Museum.</p>
<p>Governance and Operations</p>	<p>The Intrepid Sea, Air & Space Museum is a private, non-profit organization that relies on admission fees as well as donations for its operating budget.</p>
<p>Sources of Funding/Budgets</p>	<p>In FY 2009, the Intrepid Sea, Air & Space Museum’s budget was \$17.98 million, not including depreciation. The expense total includes: salaries, benefits and payroll taxes (49%), advertising and promotion (9%), professional fees for services (7%), event expenses (6%), occupancy (5%), repairs and maintenance (4%), and office expenses (4%), among other categories.</p> <p>The same year, total revenues were \$20.63 million, not including a loss on the sale of assets. The revenue total includes: 40% from government grants, 25% from admissions and memberships, 15% from fundraising events, 12% from private gifts and grants, and 4% from gross rents, among other sources.</p>

Table V-10 (cont.)
Intrepid Sea, Air & Space Museum

Number of Employees	While the museum is closed there are 39 full-time staff. Under normal operations, the museum employs 50 full-time and 70 part-time staff.
Gift Shop	Since 2004, the museum has contracted out its retail operation, which has increased gross retail sales to an estimated \$4.00 per capita.
Educational Programming	The Museum has extensive educational programming geared towards school students. The museum is an accredited educational organization, offering programs for grades K through 12. In addition, it offers teacher development programs, youth leadership training, family and weekend programs, distance learning, and youth camps. The education program is estimated to serve 50,000 students and the price for students ranges from \$6.50 to \$11.50. The summer camp for children ages 6 to 13 costs \$450 per week. The Museum offers discounts for early registration. During five, weeklong sessions, the museum hosts 750 children. Distance learning programs last between 45 and 60 minutes and cost \$175.
Overnight Program	The Intrepid recently introduced an overnight program after returning from dry dock. The cost of the program is \$120 per person per night. Operation Slumber includes: dinner, snack & breakfast, admission to Museum the following day, Intrepid Goodie bag with T-shirt, and activities, such as access to the Hangar Deck and the new Exploreum interactive, a scavenger hunt, a tour of the flight deck by flashlight, a movie, and a ride in the XD theater.
Facility Rentals	The museum hosts 120 events and performances annually. It is estimated that they account for 50,000 visitors of the overall visitation.
Capital Projects and Funding	The museum re-opened in 2008 after undergoing extensive renovations in dry dock for three years. The \$115-million project included rebuilding its home pier, refurbishing 16 historic aircraft, redesigning and installing new exhibits on the hangar deck, restoring spaces previously inaccessible to the public and a complete interior and exterior paint job. At the same time, the Intrepid revamped its food service and retail operations and added simulators. The Submarine Growler and Concorde aircraft were also refurbished.
Keys to Visitation and Operating Strategy	<ul style="list-style-type: none"> ◆ Large resident market and large tourist market ◆ Strong indoor exhibits, traveling exhibits, on board exhibits, aircraft. ◆ Located in major tourist destination. ◆ Large endowment and fundraising operation. ◆ Maintain mission without political overtones. ◆ Overcoming perception that aircraft carrier is an outdoor attraction.

Note: Budget figures are from the 2008-2009 fiscal year as recorded in the museum's IRS Form 990. The museum re-opened in November 2008; therefore, the figures shown do not reflect a full year of operation.

Source: Intrepid Sea-Air-Space Museum and ConsultEcon, Inc.

Table V-11
Patriot's Point Naval and Maritime Museum (USS Yorktown)

Facility Name and Location	Patriot's Point Naval and Maritime Museum – Mt. Pleasant, SC		
Date Opened to Public	1974		
Description of Facility and Collections	<p>Located on historic Charleston Harbor, Patriots Point is home to USS Yorktown (CV-10). Moored next to her are ex-<i>Laffey</i> (DD-724), a World War II destroyer, and the diesel attack submarine ex-<i>Clamagore</i> (SS-343). Onboard ex-<i>Yorktown</i> is dozens of displays devoted to maritime and naval history, the Congressional Medal of Honor Society's museum and headquarters. More than two dozen historic military aircraft are on exhibit. On shore are a full-size Navy Advance Tactical Support Base from the Vietnam era and a gift shop. There are two snack bars onsite. Patriots Point offers over 100 exhibits and displays. Among these, most are located aboard the ex-<i>Yorktown</i>. In addition, there is a theater with seating for up to 220 people. A flight simulator is stationed in Hangar Bay II.</p>		
Site	<p>The Patriots Point Development Authority owns 455 acres of land, of which about two-thirds is developed. The location is in a major tourist destination area, only 2 miles from downtown Charleston. The ship is clearly visible from across the harbor in Charleston. Access is convenient, and parking is sufficient. The site is also one of two locations to depart for Fort Sumter, a civil war island fort and National Monument, which offers the museum residual business through additional attendance and gift shop sales. Other activities offered at Patriot's Point include a resort, conference facilities, golf, and marina.</p>		
Admission	<ul style="list-style-type: none"> ◆ Adult (12 & older) \$16.00 ◆ Children (6-11) \$9.00 ◆ Children (Under 6 yrs. w/ parent) free ◆ Seniors/Active Duty Military w/ ID \$ 13.00 ◆ Active Duty Military in Uniform free <p>Parking is an additional cost at \$3.00.</p>		
Hours of Operation	Open daily, 9 a.m. to 6:30 p.m. Open year round, except Christmas.		
Market Size	Charleston Metropolitan Area – 659,000 population		
Attendance and Attendance Trends	Fiscal Year, ending July 31	Attendance	Attendance is relatively stable with approximately 240,000 visitors. In FY 2008, attendance increased due to the opening of the Medal of Honor Museum. Of total attendance in FY 2009, overnight campers accounted for 23,146 visitors and students accounted for 27,966 visitors.
	2005	241,622	
	2006	239,721	
	2007	238,406	
	2008	250,652	
	2009	241,096	

Table V-11 (cont.)
Patriot's Point Naval and Maritime Museum (USS Yorktown)

Visitor Characteristics	<p>Approximately half of the museum's visitors come from within South Carolina, but outside of the Charleston area. Other states of origin include, in order of most to least visitors: North Carolina, Ohio, Georgia, and Pennsylvania. April, June, and July are the strongest months for visitation. School groups tend to bolster attendance in September and October. February is the slowest month. An estimated 66% of visitors are adults and seniors, the remainder being children.</p> <p>In 2009, the Museum introduced a visitor satisfaction survey, in conjunction with the Department of Hospitality and Tourism Management at the College of Charleston. The percent of first time visitors was 75%.</p>
Marketing	<p>The attraction used to advertise on billboards in the region, but recently shifted its focus to more cooperative efforts with local Convention and Visitors Bureau, other attractions, and hoteliers. Patriot's Point also uses rack brochures in hotels and advertises in coupon books that are placed in rental condos and at hotels. They advertise in <i>Scouting</i> and <i>Boy's Life</i> magazines. Regular festivals help increase attendance including a tall-ship event and Fourth of July fireworks.</p>
Membership price/number	<p>A family membership costs \$90. The Museum currently has 200 memberships. Management sees opportunity for growth in this area.</p>
Governance and Operations	<p>The Patriot's Point Development Authority is an enterprise agency of the State of South Carolina. While it can be eligible for revenue sharing, it typically earns most of its budget through the museum and from other revenue sources. The governor and state legislature appoints 5 board members for 4 year terms and the mayor of Mount Pleasant is an ex-officio member.</p>
Sources of Funding/Budgets	<p>In FY 2009, operating expenditures totaled \$8.64 million. Personnel costs, including taxes and fringe benefits, amounted to 47% of total expenditures.</p> <p>Operating revenues totaled \$8.65 million in FY 2009. The total includes \$3.02 million from admissions, \$1.56 million in gift shop sales, \$1.55 million in scouting program revenues, \$1.89 million from land leases and commissions, \$301,000 in parking revenue, and 327,000 in miscellaneous revenue.</p>
Number of Employees	<p>69 full time, permanent employees. Up to 30 temporary and part-time employees during peak seasons, mostly in direct customer service roles.</p>
Gift Shop	<p>In FY 2009, PPDA earned \$1.56 million in gross gift shop revenue. The cost of goods sold was \$678,000, or approximately 44%.</p>
Educational Programming	<p>In the last school year, almost 28,000 students visited the Museum. The number of students has declined in recent years due to statewide educational cuts in funding for school field trips. The school group rate is \$9.00 per student for a tour and \$13.00 or \$19.00 per student with a tour and one of two educational programs. These prices include admission to all vessels and exhibits. 26% of students participated in the tour and standards-based educational programs.</p>
Overnight Program	<p>Cost per person is \$60.00 for one night and \$80.00 for two nights. Price includes meals, movies, and an excursion, which could be a trip to Fort Sumter, the South Carolina Aquarium or elsewhere. Last year there were 23,000 overnight campers, a majority of which were part of the Boy Scouts of America. The ship has 640 beds. This operation generates approximately \$1.55 million in revenue.</p>

Table V-11 (cont.)
Patriot's Point Naval and Maritime Museum (USS Yorktown)

Facility Rentals	<p>The museum averages 80 events annually and event bookings are handled by the preferred caterer, who is the only caterer approved to use the onboard kitchen. Other caterers must prepare food offsite. Under the contract with Corporate Events and Catered Affairs, the PPDA receives 20% of vending, CPO galley, and scout meal revenues, 25% of snack bar/concessions revenue, and 21% of catering revenue as a commission. Depending on the event location, the facility charge is a flat rate and ranges from \$600 to \$1,000.</p> <p>There are few events during the summer because the ship does not have a climate control system, which can be quite costly to install. Management sees room for expansion in its event and facility rental business.</p>
Capital Projects and Funding	<p>Opened in 2007, the Medal of Honor Museum cost \$1.7 million, of which \$1 million was raised locally. The Medal of Honor Foundation contributed \$300,000, and Patriot's Point also received a competitive state grant of \$200,000. The remainder was paid for by the PPDA. Also in 2007, the PPDA installed an elevator to enhance the Yorktown's accessibility at a cost of \$800,000.</p> <p>Half of the renovation of the ex-Yorktown's corroding flight deck was completed at a cost of \$4 million. In fall 2009, the PPDA submitted a capital request to the state to complete the flight deck at a cost of \$4.2 million, to scrape and paint the hull at a cost of \$4 million, relocate the parking lot to open up real estate of development at a cost of \$3 million.</p>
Keys to Visitation and Operating Strategy	<ul style="list-style-type: none"> ◆ Excellent tourism in region. ◆ Good climate. ◆ Self-sufficient enterprise with lease and commission income. ◆ Focus first on building out event areas and rotating exhibits for renovation. ◆ Make sure there is room on the pier for infrastructure. ◆ Pay attention to the Americans with Disabilities Act. ◆ Be very careful about the role and authority of veterans group because they have different goals and motives than what might be best for the museum as visitor attraction.

Source: Patriot's Point Development Authority and ConsultEcon, Inc.

Table V-12
USS Hornet Museum

Facility Name and Location	USS Hornet Museum, Alameda, CA
Date Opened to Public	1998
Description of Facility and Collections	The aircraft carrier ex- <i>Hornet</i> is one of the most decorated ships in naval history and is a National Historical Landmark. Visitors can see a view of the San Francisco skyline, the Bay Bridge, and San Francisco Bay from the deck. Four decks of the carrier are open for public viewing. For those interested in “flying” an F-18A Hornet on a “Desert Storm mission,” there is flight-simulator ride. The <i>USS Hornet</i> has a strong history coming under air attack 59 times, but never hit. Her aircraft destroyed 1,410 Japanese planes – 72 in one day. In 1969, the <i>USS Hornet</i> recovered Apollo 11 and astronauts Neil Armstrong, Buzz Aldrin, and Michael Collins. Exhibits commemorate these events. Temporary exhibits are also used. There are a dozen historic aircraft on board the carrier, some of which may be toured. The ship has been open to the public for five years and features a strong events program including Big Band dances.
Site	The USS Hornet Museum is located in the former naval air station, less than 30 minutes by car from downtown San Francisco. Parking is free. A ferry service operated between the Alameda Ferry Terminal and Fisherman’s Wharf in San Francisco. There are no tourist attractions near the ship. The site is considered a huge detriment to visitation. Re-development of the adjacent sites is planned, but not for many years.
Admission	<ul style="list-style-type: none"> ◆ Adults \$14.00 ◆ Seniors (65 and up), Students and Military \$12.00 ◆ Youth (5-17) \$6.00 ◆ Members free
Hours of Operation	Open daily, 10:00 a.m. to 5:00 p.m. Open 362 days per year.
Market Size	San Francisco-Oakland-Fremont, CA Metro – 4.32 million population in 2009
Attendance and Attendance Trends	<p>Original projections estimated attendance of 800,000. In its first year as an attraction, the USS Hornet drew 120,000 visitors. Since then it has fallen steadily. Annual attendance has stabilized at about 50,000 visitors annually for the past 4 years (2006-2009). Summer months are biggest month with 700 to 750 people visiting on a Saturday or Monday holiday. The live aboard program picks up in winter months to offset the loss of summer traffic.</p> <p>In FY 2009, total attendance was 52,905, which included:</p> <ul style="list-style-type: none"> ◆ General Admissions – 31,364 ◆ School/Group Tours – 10,087 ◆ Live Aboard Program – 7,004 ◆ Dance/Flashlight Tours – 4,450
Visitor Characteristics	Live aboard programs are targeted to youth groups. Without this segment, most of the visitation is from adults. Visitation is predominately from the resident market as tourists account for an estimated 25% of total attendance. The USS Hornet has seen a decline in visitation by WWII veterans—ten years ago, they accounted for 20% to 30% of attendance, but the percentage has dropped to 5%.

**Table V-12 (cont.)
USS Hornet Museum**

Marketing	<p>The museum recently hired a new employee to focus on marketing, fundraising, grant writing, and other new business development. Previously, individual departments were doing their own marketing.</p> <p>The target audience is families with children. The Hornet is popular for its Big Band dance events that feature notable groups like the Count Basie Orchestra and the Glenn Miller Orchestra. They target this audience via radio stations. They also advertise in local newspapers and will market for special program events (e.g. Black History Month, Women in Military). The mailing list contains 5,000 people. There are no billboards used, though there are historic landmark signs on the nearby highway.</p>
Membership price/number	\$75 family membership. Discounts are given to seniors, military and former crew members of the USS Hornet. There are approximately 3,500 members.
Governance and Operations	The USS Hornet Museum is a nonprofit organization dedicated to naval history, science, and space technology. There are eight trustees on its board.
Sources of Funding/Budgets	The organization's FY 2009 IRS Form 990, shows operating revenues of \$1.65 million and operating expenses of \$1.69 million, not including depreciation. Revenues are generated from the following lines of business: admissions and events (85%), contributions (6%), memberships (3%), rental income (3%) and gift shop (3%). Salaries, benefits and taxes comprise 57% of total expenses. Other major expenditures are related to the cost of providing events and programs and insurance.
Number of Employees	25 FTE. Temporary employees include chaperones for live aboard programs.
Number of Volunteers	<p>There are 500 volunteers in the USS Hornet's database, but approximately 180 to 200 are regularly active. Volunteers help with security, maintenance, tours, and educational programs.</p> <p>Security 40-50 Docents 50-60 Maintenance 30-40 Live aboard 20-30</p>
Gift Shop	Online gift shop and onboard gift shop. It generated approximately \$292,791 in gross sales in 2008/2009.
Educational Programming	<p>Step into history – brings in high school – different stations on board ship that focus on different topics – STEM program still under development</p> <p>Educational programs under development and currently building infrastructure to support them (e.g. classrooms, computers). Programs will be based on California State Curriculum Guidelines and feature a theme-based tour of the ship with hands-on activities, related classroom activities, a resource list, and guidelines for teachers.</p>
Flight Simulator	\$5 or \$6 per ride. Flight Avionics ride.
Overnight Program	The cost of the overnight program is \$60 per person regardless of age. This price includes museum admission, flight simulator ride, evening programs, dinner, overnight accommodations, breakfast, and awards. Approximately 7,000 campers participate in the overnight program annually.

