



# Smithsonian

**Fiscal Year 2014**

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Submitted to the Committees on Appropriations  
Congress of the United States

Smithsonian Institution

Fiscal Year 2014

*Budget Justification to Congress*

April 2013



**SMITHSONIAN INSTITUTION**  
**Fiscal Year 2014 Budget Request to Congress**  
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## THE SMITHSONIAN INSTITUTION'S IMPACT ON AMERICA

The Smithsonian greatly appreciates the continued support of the Administration, the Congress, and the American people, and takes seriously the crucial role it plays in advancing the civic, educational, scientific, and artistic life of this nation. In response to this broad public support, the Smithsonian is addressing some of the world's most complex issues — and using new technologies to broaden access to the results for citizens, students, and policy makers nationwide.

Thanks to the generous bequest of English scientist James Smithson, Congress established the Smithsonian Institution in 1846 as an independent federal trust instrumentality, a unique public-private partnership that has achieved outstanding results for 167 years. The federal commitment is the foundation for everything we do, and is especially helpful in attracting private support. We leverage our federal funding to enrich the lives of the American people in accordance with our mission to advance “the increase and diffusion of knowledge.”

The Smithsonian is large and diverse, encompassing art, history, science, and culture, all of which are based on discovery and education. We have 19 museums and galleries, 20 libraries, numerous research centers, the National Zoo, and 178 affiliate museums in 41 states, Puerto Rico, and Panama. We are open 364 days a year — and admission is free. With the global reach of our research and educational activities, we have physical facilities in eight states and the District of Columbia, and operate in nearly 100 countries.

Our collections include 137 million objects and treasures, of which 127 million are scientific specimens, more than 340,000 works of art, plus two million library volumes, 137,000 cubic feet of archival material — and more than 2,000 live animals. We have Morse's telegraph; Edison's light bulb; the Salk vaccine; the 1865 telescope designed by Maria Mitchell, America's first woman astronomer who discovered a comet; the Wright Flyer; Amelia Earhart's plane; Louis Armstrong's trumpet; the jacket of labor leader Cesar Chavez; the Lansdowne portrait of George Washington; the Congressional Gold Medal awarded to Japanese American World War II veterans; the *Spirit of Tuskegee* airplane, used to train Tuskegee Airmen during World War II; the Hopi ceramic pot carried into space by Chickasaw astronaut John Herrington, the first Native American to orbit the Earth; the camera John Glenn purchased at a drug store and used on his historic voyage into space; Asian, African and American art; the Apollo 11 Command Module, *Columbia*; and the space shuttle *Discovery*.

Our experts use these collections to engage the public in exciting learning experiences that start many journeys of discovery. We ask important questions that bring the American spirit to life.

In 2012, we had more than 30 million visits to our 19 museums and galleries and the National Zoological Park, the highest number in a decade, and another five million people visited our traveling exhibitions in communities around the nation. Our visitors enjoyed 89 new exhibitions, including: *The Civil War and American Art* at the Smithsonian American Art Museum (SAAM); *Roads of Arabia: Archaeology and History*

*of the Kingdom of Saudi Arabia* at the Sackler Gallery; *Food: Transforming America's Table, 1950–2000* at the National Museum of American History (NMAH); *Changing America: The Emancipation Proclamation, 1863, and the March on Washington, 1963*, from the National Museum of African American History and Culture; *Reclaiming the Edge: Urban Waterways and Civic Engagement* at our Anacostia Community Museum; the installation of the Dom Pedro Aquamarine gem at the National Museum of Natural History (NMNH); the enormously popular *The Art of Video Games* exhibit in SAAM, which had more than 686,000 visitors in only about seven months; *Song 1*, the Doug Aitken outdoor projection on the Hirshhorn Museum building; and *Titanoboa*, a physical display of the world's largest snake, at our Natural History Museum. At the National Zoo, we opened our Solar-Powered Speedwell Foundation Conservation Carousel, one of the only solar-powered carousels in the world. It features hand-carved and hand-painted animals and has a net-zero impact on the Zoo's energy consumption due to 162 solar panels donated and installed by Pepco Energy Services to power the carousel.

More than 250,000 Girl Scouts visited us on “Girl Scouts Rock the Mall” weekend in June to celebrate the 100th anniversary of the organization; and nearly 400,000 visitors came during the Presidential Inaugural weekend to see numerous exhibitions on the presidency — guided by our free inaugural mobile application.

In November, we held our first annual *Smithsonian Magazine* American Ingenuity Awards. Nine groundbreaking, influential individuals were honored for their achievements in the visual and performing arts, natural and physical sciences, technology, social innovation, historical scholarship and education. This initiative was featured in a microsite on Smithsonian.com and in vignettes on The Smithsonian Channel. Continuing on the innovation theme, we held our second annual Invention Challenge, *Invent It!*, at the NMAH Lemelson Center for the Study of Invention and Innovation. Along with ePals, an education media company, the contest challenged students to think about real-world problems and invent something that could help solve them. We received nearly 300 entries from across the United States and eight other countries. Our partnership with the ePals global community enables us to offer our lesson plans and resources to more than 850,000 schools. The Smithsonian Learning Center within ePals has had more than two million visitors and 3.5 million page views, including 205,000 downloads of classroom work based on Smithsonian content.

Using such digital technology allows us to reach new, diverse audiences and more people than ever before. We had nearly 103 million unique visitors at more than 270 Smithsonian websites, and we are on pace to exceed 120 million this year. One example is *History Explorer*, a website developed by the National Museum of American History in partnership with the Verizon Foundation. It offers dozens of free online resources for teachers and students, all designed to meet state standards. One teacher from Arizona who used these resources said, “I have been in the business 39 years, and now we have what teachers always wanted: standards-based lessons and object-based lessons, and it is free!”

In addition, the Smithsonian now has more than two and a half million social media followers, and 36 mobile apps and websites which have been used by more than one million people. Users can navigate through our museums with an app we developed with

Google, and receive a digital version of *Smithsonian Magazine* on their tablet devices. In addition, we have more than 8 million images and records available to the public through our main website's Collections Search Center that more than one million people have used.

We are also building digital platforms to help us speak to the larger American story. A good example is *Our American Journey*, our Institution-wide initiative to explore the stories of all the migrants and immigrants who helped create this great country. Through partnerships with organizations from the Newseum, here in our nation's capital, and from Ellis Island in New York to Angel Island in California, we will help all Americans link their heritage to the nation's larger story and allow them to share their individual family histories with us, so we can tell their larger story to the public.