**Table V-12 (cont.)
USS Hornet Museum**

Rental Space	Five different spaces – each with two to five configurations ranging from 80 to 8,000-seat capacity. Rentals had been a major source of revenue and a successful part of the operation. There are 80 to 90 events annually, but there is no attendance estimate for these events. Ticketed special events accounted for 10,000 visitors. Management reports that there has been a decline in event attendance due to economic recession. Food service, lighting, and sound are contracted out for large special event.
Capital Projects and Funding	The USS Hornet Museum does not have a capital projects fund because they have not found excess money to fund it. They are constantly painting and repairing the flight deck due to leaks. Ship restoration to its 1960s state is ongoing. Repairing the flight elevators cost between \$20,000 and \$25,000. Installing the sprinkler system in the hangars cost \$500,000. USS Hornet did not have to make the ship handicapped accessible because of its historic landmark status.
Keys to Visitation and Operating Strategy	<ul style="list-style-type: none"> ◆ Poor location. ◆ Not enough marketing. ◆ Strong special events programming and rentals. ◆ Strong overnight program. Strong youth customer base and trying to expand with educational programs ◆ Build good relationships with elected representatives. ◆ Potential development of emergency operations center that will provide infrastructure benefits.

Source: USS Hornet and ConsultEcon, Inc.

Table V-13
USS Lexington Museum on the Bay

Facility Name and Location	USS Lexington Museum on the Bay, Corpus Christi, TX													
Date Opened to Public	1992													
Description of Facility and Collections	<p>Decommissioned in 1991, the “Blue Ghost” opened as a repository for military artifacts in 1992. Visitors can explore the vessel, watch a movie in the Mega Theater, and ride in a flight simulator. The ship features dozens of exhibit areas – 20% of the ship is open to the public. Exhibits cover the five decades of the ship’s service. The ship’s flight deck and hanger deck are home to 19 vintage aircraft from the N3N Yellow Peril biplane with fabric-covered wings to the sleek jets used in Vietnam. Displays throughout the ship illustrate the working conditions and accomplishments of the men and women who manned the floating air base. A visit to the USS Lexington Museum includes a film in a large format theater, built aboard the WWII aircraft carrier. The screen is 44 feet wide and three stories tall, surrounded by six-channel digital sound. A tour of the Blue Ghost features memorabilia and artifacts donated by those who served from 1943 through 1991.</p> <p>In response to increased audience exposure to technology in the home and at other visitor attractions, especially among younger audiences, the Lexington introduced three interactive kiosks, each with four computer terminals and joystick interface. Management reports that they have been well received.</p>													
Site	Good visibility from the freeway, very close to downtown, beaches, and the Texas State Aquarium. There are 78 parking spots, which cost \$3.50 per car, in a nearby parking lot as well as ample street parking. Parking is free for members.													
Admission	<ul style="list-style-type: none"> ◆ Adults \$12.95 ◆ Seniors and Military Personnel \$10.95 ◆ Children (4-12) \$7.95 ◆ Children (3 and under) free <p>Admission includes large format film in MEGA theater. Flight Simulator - \$4.00 per person.</p>													
Hours of Operation	Regular operating hours are 9:00 a.m. until 5:00 p.m. From Memorial Day through Labor Day, the Museum is open until 6:00 p.m.													
Market Size	Corpus Christi Metropolitan Area – 416,000 population													
Attendance and Attendance Trends	<p>The most recent year for attendance was reportedly a good year for the Museum. Management indicated that people may have been looking for activities closer to home for leisure and vacation opportunities due to the economic recession. The spike in attendance in 2005-2006 was due to the U.S. Bowling Congress open champion ships, which last several months, held in Corpus Christi.</p> <p>In FY2009-2010, 83% of attendance was due to paid admissions, the remainder due to special events and overnight program.</p>	<table border="1"> <thead> <tr> <th>Year, ending July 31</th> <th>Attendance</th> </tr> </thead> <tbody> <tr> <td>2004-2005</td> <td>260,000</td> </tr> <tr> <td>2005-2006</td> <td>272,000</td> </tr> <tr> <td>2006-2007</td> <td>252,000</td> </tr> <tr> <td>2007-2008</td> <td>255,000</td> </tr> <tr> <td>2008-2009</td> <td>260,000</td> </tr> </tbody> </table>	Year, ending July 31	Attendance	2004-2005	260,000	2005-2006	272,000	2006-2007	252,000	2007-2008	255,000	2008-2009	260,000
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2004-2005	260,000													
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Table V-13 (cont.)
USS Lexington Museum on the Bay

Visitor Characteristics	<p>Summer is peak season. Winter draws the ‘snowbirds’ but still runs an operating loss.</p> <p>An estimated 60% of visitors are adults. Approximately 85% of visitors are from outside the Corpus Christi area. In addition, 90% of visitors from outside the area come from within 400 miles, making the museum a drive destination.</p>								
Marketing	<p>The museum’s target audience is school children. It advertises in scout magazines and sends mailers to ROTC groups at schools. The museum participates in a cooperative membership program that enables members at each of six area museums attend the others for free in February. Approximately \$270,000 was spent on marketing for fiscal year 2009-2010, not including staff salaries. The Lexington receives additional visibility by cross-promoting the local minor league team and joint marketing with the nearby Texas State Aquarium. It also participates in cooperative marketing through the local CVB.</p>								
Membership price/number	<p>\$65 family membership. There are 1,200 members.</p>								
Governance and Operations	<p>Non-profit with 26 directors. The Lexington was originally acquired by the City of Corpus Christi, which floated a bond to pay for it. The city created the non-profit organization that governs the Museum today.</p>								
Sources of Funding/Budgets	<p>The USS Lexington Museum on the Bay has remained self-sufficient, never having received funds from local, state, or federal government agencies. The museum has relied solely on revenues generated from grants, donations, admissions, membership fees, ship’s store sales, special events, and the youth overnight program. These revenues have also funded all capital improvements as well.</p> <p>For the 2009-2010 fiscal year, the museum’s revenues totaled \$4.8 million. Revenue was derived from admissions (34%), retail (17%), live aboard program (17%), theater (13%), events (8%), grants (5%), flight simulator (1%), membership (1%), restaurant (1%), parking (1%) and other sources.</p> <p>For the 2009-2010 fiscal year, the museum’s operating expenses totaled \$4.3 million, including a depreciation expense of almost \$500,000. Expenses were due to personnel (44%), retail COGS (8%), utilities (6%), advertising (6%), special hosting-mostly live aboard (6%), maintenance (4%), insurance (3%), and other categories.</p>								
Number of Employees	<p>40 full time, 10 part-time, and 4-5 seasonal, part time.</p>								
Number of Volunteers	<p>There are several hundred volunteers, but only 40 to 75 are regularly active, depending on time of year. Many seasonal residents volunteer.</p>								
Gift Shop	<p>FY 2009-2010 was an unusually good year for store sales. Per capita sales of \$3.11 were higher than the long-term average.</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td></td> <td style="text-align: right;">FY 2009-2010</td> </tr> <tr> <td>Gross Sales</td> <td style="text-align: right;">\$829,900</td> </tr> <tr> <td>Cost of Goods sold</td> <td style="text-align: right;">\$356,500</td> </tr> <tr> <td>Retail Net Sales</td> <td style="text-align: right;">\$473,400</td> </tr> </table>		FY 2009-2010	Gross Sales	\$829,900	Cost of Goods sold	\$356,500	Retail Net Sales	\$473,400
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Gross Sales	\$829,900								
Cost of Goods sold	\$356,500								
Retail Net Sales	\$473,400								
Flight Simulator	<p>While it owns its simulator, the USS Lexington contracts staffing and maintenance to Flight Avionics. Revenue from the 14 year-old simulator is split 50/50 with the contractor after expenses are deducted. In 2008-2009, net simulator revenue was \$56,000.</p> <p>During summer, 18% - 20% of visitors use the Flight Simulator. The percentage drops to about 14% in the winter/spring when there are fewer children and older adults.</p>								

Table V-13 (cont.)
USS Lexington Museum on the Bay

Educational Programming	Their main program, Adventures Aboard Ship, is designed to provide a “hands-on” environment to integrate the appropriate essential elements and process skills with real-life application. The interdisciplinary programs are designed to integrate content and activities in science, math, history and social studies. Cost is \$3.00 per student.
Overnight Program	\$49.00 per person per night and includes overnight stay in crew quarters, two meals (breakfast and dinner), tours and planned activities on board and admission to the MegaScreen theater. Also available at additional cost: The Flight Simulator (\$4.00 per person) and a coin-operated game room. The operating cost per capita is estimated at \$18.50. Approximately 20,000 campers stayed overnight in FY 2009-2010. An estimated eighty percent of overnight program campers are scouts.
Rental Space	The carrier hosts 4 to 5 events per month and the typical event size is 150 to 300 people. The cost of renting the carrier is \$750 for up to 100 people, then \$2.00 per person up to 1,500. The Hangar Deck alone has more than 40,000 square feet of convenient, accessible space where groups of 10 to 2,600 can hold events. In the museum’s experience, they have tended to focus less on events because the mix with the overnight groups can be problematic.
Capital Projects and Funding	<p>The capital budget was \$135,000 in FY 2010 and included expenditures related to installing a new server system and new cash register system. The annual capital budget includes known projects plus an additional \$100,000 for unknowns.</p> <p>Some expenditures for hull and flight deck renovations are capitalized. Capital improvements are done in house because it is expensive to contract with an outside firm due to the uniqueness of the ship’s projects. Having in-house staff do the work retains knowledge within the organization.</p> <p>The museum also maintains a separate foundation that functions as a reserve fund, which contains approximately \$2.5 million. This fund contributed \$235,000 of the total cost of \$465,000 for the new interactive exhibits.</p> <p>The museum is currently considering installing an elevator to make the museum more accessible.</p>
Keys to Visitation and Operating Strategy	<ul style="list-style-type: none"> ◆ Moderate to strong tourism visitation. ◆ Warm weather climate. ◆ Large format theater. ◆ Collection of aircraft. ◆ Updating exhibits to be more interactive to appeal to younger audience. Recently contracted exhibit designer because had reached limit of what could do in house. ◆ Ruthless management of expenses and avoiding overstaffing. ◆ Not being a purist about replacement parts.

Source: USS Lexington and ConsultEcon, Inc.

Table V-14
USS Midway Museum

Facility Name and Location	USS Midway Museum, San Diego, CA
Date Opened to Public	2004
Description of Facility and Collections	<p>The <i>USS Midway</i> was commissioned in September 1945 and served in Vietnam and the Gulf War. In 2004, it opened as a museum featuring 60 exhibits. Admission includes a self-guided audio tour of three decks and the island. Guided tours are optional and at an additional cost. Twenty-five aircraft are currently on board, and 5 aircraft are currently in the restoration process. Aircraft are restored off-site at the Naval Air Station.</p> <p>The Fantail Café serves light fare, including beer and wine. There is also a gift shop. Management is talking about building a theater onboard with involvement by the Bob Hope family.</p>
Site	<p>The ex-<i>Midway</i> is located in the main harbor adjacent to downtown San Diego. This location is within walking distance of a public waterfront park, convention center, downtown hotels and attractions, and near boat tours and cruise line terminals. Navy Pier is currently under construction, which is limiting the availability of parking there. There are 350 parking spots on Navy Pier that cost \$5.00 for up to 1 hour, \$7 for up to 4 hours, \$10 for up to 10 hours and \$12 for up to 12 hours. In addition, there is street metered parking nearby that costs \$1.25 per hour for up to 2 hours.</p>
Admission	<ul style="list-style-type: none"> ◆ Adults \$18.00 ◆ Youth (6-17) \$10.00 ◆ Seniors (62+) and Students (with ID) \$15.00 ◆ Active Duty (with ID) Free ◆ Retired Military (with ID) \$10.00 <p>A self-guided audio tour is included in the admission price. Midway offers discounts for groups of 15 or more. Group reservations are required three days in advance. Per-person group rates are:</p> <ul style="list-style-type: none"> ◆ Adults \$15.00 ◆ Seniors (62+) \$12.00 ◆ Youth (6-17) \$8.00
Docent led Tours	<p>For groups of 9 or less people, the cost of a docent led tour is \$270. For 10 or more people, the cost is \$27 per person. Docents are volunteers. Tours last one hour. Rate includes the docent tour, as well as regular admission to the Museum on the same day as the tour.</p>
Hours of Operation	Open daily 10 a.m. to 5 p.m., except Thanksgiving and Christmas.
Market Size	San Diego-Carlsbad-San Marcos, CA MSA – 3.05 million population

**Table V-14 (cont.)
USS Midway Museum**

<p>Attendance and Attendance Trends</p>	<p>Since opening, the USS Midway Museum has been able to maintain total attendance in excess of 800,000. The highest attendance comes in summer, around Christmas, spring break, and holiday weekends. In high attendance summer months, the museum will draw 90,000 to 100,000 visitors while in low months, it draws about 40,000. Peak days result in up to 5,000 visitors. The past couple years has seen a decline in total attendance due to a significant decline in the event business. 2010 is reportedly stronger than 2009, with increases in attendance and events in every month of the year to date. In 2009, there were no events in excess of 2,000 people while in 2010 to date there were 3 or 4.</p> <table border="1" data-bbox="431 625 1411 894"> <thead> <tr> <th>Year</th> <th>Day Admission</th> <th>Night/Events</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>2006</td> <td>720,000</td> <td>105,000</td> <td>825,000</td> </tr> <tr> <td>2007</td> <td>730,896</td> <td>120,850</td> <td>851,746</td> </tr> <tr> <td>2008</td> <td>753,484</td> <td>90,137</td> <td>843,621</td> </tr> <tr> <td>2009</td> <td>740,574</td> <td>77,000</td> <td>817,574</td> </tr> </tbody> </table> <p>In 2009, 77% of day admissions were due to paid admissions. The remainder included pre-sold tickets, members, and free or guest passes.</p>	Year	Day Admission	Night/Events	Total	2006	720,000	105,000	825,000	2007	730,896	120,850	851,746	2008	753,484	90,137	843,621	2009	740,574	77,000	817,574
Year	Day Admission	Night/Events	Total																		
2006	720,000	105,000	825,000																		
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<p>Visitor Characteristics</p>	<p>Adults comprised 54% of all paid tickets: youth - 15%, seniors - 12%, students - 11% and military - 7%. It is estimated that 85% of visitation comes from tourists.</p>																				
<p>Marketing</p>	<p>The marketing budget is \$440,000. The museum is a member of the local CVB that advertises locally through hotels and conventions. Special events are promoted in local newspapers and on television. Since the museum does a good deal event business, it markets through caterers and destination managers. Primarily, the focus is on visitor experience to encourage word-of-mouth and repeat business. The primary target audiences are schools and events.</p>																				
<p>Membership price/number</p>	<p>A family membership costs \$90. Discounts are offered to Military and Seniors. There are approximately 12-14,000 memberships.</p>																				
<p>Governance and Operations</p>	<p>The USS Midway Museum is a 501(c)(3) not-for-profit organization. There are 19 members of the board of directors. The staff is managed by a CEO and CFO.</p> <p>Recently, the museum created a separate foundation to help build an endowment, find grant sources, and pay for major expenses. They are in the early stages of board development.</p>																				
<p>Sources of Funding/Budgets</p>	<p>In 2009, the USS Midway Museum had a positive annual cash flow from operations of approximately \$4.5 million. Operating revenue totaled \$14.4 million and operating expenses totaled \$9.9 million.</p> <p>Revenue was derived from admissions (60%), concessions (12%), events and rentals (7%), membership (6%), contributions (9%), education program (4% - mostly overnight program), and other sources. Concessions revenue included contracted concessions including a photo concession, café, gift shop and simulator, as well as revenue from simulators owned by the museum.</p> <p>Salaries, benefits and taxes accounted for 53% of total expenses.</p>																				
<p>Number of Employees</p>	<p>70 full time, and 85 to 90 part-time, hourly employees.</p>																				