The Smithsonian is working to be more transparent, accountable, and efficient than ever before. We continue to implement our 2010 Strategic Plan that centers on four "Grand Challenges" and is buttressed by four consortia to promote interdisciplinary and Institution-wide collaboration. We are improving facilities maintenance and collections care to be better stewards of America's treasures. We are working with new federal, state, and local partners to avoid redundancies and expand our reach. Above all, we are determined to increase public access to all of the resources we offer. We are providing everyone with a universal lens for learning, no matter where our audience lives — and it's all free of charge.

In support of our Strategic Plan, Smithsonian Redesign is helping us automate our processes, measure and track our progress, and improve our efficiency. Last year, through the hard work of our museum and research center directors and our development professionals, and with the generous support of our donors and friends, we raised a total of \$224 million, a record high for the Institution. These funds, when matched with the support we receive from the Administration, the Congress, and the American people, allow us to offer our visitors the best experience possible, one that allows them to learn by visiting us in person or by reaching us online.

Recently, the Smithsonian has taken steps to revitalize its image in an effort to reach more people, including younger and more diverse audiences, with the diversity of learning experiences we can share. Research told us that even though people know of the Smithsonian, they are simply unfamiliar with what we actually do or how it could be relevant to them. So, to show that we can be an everyday resource for learning, we created something unprecedented for the Smithsonian — a national advertising campaign — to showcase what is *Seriously Amazing* about this Institution. The campaign's theme, "*Questions Come Alive at the Smithsonian*," uses fun and colorful characters to pose intriguing questions, and challenges audiences to visit a new website — *seriouslyamazing.com* — for the answers and an invitation to learn even more. The campaign included print, radio, outdoor and digital ads, and began in fall 2012. To date more than 215,000 people have visited the new website in response to the ads.

In terms of the resources we offer, our collections are a vital national asset and we have improved their display and storage conditions, balancing the preservation of and access to these collections. We are stepping up efforts to digitize as many of the collections as funds permit. The collections we maintain serve as a valuable resource for



scientists from federal agencies such as the Departments of Agriculture and Defense, and the United States Geological Survey. We work with the White House Office of Science and Technology Policy to coordinate our efforts with federal agencies and avoid duplication of activities. Collections acquired a century or more ago are being used today to address the effects of global change, the spread of invasive species, and the loss of biological diversity and its impact on global ecosystems. Federal, state, and local authorities often look to our collections for answers; for example, during flu epidemics, oil spills, volcanic eruptions, and when aircraft are downed by bird strikes.

For more than 20 years, the Smithsonian has been a partner in the U.S. Global Change Research Program (USGCRP), which coordinates and integrates federal research on changes in the global environment and their implications for society. Congress mandated the USGCRP in the Global Change Research Act of 1990, and 13 departments and agencies participate in the program. During the past two decades, the United States, through the USGCRP, has made significant scientific investments in the areas of climate change and global change research. The USGCRP's 10-year strategic plan was issued in 2012. The unique research contribution of the Smithsonian Institution provides a long-term perspective — for example, undertaking investigations which may require extended study before producing useful results and conducting observations on sufficiently long time scales to account for human-caused modification of natural variability. Research concerns themes of atmospheric processes, ecosystem dynamics, observing natural and anthropogenic environmental changes on multiple time scales, and defining longer term climate models present in the historical artifacts, and in records of the museums, as well as in the geological record.

The Smithsonian's roughly 500 scientists are tackling vital issues of the day, making important discoveries — and sharing them with the public. The results of our work can be seen everywhere. Smithsonian scientists assess the consequences of global change, keep aircraft safe from bird strikes, document and control invasive species, protect our soldiers from insect-borne diseases, and search the universe for planets similar to Earth. With our international partners and worldwide reach, the Institution is particularly well connected to tackle biodiversity issues. The Smithsonian Institution Global Earth Observatories network is a worldwide partnership of more than 30 institutions working to monitor the health of 4.5 million trees (8,500 species) on 47 plots in 21 countries. Our new initiative, Tennenbaum Marine Observatories, seeks to replicate this success and assess the health of coastal areas and the ocean at large.

At the University of Arizona, Smithsonian scientists are helping to construct the large mirrors, 28 feet in diameter, for the Giant Magellan Telescope, which will be built at the Las Campanas Observatory in Chile by an international consortium led by the Carnegie Institute, with the Smithsonian as a member. This powerful new telescope will enable researchers to see distant stars and galaxies 10 times more clearly than with the space-based Hubble Telescope.

Scientists at the Harvard-based Smithsonian Center for Astrophysics, using data from NASA's Kepler space telescope, found that six percent of red dwarf stars have habitable, Earth-sized planets. Since red dwarfs are the most common stars in our galaxy, the closest Earth-like planet could be just 13 light-years away — in cosmic terms,

practically in our own backyard. Scientists at the Center also helped create a computer simulation of the creation of the universe, compressing 9 billion years of cosmic evolution into 78 seconds. They are discovering new planets, using telescopes in outer space while allowing high school students to remotely access our land-based telescopes to find planets on their own. In addition, a National Air and Space Museum geologist is serving at NASA's Jet Propulsion Laboratory, helping with the *Curiosity* mission on Mars. He analyzes data to understand the geological history of the Gale Crater and discover if there might have been habitable environments there in the ancient past.

The National Museum of Natural History is the leading partner in a global effort called the *Encyclopedia of Life* (EOL), an ambitious, five-year project that will become a key repository of scientific information about virtually every form of life on Earth. EOL is an online database that has financial, logistical, and research support from numerous partners, including the MacArthur and Sloan Foundations. It now features information on more than 1.1 million of the world's 1.9 million known species of animals, plants and other life forms. Today, thousands of scientists, students, and teachers around the world use the EOL as a resource for their own class work, research, and academic and professional studies.

On a related note, the Biodiversity Heritage Library, the scientific literature cornerstone of EOL, is a consortium of 14 natural history and botanical libraries. Led by Smithsonian Libraries, the Biodiversity Heritage Library now has more than 57,000 titles, nearly 110,000 volumes, and 40 million pages freely available online; it is seen by more than 630,000 unique visitors per year.