**Table V-14 (cont.)
USS Midway Museum**

Number of Volunteers	About 350, active across all program areas.
Gift Shop	Retail sales generated \$652,000 in net revenue to the museum in 2009 were estimated to be \$1.9 million or approximately \$3.00 per capita. The museum contracts the retail shop to a concessionaire and receives between 15% and 22% of the gross sales.
Educational Programming	Educational programs at the museum target grades 4 through 8. The content is focused on science and math labs. The addition of a NOAA weather station provides additional educational content. Depending on the program, the cost is \$7.00 to \$9.00 per student. The museum had 20,000 students in 2005 to 2006, and it is tracking to have about 30,000 students this year. The student goal is 100,000 when the programs are fully built out.
Overnight Program	In the last fiscal year, overnight programs accounted for \$430,000 in revenue, or about two-thirds of all educational programs, and served 5,500 youth. Expenses totaled \$265,000. The museum offers both youth and family overnights, which will be offered three times over the summer. The cost of the youth program is \$75 per person and the minimum group size is 20 people. The cost of the family program is \$125 per person (or \$100 per person for members). Meals are inclusive in all programs.
Flight Simulators	There are three different flight simulators on board: Mach Combat (cost – \$25 for 1, \$30 for 2, capacity – 3 cockpits, 2 persons each), Flight Avionics (cost – \$6, capacity – 6 people), and Strike Fighter 360 (cost – \$16, capacity – 1 or 2 people). The latter simulator is owned and operated by the museum; the former two simulators are operated on contract. The Museum owns three Strike Fighters that were used an estimated 238,000 times and generated \$180,000 in revenue. This translates to an 8% or 9 % penetration of the Museum’s total attendance.
Rental Space	Events and facility rentals have been a strong revenue source for the museum, which holds 400 to 500 events annually. Given the popularity of rentals, the museum often books a year in advance. However, the rental business has declined due to the economic recession. The museum can accommodate up to 4,000 people in 2 hangar bays that are 17,000 square feet each and on the flight deck that is about 50,000 square feet. Events include reunions, military ceremonies, performances, and corporate events. The Museum charges a fixed fee for use of the facility. In addition, the Museum earns revenue from renting event equipment. Catering is through one of 12 approved caterers and the Museum receives 6% of the catering gross revenue. The Museum has a liquor license and controls the beverage service, typically charging a fixed rate per event attendee depending on the quality of alcohol selected.
Capital Projects and Funding	The Museum generates enough revenue to make capital investments on an ongoing basis. The hull painting is a three-year project costing a total of \$3 million. Some of other capital projects the museum has done include: building elevators, installing the electrical, IT, and sewer services, adding air conditioning, hull/cleaning and surveying. Staircases between decks have cost between \$15,000 and \$20,000 each. The Strike Fighter flight simulators cost \$150,000. The museum spent \$120,000 on airplane restoration, which was mostly parts because airplanes are restored using a significant amount of volunteer labor. As part of a new exhibit, an animatronic robot cost \$120,000. (Dollar amounts in last paragraph were expenditures from 2006-2007.)

**Table V-14 (cont.)
USS Midway Museum**

Keys to Visitation and Operating Strategy	<ul style="list-style-type: none"> ◆ Location – proximity to downtown and visible to large numbers of tourists in a large, year round tourist market. ◆ Large parking lot. ◆ Events. ◆ Public wants to see the ship, so need to show how people lived on board. ◆ Need to appeal to women and non-navy markets.
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Source: USS Midway Museum and ConsultEcon, Inc.

Experience of Historic Battleship Museums

While fundamentally different from aircraft carrier museums, battleship museums are important case studies of market and operational trends. A key difference between battleships and aircraft carriers is that the carriers allow for presentation of many aircraft on board, which battleships are not able to do. Data in **Table V-15** present key information about selected historic battleship museums.

**Table V-15
Battleship Museum Admission Price and Attendance**

Name	City	Adult Admission Price	MSA Population Size	Attendance	Ratio of Attendance to Market Area	Strong Tourism Market?
Battleship Cove (USS Massachusetts)	Fall River, MA	\$15.00	1,601,000	89,900	6%	No
Battleship USS Alabama	Mobile, AL	\$12.00	399,900	332,000	83%	Yes
Battleship USS North Carolina	Wilmington, NC	\$12.00	354,500	189,900	54%	Yes
Battleship USS New Jersey	Camden, NJ	\$18.50	5,687,000	162,000	3%	No
Nauticus (USS Wisconsin)	Norfolk, VA	\$11.95	1,674,500	311,000	19%	No

Source: Facilities Profiled and ConsultEcon, Inc.

Battleship museums tend to have lower attendance levels than most aircraft carrier museums. The exception is Battleship USS Alabama, which is located in Mobile, a strong tourist destination. Among those profiled, the Battleship USS Alabama is the highest drawing battleship. Historic naval ship museums in the southern states tend to have higher attendance than those in the northern states because of warm year-round climate, good visibility, and good accessibility. In general, battleship museum ticket prices tend to be lower than those of aircraft carrier museums. This is a result of the fact that carriers can support more aircraft, and thus typically have more attractions to offer their visitors.

Data in **Table V-16** compare the operating budgets and employment of the comparable battleship museums. Despite lower attendance and ticket prices, the operating revenues and expenses are similar to those of some aircraft carrier museums. Most of the battleship museums have a high percentage of earned revenue as a part of total revenue, indicating that they are relatively self-sustaining. This revenue is generated partly through ticket sales, but also through overnight stay programs, gift shop sales, and up charges such as flight simulators. The price of the overnight programs ranges from \$18.00 to \$50.00.

Over ninety-nine percent of Battleship North Carolina’s operating revenue is earned revenue. The Battleship USS Alabama and Battleship Cove are also relatively self-sustaining, with ninety percent and eighty percent of operating revenue being earned revenue, respectively. The USS New Jersey is a notable exception—a majority of its budget comes from contributions and grants. The USS Wisconsin has a similar percentage of its total operating revenue as earned revenue as the USS New Jersey, as both are just above forty-five percent. However, the USS Wisconsin is part of a larger maritime attraction Nauticus and so is not fully comparable.

Table V-16
Battleship Museum Budget and Employment Summary

Name	Operating Budget	Budget Dollars Per Visitor	Full Time Equivalent (FTE) Employees	Budget Dollars Per FTE	Visitors Per FTE
Battleship Cove (USS Massachusetts)	\$2,569,273	\$28.58	45	\$57,095	1,998
Battleship USS Alabama	\$3,226,000	\$9.72	38	\$84,895	8,737
Battleship USS North Carolina	\$2,204,641	\$11.61	23	\$95,854	8,257
Battleship USS New Jersey	\$5,904,769	\$36.45	60	\$98,413	2,700
Nauticus (USS Wisconsin)	\$3,666,949	\$11.79	NA	NA	NA

NA = Not Available

Source: Facilities profiled and ConsultEcon, Inc.

Summary of the Experience of Comparable Historic Aircraft Carrier Museums

There are dozens of historic ship museums throughout the United States. Of these, aircraft carriers are the largest and generally the most popular. The market and operating experience of the five profiled historic aircraft carrier museums provides important insights to the economic

potential of the USS Ranger Museum. While similar in thematic content, historic aircraft carrier museums vary considerably in their locations, programs, exhibit offerings, attendance and operating profiles. Annual attendance ranges from 51,000 to 915,000. Adult ticket prices range from \$12.95 to \$22.00.

All operating aircraft carrier museums are World War II-era ships. The *ex-Ranger* is distinctive because of its size, being one of the first “super carriers” similar in scale to those used today, and its relevance to more recent generations. Historic aircraft carrier museums are sustained by a combination of earned and unearned revenue. Most have attained stable financial and operating status; however, one in Alameda, CA has struggled financially due to its location and an inadequate business plan.

Factors such as site location, marketing, and business savvy can make the difference between successful and unsuccessful projects. Challenges to financial success include seasonality of visitation, location issues and the high cost of maintaining these very large ships. It is clear that a successful ship museum must offer much more than just a ship tour. A broad-based experience with interactive and multiple subjects is important to appeal to many audiences and to encourage repeat visitation. To attract new audiences, museums must create unique visitor experiences that stand out among the array of leisure opportunities available in the marketplace. Despite challenges, several historic aircraft carrier museums have successful operations, contributing to local economies and providing educational and recreational activities. The proposed USS Ranger Museum should be developed to address these current success requirements and would draw from the operating experience of the existing aircraft carrier museums.

Section VI

PROJECTION OF VISITATION AND PHYSICAL PLANNING PARAMETERS

Following is an evaluation of the attendance potential of the USS Ranger Museum. Attendance potential estimates for the USS Ranger Museum are based on the proposed project, to be located at Chinook Landing in Fairview. This attendance potential estimate assumes a high-quality marketing and operational program of the museum during pre-opening stages and once opened to the public. The attendance potential analysis takes into account the experience of comparable historic naval ship museums and the results from the resident and tourism market analyses. The attendance potential analysis includes early year attendance, stabilized attendance, seasonality and visitor origin.

Attraction Success Factors

The proposed USS Ranger Museum has the potential to become a successful project. Following is a discussion of factors underlying the estimate of visitation to the USS Ranger Museum.

- ◆ **Accessibility.** The site must be highly accessible by automobile and by public transportation.

The site under consideration is highly accessible. Fairview is located in the Portland Metropolitan Area, which is located at the crossroads of north-south and east-west highways, making it a convenient destination for residents of and visitors to Oregon and Washington. Chinook Landing is accessed from Interstate 84, which is connected to all highways into and out of the city.

- ◆ **Visibility.** The site for the attraction must be prominent. It must be highly visible to visitors as they approach the site. The design of the facility should add to its visibility such that through its location, site and design it becomes a regional landmark.

Good visibility. Due to its size and stature, the USS Ranger Museum will be highly visible from the Columbia River and visible from local roadways approaching the site.

- ◆ **Signage.** Clearly marked exits from the highways and roadway signs with clear directions to the attraction must be developed.

Signage. The project is still in planning phases but it is recommended that signage is developed on all major roadways. Signage will be critical to enhancing the museum's visibility to pass-through travelers on Interstate 84.

- ◆ **Location Context.** The locational context of the attraction is very important. A location that is meaningful to its subject matter will help its interpretive mission and its market potential.

Location Context. The Portland area has a long maritime history and the Columbia River is still an important recreational and commercial boating waterway. The Chinook Landing Marine Park is the most highly used water access point in the state, which will enhance the museum's visibility to a segment of the population interested in maritime activities. In addition, the visit of Navy ships from a number of nations is a long-standing part of Portland's annual Rose Festival, and there are other attractions in Portland that feature historic naval ships.

- ◆ **Site Size and Quality.** The site must be adequate in size, slope of the land and other factors.

Site Size and Quality. The site is adequate in size and scale, and will offer a natural setting in a state in which nature and the outdoors is highly valued.

- ◆ **Parking.** Adequate parking to accommodate peak period attendance is vital to the success of the attraction.

Parking. The site will have shared parking with the marine park. Additional parking will be needed to accommodate peak periods, especially during summer weekends.

- ◆ **Adjacent Uses.** Adjacent uses should be supportive of the attraction.

Adjacent Uses. The Columbia River is a major adjacent use. People are drawn to water and this will be an enjoyable aspect of the visit. Other nearby uses include a regional recreational park and open space.

- ◆ **Exhibits and Programs.** The quality and breadth of the exhibits and programs offered at the proposed USS Ranger Museum must be well designed and presented. It must offer visitors an attractive one-of-a-kind experience that is repeatable. The exhibits must be of sufficient quantity, interest and depth of presentation to engage visitors for a minimum of two hours. A longer stay of three hours is preferable. Programs should be targeted to prime audiences and encourage repeat attendance. Programs with up-charges are especially valuable to sustainable museum operations.

Exhibits and Programs. The conceptual program for the USS Ranger Museum will include a range of historical, aviation and hands-on exhibits to educate, inform and involve visitors. In addition, it includes entertaining and recreational aspects so that a rounded visitor experience is offered that will appeal to a wide variety of age groups and interests. The USS Ranger Museum plans to offer an array of special events and programs to complement its baseline exhibit experiences.

- ◆ **Available Markets.** The USS Ranger Museum will draw on resident and tourist markets. These must be sufficiently sized to allow substantial attendance patterns. A focus on market conditions for 2015 when the project will be open is used in this analysis.

Available Markets. The total population of the Resident Market Area is 3.0 million. The travel and tourism industry has evolved into a major industry in the State of Oregon and Portland. In 2006, an estimated 22.2 million overnight travelers visited Oregon for business, leisure purposes or to visit friends or relatives. Of these, 7.2 million overnight visitors spent at least some time in the Portland area. Approximately 80 percent of all overnight visitors to Portland were on pleasure trips or visiting friends or relatives, which are prime market segments for visits to the proposed USS Ranger Museum.

- ◆ **Military Reunions.** While the generations of sailors who actually served on the USS Ranger are diminishing, there is a constant array of military reunion events. These events often seek venues of relevance that can accommodate the large numbers of attendees comfortably. The capital ships — especially aircraft carriers — are excellent venues for such events. Military reunions constitute a strong potential market segment for the USS Ranger Museum.

Military Reunions. There is a strong military presence in the northwest U.S. Portland is an attractive destination. The USS Ranger Museum is in a good position to target this market segment and intends to pursue it.

- ◆ **Student Attendance.** Student groups are an important market segment, particularly on weekdays during the school year when family and tourist visitation is lower.

Student Attendance. The USS Ranger Museum is planned as a major educational resource for area students. In 2015, the Resident Market Area was projected to have about 513,000 children between the ages of 5 to 17. This is a growing market segment. The USS Ranger Museum will have easy access to this market segment and will focus on this during prime school trip periods.

- ◆ **Facility Pricing.** The attraction's ticket prices are assumed to be in keeping with the breadth and quality of the visitor experience, and the time a visitor would spend at the historic naval ship. The ticket would also have to be priced competitively with other comparable attractions in the region.

Facility Pricing. A year one admission fee of \$14.00 for adults is assumed in this analysis with children, seniors, military and group prices at reduced rates. This is lower than most other aircraft carriers museums' current ticket prices and is at the high end of local attractions in the Portland market due to the unique experience offered. In addition, a small factor has been included in the analysis to reflect limited use of "discount" coupons as a marketing tool. This policy is focused on attracting a large audience and to remain affordable for area residents and families.

Metro Market Size and Attendance

Historic naval ship museums can expect to attract large numbers of visitors from the tourist market. In addition, resident markets also provide a significant source of visitation often for special events and during non-peak seasons. Often, residents bring their out of town guests. Data in Table V-2 examined the relationship between the size of the resident metropolitan market in which the profiled historic naval ship museums are located and the attendance levels at these facilities. An evaluation of resident market visitation to historic naval ships for which data is available indicates that the resident attendance-market size ratio ranges from 2 to 9 percent depending on local circumstances, and the quality of operations and marketing of the historic naval ship. Resident market penetration is largely dependent upon effective marketing, membership recruitment, regular and special events, educational programming, changing exhibits and a compelling visitor experience, all of which

encourage repeat visitation on the part of local residents. This attendance analysis assumes that these success factors will be met by the USS Ranger Museum.

Total Attendance Potential

Based on the current stage of planning for the physical improvements and programming and operating profile of the site, visitation at the USS Ranger Museum in a stable year⁶ can be expected to be in the range of 228,000 to 368,000 visitors annually. The mid-range visitation potential is approximately 298,000. Data in **Table VI-1** provide a summary of the derivation of the attendance analysis. This attendance potential estimate includes regular ticketed attendance, student attendance, attendance from events and facility rentals, attendance from the overnight program and member visits. It should also be noted that this attendance potential analysis represents the full project build out in a stable year. The project is assumed to open at full build out, including all exhibits and programs as described. If the USS Ranger Museum does not open as a fully realized facility, a different and lower attendance pattern would be anticipated.

⁶ A “stable year” is defined as the third year after the facility has opened when attendance has reached a stabilized level and is not affected by early year excitement of a newly opened historic naval ship, and at the same time has been able to establish itself as a destination in the tourist market.

**Table VI-1
Preliminary Stabilized Visitation Parameters**

<i>Resident Market</i>	<u>Market Penetration Rates</u>			<u>Visitation Range</u>			Percent of Mid-Range Attendance
	Projected 2015 Population	Low	High	Low Range Attendance	Mid Range Attendance	High Range Attendance	
Primary Market Area	1,532,911	5.00%	7.00%	76,646	91,975	107,304	31%
Secondary Market Area	896,385	3.00%	5.00%	26,892	35,855	44,819	12%
Tertiary Market Area	572,384	2.00%	3.00%	11,448	14,310	17,172	5%
Total Resident Market Area	3,001,680	3.83%	5.64%	114,985	142,140	169,295	48%
<i>Tourist Market</i>							
Trip Purpose	Overnight Visitors to Portland Metro	Low	High	Low Range Attendance	Mid Range Attendance	High Range Attendance	Percent of Mid-Range Attendance
Pleasure	2,400,000	1.75%	3.75%	42,000	66,000	90,000	22%
Visiting Friends and Relatives	3,400,000	2.00%	3.00%	68,000	85,000	102,000	28%
Business	1,400,000	0.25%	0.50%	3,500	5,250	7,000	2%
Total Overnight Visitors ^{1/}	7,200,000	1.58%	2.76%	113,500	156,250	199,000	52%
Total Stabilized Attendance Potential Range				228,485	298,390	368,295	100%
Attendance Potential Range ^{2/}				228,000	298,000	368,000	

1/ Of the 7.2 million overnight visitors to Portland Metro, 5.6 million spent at least one night in the region. Therefore, 1.5 million visitors spent at least one night somewhere outside the region and spent some time in the Portland Metro.

2/ Rounded to nearest 1,000.

Source: ESRI, Longwoods International, and ConsultEcon, Inc.

The range in the estimate of attendance potential is based on four factors. The first is how well the concepts planned for the project are translated into visitor experience. The second is the variation in market acceptance of the project that may occur. The third factor is the amount and quality of marketing employed. The fourth is the USS Ranger Museum's operational profile; that is, operating hours, ticket prices and so forth. This analysis is based on a first-rate translation of the program as set forth and an assumption of strong marketing to residents and tourists. If little marketing and visitor outreach is done, the visitation will be at or below the lower end of the attendance estimate range. Conversely, if a concerted effort to attract visitors through publicity, marketing and visitor outreach is undertaken, there is a better opportunity to achieve the higher end of the attendance potential range.

The estimate of attendance potential at the USS Ranger Museum discussed above has been prepared through a "gravity model" analytical approach. That is, the propensity to visit the USS Ranger

Museum is strongest among people who reside the closest or who are visiting areas closest to the facility. In addition, attendance prospects who are staying overnight in the Portland area, especially in Gresham and Troutdale, are more likely to visit than those people who are simply passing through en route to other locations. Ultimately, the USS Ranger Museum will be able to draw substantial numbers of visitors from both the resident and tourist markets due to its excellent location, interesting and genuine subject matter and a superior visitor program.

Early Year Attendance Pattern

During the first few years after opening, the project would be expected to achieve higher attendance based on local excitement about the facility. This would be balanced by the need to grow awareness in the Secondary and Tertiary Market Areas of the project and to get the project included on more school field trip itineraries. Awareness in the tourist market would also grow. Based on these factors, an attendance of fifteen percent above stabilized attendance for the USS Ranger Museum would be anticipated during the first year of full operation. Attendance would then be expected to decline to a stabilized attendance level in the third year. Data in **Table VI-2** provide an estimated five-year attendance potential.

Table VI-2
Early Year Attendance Factors and Attendance Growth Pattern

	Stable Year				
	Year 1	Year 2	Year 3	Year 4	Year 5
Percentage Difference From Stabilized Attendance					
Percent of Stabilized Museum Attendance	115.0%	105.0%	100.0%	100.5%	101.0%
Estimated Annual Attendance Trend					
Annual Attendance ^{1/}	343,000	313,000	298,000	299,000	301,000

^{1/} Rounded to nearest 1,000.

Source: ConsultEcon, Inc.

Seasonality

Due to the seasonality of tourism in Portland and the region, the winter weather in the area and the typical pattern of seasonality that almost all attractions experience, it is projected that visitation to the USS Ranger Museum will also be seasonal in nature. Data in **Table VI-3** show the seasonal

distribution of attendance expected at the USS Ranger Museum. The seasonal attendance profile creates operational challenges of high summer attendance but also offers opportunities for cost savings during the off-season.

**Table VI-3
Monthly Attendance Potential Distribution**

	<u>Low Attendance Scenario</u>		<u>Mid-Range Attendance</u>		<u>High Attendance Scenario</u>	
	<u>Projected Seasonality</u>	<u>Total Attendance</u>	<u>Projected Seasonality</u>	<u>Total Attendance</u>	<u>Projected Seasonality</u>	<u>Total Attendance</u>
January	5.0%	11,400	5.0%	14,900	5.0%	18,400
February	5.0%	11,400	5.0%	14,900	5.0%	18,400
March	7.0%	15,960	7.0%	20,860	7.0%	25,760
April	9.0%	20,520	9.0%	26,820	9.0%	33,120
May	11.0%	25,080	11.0%	32,780	11.0%	40,480
June	11.0%	25,080	11.0%	32,780	11.0%	40,480
July	13.0%	29,640	13.0%	38,740	13.0%	47,840
August	12.0%	27,360	12.0%	35,760	12.0%	44,160
September	8.0%	18,240	8.0%	23,840	8.0%	29,440
October	7.0%	15,960	7.0%	20,860	7.0%	25,760
November	6.0%	13,680	6.0%	17,880	6.0%	22,080
December	6.0%	13,680	6.0%	17,880	6.0%	22,080
Total	100.0%	228,000	100.0%	298,000	100.0%	368,000

Source: ConsultEcon, Inc.

Peak Day Attendance and Parking Demand

The information provided by data in **Table VI-4** uses the estimated stabilized attendance to prepare planning parameters for the USS Ranger Museum. A facility-planning factor, “design day,” considers both the peak attendance days during the peak season, as well as the larger number of high attendance days that are not at the absolute peak. These might be peak days in a low week in the summer or high attendance days during the year such as school vacations or a beautiful weekend day in spring or fall. Given this context, a facility attendance and parking analysis has been prepared. Given the site context with little parking available on-site currently, developing a successful parking plan will be necessary to meet the attendance potential during peak attendance periods.

**Table VI-4
Parking Parameters and Demand Potential ^{1/}**

	Mid-Range Attendance		
USS Ranger Museum	298,000		
Peak Month (13%)	38,740		
High Week (28%)	10,847		
	Peak Weekend	Peak Weekday	
Peak Weekend Day (20%)	2,169		
Peak Weekday (12.5%)		1,356	
Length of Stay			
Peak in-house population			
(2 hr. stay - 35%)	759	475	
(2.5 hr. stay - 40%)	868	542	
Peak Parking Demand ^{2/}			
2 hr. stay	275 Spaces	172 Spaces	
2.5 hr. stay	315 Spaces	197 Spaces	

1/ Parking demand estimates do not include large events, which may have a higher parking demand.

2/ Based on 95 percent auto usage during peak periods (bus usage is higher during the shoulder seasons from school groups and tour groups). 2.75 persons per vehicle. Plus 5% turnover requirement. Does not include employee / volunteer parking.

Source: ConsultEcon, Inc.

Attendance Potential Summary

The stabilized museum attendance potential range is 228,000 to 368,000, with a mid-range estimate of 298,000. Early years would likely experience a surge in attendance due to excitement about the new museum. The attendance potential estimate of the USS Ranger Museum is derived from the current stage of project development, available resident and visitor markets and the experience of comparable historic aircraft carrier museums. It is assumed that the project will be aggressively marketed, competently operated and will receive full community support from the public and private sectors. Developing adequate parking will be necessary to meet the attendance potential.

Section VII EVALUATION OF ECONOMIC POTENTIAL

This section provides operating assumptions and financial pro formas that outline the economic potential of the proposed USS Ranger Museum. The assumptions made in preparing the updated operating parameters for the USS Ranger Museum are based on the market potential identified for the project, the appropriate ship fit out and exhibits given the market potential and additional research on operating factors that would be associated with an historic aircraft carrier museum of the profile being considered. This analysis is a baseline operating plan that can and should be continually refined as the project moves forward. As project planning moves forward, the project timing, operations and financial plans will need to be refined. The financial pro forma analysis uses the current 2010 value of the dollar for the first year of the analysis with following years at an assumed 2.0 percent inflation rate.

Operating and Revenue Assumptions

As a major institution, the USS Ranger Museum would operate under the norms of such institutions nationally, adjusted for local conditions. Data in **Table VII-1** provide a ticketing profile for the USS Ranger Museum. Data in **Table VII-2** show the ticketing profile and attendance projections for a five-year period. Other operating assumptions are shown in the operating pro forma tables. Additional notes include:

- ◆ **Days Open and Operating Hours** - It is recommended that the USS Ranger Museum would be open daily with the facility closed only on selected major holidays. Closing days would depend on the local market and operating experience. Summer should have extended hours, opening perhaps at 9:00 am and closing at perhaps 6:00 pm, depending on operations of the facility as a whole. Non-peak periods should have shorter hours, such as 10:00 am to 5:00 pm. Evening hours for certain days of the week may be considered depending on overall project circumstances. In addition, special events and facility rentals would occur on selected evenings and during regular operations in areas that are not integral to the general visitor experience.

**Table VII-1
Admissions and Membership Analysis – Stable Year**

Ticket Type	Percent of Attendance	Attendance By Ticket Type	Ticket Price	Achieved Per Capita Ticket Price ^{1/}	Percent of Achieved Per Capita Ticket Price ^{1/}
Adult	44.0%	131,120	\$14.00	\$6.48	64.9%
Seniors / Students / Military	8.0%	23,840	11.50	\$0.97	9.7%
Children	21.0%	62,580	9.00	\$1.99	19.9%
Adult Group	3.0%	8,940	9.00	\$0.28	2.8%
Student / Youth Group	5.0%	14,900	5.00	\$0.26	2.6%
Members	7.0%	20,860	0.00	\$0.00	0.0%
Events, Rentals & Complimentary ^{2/}	7.0%	20,860	0.00	\$0.00	0.0%
Subtotal Regular Attendance	95.0%	283,100		\$9.99	100.0%
Overnight Program	5.0%	14,900	\$60.00		
Total Attendance	100.0%	298,000			

Membership Type	Percent of Memberships	Number of Memberships	Membership Price	Achieved Per Membership Price
Family	60%	1,565	\$90	\$54.00
Couple	25%	652	\$60	\$15.00
Individual	12%	313	\$40	\$4.80
Supportive (average)	3%	78	\$250	\$7.50
Total Memberships	100%	2,608		\$81.30

NOTE: All estimates are in current dollars.

1/ Per capita ticket price does not include Overnight Program.

2/ Includes children under 3, people attending rentals/receptions and events, and complimentary tickets.

Source: ConsultEcon, Inc.

Table VII-2
5-Year Attendance and Ticket Price Assumptions

% to Total Attendance	Stable Year				
	Year 1	Year 2	Year 3	Year 4	Year 5
Adult	48.0%	46.0%	44.0%	44.0%	44.0%
Seniors / Students / Military	8.0%	8.0%	8.0%	8.0%	8.0%
Children	22.0%	21.0%	21.0%	21.0%	21.0%
Adult Group	2.0%	2.5%	3.0%	3.0%	3.0%
Student / Youth Group	3.0%	4.0%	5.0%	5.0%	5.0%
Members	6.5%	7.0%	7.0%	7.0%	7.0%
Events, Rentals & Complimentary	8.0%	7.5%	7.0%	7.0%	7.0%
Subtotal Regular Attendance	97.5%	96.0%	95.0%	95.0%	95.0%
Overnight Program	2.5%	4.0%	5.0%	5.0%	5.0%
Total Attendance	100.0%	100.0%	100.0%	100.0%	100.0%
Attendance By Type					
Adult	164,640	143,980	131,120	131,560	132,440
Seniors / Students / Military	27,440	25,040	23,840	23,920	24,080
Children	75,460	65,730	62,580	62,790	63,210
Adult Group	6,860	7,825	8,940	8,970	9,030
Student / Youth Group	10,290	12,520	14,900	14,950	15,050
Members	22,295	21,910	20,860	20,930	21,070
Events, Rentals & Complimentary	27,440	23,475	20,860	20,930	21,070
Subtotal Regular Attendance	334,425	300,480	283,100	284,050	285,950
Overnight Program	8,575	12,520	14,900	14,950	15,050
Total Attendance	343,000	313,000	298,000	299,000	301,000
Ticket Prices					
Adult	\$14.00	\$14.00	\$14.63	\$14.63	\$15.29
Seniors / Students / Military	\$11.50	\$11.50	\$12.02	\$12.02	\$12.56
Children	\$9.00	\$9.00	\$9.41	\$9.41	\$9.83
Adult Group	\$9.00	\$9.00	\$9.41	\$9.41	\$9.83
Student / Youth Group	\$5.00	\$5.00	\$5.23	\$5.23	\$5.46
Members	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Events, Rentals & Complimentary	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Overnight Program	\$60.00	\$60.00	\$62.70	\$62.70	\$65.52
Per Capita Ticket Revenue ^{1/}					
Adult	\$6.89	\$6.71	\$6.78	\$6.78	\$7.08
Seniors / Students / Military	\$0.94	\$0.96	\$1.01	\$1.01	\$1.06
Children	\$2.03	\$1.97	\$2.08	\$2.08	\$2.17
Adult Group	\$0.18	\$0.23	\$0.30	\$0.30	\$0.31
Student / Youth Group	\$0.15	\$0.21	\$0.28	\$0.28	\$0.29
Members	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Events, Rentals & Complimentary	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Percentage Discount for Coupons ^{2/}	-2%	-2%	-2%	-2%	-2%
Per Capita Revenue	\$10.00	\$9.88	\$10.23	\$10.23	\$10.69
Per Membership Revenue	\$81.30	\$81.30	\$84.96	\$84.96	\$88.78

^{1/} Per capita ticket price does not include Overnight Program.

^{2/} Based on the assumption that 10% of visitors use a 20% off coupon.

Source: ConsultEcon, Inc.

- ◆ **Up-charges** - Visitor up-charges represent additional visitor offerings that are optional but that will be well appreciated by visitors. It is important that up-charges are perceived by visitors to be enhancements to the experience, rather than as being central to the visit (so that visitors do not feel that they are being asked for additional fees once they are aboard to have a complete experience). Examples of up-charges include photo opportunities, audio-wands, “coin presses,” limited capacity motion simulators, flight simulators, and special ship tours. A reasonable assumption of \$3.00 per capita is used in this analysis to represent this category of visitor spending. As the program of the facility is refined, the estimate for this category of spending can be revised.
- ◆ **Food Service** – Many visitor attractions offer food services that differ greatly in size and format. Food service will provide an important service and amenity to the visitors of the facility and can be a supportive revenue source. The program analyzed in this report includes a limited service restaurant focusing on snacks, drinks and light meals. The food service for the purpose of this analysis is assumed to be contracted out to a local restaurant or caterer. The food service is assumed to perform at or above industry norms and to have per capita sales \$2.50. The extent and marketing aggressiveness of the food service program can substantially affect the sales volume. Such food service facilities are often managed by an outside vendor. A typical arrangement is for the owner to receive 10 to 20 percent of gross revenues as rent depending on the fit-out of the restaurant provided to the vendor. An estimate of 15 percent is used in this analysis.
- ◆ **Overnight Program** – Many historic naval ships have successful overnight camping programs for youth groups and school groups. The number of campers can range from 5,000 annually at the newly opened USS Midway Museum to 23,000 at Patriots Point Naval and Maritime Museum. This analysis has assumed initial year campers at about 8,600 annually, and growing to 14,900 in a stable year. This is an area that performance could be stronger than the assumed levels, depending on how it is developed, programs offered and partnerships developed. The per-camper fees and direct costs are at market rates.
- ◆ **Facility Rentals** – The USS Ranger Museum will have a substantial opportunity to gain revenues from special events and facility rentals. Many museums and visitor attractions make their facilities available for special events and facility rentals. These might include receptions, meetings and events. The USS Ranger offers exceptional opportunities in this regard, as it will have many appropriately sized spaces available for a wide variety of function types with some of them dedicated to this use. The flight deck, hangar deck and exhibit areas could also be used for tables and informal receptions. The limited food facilities could be made available as a resource for events. Several comparable aircraft carrier museums have well-developed special event and rentals programs. Indeed, the market for such use includes not only the local business community and private use but also the large military reunion market. This analysis has assumed that the facility can attract 25 large events annually (the facility will be able to accommodate two or possibly more events on a busy night) and 100 small rentals averaging 30 persons or so. The operating plan includes a 4-person staff dedicated to this activity with the bulk of the related expenses covered by the catering and event sponsoring firms that would organize and staff the event with food, entertainment, printed materials, security and so forth. The USS Ranger Museum would receive facility rental fees and a share of catering and fees.