The Smithsonian Environmental Research Center in Maryland recently launched a new online database, *NEMESIS*, which tracks hundreds of invasive species along our nation's coastal regions. At the National Zoo, we opened our new state-of-the-art facilities, *Asia Trail* and *America Trail*. At *America Trail*, visitors can see seals and sea lions up close and let their children splash in the tidal pool, while *Asia Trail* gives our elephants room to roam and exercise their creative talents. Our Smithsonian Conservation Biology Institute, partnering with George Mason University, just opened a new facility at its Front Royal, Virginia campus. It is a LEED Gold complex that will serve the growing need for global conservation training as well as the local community.

In today's world of international travel and new technologies, deadly viruses can reach around the globe in 24 hours, and nearly 75 percent of emerging pathogens in humans come from animals. Working with the USAID-funded Emerging Pandemic Threats Program, the Smithsonian is helping public health officials avoid the next major pandemic threat. Veterinary scientists and pathologists from the National Zoo are conducting regional wildlife pathology workshops to provide training to recognize and identify the next global health threat in its initial stages.

Smithsonian personnel are dedicated to helping our nation's teachers with the important work of educating the next generation. Hundreds of instructors came to the Smithsonian last summer for programs to increase their skills, while the Institution worked with the Department of Education and teachers to develop new curricula for children living in Houston's inner city, and rural areas in North Carolina and New Mexico. Last year's annual Teachers' Night was attended by 2,300 teachers from the local area and 26 states.

We have six new education centers in different stages of completion at various museums: the National Museum of the American Indian in Washington, DC and New York; the American History Museum; Natural History Museum; American Art Museum; and Postal Museum. Education directors are sharing their development processes, research, and methods for rapid prototyping, and they have created teams that will observe audience engagement at each center, share successes and challenges, and make appropriate modifications. Educators will work together to develop referral materials with guidance on how to identify age-appropriate experiences and maximize family learning in activities and programs throughout the Institution.

We can do all this thanks to more than 6,200 dedicated employees, including award-winning scientists and scholars, curators, researchers, historians, and experts in fields from astrophysics to zoology, as well as more than 6,000 generous volunteers and more than 280 interns. They care deeply about this great Institution and the many services we provide. That is why the Smithsonian was, for the third year in a row, ranked as one of the best places to work in the Federal Government.

With the continuing help of our Board of Regents, the Administration, the Congress, and the American people, we will open more doors — like the ones on our newest museum. We celebrated the groundbreaking of the National Museum of African American History and Culture — on schedule to open in 2015. And we are on track to reopen the Arts and Industries Building (AIB) in 2014. We recently signed a seven-year agreement with the U.S. Patent and Trademark Office (USPTO) to build a Theater of Innovation in the AIB when it reopens, and to develop programs and exhibitions related to innovation and progress. Collaboration begins this year with an Innovation Expo at the USPTO's headquarters in Alexandria, Virginia, where the latest technological developments — e.g., patented technologies from American companies — will be showcased. The three-day expo, to be held June 20–22, will explore how the U.S. patent system promotes innovation and technological development.

For 167 years, the Smithsonian has served our nation and the world as a source of inspiration, discovery, and learning. Today, with its free museums, distinguished research and scholars, iconic American treasures, and the remarkable scope of information accessible from its websites, the Smithsonian Institution is an even more valuable resource for the American people during these difficult economic times.

The Smithsonian is full of surprises, big and small. But what it does best is no surprise: inspire the next generation of scientists, doctors, businessmen and women, and just ordinary folks who have questions to ask or simply want to learn more about the world around them. We have always done this and we always will.

The Smithsonian has become more innovative, disciplined, focused, nimble and self-reliant. We are determined to expand access to all we have to offer to new and diverse audiences — regardless of where they live — in keeping with our original mission. We face a future that holds both exciting opportunities and imposing challenges. By working with the Administration and the Congress, the Smithsonian will aggressively address these challenges and take full advantage of our many new opportunities.

## SMITHSONIAN INSTITUTION FY 2014 BUDGET REQUEST SUMMARY

Account	FY 2012 Enacted	FY 2013 CR Level*	FY 2014 Request
Salaries and Expenses	\$635,512,000	\$639,402,000	\$711,233,000
Facilities Capital	<u>174,720,000</u>	<u>175,789,000</u>	<u>158,000,000</u>
<b>Total</b>	<b>\$810,232,000</b>	<b>\$815,191,000</b>	<b>\$869,233,000</b>

\* The FY 2013 appropriation was not enacted at the time that the FY 2014 Request was prepared; therefore, the amounts in the FY 2013 column reflect the annualized level provided by the Continuing Resolution plus the 0.612 percent across the board increase (pursuant to P.L. 112-175).

For FY 2014, the Smithsonian's request to fund essential operating expenses and revitalization of the Institution's physical infrastructure is \$869.2 million. This includes \$711.2 million for Salaries and Expenses (S&E) and \$158 million for the Facilities Capital account, including \$55 million to complete the federal share of the construction costs for the National Museum of African American History and Culture (NMAAHC). A detailed summary of the increases requested from the FY 2012 enacted level (+\$59 million) is described below and provided in the table at the end of this section.

### SALARIES AND EXPENSES

#### FIXED COST INCREASES (+\$12,734,000)

- **Salaries and Related Costs (+\$9,536,000)** — This request funds a 1.0 percent pay raise (+\$3,101,000) and an increase for employee benefits (+\$4,907,000). It also includes an increase of +\$1,354,000 for Panamanian pay parity and an adjustment of +\$174,000 for Workers' Compensation.
- **Non-pay Items (+\$3,198,000)** — The Institution requests additional funding, largely for inflation-related increases in rent, utilities, software licenses, and other mandatory operating costs. Details are provided in the S&E section of this budget submission.

#### PROGRAM INCREASES (+\$62,987,000)

This budget request places the programmatic increases into the broad categories of the Smithsonian's Strategic Plan, thereby linking the funds directly to the Institution's overall mission and the strategic goals of the Grand Challenges.

### EXCELLENT RESEARCH

- **Universe: Greenland Telescope (+\$500,000)** — The Institution requests \$500,000 to support the first phase of the Greenland Telescope project that will conduct groundbreaking, high-priority observations of supermassive

black holes. This project addresses the only mid-scale priority in the 2010 decadal survey for astronomy.