Data in **Table VII-3** summarize operating assumptions of the USS Ranger Museum.

Table VII-3
Pro Forma Assumptions

<i>Attendance & Pricing</i>	
Mid-Range Attendance Potential	298,000
Adult Ticket Price (Current Dollar)	\$14.00
Percentage Discount for Coupons	2.0%
Ticket Price and Overnight Program Price Increase Every Other Year	4.5%
<i>General</i>	
Inflation	2.0%
Annual Attendance Growth After Stabilized Year	0.5%
Total Taxes, Fringe & Benefits as a % of Salaries	27.0%
<i>Retail / Food Service / Upcharges</i>	
Per Capita Retail Sales	\$3.50
Cost of Goods Sold as a % of Retail Sales	50%
Additional Sales (Internet, other locations)	5.0%
Per Capita Food Service Sales	\$2.50
Net Revenue on Food Service	15.0%
Additional Sales Per Capita (e.g. audio guides, flight simulators, vending machines, etc.)	\$3.00
<i>Overnight Program</i>	
Estimated Number of Participants	14,900
Average Price of Overnight Program	\$60.00
Overnight Program Additional Sales Per Capita	\$2.00
<i>Memberships</i>	
Annual Attendances Per Membership	8
Number of Memberships	2,608
Achieved Per Capita Membership	\$81.30
<i>Events</i>	
Events Per Year	4
Average Event Attendance	250
Total Attendance from Events	1,000
Average Net Revenue Per Event	\$2,500
<i>Facility Rentals</i>	
Large Rentals Per Year	25
Average Number of Persons per Large Rental	150
Total Attendance From Large Rentals	3,750
Average Net Revenue From Large Rental	\$2,500
Small Rentals Per Year	100
Average Number of Persons Per Small Rental	30
Total Attendance From Small Rentals	3,000
Average Net Revenue From Small Rental	\$750

Source: ConsultEcon, Inc.

Operating Revenue Potential

The USS Ranger Museum will derive revenue from earned and non-earned, or contributed, sources. As with most museums, the USS Ranger Museum will be able to supplement earned revenue with contributed revenue that focuses on particular aspects of the operation, such as marketing, facility upgrades or education. Nearly all museums supplement earned revenues with various contributed sources. It is assumed that the USS Ranger Museum would need to attract \$200,000 in the first year of operation, ramping up to an estimated \$433,000 in a stable year of operation in current dollars. The contributed revenues cited in this report should be considered a minimum as additional non-earned revenues will enhance museum operations, creating a more enjoyable visitor experience and a more viable attraction.

The USS Ranger will earn most of its revenue from admissions, memberships, retail and food sales, additional sales, facility rentals and events and the overnight program. Data in **Table VII-4** present five-year projections of the revenue potential of the proposed USS Ranger Museum.

Contributed Revenue

In addition to earned revenue, visitor attractions, museums and interpretive centers have other contributed revenue sources. The amounts of contributed revenue that they receive can vary widely based on their donor (gifts) bases, endowments, government grants and other sources. Other revenue can be earned through fundraising events, corporate sponsorships, grants & gifts, interest on operating accounts and in-kind gifts, among other avenues.

A Development Director position is included in the personnel plan along with the Executive Director and Board of Directors to lead this important effort. Many comparable institutions gain higher amounts and higher percentages of total revenues from such sources. However, it should be noted that this source of revenue can vary widely depending on the individual circumstances of the facility. In the case of historic aircraft carrier museums, the level of contributed revenue as a portion of total revenue is relatively low with the exception of the Intrepid Sea, Air & Space Museum. However, amounts included in this operating plan are within the experience of other capital ship museums. This area of revenue has the potential to grow should one or more of the earned revenue areas not reach its potential. In this business plan, the assumed levels of contributed

revenue are limited to the amounts requires for successful operations in the mid-range attendance scenario. Higher levels would enhance the museum.

**Table VII-4
Five-Year Revenue Potential**

	Stable Year in Current Dollars	Stable				
		YEAR 1 ^{1/}	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Regular Attendance	283,100	334,425	300,480	283,100	284,050	285,950
Overnight Program Attendance	14,900	8,575	12,520	14,900	14,950	15,050
Total Attendance	298,000	343,000	313,000	298,000	299,000	301,000
Number of Memberships	2,608	2,787	2,739	2,608	2,616	2,634
Revenue						
Ticket Revenue	\$2,783,713	\$3,344,593	\$2,967,710	\$2,896,175	\$2,905,894	\$3,056,971
Overnight Program Fees	897,953	514,500	751,200	934,230	937,365	986,099
Overnight Program Add-Ons	29,800	17,150	25,541	31,004	31,730	32,581
Membership Revenue	212,972	226,583	222,681	221,576	222,255	233,847
Revenue from Additional Sales	849,300	1,003,275	919,469	883,612	904,308	928,564
Retail Net Revenue	495,425	585,244	536,357	515,440	527,513	541,663
Food Service Net Revenue	106,163	125,409	114,934	110,451	113,039	116,071
Facility Rental / Special Events	147,112	147,500	150,250	153,055	155,916	158,834
Total Earned Revenue	\$5,522,437	\$5,964,254	\$5,688,140	\$5,745,543	\$5,798,021	\$6,054,630
Contributed Revenue ^{2/}	\$432,526	\$200,000	\$325,000	\$450,000	\$450,000	\$450,000
Total Revenue	\$5,954,963	\$6,164,254	\$6,013,140	\$6,195,543	\$6,248,021	\$6,504,630

^{1/} Year 1 is in current dollars.

^{2/} Represents potential revenue from grants, gifts, corporate sponsorships, fundraising events, endowment proceeds and other relevant sources. See discussion in text. Estimates of Contributed Revenue Potential have been limited to the extent required for successful operation in the mid-range attendance scenario. Higher amounts would be sought to enhance museum operations.

Source: ConsultEcon, Inc.

Operating Expenses

The expense estimates were developed to reflect the proposed program and the experience of other comparable museums and visitor attractions. The expenses reflect a tightly operated project with a “bottom line” orientation. Further, this analysis is organized to reflect three basic expenditure streams:

- ◆ Operating expenses related to the ongoing operation and maintenance of the USS Ranger Museum. Such normalized expenses are necessary to provide visitors with the experiences offered and to maintain at current levels the existing facilities.
- ◆ Capital reserves are funds from operations or various contributed sources that are reserved in the organization’s accounts and used for capital projects in future years.
- ◆ Capitalized expenditures for improvements to the physical plant and existing facilities that are planned to be made from within the in-place organization, staff and budgets of the USS

Ranger Museum. This continued stream of work and improvements will improve the visitor experience and conserve more of the historic fabric. In addition to these “internal” expenditures, a major “outside” capital campaign and/or draw-down of capital reserves will fund future museum repair/improvement.

Thus, about 16 percent of the total operating expenditures would be used for an internally funded capital maintenance and improvement program. While this work is important to the long-run success of the project and to sustaining project potential, fully expending the planned amounts are not mandatory in a given year. Thus, there is some flexibility in the budget to adjust for any temporary revenue shortfalls. Conversely, higher than expected revenues provide opportunities for further capital investment, which in turn will enhance market potential and project benefits to its constituencies and the area’s residents.

Personnel

Data in **Table VII-5** provide a preliminary staffing profile for the USS Ranger Museum based on facility size and program, and the projected attendance patterns. The staffing profile includes a staff of 47 full-time and 22 part-time year-round employees and 14 seasonal employees. These would be supplemented by volunteers, who would have interpretive duties as well as duties associated with education, exhibits and other important functions. As funding and operating experience allow, additional staff positions would enrich the offerings and operations of the USS Ranger Museum. It should be noted that a percentage of the Maintenance and Improvements Department efforts are assumed to be devoted to capital projects and the remainder to normal ship maintenance.

Compensation levels for the project were developed based on the experience of comparable historic ships and museums of this size and scope, and the experience in the local economy. These salary levels are for comparative and analytical purposes only. They are not meant to be used to set the compensation levels for any given individual. A fringe expense rate of 27 percent of salaries was used. This includes benefits, employer contributions and payroll taxes.

Table VII-5
Illustrative Personnel Positions and Salaries - Stable Year in Current Dollars

Project Parameters		
Displacement (tons)	81,101	
Ticketed Attendance	283,100	
Student Attendance	14,900	
Overnight Program Attendance	14,900	
Total Attendance	312,900	
Employees (FTEs)	61.50	See Personnel Schedule
Budget Item	Annual Amount	Expense Factors
Facility Operations Staff Salaries	\$1,598,000	See Personnel Schedule
Facility Operations Staff Taxes, Fringe & Benefits	431,460	See Personnel Schedule
Seasonal Staff Costs ^{1/}	187,500	Estimated
Facility Maintenance & Improvements Staff Salaries	561,500	See Personnel Schedule
Maintenance & Improvements Staff Taxes, Fringe & Benefits	151,605	See Personnel Schedule
Professional Services	50,000	Estimated
Administrative Supplies & Materials	92,250 @	\$1,500 Per FTE
Telecommunications	30,750 @	\$500 Per FTE
Postage & Shipping	12,300 @	\$200 Per FTE
Equipment Rental / Lease	24,600 @	\$400 Per FTE
Training / Travel	18,450 @	\$300 Per FTE
Dues & Subscriptions	6,150 @	\$100 Per FTE
Advertising	469,350 @	\$1.50 Per Attendee
Printing & Publications	156,450 @	\$0.50 Per Attendee
Events & Programs	100,000	Estimated
Curatorial / Exhibit Reinvestment	212,325 @	\$0.75 Per Attendee
Cost of Education Programs	22,350 @	\$1.50 Per Student
Cost of Overnight Program	447,000 @	\$30.00 Per Overnight Attendee
Rent / Wharfage ^{2/}	-	To be determined
Utilities	300,000	Estimated
Insurance	125,000	Estimated
Maintenance & Improvements	300,000	Estimated
Hull Repair & Painting	200,000	Estimated
Miscellaneous & Contingency	46,125 @	\$750 Per FTE
Subtotal Facility Expenditures	\$5,543,165	
Capital Reserves ^{3/}	277,158	5% Of Total Operating Expenses
Total Facility Expenditures	\$5,820,323	
<i>Analysis of Ongoing Operations and Capital Investment Expenditures</i>		
Capital Investment Portion of Expenditures	% to Total	Annual Amount
Maintenance Staff Salaries, Taxes, Fringe & Benefits	50%	\$356,553
Maintenance & Improvements	50%	\$150,000
Hull Repair & Painting	75%	\$150,000
Total Capital Investment		\$656,553
Total Facility Operating Expenses		\$4,886,613
Capital Reserves		\$277,158
Total Facility Expenditures		\$5,820,323
Operating Expense Per Ton		\$63.67
Operating Expense Per Visitor		\$16.50
Operating Expense Per FTE		\$83,964
Visitors Per FTE		5,088

^{1/} Assumes 25 seasonal employees at an average annual cost of \$7,500 (wages and taxes) based on 16 school vacation period weeks per year.

^{2/} Rent will be determined by future negotiations.

^{3/} Capital Reserves include funds for changing exhibits, equipment replacements and minor capital for building improvements.

Source: ConsultEcon, Inc.

Other Operating Expenses

Data in **Table VII-6** provide operating expense estimates based on unit cost analysis. These analyses and comparisons to the experience of comparable facilities were the basis of the operating expense estimates. It should be noted that expenses such as utilities are highly dependent on final design and operating profile. For instance, utility costs will depend on the facility's energy efficiency, the extent of electric powered exhibits and lighting and the unit energy costs.

Following are discussions of these annual operating expense categories.

- ◆ **Administrative & Overhead** – Includes a variety of expense types such as office supplies and materials, professional fees, outside services, telephone, postage & shipping, travel and entertainment, dues & subscriptions and miscellaneous.
- ◆ **Rent / Wharfage** – To be determined based on future negotiations. No expense is included for this category.
- ◆ **Overnight Camping Expense** – At \$30 per camper based on the comparable facility experience.
- ◆ **Marketing & Printing** – Nearly \$470,000 in a stable year is budgeted for marketing, publicity and advertising based on a budget of \$1.50 per attendee. The USS Ranger Museum is assumed to use joint and co-op marketing efforts and public service advertising with other regional travel, educational and entertainment organizations and attractions. Marketing partnerships with other Portland and Oregon attractions and tourism organizations will be especially important to project success. The budget also includes printing costs for brochures, visitor guides and a quarterly member newsletter.
- ◆ **Curatorial** – This includes exhibit consumables, exhibit repairs and services and materials for ongoing improvements.
- ◆ **General Maintenance** – Expenses related to maintaining HVAC, plumbing, cleaning, general repairs and other systems. Supplies and visitor consumables are included in this category. These also include expenses related to maintaining the grounds, maintaining the parking lots and snow clearing.
- ◆ **Utilities** – Based on the experience of other comparable historic aircraft carriers.
- ◆ **Insurance** – Based on the experience of other comparable historic aircraft carriers.
- ◆ **Ship Repair / Hull Maintenance** – Based on the experience of other comparable facilities and the plan to have a percentage of these expenses being for capitalized projects. The fresh water berthing will be helpful in this respect.

Table VII-6
Illustrative Facility Expenditures - Stable Year in Current Dollars

Project Parameters		
Displacement (tons)	81,101	
Ticketed Attendance	283,100	
Student Attendance	14,900	
Overnight Program Attendance	14,900	
Total Attendance	312,900	
Employees (FTEs)	61.50	See Personnel Schedule
Seasonal Staff		
Budget Item	Annual Amount	Expense Factors
Facility Operations Staff Salaries	\$1,598,000	See Personnel Schedule
Facility Operations Staff Taxes, Fringe & Benefits	431,460	See Personnel Schedule
Seasonal Staff Costs ^{1/}	187,500	Estimated
Facility Maintenance & Improvements Staff Salaries	561,500	See Personnel Schedule
Maintenance & Improvements Staff Taxes, Fringe & Benefits	151,605	See Personnel Schedule
Professional Services	50,000	Estimated
Administrative Supplies & Materials	92,250 @	\$1,500 Per FTE
Telecommunications	30,750 @	\$500 Per FTE
Postage & Shipping	12,300 @	\$200 Per FTE
Equipment Rental / Lease	24,600 @	\$400 Per FTE
Training / Travel	18,450 @	\$300 Per FTE
Dues & Subscriptions	6,150 @	\$100 Per FTE
Advertising	469,350 @	\$1.50 Per Attendee
Printing & Publications	156,450 @	\$0.50 Per Attendee
Events & Programs	100,000	Estimated
Curatorial / Exhibit Reinvestment	212,325 @	\$0.75 Per Attendee
Cost of Education Programs	22,350 @	\$1.50 Per Student
Cost of Overnight Program	447,000 @	\$30.00 Per Overnight Attendee
Rent / Wharfage ^{2/}	-	To be determined
Utilities	300,000	Estimated
Insurance	125,000	Estimated
Maintenance & Improvements	300,000	Estimated
Hull Repair & Painting	200,000	Estimated
Miscellaneous & Contingency	46,125 @	\$750 Per FTE
Subtotal Facility Expenditures	\$5,543,165	
Capital Reserves ^{3/}	277,158	5% Of Total Operating Expenses
Total Facility Expenditures	\$5,820,323	
<i>Analysis of Ongoing Operations and Capital Investment Expenditures</i>		
Capital Investment Portion of Expenditures	% to Total	Annual Amount
Maintenance Staff Salaries, Taxes, Fringe & Benefits	50%	\$356,553
Maintenance & Improvements	50%	\$150,000
Hull Repair & Painting	75%	\$150,000
Total Capital Investment		\$656,553
Total Facility Operating Expenses		\$4,886,613
Capital Reserves		\$277,158
Total Facility Expenditures		\$5,820,323
Operating Expense Per Ton		\$63.67
Operating Expense Per Visitor		\$16.50
Operating Expense Per FTE		\$83,964
Visitors Per FTE		5,088

^{1/} Assumes 25 seasonal employees at an average annual cost of \$7,500 (wages and taxes) based on 16 school vacation period weeks per year.

^{2/} Rent will be determined by future negotiations.

^{3/} Capital Reserves include funds for changing exhibits, equipment replacements and minor capital for building improvements.

Source: ConsultEcon, Inc.

- ◆ **Other / Contingency** – This expense category reflects the project’s planning stage, and inevitable variances that occur in organizations of this type and scale. This equals \$70,000 annually at project inception.
- ◆ **Capital Reserves** – Over time, there will be a need to repair and update existing exhibits and to feature new topics. A moderate budget for such improvements has been included in the operating budget. New exhibits and major events would likely require special funding or capital dedicated to the project.

Operating Expense Performance

The stable year total facility expenditures are estimated at \$5.8 million in current dollars, not including the cost of goods sold at the gift shop. This amount does include an estimated \$657,000 as a capital investment portion of expenditures for ongoing maintenance and repair, as well as an estimated \$277,000 for capital reserves. Based on the analysis in this report, these amounts are consistent with those achieved at comparable facilities. Operating costs of historic naval ships and museums vary based on their size and area fit-out within the ship, the efficiency of their systems, seasonal operation and the relative “cost of living” in the area. The expense profile of the USS Ranger Museum is very efficient in this operating profile but within the operating experience of comparable historic naval ship museums and visitor attractions.

Data in **Table VII-7** present a five-year summary of operating expenditures.

**Table VII-7
Five-Year Projected Facility Expenditures**

Expenditure Category	Expense Factor	Stable Year	Stable				
			YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Facility Operations Staff Salaries	Budgeted	100%	100%	100%	100%	100%	100%
Facility Operations Staff Taxes, Fringe & Benefits	Budgeted	100%	100%	100%	100%	100%	100%
Seasonal Staff	Budgeted	100%	110%	102%	100%	100%	100%
Administrative	\$3,000 Per FTE	100%	100%	100%	100%	100%	100%
Advertising, Printing & Publications	\$2.00 Per Attendee plus \$50,000	100%	110%	110%	100%	100%	100%
Events & Programs	Budgeted	100%	110%	100%	100%	100%	100%
Cost of Education Program	\$1.50 Per Student	100%	Direct Ratio to Number of Students				
Cost of Overnight Program	\$30 Attendee	100%	Direct Ratio to Number of Overnight Attendees				
Curatorial / Exhibit Reinvestment	\$0.75 Per Attendee	100%	100%	100%	100%	100%	100%
Rent, Utilities & Insurance (& Professional Services) ^{1/}	Budgeted	100%	100%	100%	100%	100%	100%
Facility Maintenance & Improvements Staff Salaries	Budgeted	100%	100%	100%	100%	100%	100%
Maintenance & Improvements Staff Taxes, Fringe & Benefits	Budgeted	100%	100%	100%	100%	100%	100%
Repairs & Maintenance	Budgeted	100%	100%	100%	100%	100%	100%
Hull Repair & Painting	Budgeted	100%	100%	100%	100%	100%	100%
Miscellaneous & Contingency	\$750 Per FTE	100%	150%	100%	100%	100%	100%
Capital Reserves	5% Of Total Facility Expenditures	100%	100%	100%	100%	100%	100%
Estimated Total Facility Expenditures ^{2/}							
Facility Operations Staff Salaries		\$1,598,000	\$1,598,000	\$1,629,960	\$1,662,559	\$1,695,810	\$1,729,727
Facility Operations Staff Taxes, Fringe & Benefits		431,460	431,460	440,089	448,891	457,869	467,026
Seasonal Staff		187,500	206,250	195,075	195,075	198,977	202,956
Facility Maintenance & Improvements Staff Salaries		561,500	561,500	572,730	584,185	595,868	607,786
Maintenance & Improvements Staff Taxes, Fringe & Benefits	2,930,065	151,605	151,605	154,637	157,730	160,884	164,102
Administrative		234,500	234,500	239,190	243,974	248,853	253,830
Advertising, Printing & Publications		625,800	754,600	702,372	620,078	634,602	651,624
Events & Programs		100,000	110,000	102,000	104,040	106,121	108,243
Cost of Education Program		22,350	15,435	19,156	23,253	23,798	24,436
Cost of Overnight Program		447,000	257,250	383,112	465,059	475,952	488,718
Curatorial / Exhibit Reinvestment		212,325	257,250	239,445	232,529	237,976	244,359
Rent, Utilities & Insurance (& Professional Services) ^{1/}		425,000	425,000	433,500	442,170	451,013	460,034
Repairs & Maintenance		300,000	300,000	306,000	312,120	318,362	324,730
Hull Repair & Painting		200,000	200,000	204,000	208,080	212,242	216,486
Miscellaneous & Contingency		46,125	69,188	47,048	47,988	48,948	49,927
Ongoing Operations Expenditures		5,543,165	5,572,038	5,668,313	5,747,731	5,867,276	5,993,984
Capital Reserves		277,158	278,602	283,416	287,387	293,364	299,699
Total Facility Expenditures ^{2/}		5,820,323	\$ 5,850,639	\$ 5,951,729	\$ 6,035,118	\$ 6,160,640	\$ 6,293,684
Estimated Facility Operating Expenses ^{2/}							
Facility Operations Staff Salaries		\$1,598,000	\$1,598,000	\$1,629,960	\$1,662,559	\$1,695,810	\$1,729,727
Facility Operations Staff Taxes, Fringe & Benefits		431,460	431,460	440,089	448,891	457,869	467,026
Seasonal Staff		187,500	206,250	195,075	195,075	198,977	202,956
Administrative		234,500	234,500	239,190	243,974	248,853	253,830
Advertising, Printing & Publications		625,800	754,600	702,372	620,078	634,602	651,624
Events & Programs		100,000	110,000	102,000	104,040	106,121	108,243
Cost of Education Program		22,350	15,435	19,156	23,253	23,798	24,436
Cost of Overnight Program		447,000	257,250	383,112	465,059	475,952	488,718
Curatorial / Exhibit Reinvestment		212,325	257,250	239,445	232,529	237,976	244,359
Rent, Utilities & Insurance (& Professional Services) ^{1/}		425,000	425,000	433,500	442,170	451,013	460,034
Facility Maintenance & Improvements Staff Salaries		280,750	364,975	343,638	292,092	297,934	303,893
Maintenance & Improvements Staff Taxes, Fringe & Benefits		75,803	98,543	92,782	78,865	80,442	82,051
Maintenance & Improvements		150,000	180,000	177,480	156,060	159,181	162,365
Hull Repair & Painting		50,000	50,000	51,000	52,020	53,060	54,122
Miscellaneous & Contingency		46,125	69,188	47,048	47,988	48,948	49,927
Facility Operating Expenses ^{2/}		\$4,886,613	\$5,052,451	\$5,095,847	\$5,064,654	\$5,170,537	\$5,283,311
Percent of Facility Operating Expenses to Total Facility Expenditures		84.0%	86.4%	85.6%	83.9%	83.9%	83.9%
Capital Investment Portion of Expenditures							
Percentage of Annual Expenditures that are Capital Investments							
Maintenance Staff Salaries, Taxes, Fringe & Benefits		50%	35%	40%	50%	50%	50%
Maintenance & Improvements		50%	40%	42%	50%	50%	50%
Hull Repair & Painting		75%	75%	75%	75%	75%	75%
Annual Capital Investments							
Maintenance Staff Salaries, Taxes, Fringe & Benefits		\$356,553	\$249,587	\$290,947	\$370,957	\$378,376	\$385,944
Maintenance & Improvements		150,000	120,000	128,520	156,060	159,181	162,365
Hull Repair & Painting		150,000	150,000	153,000	156,060	159,181	162,365
Total Capital Investment		\$656,553	\$519,587	\$572,467	\$683,077	\$696,739	\$710,674

Note: Year one calculated at the 2010 value of the dollar, with subsequent years reflecting the assumed inflation rate. This operations analysis does not consider any financing expenses, or major capital costs beyond the specified internal capital invest

^{1/} Rent will be determined by future negotiations, assumed at \$0 in this analysis.

^{2/} Facility operating expenses are those cash expenditures which are for ongoing operations. These are Total Facility Expenditures less the Capital Investment Portion of Expenditures.

Source: ConsultEcon, Inc.

Operating Scenario

This analysis is for a destination visitor attraction operating in the market study's mid-range attendance potential scenario. A preliminary summary financial pro forma for the USS Ranger Museum is presented in **Table VII-8**. The preliminary summary financial pro forma for the USS Ranger Museum identifies annual net operating income potential of over \$134,000 for a stable year in current dollars. This is a strong operating performance when compared to many not-for-profit educational attractions. Based on this operating scenario, the USS Ranger Museum has the potential to operate successfully.

Table VII-8
Five-Year Net Income Summary

	Attendance in Current Dollars	YEAR 1	YEAR 2	Stable YEAR 3	YEAR 4	YEAR 5
Mid-Range Attendance Potential	298,000	343,000	313,000	298,000	299,000	301,000
Revenue						
Earned Revenue	\$5,522,437	\$5,964,254	\$5,688,140	\$5,745,543	\$5,798,021	\$6,054,630
Contributed Revenue ^{1/}	432,526	200,000	325,000	450,000	450,000	450,000
Total Revenue	\$5,954,963	\$6,164,254	\$6,013,140	\$6,195,543	\$6,248,021	\$6,504,630
Operating Expenses	4,886,613	5,052,451	5,095,847	5,064,654	5,170,537	5,283,311
Net Operating Income	\$1,068,350	\$1,111,803	\$917,294	\$1,130,889	\$1,077,484	\$1,221,319
Capital Reserves and Capital Expenditures						
Capital Reserves	\$277,158	\$278,602	\$283,416	\$287,387	\$293,364	\$299,699
Planned Capital Investments	\$656,553	\$519,587	\$572,467	\$683,077	\$696,739	\$710,674
Total Expenditures ^{2/}	\$5,820,323	\$5,850,639	\$5,951,729	\$6,035,118	\$6,160,640	\$6,293,684
Net Cash Flow after Operations and Capital investments	\$134,639	\$313,615	\$61,411	\$160,425	\$87,381	\$210,946

^{1/} Represents potential revenue from grants, gifts, corporate sponsorships, fundraising events, endowment proceeds and other relevant sources. See discussion in text. Estimates of Contributed Revenue Potential have been limited to the extent required.

^{2/} Includes Operating Expenses, Capital Reserves and expenditures for capitalized maintenance and improvements. In a year with lower revenues, the capitalized activities could be reduced to balance revenues and expenditures.

Source: ConsultEcon, Inc.

Rent / wharfage, major project expansions and other major facility improvements and renewals are not included in these operating budgets and would rely on grants and fundraising or the retained earnings of the project. If higher revenue levels are attained, the USS Ranger Museum will be able to expand its programs and offerings. Conversely, lower revenues will necessitate reducing USS Ranger Museum activities, as warranted, and/or increasing fundraising activities. It is

recommended that an “operating reserve fund” be established *before opening* through capitalized fundraising. Such a fund might be equal to perhaps 25 percent of a year’s operating expenses. It will serve as a buffer for fluctuations in cash flow, as a reserve against any unusual expenses and as funds in place so that the optimal operating profile can be established. This fund is not reflected in the operating pro formas, but rather, is recommended to be maintained in the capital accounts of the USS Ranger Museum.

Summary of Operating Potential

The USS Ranger Museum will derive revenue from earned and non-earned, or contributed, sources. Most of its needed revenues will come from admissions, memberships, retail and food sales, flight simulator rides and other up-charges, facility rentals and events and an overnight program. The earned revenue potential for a stable year in current dollars is \$5.5 million. As with most museums, the USS Ranger Museum will supplement earned revenue. This plan includes contributed revenues of \$432,000 in a stable year in current dollars, for total facility revenue of \$6.0 million. The contributed revenues cited in this report should be considered a minimum and targeted to exceed these amounts. Indeed, most museums of this scale achieve higher levels of contributed revenues. Additional non-earned revenues would enhance museum operations, create a more enjoyable visitor experience and ensure long-term viability, especially with respect to periodic major capital repairs and investments.

Stable year operating expenditures are estimated at \$5.8 million in current dollars, including capital reserves and a capital investment portion of expenditures for ongoing hull maintenance and painting. Based on the analysis in this report, these amounts are consistent with those achieved at comparable facilities. Operating costs of museums and visitor attractions vary based on their size, the efficiency of their systems, seasonal operation and the relative “cost of living” in the area. The expense profile of the USS Ranger Museum is very efficient, but within the operating experience of comparable historic naval ship museums and visitor attractions.

About 11 percent or \$657,000 of the total operating budget for a stable year in current dollars would be used for an internally funded capital maintenance and improvement program, which is important to the long-run success of the project and to sustaining project potential. Improvements are not mandatory in a given year, creating budget flexibility to accommodate any temporary revenue

shortfalls. Conversely, higher than expected revenues provide opportunities for further capital investment which in turn will enhance the project's market potential and benefits.

The staffing profile includes 47 full-time and 22 part-time year-round employees and 14 seasonal employees. As a supplement, volunteers would have duties in interpretation, education, exhibits and other important functions. As funding and operating experience allow, additional staff positions would enrich the offerings and operations of the USS Ranger Museum.

Based on the analysis in this report, the USS Ranger Museum has the potential to operate successfully. The mid-range attendance profile and earned revenues along with achievable fundraising goals would cover its operating costs and ongoing capital maintenance if the assumptions regarding quality of development and operation are achieved.

Section VIII
ECONOMIC AND FISCAL IMPACTS OF THE
USS RANGER MUSEUM

The following provides an assessment of the economic benefits of the ongoing operations of the USS Ranger Museum to be located in Fairview, OR. The economic impact analysis focuses on the direct, indirect and induced impacts in the Portland Metro Area⁷. The ongoing economic benefits of the project will include increased direct employment, wages and salaries and increased spending (economic activity) in the Portland Metro Area above current levels. In turn this increased direct new spending “multiplies” in the region’s economy creating indirect and induced spending as the initial expenditures are re-spent, and employees (supported by direct spending) re-spend their wages in the region’s economy. Besides these increased spending and employment impacts above current levels, the project will create substantial educational and quality of life benefits to the area. These educational and quality of life benefits enhance the economic competitiveness of the Portland Metro Area and the State of Oregon as a whole. This analysis presents all dollar amounts in the current 2010 value of the dollar unless otherwise noted. This analysis assumes full build-out and stabilized operations for the USS Ranger Museum.

The USS Ranger Museum has the potential to create substantial economic impacts to the Portland Metro Area. This analysis includes the following data and analyses.

- ◆ **Economic Impacts of Ongoing Operations** – An analysis of the annual direct spending by the USS Ranger Museum and the spending by visitors outside the Museum but in conjunction with their visit. These direct spending estimates are then analyzed for their indirect and induced “multiplier” effects to estimate the total economic impacts of facility operations. This includes total economic activity (expenditures); total employment (full-time and part-time); and total earnings.
- ◆ **Fiscal Impacts of Ongoing Operations** – A discussion of potential annual taxes generated in selected categories due to the project.
- ◆ **Community and Quality of Life Benefits** – An assessment of the USS Ranger Museum project’s quality of life and general economic development benefits create for the Portland Metro Area and the State as a whole.