### **BROADENING ACCESS**

- **Digitization (+\$2,342,000)** — The Smithsonian continues work on its Strategic Plan to become the trusted source of information on the World Wide Web by using new technologies to share its vast collections and extensive research, along with the expertise of its scholars, scientists, researchers, museum specialists, and curators. This request supports the Smithsonian's Digitization Strategic Plan to stimulate learning and innovation. Digitizing the collections and making them accessible online are major Strategic Plan priorities.
- **Web Access (+\$300,000)** — This request will leverage the Institution's private funding and enable the Smithsonian to make all of its content and resources easily accessible and available to learners everywhere at any time. The Participant Access System will integrate with existing Smithsonian websites, databases and external data sets, including collections, archives, programming, and educational resources. The Institution has found that harnessing technology is the most effective means of Broadening Access to Smithsonian scholarship and educational offerings for citizens nationwide.
- **Exhibition Maintenance (+\$830,000)** — This funding request will enable museums to keep up with the routine maintenance needs resulting from expanded exhibition space, increased visitation, and the more popular, maintenance-intensive interactive exhibitions.

### **REVITALIZING EDUCATION**

- **STEM Engagement (+\$25,000,000)** — The Administration places a very high priority on science, technology, engineering, and mathematics (STEM) education and has set ambitious goals and a bold reorganization of STEM education programs that uses existing resources more effectively and in a more streamlined, consolidated way. The Smithsonian, along with the Department of Education, will lead the STEM engagement effort to provide improved curriculum and relevant products for schools, teachers, and students, based on identified needs.

### **STRENGTHENING COLLECTIONS**

- **Collections Care Initiative (+\$2,400,000)** — Collections stewardship is a key component and core priority of the Smithsonian's Strategic Plan. The requested increase provides resources to strategically correct collections care deficiencies identified by the Institution-wide collections assessment and collections space survey; address the Smithsonian's Inspector General collections-related audit recommendations; and improve the

preservation, storage, and accessibility of valuable collections currently at risk of loss or damage.

- **Animal Welfare (+\$1,550,000)** — This request supports the welfare and care of the animal collection. The requested increase supports the aquatic life-support systems (LSS) throughout the 163-acre National Zoological Park (NZP). Within the past two years, the Smithsonian has renewed two of the Zoo's aquatic facilities: (1) the upgraded *Asia Trail* exhibit; and (2) the seals and sea lions exhibit in the new *American Trail*. The requested increase also supports animal nutrition, health care costs, and necessary supplies, as well as operational, enrichment, and transportation costs.

### MISSION ENABLING

- **Facilities Maintenance (+\$4,416,000)** — The Smithsonian requests an increase of \$4.4 million to enable its maintenance program to continue stabilizing and standardizing the overall condition of its facilities. The increase will fund high-priority needs and help establish the Smithsonian's Association of Higher Education Facilities Officers, or APPA, rating at a solid Level 3 — Managed Care — throughout the Institution.
- **Facilities Operations, Security, and Support (+\$2,684,000)** — The Institution also requests an increase of \$2.7 million to address high-priority operating and safety needs. The increase will enable the Institution to support existing staffing and needs in facilities operations and enable the Institution to improve cleanliness in its facilities.
- **Internal Controls (+\$915,000)** — This funding request supports the Board of Regents' efforts to strengthen the Smithsonian's internal controls. The resources will help the Institution eliminate internal control deficiencies by strengthening the Office of the Inspector General, the Office of the Chief Financial Officer, and the Office of the General Counsel oversight capabilities.
- **Training (+\$450,000)** — This funding supports a comprehensive, centrally funded, mandated training program which includes initial and follow-up supervisor training with the myriad rules, regulations, and policies involved in employee supervision.
- **Diversity (+\$322,000)** — This funding request will provide the required resources to improve the Institution's affirmative employment program by establishing and maintaining partnerships with under-represented groups and by increasing the monitoring of diversity in Smithsonian units.

## **NATIONAL MUSEUM OF AFRICAN AMERICAN HISTORY AND CULTURE (NMAAHC)**

- The requested S&E increase to NMAAHC's base and one-time funding **(+\$21,278,000)** reflects the need to continue to fund the development of exhibitions, programming, and operations. The increase is imperative to provide the necessary developmental and fundraising support for both construction and program efforts to meet the 2015 opening date and timelines established for the project. Without these funds, the Museum will have very limited exhibition and public programming on its opening date.

## **FACILITIES CAPITAL PROGRAM**

The request for the base Facilities Capital Program is critical to arrest deterioration of some of the Smithsonian's oldest buildings and to maintain the current condition of other facilities through systematic renewal and repair. As determined by a number of independent assessments, including NAPA and GAO, the Smithsonian needs a minimum of \$150 million annually in federal funds to address the deteriorating condition of its buildings. In FY 2014, the Institution is requesting **\$103.0 million** for its baseline revitalization requirements. This amount will allow the Facilities Capital Program to address priority one and two projects that are ready to be addressed in FY 2014.

The Institution is also requesting **+\$55.0 million** for the federal share of the design and construction of the National Museum of African American History and Culture (NMAAHC). This increase will complete the federal commitment.

For FY 2014, the requested funds will enable the Institution to continue major revitalization work at the National Zoological Park (\$14.95 million) and the National Museum of Natural History (\$17.7 million). The request also includes funds to continue revitalization of the National Museum of American History (\$24.2 million); perform critical revitalization work at the Suitland Collections Facility (\$2.1 million) and at the Renwick Gallery (\$8.0 million); and provide for critical revitalization projects costing under \$5 million each throughout the Institution (\$22.25 million). This request also accounts for planning and design of an estimated \$13.8 million worth of future projects. Details are provided in the Facilities Capital section of this budget request.

**SMITHSONIAN INSTITUTION  
FY 2014 BUDGET REQUEST SUMMARY  
BY APPROPRIATION ACCOUNT**

<b>SALARIES AND EXPENSES</b>	<b>FTEs</b>	<b>Amount</b>
<b>FY 2012 Enacted</b>	<b>4,195</b>	<b>635,512,000</b>
<b>INCREASES</b>		
<b><u>FIXED COST INCREASES</u></b>		
Salaries and Related Costs		9,536,000
Utilities, Postage, Rent, Communications, and Other		3,198,000
<b><u>PROGRAM INCREASES</u></b>		
<b>Excellent Research</b>		
Universe: Greenland Telescope	0	500,000
<b>Broadening Access</b>		
Digitization	2	2,342,000
Web Access	2	300,000
Exhibition Maintenance	0	830,000
<b>Revitalizing Education</b>		
STEM Engagement	48	25,000,000
<b>Strengthening Collections</b>		
Collections Care Initiative	0	2,400,000
Animal Welfare	6	1,550,000
<b>Mission Enabling</b>		
Facilities Maintenance	9	4,416,000
Facilities Operations, Security, and Support	13	2,684,000
Internal Controls	5	915,000
Training	0	450,000
Diversity	2	322,000
National Museum of African American History & Culture	60	21,278,000
<b>Total FY 2014 Increases</b>	<b>147</b>	<b>75,721,000</b>
<b>Total FY 2014 Salaries and Expenses</b>	<b>4,342</b>	<b>\$711,233,000</b>



<b>FACILITIES CAPITAL</b>	<b>FTEs</b>	<b>Amount</b>
FTEs in Base	48	
<b>Revitalization</b>		
National Museum of American History		24,200,000
National Museum of Natural History		17,700,000
National Zoological Park		14,950,000
Renwick Gallery		8,000,000
Suitland Collections Facility		2,100,000
Other Revitalization Projects		22,250,000
<b>Planning and Design</b>		
Facilities Planning and Design		13,800,000
<b>Construction</b>		
National Museum of African American History & Culture		55,000,000
<b>Total FY 2014 Facilities Capital</b>	<b>48</b>	<b>\$158,000,000</b>
<b>FY 2014 REQUEST, ALL ACCOUNTS</b>	<b>4,390</b>	<b>\$869,233,000</b>

**SMITHSONIAN INSTITUTION  
SALARIES AND EXPENSES (S&E)  
Summary of Increases**

	<b>FTEs</b>	<b>Amount</b>
<b>FY 2012 Enacted</b>	<b>4,195</b>	<b>635,512,000</b>
<b>Fixed Costs Increases</b>		
Salaries and Related Costs		9,536,000
Utilities, Postage, Rent, Communications, and Other		<u>3,198,000</u>
<b>Total Fixed Costs Increases</b>		<b>\$12,734,000</b>
<b>Program Increases</b>		
<b>Excellent Research</b>		
Universe: Greenland Telescope	0	500,000
<b>Broadening Access</b>		
Digitization	2	2,342,000
Web Access	2	300,000
Exhibit Maintenance	0	830,000
<b>Revitalizing Education</b>		
STEM Engagement	48	25,000,000
<b>Strengthening Collections</b>		
Collections Care Initiative	0	2,400,000
Animal Welfare: Life Support Systems	6	1,550,000
<b>Mission Enabling</b>		
Facilities Maintenance	9	4,416,000
Facilities Operations, Security, and Support	13	2,684,000
Internal Controls	5	915,000
Training	0	450,000
Diversity	2	322,000
National Museum of African American History & Culture	<u>60</u>	<u>21,278,000</u>
<b>Total Program Increases</b>	<b>147</b>	<b>\$62,987,000</b>
<b>Total Increases</b>	<b>147</b>	<b>\$75,721,000</b>
<b>Total Salaries and Expenses</b>	<b>4,342</b>	<b>\$711,233,000</b>

**SMITHSONIAN INSTITUTION**  
**Salaries and Expenses**  
Unit Detail of the FY 2012 Enacted and the FY 2013 and FY 2014 Estimates  
(\$ in Thousands)

Page #	FTE = Full-Time Equivalent	FY 2012 Enacted		FY 2013 CR Level		FY 2014 Request to Congress		ANALYSIS OF CHANGE (FY 2012 - FY 2014)		
		FTEs	\$000	FTEs	\$000	FTEs	\$000	Fixed Costs		Program Increase
								\$000	FTEs	\$000
<b>MUSEUMS AND RESEARCH CENTERS</b>										
<b><i>Unlocking the Mysteries of the Universe</i></b>										
37	National Air and Space Museum	161	18,217			161	18,733	266	0	250
42	Smithsonian Astrophysical Observatory	106	23,962			106	24,293	331	0	0
46	Major Scientific Instrumentation	0	3,816			0	4,316	0	0	500
34	Universe Consortium	1	300			1	300	0	0	0
	<b>Subtotal, <i>Unlocking the Mysteries of the Universe</i></b>	<b>268</b>	<b>46,295</b>			<b>268</b>	<b>47,642</b>	<b>597</b>	<b>0</b>	<b>750</b>
<b><i>Understanding and Sustaining a Biodiverse Planet</i></b>										
52	National Museum of Natural History	358	48,086			358	49,084	668	0	330
64	National Zoological Park	218	23,315			224	25,196	331	6	1,550
71	Smithsonian Environmental Research Center	32	3,767			32	3,903	136	0	0
75	Smithsonian Tropical Research Institute	202	12,581			202	14,095	1,514	0	0
34	Biodiversity Consortium	3	1,847			3	1,867	20	0	0
	<b>Subtotal, <i>Understanding &amp; Sustaining a Biodiverse Planet</i></b>	<b>813</b>	<b>89,596</b>			<b>819</b>	<b>94,145</b>	<b>2,669</b>	<b>6</b>	<b>1,880</b>
<b><i>Valuing World Cultures</i></b>										
83	Arthur M. Sackler Gallery/Freer Gallery of Art	45	6,125			45	6,206	81	0	0
87	Center for Folklife and Cultural Heritage	17	2,330			17	2,490	160	0	0
91	Cooper-Hewitt, National Design Museum	33	4,207			36	4,710	303	3	200
96	Hirshhorn Museum and Sculpture Garden	37	4,349			37	4,410	61	0	0
101	National Museum of African Art	27	4,284			27	4,340	56	0	0
34	World Culture Consortium	2	300			2	300	0	0	0
	<b>Subtotal, <i>Valuing World Cultures</i></b>	<b>161</b>	<b>21,595</b>			<b>164</b>	<b>22,456</b>	<b>661</b>	<b>3</b>	<b>200</b>
<b><i>Understanding the American Experience</i></b>										
109	Anacostia Community Museum	18	2,060			18	2,095	35	0	0
114	Archives of American Art	17	1,877			17	1,904	27	0	0
118	National Museum of African American History & Culture	46	13,411			106	35,955	1,266	60	21,278
132	National Museum of American History, Behring Center	171	22,600			171	23,176	326	0	250
149	National Museum of the American Indian	246	31,849			246	32,265	416	0	0
146	National Portrait Gallery	55	5,989			55	6,076	87	0	0
151	Smithsonian American Art Museum	88	9,328			88	9,462	134	0	0
34	American Experience Consortium	4	759			4	759	0	0	0
	<b>Subtotal, <i>Understanding the American Experience</i></b>	<b>645</b>	<b>87,873</b>			<b>705</b>	<b>111,692</b>	<b>2,291</b>	<b>60</b>	<b>21,528</b>
	<b>Total Museums and Research Centers</b>	<b>1,887</b>	<b>245,359</b>			<b>1,956</b>	<b>275,935</b>	<b>6,218</b>	<b>69</b>	<b>24,358</b>