DESCRIPTION OF PROJECT ECONOMIC BENEFITS

Direct Economic Activity

The economic benefits resulting from the operations of the USS Ranger Museum will be based on the following direct economic activity.

- ◆ **Direct Spending by the USS Ranger Museum.** As a major new “business” in the Portland Metro Area, the USS Ranger Museum will play an active role in the local economy and create job opportunities for local residents. Expenditures of the USS Ranger Museum will include salaries, wages and fringe benefits as well as operating costs such as utilities, marketing, supplies and materials, professional services and printed materials among many others.
- ◆ **Visitor Spending in the Local Economy.** The on-going operations of the USS Ranger Museum as it attracts visitors from resident and visitor markets will form a stream of economic benefits to the Portland Metro Area and State economy. The USS Ranger Museum will help to attract new visitors who would otherwise not visit to the Portland Metro Area, contribute to longer stays in the area, and help to retain leisure expenditures of residents that would otherwise be made elsewhere. The USS Ranger Museum will be of a scale and stature, and its length of stay sufficient to be a primary trip purpose or principal recreational activity for the day of the visit. In this analysis, student groups are assumed to have minimal spending outside of the USS Ranger Museum.

In addition to the on-site spending at the USS Ranger Museum (for tickets and gifts, for example), visitors also spend for goods and services off-site in conjunction with their visit. Off-site spending by visitors to the USS Ranger Museum in conjunction with their visit would include overnight accommodations (on the day of the USS Ranger Museum visit) for some tourists, food, transportation and retail purchases, as well as spending at other recreational and cultural attractions. In this regard, the USS Ranger Museum acts as a facilitator of local economic development by providing a gathering place for residents and visitors, thereby, supporting business activity proximate to the facility. A large portion of the visitor spending associated with a visit to the facility will be net new to the regional and State economies.

Net new spending may be derived from one or more of the following sources.

- Satisfying the demand for cultural, educational and recreational activities due to increases in population or shifts in demographic make-up.
- Satisfying the demand for cultural, educational and recreational activities due to increases in per capita income of residents.
- Replacement of spending that would be otherwise spent outside the Portland Metro Area.
- Responding to shifts in the interests and desires of consumers.

⁷ For the purposes of this analysis, the Portland Metro Area is defined as Clackamas, Multnomah, and Washington Counties.

- Grant and gift monies awarded to the facility that would otherwise go to areas outside of the local and/or regional economies.
- Replacement of spending that is “going out of favor.” In other words, visitors will take advantage of the leisure and educational opportunities offered at the USS Ranger Museum because they are no longer interested in pursuing other activities.
- Attracting visitors from geographic areas outside of the areas of analysis; this may be a primary or secondary trip purpose, or may be an activity undertaken while visiting the area. Contributing to the capacity, quality and breadth of tourism offerings attracts outside or “new” expenditures to the geographies being evaluated.

Indirect and Induced Economic Activity

As the direct spending due to the USS Ranger Museum flows to local businesses, the money is, in turn, re-spent by the businesses for personnel, business expenses and the costs of goods sold (for retail and food service sales that are for goods produced in the local economy). The portion of spending that supports wages and salaries (employment) is, in turn, re-spent by the employees for housing, retail, services, and other categories in the local economy. Subsequent rounds of spending occur with the total effect on an area’s economy of the initial round of new direct spending estimated through a custom run of the Bureau of Economic Analysis' RIMS II Input-Output Model for an array of spending types that result in an estimate of total economic impacts from new spending due to demand created by an economic unit such as the USS Ranger Museum. This includes direct, indirect and induced economic activity for the Portland Metro Area and for the State as a whole. These are not additive, as there is overlap between the estimates for each. Categories of measurement include expenditures, earnings, and employment.

Fiscal Revenue Generation

The USS Ranger Museum will generate net new taxes for state and local governments. Fiscal revenue impacts in selected non-recurring and recurring tax categories will include the following:

- ◆ The USS Ranger Museum will be developed by a not-for-profit organization. The project will be located on a site owned by the Metro. Therefore, most directly applicable taxes will not apply. However, employees will pay income taxes and there would be substantial tax revenue generation due to the indirect effects of the operations of the USS Ranger Museum and due to off-site spending of its visitors and the multiplier effects that would occur.
- ◆ Recurring taxes from direct taxable visitor spending for gasoline, and hotel taxes from visitors staying overnight in paid accommodations due to their visit.

- ◆ Recurring ad valorem taxes, excise taxes, gasoline tax, and other taxes and fees for city services such as utilities and parking paid through the personal spending and due to the properties owned by employees of the USS Ranger Museum.
- ◆ Recurring sales taxes, ad valorem taxes, excise taxes gasoline tax, and other taxes and fees paid through the employee personal spending and due to the properties they own, as well as such fiscal revenues by employed persons indirectly supported by project economic impacts.
- ◆ Recurring ad valorem taxes, excise taxes gasoline tax, and other taxes and fees paid by the commercial businesses supported by the direct and indirect economic activity generated by the USS Ranger Museum.

ECONOMIC IMPACTS DUE TO ONGOING OPERATIONS

The ongoing operations of the USS Ranger Museum, as it attracts visitors from resident and visitor markets, will form a stream of economic benefits to the Portland Metro Area and to the State of Oregon as a whole. A portion of the spending due to the USS Ranger Museum operations will be net new to the Portland Metro Area.

Estimates of Visitor Spending

The estimate of visitor spending that will occur at the USS Ranger Museum, or as part of a visit, is based on the estimates prepared for the USS Ranger Museum and the Museum's operations analysis as outlined in this report, and from secondary data on visitor spending in Oregon as footnoted in the analysis tables. These data are used in profiling the likely characteristics and spending patterns of visitors to the USS Ranger Museum. Estimated spending patterns were prepared for three types of visitors: tourists on overnight trips using commercial accommodations; people on overnight trips staying with friends and relatives; and local and longer-range day trips. Students in groups were excluded from the off-site spending estimates. These data were analyzed by spending category according to typical spending patterns for leisure travelers in this area. Data in **Table VIII-1** present these data and analyses. Only amounts spent off-site are estimated. On-site spending is factored through the operating budget of the USS Ranger Museum. The proposed operating budget of the USS Ranger Museum is included within this "baseline direct spending" analysis.

Table VIII-1
Calculations of Estimated Visitor Spending Potential
USS Ranger Museum

<i>Source of Visitation</i>	Day Trips	Hotel/Motel	Stay with Friends & Relatives	Total
Primary Market Area	100%	0%	0%	100%
Secondary Market Area	97%	2%	1%	100%
Tertiary Market Area	94%	4%	2%	100%
Tourist	5%	55%	40%	100%
<i>Estimated Distribution Of Visitors By Origin ^{1/}</i>	Day Trips	Hotel/Motel	Stay with Friends & Relatives	Stable Year Total
Primary Market Area	91,975	-	-	91,975
Secondary Market Area	34,780	717	359	35,855
Tertiary Market Area	13,451	572	286	14,310
Tourist	7,813	85,938	62,500	156,250
Total Attendance	148,018	87,227	63,145	298,390
Less School / Youth Group Attendance (Day)	14,900	-	-	14,900
Total Non-School / Youth Group Attendance	133,118	87,227	63,145	283,490
<i>Potential Current Per Person Per Day Spending (in addition to on-site spending at USS Ranger Museum) ^{2/}</i>	Day Trips	Hotel/Motel	Stay with Friends & Relatives	Average Per Capita
Accommodations	\$0.00	\$60.00	\$0.00	\$18.46
Food & Beverage	15.00	35.00	20.00	22.27
Retail	10.00	20.00	15.00	14.19
Ground Transportation (Largely Gas)	8.00	15.00	8.00	10.15
Entertainment/Recreation	5.00	5.00	5.00	5.00
Total	\$38.00	\$135.00	\$48.00	\$70.07
<i>Spending Matrix (In addition to on-site spending at USS Ranger Museum)</i>	Day Trips	Hotel/Motel	Stay with Friends & Relatives	Total
Accommodations	\$0	\$5,233,620	\$0	\$5,233,620
Food & Beverage	1,996,769	3,052,945	1,262,895	6,312,608
Retail	1,331,179	1,744,540	947,171	4,022,890
Ground Transportation (Largely Gas)	1,064,943	1,308,405	505,158	2,878,506
Entertainment/Recreation	665,590	436,135	315,724	1,417,448
Total	\$5,058,481	\$11,775,644	\$3,030,948	\$19,865,073
Estimate of Current Dollar Stable Gross Operating Expenses For USS Ranger Museum ^{3/}				Future Stable Year, Current \$
Gross Expenditures				
Total Salaries				\$2,347,000
Fringe/ Benefits Costs				583,065
Other Operating Expenses				3,385,683
Total				\$6,315,748

1/ See Section VI.

2/ Spending data based on ConsultEcon estimates informed by visitor spending patterns from *Economic Impacts of Travel, 2009: Portland, OR* by Dean Runyan Associates.

3/ See operations analysis in Section VII.

Note: All estimates are in current dollars. The economic model includes rounding that is reflected in individual results, factors and totals.

Source: ConsultEcon, Inc.

Location of Spending

Due to the direct economic activity discussed above, additional indirect and induced economic activity occurs in the area. The location in which the spending occurs effects the distribution of total economic activity by geographic area. In this analysis, the Portland Metro Area is considered the “local economy” and the State of Oregon as a whole is the “regional economy.” Data in **Table VIII-2** provide estimated distribution of visitor spending between the Portland Metro Area and the remainder of the State of Oregon. That is, visitors on day-trips may have lunch in the Portland Metro Area, or outside of the Metro Area; some overnight visitors may stay in accommodations in or outside of the Metro Area.

The economic development purpose of the project (in addition to its preservation, historical, memorial, educational and quality of life purposes) is to stimulate new spending by visitors in the local economy, both within the USS Ranger Museum and at other businesses in the Portland Metro Area and surrounding areas. The sources of the direct impacts of the USS Ranger Museum and the subsequent rounds of spending (“multiplier effects”) in the local and regional economy are:

- ◆ The direct spending by the USS Ranger Museum through its operating budget. This would occur in the Portland Metro Area and in other areas outside of the Portland Metro Area.
- ◆ The spending of residents and visitors at the USS Ranger Museum for goods and services in conjunction with their visit. This includes overnight visitors and day-trip visitors. It should be noted that these expenditures are for the day of the visit to the USS Ranger Museum. To maintain a conservative analysis, visitor expenditures that occur on other days of the trip are not included in this evaluation.

In total, \$19.9 million in current dollar off-site direct visitor spending is projected to occur annually by museum visitors in conjunction with their visit. Much of this spending would occur in the Portland Metro Area. The USS Ranger Museum is proposed to have a budget of approximately \$6.3 million in the 2010 value of the dollar, not including retail cost of goods sold (COGS). An estimated 80 percent of the operating budget would be expended in The Portland Metro Area (this includes personnel).

Table VIII-2
Estimated Direct Visitor Spending Potential in the Portland Metro Area
and in the Remainder of Oregon
USS Ranger Museum

<u>Distribution of USS Ranger Museum Operations Spending ^{1/}</u>				Total
Portland Metro ^{2/}	80%			\$5,052,598
Other Oregon Counties	15%			\$947,362
Outside of Oregon	5%			\$315,787
Total Facility Spending (Not including cost of goods sold)	100%			\$6,315,748
<i>USS Ranger Museum Visitor Spending</i>				
	<i>Off-Site Spending</i>			
	Day Trips	Hotel/Motel	Stay with Friends & Relatives	Total
Accommodations	\$0	\$5,233,620	\$0	\$5,233,620
Food & Beverage	1,996,769	3,052,945	1,262,895	6,312,608
Retail	1,331,179	1,744,540	947,171	4,022,890
Transportation	1,064,943	1,308,405	505,158	2,878,506
Recreation (In addition to USS Ranger Museum)	665,590	436,135	315,724	1,417,448
Total Off-Site Spending	\$5,058,481	\$11,775,644	\$3,030,948	\$19,865,073
<u>Estimated Distribution of Off-Site Visitor Spending</u>				
	Day Trips	Hotel/Motel	Stay with Friends & Relatives	
Accommodations				
Portland Metro		80%		
Other Locations in OR		15%		
Outside of OR		5%		
Food & Beverage				
Portland Metro	80%	80%	80%	
Other Locations in OR	10%	10%	10%	
Outside of OR	10%	10%	10%	
Retail				
Portland Metro	80%	80%	80%	
Other Locations in OR	10%	10%	10%	
Outside of OR	10%	10%	10%	
Transportation				
Portland Metro	70%	70%	70%	
Other Locations in OR	15%	15%	15%	
Outside of OR	15%	15%	15%	
Entertainment/Recreation				
Portland Metro	75%	75%	75%	
Other Locations in OR	15%	15%	15%	
Outside of OR	10%	10%	10%	
<i>Off-Site Spending in Portland Metro</i>				Total
Accommodations	\$0	\$4,186,896	\$0	\$4,186,896
Food & Beverage	\$1,597,415	\$2,442,356	\$1,010,316	\$5,050,087
Retail (In addition to USS Ranger Museum)	\$1,064,943	\$1,395,632	\$757,737	\$3,218,312
Transportation	\$745,460	\$915,883	\$353,611	\$2,014,954
Recreation (In addition to USS Ranger Museum)	\$499,192	\$327,101	\$236,793	\$1,063,086
Total Off-Site Spending Portland Metro	\$3,907,011	\$9,267,868	\$2,358,456	\$15,533,335
<i>Operations Spending By USS Ranger Museum in Portland Metro</i>				\$5,052,598
Total Portland Metro Spending				\$20,585,933
<i>Off-Site Spending in Oregon but Outside of Portland Metro</i>				Total
Accommodations	\$0	\$785,043	\$0	\$785,043
Food & Beverage	199,677	305,294	126,289	\$631,261
Retail (In addition to USS Ranger Museum)	133,118	174,454	94,717	\$402,289
Transportation	159,742	196,261	75,774	\$431,776
Recreation (In addition to USS Ranger Museum)	99,838	65,420	47,359	\$212,617
Total Off-Site Spending Outside of Fairview - Portland Metro	\$592,375	\$1,526,472	\$344,139	\$2,462,986
<i>Operations Spending By USS Ranger Museum in Other Oregon Counties</i>				\$947,362
Total Oregon Spending Outside Portland Metro				\$3,410,348

1/ Does not include USS Ranger Museum Retail Cost of Goods Sold. These are included in retail sales portion of the analysis.

2/ Defined as Clackamas, Multnomah and Washington Counties in Oregon.

Note: All estimates are in current dollars. The economic model includes rounding that is reflected in individual results, factors and totals.

Source: ConsultEcon, Inc.

Net New Direct USS Ranger Museum Visitor Spending in the Portland Metro Area

The analyses in **Table VIII-3** estimate the percentage of visitor spending that would be net new to the Portland Metro Area economy. The USS Ranger Museum's annual operations spending is considered net new, as it is a unique entity in the city whose spending would not be readily replaced by that of any other entity in the Portland Metro Area. For visitor spending, this analysis distinguishes net new spending that occurs in the area's economy due to the project, from spending that might otherwise occur. This distinction accounts for "substitution" of spending at the USS Ranger Museum for other spending opportunities in the Portland Metro Area. The USS Ranger Museum will draw on existing tourism markets; but will help to grow these markets and expand spending by area visitors because of its unique offerings. A new high-profile educational and cultural attraction, the USS Ranger Museum will help to grow the area's economy and will attract net new spending and subsequent multiplier effects. Overall, of the visitor spending associated with a visit, a major portion is attributed to net new spending at the local level. A reasonable estimate is 75 percent of such associated spending on the day of the museum visit is attributable to the major daily activity -- the USS Ranger Museum visit.

Input-output modeling theory also indicates that only the retail margin component of a producer's price (the portion captured by the local retail or restaurant establishments) will have a significant impact to the local economy. The remaining components of the producer's price go to manufacturing (cost of goods sold), transportation, and warehousing costs outside of the economic unit being analyzed. Therefore, margins for selected spending categories were estimated based on the Bureau of Economic Analysis' input-output commodity composition tables of personal consumption expenditures in producers' and purchasers' prices, along with the consultant's judgment. The application of retail margins to consumer expenditures in certain expenditure categories has the effect of lowering the amount of new dollars that are recirculated in the economic unit under evaluation for a given consumer expenditure.