**SMITHSONIAN INSTITUTION**  
**Salaries and Expenses**  
Unit Detail of the FY 2012 Enacted and the FY 2013 and FY 2014 Estimates  
(\$ in Thousands)

FTE = Full-Time Equivalent

Page #

	FY 2012 Enacted		FY 2013 CR Level		FY 2014 Request to Congress		ANALYSIS OF CHANGE (FY 2012 - FY 2014)		
	FTEs	\$000	FTEs	\$000	FTEs	\$000	Fixed	Program Increase	
							Costs	FTEs	\$000
<b>MISSION ENABLING</b>									
<i>Program Support and Outreach</i>									
157 Outreach	62	9,277			110	34,392	115	48	25,000
165 Communications	22	2,744			22	2,780	36	0	0
168 Institution-wide Programs	0	10,910			0	13,310	0	0	2,400
178 Office of Exhibits Central	28	3,007			28	3,048	41	0	0
180 Museum Support Center	23	1,871			23	1,897	26	0	0
182 Museum Conservation Institute	22	3,231			22	3,276	45	0	0
186 Smithsonian Institution Archives	20	2,189			20	2,220	31	0	0
188 Smithsonian Institution Libraries	86	9,967			86	10,402	435	0	0
<b>Subtotal, Program Support and Outreach</b>	<b>263</b>	<b>43,196</b>			<b>311</b>	<b>71,325</b>	<b>729</b>	<b>48</b>	<b>27,400</b>
<b>192 Office of the Chief Information Officer</b>	<b>91</b>	<b>45,920</b>			<b>93</b>	<b>49,660</b>	<b>1,398</b>	<b>2</b>	<b>2,342</b>
<b>196 Administration</b>	<b>182</b>	<b>34,272</b>			<b>189</b>	<b>36,779</b>	<b>1,068</b>	<b>7</b>	<b>1,439</b>
<b>202 Office of the Inspector General</b>	<b>22</b>	<b>2,645</b>			<b>24</b>	<b>3,231</b>	<b>38</b>	<b>2</b>	<b>548</b>
<i>Facilities Services</i>									
205 Facilities Maintenance	358	70,690			367	75,964	858	9	4,416
209 Facilities Operations, Security and Support	1,392	193,430			1,402	198,339	2,425	10	2,484
<b>Subtotal, Facilities Services</b>	<b>1,750</b>	<b>264,120</b>			<b>1,769</b>	<b>274,303</b>	<b>3,283</b>	<b>19</b>	<b>6,900</b>
<b>Total Mission Enabling</b>	<b>2,308</b>	<b>390,153</b>			<b>2,386</b>	<b>435,298</b>	<b>6,516</b>	<b>78</b>	<b>38,629</b>
<b>GRAND TOTAL, SMITHSONIAN INSTITUTION</b>	<b>4,195</b>	<b>635,512</b>	<b>4,195</b>	<b>639,402</b>	<b>4,342</b>	<b>711,233</b>	<b>12,734</b>	<b>147</b>	<b>62,987</b>

## SALARIES AND EXPENSES

FY 2012 Enacted	\$635,512,000
FY 2013 CR Level*	\$639,402,000
FY 2014 Estimate	\$711,233,000

\* CR through March 27, 2013 (PL 112-175)

For FY 2014, the Institution requests **\$711.2 million** in the Salaries and Expenses (S&E) account. Within the total increase requested, approximately 17 percent is attributable to fixed costs for sustaining base operations (e.g., pay, utilities, rent, etc.), and the remainder is for priority requirements throughout the Institution. In addition, the Smithsonian requests an increase of \$21.3 million for the costs required for the legislated National Museum of African American History and Culture.

### FIXED COSTS

**SALARY AND PAY-RELATED COSTS (+\$9,536,000)** — The Institution requests an increase of \$9.5 million for higher salary and pay-related costs. The increase funds a 1.0 percent pay raise in January 2014, supports the continued higher pay requirements for the Smithsonian Tropical Research Institute’s (STRI) local Panama employees, and supports increased Workers’ Compensation costs, as follows:

<i>Salary and Related Costs:</i>	<u>Request</u>
▪ 2014 pay raise (3/4 year at 1.0%)	\$3,101,000
▪ Employee Benefits	4,907,000
▪ STRI Local Panama Employees	1,354,000
▪ Workers’ Compensation	<u>174,000</u>
Total	\$9,536,000

- **Proposed 2014 Pay Raise (+\$3,101,000)** — This provides for a 1 percent January 2014 pay raise for three-quarters of a year.
- **Employee Benefits (+\$4,907,000)** — This funds increased transit and benefit costs, including health care premiums and the shift of employees from the CSRS to FERS retirement system.
- **Panamanian Pay Parity (+\$1,354,000)** — With the termination of the Panama Canal Treaties in 2000, U.S. and Panamanian laws required a transition to a local-payroll system governed by the labor laws of Panama for locally hired employees. Since 2000, the compensation policy for locally hired employees at STRI has not kept pace with U.S. Government standards or Panama’s significant economic growth. To implement a more equitable compensation system for locally hired Panamanian employees and to allow STRI to compete in the Panamanian labor market, the Smithsonian adopted the U.S. Department of State employment standards and practices used by U.S. Embassies. The requested increase (+\$1,354,000) continues the three-year transition (started in FY 2013) to provide equitable salaries and benefits for the locally hired employees so that they are comparable to those at the local U.S. Embassy.

- **Workers' Compensation (+\$174,000)** — This supports the provisions of Section 8147(b) of Title 5, *United States Code*. The Workers' Compensation bill for FY 2014 is **\$3,830,000**, based on actual costs incurred from July 1, 2011 through June 30, 2012, as invoiced by the Department of Labor in August 2012.

**Increased Pay Costs**  
(Dollars in Thousands)

Line Item	Pay Increase	Benefits
National Air and Space Museum	125	141
Smithsonian Astrophysical Observatory	115	216
National Museum of Natural History	296	372
National Zoological Park	151	180
Smithsonian Environmental Research Center	107	29
Smithsonian Tropical Research Institute	63	97
Biodiversity — Consortium	5	15
Arthur M. Sackler Gallery/Freer Gallery of Art	33	48
Center for Folklife and Cultural Heritage	16	18
Cooper-Hewitt, National Design Museum	21	33
Hirshhorn Museum and Sculpture Garden	26	35
National Museum of African Art	22	34
Anacostia Community Museum	13	22
Archives of American Art	12	15
National Museum of African American History and Culture	47	104
National Museum of American History, Behring Center	145	167
National Postal Museum	5	9
National Museum of the American Indian	170	246
National Portrait Gallery	40	47
Smithsonian American Art Museum	62	72
Outreach	43	72
Communications	15	21
Office of Exhibits Central	18	23
Museum Support Center	12	14
Museum Conservation Institute	20	25
Smithsonian Institution Archives	14	17
Smithsonian Institution Libraries	58	77
Office of the Chief Information Officer	103	355
Administration	288	346
Inspector General	18	20
Facilities Maintenance	309	549
Facilities Operations, Security, and Support	729	1,488
<b>Total Increased Pay Costs</b>	<b>\$3,101</b>	<b>\$4,907</b>

**UTILITIES, POSTAGE, RENT, COMMUNICATIONS, AND OTHER FIXED COSTS (+\$3,198,000)** — The Institution requests a net increase of \$3,198,000 for utilities, postage, rent, communications, and other fixed-cost accounts, as detailed in the chart below. The increase reflects consumption and rate changes in the utilities accounts, inflationary increases, and program needs in the rent accounts. In addition, the increases in the Communications and other accounts are requested to provide for fixed software licensing and maintenance costs; inflationary increases for library subscriptions and audit requirements; and mandated increases for the Smithsonian Accessibility Program.

The following table displays the FY 2012 enacted and FY 2014 estimates. The details that follow address the specific changes impacting the FY 2014 accounts.

**Federal Utilities, Postage, Rent, Communications,  
and Other Fixed Costs  
FY 2012–FY 2014  
(Dollars in Thousands)**

	<b>FY 2012 Estimate</b>	<b>FY 2013 Estimate</b>	<b>FY 2014 Estimate</b>	<b>FY 2012–2014 Change</b>
Utilities:				
Electricity	21,020		18,918	-2,102
Chilled Water	7,298		7,175	-123
Steam	8,777		7,830	-947
Natural Gas	4,027		3,763	-264
DC Gov't Water/Sewer	3,451		5,177	1,726
Other Water and Fuel	<u>1,094</u>		<u>1,068</u>	<u>-26</u>
Subtotal, Utilities	45,667		43,931	-1,736
Postage	1,661		1,611	-50
Motor Fuel	370		370	0
Rental Space:				
Central	28,432		30,426	1,994
Unit	<u>5,374</u>		<u>6,864</u>	<u>1,490</u>
Subtotal, Rent	33,806		37,290	3,484
Communications	15,527		16,467	940
Other Fixed Costs	1,602		2,162	560
<b>Total</b>	<b>\$98,633</b>		<b>\$101,831</b>	<b>\$3,198</b>

**UTILITIES (-\$1,736,000)** — Justified here, but included in the Facilities Operations, Security, and Support line item are increases to support electricity; chilled water; steam; natural gas; Washington, DC Government Water and Sewer; and other water and fuel services. The request includes the following:

- **Electricity (-\$2,102,000)** — Electricity is used to operate the Smithsonian's large infrastructure. The major use of electricity is for air-conditioning that provides essential climate control to protect the priceless national collections as well as visitors and staff. The Washington, DC region recorded its warmest year on record, along with lower-than-expected rate increases. The request covers a modest rate increase anticipated in FY 2014 for all accounts, offset by a downward adjustment to FY 2012 and FY 2013 rate estimates (-\$2,036,000); and anticipated increased reimbursements (-\$66,000).
- **Chilled Water (-\$123,000)** — Chilled water costs represent both the annual cost of the fixed, 15-year debt service for the joint project between the General Services Administration (GSA) and the Smithsonian to supply chilled water from GSA's central plant to the Smithsonian's south Mall facilities, and the variable cost for actual chilled water usage. The request includes an anticipated four percent rate increase in FY 2014, offset by a downward adjustment to costs for lower-than-anticipated consumption (-\$162,000); and anticipated decreased reimbursements (+\$39,000).
- **Steam (-\$947,000)** — The Smithsonian uses steam for heating and humidification, and to produce hot water for facilities on the Mall and in New York City. In FY 2012, the Washington, DC region recorded its warmest year on record. The estimate includes a decrease in steam rates transmitted by GSA to the Smithsonian for facilities on the Mall (-\$235,000), a projected two percent increase in rates for New York City (+\$9,000), a downward adjustment to FY 2012 and FY 2013 consumption estimates to account for greater-than-anticipated efficiencies in steam conservation (-\$721,000).
- **Natural Gas (-\$264,000)** — The Smithsonian uses natural gas for heating and generating steam. The estimate reflects the net impact of projected FY 2014 rate increases for all accounts (+\$107,000), a downward adjustment to FY 2012 and FY 2013 estimates to account for lower-than-expected rate increases (-\$377,000), and anticipated decreased reimbursements (+\$6,000).
- **DC Water and Sewer (+\$1,726,000)** — Funds cover the costs of both water and sewer services provided by the District of Columbia Water and Sewer Authority (DCWSA). The requested increase represents rate and billing adjustments transmitted by DCWSA to the Smithsonian (+\$1,766,000), offset by anticipated increased reimbursements (-\$40,000).
- **Other Water and Fuel (-\$26,000)** — Funds provide water service for facilities outside of Washington, DC, fuel oil used in dual-fuel boilers, and fuel oil used



in generators for emergency power. The net decrease includes an overall rate increase in FY 2014 estimated at four percent for water (+\$32,000) and two percent for fuel (+\$7,000), and a downward adjustment to costs for lower-than-anticipated consumption (-\$65,000).

**POSTAGE (-\$50,000)** — Funds provide for all official domestic and international mail services. The estimate reflects a cost savings from reduced mail volume due to increased use of electronic communication.