Data in Table VIII-3 summarize the estimates of net new spending as corrected for retail margins for the Portland Metro Area and for the State of Oregon as a whole. Given these analyses and assumptions, the project is estimated to create approximately \$14.1 million in net new direct expenditures as corrected for retail margins in the Portland Metro Area. These are the components

of direct spending with multiplier effects. The resulting multiplier effects plus the overall direct net new spending constitutes the total economic impacts.

**Table VIII-3
Estimated Economic Impacts of the USS Ranger Museum
on Portland Metro Area**

	Estimated Total Spending	Total Spending Adjusted to Retail Margin	Estimated Percent Net New to Portland Metro	Estimated Net New Spending in Portland Metro	Estimated Net New Spending in Portland Metro Adjusted to Retail Margin
<i>On-Site Spending</i>					
<i>Estimated USS Ranger Museum Operating Expenditures in Portland Metro</i>	\$5,052,598	\$5,052,598	100%	\$5,052,598	\$5,052,598
<i>Estimated Direct Off-Site Spending in Portland Metro</i>					
Accommodations	\$4,186,896	\$4,186,896	75%	\$3,140,172	\$3,140,172
Food & Beverage (Retail Margin 75%)	5,050,087	3,787,565	75%	3,787,565	2,840,674
Retail (Retail Margin 50%) ^{1/}	4,209,162	2,104,581	75%	3,156,872	1,578,436
Transportation (Retail Margin 25% on gasoline which is 75% of total)	2,014,954	881,543	75%	1,511,216	661,157
Entertainment/Recreation	1,063,086	1,063,086	75%	797,315	797,315
Total Off-Site	\$16,524,185	\$12,023,671		\$12,393,139	\$9,017,753
Total Direct On-Site and Off-Site Spending	\$21,576,783	\$17,076,269		\$17,445,737	\$14,070,351
Economic Impacts Portland Metro					
	<i>Multipliers ^{2/}</i>				
	<u>Expenditures</u>	<u>Earnings</u>	<u>Employment</u>		
Accommodations	1,9076	0.5328	21.7020		
Food & Beverage	2,0259	0.5666	28.2279		
Retail	1,9097	0.5507	21.3319		
Transportation (Largely Gas)	1,9097	0.5507	21.3319		
Entertainment/Recreation	1,9842	0.5848	27.9033		
Museums, Historical Sites, Zoos & Parks	2,1925	0.7637	23.9637		
	<u>Expenditures</u>	<u>Earnings</u>	<u>Employment</u>		
Accommodations	\$5,990,192	\$1,673,083	65		
Food & Beverage	5,754,921	1,609,526	76		
Retail	3,014,339	869,245	32		
Transportation	1,262,611	364,099	13		
Entertainment/Recreation	1,582,032	466,270	21		
USS Ranger Museum Operations	11,077,822	3,858,669	115		
Total	\$28,681,916	\$8,840,892	322		
Plus Net New Direct Effects					
<i>Total USS Ranger Museum Operating Spending in Portland Metro</i>					
<i>Net new direct Portland Metro Spending</i>					
Accommodations	\$3,140,172	\$877,062	34		
Food & Beverage	3,787,565	1,059,299	50		
Retail	3,156,872	910,347	34		
Transportation	1,511,216	435,789	16		
Entertainment/Recreation	797,315	234,991	11		
USS Ranger Museum Operations ^{3/}	5,052,598	2,347,000	69		
Total Direct	\$17,445,737	\$5,864,488	214		
Total Direct, Indirect & Induced	\$46,127,653	\$14,705,380	536		

^{1/} Includes visitor off-site spending and on-site spending

^{2/} See text for discussion of multipliers, which are from a custom run of the Bureau of Economic Analysis' RIMS II Input-Output Model.

^{3/} Employment figure based on personnel schedule in Section VII. Employment includes full time and part time positions (at least half-time).

Note: All estimates are in current dollars. The economic model includes rounding that is reflected in individual results, factors and totals.

Source: ConsultEcon, Inc.

Total Economic Impacts of the USS Ranger Museum on the Portland Metro Area

The annual impacts to the Portland Metro Area economy, as noted above, are from direct (first round) net new spending to a given area, and subsequent rounds of spending within the local economy. The total economic effect includes direct, indirect and induced expenditures; wages and income; and employment in the regional and local economies.

Data in Table VIII-3 also present the estimates of total on-going annual economic impacts of the USS Ranger Museum on the Portland Metro Area. These are presented in current-dollar value. As the multiplier effect works its way through the local economy, the net direct economic activity due to the USS Ranger Museum will generate a total annual impact estimated at nearly \$46.1 million in expenditures, of which \$14.7 million in wages will be generated. A total of 47 full-time and 22 part time and seasonal employees for a total of 69 on-site jobs are planned for the new facility as USS Ranger Museum employees. (Seasonal jobs would be in addition.) The total annual direct, indirect and induced effects of visitor spending outside of the museum and the Museum's operations would result in a total of 536 jobs⁸ supported in the Portland Metro Area.

Net New Direct USS Ranger Museum Visitor Spending in the Oregon Economy

The analyses in **Table VIII-4** estimate the percentage of visitor spending that would be net new to the State of Oregon economy. As with the Portland Metro Area, the USS Ranger Museum's annual operations spending is considered net new, as it is a unique entity in the State. For visitor spending, this analysis net new spending that occurs in the State's economy due to the project distinguishes, from spending that might otherwise occur. This distinction accounts for "substitution" of spending at the USS Ranger Museum for other spending opportunities in the State of Oregon. The USS Ranger Museum will draw on existing tourism markets; but will help to grow these markets and expand spending by area visitors because of its unique offerings. A new high-profile educational and cultural attraction, the USS Ranger Museum will help to grow the State's economy and will attract net new spending and subsequent multiplier effects. Overall, of the visitor spending associated with a visit, a major portion is attributed to net new spending at both the state level. However, because the State as a whole offers a larger set of spending alternatives, the percentage

⁸ Total jobs include full time and part time employment, assumed to be in ratio with the distribution of jobs between actual full time and part time for the area under consideration as a whole.

net new is estimated to be somewhat lower than in the museum's more localized area. A reasonable estimate is 66 percent of such associated spending on the day of the museum visit.

**Table VIII-4
Estimated Economic Impacts of the USS Ranger Museum
on the State of Oregon**

<i>On-Site Spending</i>	Estimated Total Spending	Total Spending Adjusted to Retail Margin	Estimated Percent Net New to State	Estimated Net New Spending in Oregon	Estimated Net New Spending in Oregon Adjusted to Retail Margin
<i>Estimated USS Ranger Museum Operating Expenditures in the State of Oregon</i>	\$5,999,960	\$5,999,960	100%	\$5,999,960	\$5,999,960
<i>Estimated Direct Off-Site Spending</i>					
Accommodations	\$4,971,939	\$4,971,939	66%	\$3,281,479	\$3,281,479
Food & Beverage (Retail Margin 75%)	5,681,348	4,261,011	66%	3,749,689	2,812,267
Retail (Retail Margin 50%) ^{1/}	4,611,451	2,305,726	66%	3,043,558	1,521,779
Transportation (Retail Margin 25% on gasoline which is 75% of total)	2,446,730	1,070,445	66%	1,614,842	706,493
Entertainment/Recreation	1,275,703	1,275,703	66%	841,964	841,964
Total Off-Site Spending	\$18,987,171	\$13,884,823		\$12,531,533	\$9,163,983
Total Direct On-Site and Off-Site Spending	\$24,987,132	\$19,884,783		\$18,531,493	\$15,163,943
Economic Impacts in the State of Oregon	<i>Multipliers ^{2/}</i>				
Total Direct, Indirect & Induced	Expenditures	Earnings	Employment		
Accommodations	1.8814	0.5517	22.6200		
Food & Beverage	2.0620	0.5957	29.5589		
Retail	1.8800	0.5774	22.4841		
Transportation (Largely Gas)	1.8800	0.5774	22.4841		
Entertainment/Recreation	1.9439	0.6004	28.7945		
Museums, Historical Sites, Zoos & Parks	2.1157	0.7749	24.2410		
	Expenditures	Earnings	Employment		
Accommodations	\$6,173,775	\$1,810,392	71		
Food & Beverage	5,798,895	1,675,267	79		
Retail	2,860,944	878,675	33		
Transportation	1,328,208	407,929	15		
Entertainment/Recreation	1,636,694	505,515	23		
USS Ranger Museum Operations	12,694,116	4,649,369	138		
Total	\$30,492,633	\$9,927,149	359		
Plus Net New Direct Effects					
Total In-State USS Ranger Museum Operations Spending					
<i>Net new direct in-State Spending</i>					
Accommodations	\$3,281,479	\$962,258	38		
Food & Beverage	3,749,689	1,083,264	51		
Retail	3,043,558	934,761	35		
Transportation	1,614,842	495,963	18		
Entertainment/Recreation	841,964	260,052	12		
USS Ranger Museum Operations ^{3/}	5,999,960	2,347,000	69		
Total Direct	\$18,531,493	\$6,083,297	223		
Total Direct, Indirect & Induced	\$49,024,126	\$16,010,446	582		

1/ Includes visitor off-site spending and on-site spending

2/ See text for discussion of multipliers, which are from a custom run of the Bureau of Economic Analysis' RIMS II Input-Output Model.

3/ Employment figure based on personnel schedule in Section VII. Employment includes full time and part time positions (at least half-time).

Note: All estimates are in current dollars. The economic model includes rounding that is reflected in individual results, factors and totals.

Source: ConsultEcon, Inc.

As noted above, only the retail margin component of a producer's price (the portion captured by the state's retail or restaurant establishments) will have a significant impact to the local economy.

Data in Table VIII-4 summarize the estimates of net new spending as corrected for retail margins for the State of Oregon and for the State of Oregon as a whole. Given these analyses and assumptions, the project is estimated to create approximately \$15.2 million in net new direct expenditures as corrected for retail margins in the State of Oregon. These are the components of direct spending with multiplier effects. The resulting multiplier effects plus the overall direct net new spending constitutes the total economic impacts.

Total Economic Impacts of the USS Ranger Museum on the State of Oregon

The annual impacts to the State of Oregon economy, as noted above, are from direct (first round) net new spending to a given area, and subsequent rounds of spending within the local economy. The total economic effect includes direct, indirect and induced expenditures; wages and income; and employment in the regional and local economies.

Data in Table VIII-4 also present the estimates of total on-going annual economic impacts of the USS Ranger Museum on the State of Oregon. These are presented in current-dollar value. As the multiplier effect works its way through the local economy, the net direct economic activity due to the USS Ranger Museum will generate a total annual impact estimated at nearly \$49.0 million in expenditures, of which \$16.0 million in wages will be generated. A total of 47 full-time and 22 part time and seasonal employees for a total of 69 on-site jobs are planned for the new facility as USS Ranger Museum employees. (Seasonal jobs would be in addition.) The total annual direct, indirect and induced effects of visitor spending outside of the museum and the Museum's operations would result in a total of 582 jobs⁹ supported in the State of Oregon.

At the Statewide level, these effects include the support of jobs and economic activity within and outside the Portland Metro Area. However, the Portland Metro Area economic activity estimated above will not be fully a subset of the statewide economic activity, as there is assumed to be some transfer of economic activity from other regions of the State to the Portland Metro Area, as some

⁹ Total jobs include full time and part time employment, assumed to be in ratio with the distribution of jobs between actual full time and part time for the area under consideration as a whole.

substitution of spending from other areas to the Portland Metro Area is assumed along with net new spending.

FISCAL BENEFITS

In addition, this analysis provides an estimate of selected categories of direct and indirect fiscal revenues that would accrue to various government jurisdictions due to the project, as well from associated multiplier effects.

Ad Valorem Taxes

As a not-for-profit entity, USS Ranger Museum would not be required to pay ad valorem taxes on its new facility. However, many businesses that pay such taxes would be subject to ad valorem taxes. Also, the individuals who are directly employed due to the project would be subject to such taxes, as would workers employed due to multiplier effects. The amount of these taxes has not been estimated for the purposes of this report, as they would be balanced by the additional services required by the governmental units that would receive them.

Non-Ad Valorem Revenues

Many of the visitors to the USS Ranger Museum will make expenditures for overnight accommodations in conjunction with their visit. Multnomah County and other counties in which the sales occurred would collect lodging taxes. The State of Oregon would also collect lodging taxes on these hotel expenditures. These taxes in general would occur due to the increased economic activity generated by the new Museum. State income taxes would also be paid directly by museum employees and through employment due to project multiplier effects. These two categories of tax revenues are estimated by data and analyses contained in **Table VIII-5**. \$138,000 annually is estimated due to direct lodging taxes at the local level and over \$900,000 annually to the state from income taxes and lodging taxes.

**Table VIII-5
Estimated Net New Tax Revenue Generation Potential of the USS Ranger Museum
in a Stabilized Year Under a Mid-Range Attendance Scenario**

Jurisdiction	Lodging Tax Rate		
State of Oregon	1.0%		
Clackamas County	6.0%		
Multnomah County	5.5%		
Washington County	9.0%		
City of Fairview	6.0%		
	Multnomah County	State of Oregon	
Tax Categories	Lodging Tax ^{1/}	Income Tax ^{2/}	Lodging Tax ^{1/}
Net New Taxes From Total Visitor Direct Off-Site Hotel Expenditures ^{3/}	\$138,168		\$32,815
Income Taxes Generated by USS Ranger Museum Employee Wages and Salaries		\$127,796	
Income Taxes Generated By Net New Employee Wages and Salaries Due to USS Ranger Museum (Multiplier Effects)		\$743,988	
Total	\$138,168	\$871,785	\$32,815

1/ The City of Fairview lodging tax rate is 6.0% and applies to accommodations within the City. Multnomah County's lodging tax rate is 5.5% and applies to accommodations within the County. The State of Oregon's lodging tax rate is 1.0% and applies to accommodations within the State. Therefore, total tax rate on accommodations in Fairview is 12.5%. Other municipalities have different tax rates. Source: Oregon Department of Revenue and Dean Runyan Associates.

2/ In 2008, the State of Oregon had an effective income tax rate of 5.4%, calculated by dividing the total tax liability divided gross income. Source: Oregon Department of Revenue .

3/ Multnomah County assumed to receive 80% of total spending on accommodations. Clackamas, Washington and other Oregon Counties would also share in net new lodging taxes on the order of \$35,000 annually.

4/ Hotel spending only partially net new, with the percent net new estimated in Tables VIII-4 and VIII-5.

Note: All estimates are in current dollars. The economic model includes rounding that is reflected in individual results, factors and totals.

Source: ConsultEcon, Inc.

COMMUNITY AND QUALITY OF LIFE BENEFITS

Beyond its potential to create direct and multiplier effects on the local economy, the USS Ranger Museum will contribute to the profile of the Portland Metro Area as a visitor destination, thus benefiting the area overall. Not only will the USS Ranger Museum provide an additional destination for inducing travelers to visit Fairview and the Portland Metro Area, but it will also help to transform Fairview into a popular and well-known regional destination. The USS Ranger Museum has the potential to be a stimulus to tourism revenues, making a significant contribution in expanding Fairview and the overall Portland Metro Area's overall tourism economy while educating, inspiring and entertaining both its residents and visitors.

The community development and educational benefits of the USS Ranger Museum may have the most profound and long lasting impacts on the community. This project will enhance the knowledge of and interest in history, aeronautics, oceanography as well as science and technology. The USS Ranger Museum estimates that 14,900 students from the area will attend in school groups annually, plus additional attendances while with their families. It will improve community self-esteem and citizenship. The new museum will expand the educational attractions base in the Portland Metro Area and be a source of community pride and identity. The USS Ranger Museum will enhance the City of Fairview and the overall Portland Metro Area as a place to live and work, thus improving all aspects of the local economy and community.