**RENTAL SPACE (+\$3,484,000)** — Funds provide for the long-term rental of office, collections and warehouse storage, and laboratory space. For FY 2014, the Smithsonian requests increases of \$1,994,000 for centrally funded lease requirements and \$1,490,000 for unit-funded, programmatic lease requirements, as follows:

- **Central Rent (+\$1,994,000)** — Justified here, but included in the Facilities Operations, Security, and Support line item, are increases needed to support leased office and storage spaces, as follows:

Escalation (+\$1,902,000) — Provides for annual rent increases in accordance with the terms of current lease contracts. Among the contracts, the annual escalation rate for base rent averages three percent, and operating and real-estate taxes are each projected at three percent above FY 2012 estimates.

Additional Base Rent (+\$92,000) — Funds additional leased space for the Archives of American Art (\$32,000) and Smithsonian American Art Museum (\$60,000). In FY 2012, the Smithsonian leased an additional 2,836 square feet of office and collections storage space at the Victor Building, located at 750 9th Street, NW, Washington, DC, to address Archives of American Art's vital need for additional space. The requested \$32,000, along with \$85,000 in existing base rent, will provide the estimated \$117,000 in annual lease costs for FY 2014.

The Smithsonian American Art Museum requires additional collection-storage space to properly care for and store collections. In FY 2013, the Smithsonian plans to lease 500 square feet of cool-storage space at the ARTEX facility in Landover, Maryland. The request includes \$60,000 for estimated annual lease costs in FY 2014.

- **Unit Rent (+\$1,490,000)** — Justified here, but included in the following museums' line items, are unit-funded rent increases needed to support Smithsonian programs. The increases are as follows:

Escalation (+\$219,000) — Provides funding for the annual escalation of contractual lease costs and rent-related services. The requested increase supports leased space occupied by the Center for Folklife and Cultural Heritage

(+\$20,000); Cooper-Hewitt, National Design Museum (+\$84,000); and the National Museum of African American History and Culture (+\$115,000).

Cooper-Hewitt, National Design Museum (CHNDM) (+\$165,000) — The requested increase provides funds to cover annual lease costs for an additional 3,254 square feet of leased collections-storage space at the Crozier Fine Arts facility in Newark, New Jersey. The Newark facility serves as CHNDM’s existing central collections storage and conservation facility. The requested increase ensures continued care and storage of the remaining collections removed from the Carnegie Mansion as the Museum is renovated.

Center for Folklife and Cultural Heritage (CFCH) (\$106,000) — In FY 2011, the Smithsonian signed a lease for 10,871 square feet of storage space in Lanham, Maryland to meet CFCH’s critical storage needs and to address the National Park Service’s request that the Institution reduce the Folklife Festival’s preparation time on the National Mall. The requested \$106,000 provides the balance needed for annual rent and rent-related costs.

National Museum of African American History and Culture (NMAAHC) (+\$1,000,000) — Funds additional leased-space requirements for NMAAHC to house an anticipated increase in staff who will play an essential role in setting up the exhibitions, programming, and operations of the Museum prior to its expected opening to the public in late 2015.

**COMMUNICATIONS (+\$940,000)** — The communications base supports the operations of the Institution’s voice and data telecommunications infrastructure. The requested increase covers the costs of software license fees and hardware maintenance, as follows:

<b>Item</b>	<b>\$000s</b>
Smartnet Maintenance	332
Intrusion Detection System (IDS) maintenance, network and appliances	150
McAfee Anti-virus Maintenance and Licenses	170
Internet 1 Leased Lines, 600 Mb to 1 Gig	134
Security Software Maintenance Increases	46
Airwatch Maintenance and Licenses	23
CIS Hardware Maintenance	60
NMNH CIS Maintenance	25
<b>Total Increase</b>	<b>\$940</b>

Hardware and software throughout the Institution have annually recurring license and maintenance costs. Increased funding is required to support license and maintenance fee increases. Maintenance fees are an essential part of protecting the Institution’s IT investments. In addition to allowing the Smithsonian staff to request technical assistance from vendors, these fees also ensure that

the Smithsonian's software and hardware (via software and firmware upgrades) remain efficient and secure in the face of emerging cyberspace threats. As the user base for Smithsonian systems increases, so must the number of licenses increase. The purchase of additional licenses allows the Institution to scale systems to meet the growing demand of the Smithsonian user community, and account for the greater numbers of employees who need protected network connections to telework. In a broader sense, maintaining these licenses is essential for the Institution to continue implementing the digitization strategic plan and thereby advance the goal of Broadening Access to the Smithsonian's national collections.

The increase to the Smartnet annual maintenance cost is due to a change in the methodology Cisco uses to calculate maintenance for our voice and data network systems, which include hardware and software licenses. Smartnet maintenance is being calculated on a per user basis instead of a per server basis for Voice Systems, thereby significantly increasing the costs involved. Airwatch is the product used to manage mobile devices. As the use of iPhones and devices other than Blackberries increases Institution-wide, additional management software licenses will be required.

**OTHER SUPPORT (+\$560,000)** — An additional \$560,000 is requested to offset the effects of inflation and to cover other fixed costs. Included in the Administration line item is an increase to the Central Accessibility program (+\$100,000) to cover mandated costs of reasonable accommodation services (e.g., sign language interpreters, personal assistants, and readers) for events, training, meetings, and applicant interviews.

Justified here and included in the Administration line item is an increase to cover contractually required inflation costs for the annual audit of the Smithsonian's financial statements (+\$85,000) and increased processing fees for the Smithsonian's payroll services (+\$75,000).

Additionally, justified here and included in the Smithsonian Institution Libraries' line item, is funding to adequately address inflationary increases in library subscriptions (+\$300,000). This increase will enable the Smithsonian Institution Libraries to cover the extraordinary inflation costs in purchasing journals and electronic databases which are critical to support the Institution's many research programs and scientists.

## SUMMARY OF S&E PROGRAM INCREASES

	\$000s	
	FY 2012 Baseline	FY 2014 Request
<b>Excellent Research (Grand Challenges)</b>	<b>86,481</b>	<b>500</b>
• Universe: Greenland Telescope	0	500
<b>Revitalizing Education</b>	<b>17,700</b>	<b>25,000</b>
• STEM Engagement	0	25,000
<b>Broadening Access</b>	<b>78,603</b>	<b>3,472</b>
• Digitization and Web Access	8,983	2,642
• Exhibition Maintenance	16,391	830
<b>Strengthening Collections</b>	<b>57,720</b>	<b>3,950</b>
• Collections Care Initiatives	5,460	2,400
• Animal Welfare	6,372	1,550
<b>Mission Enabling</b>	<b>395,008</b>	<b>8,787</b>
• Facilities Maintenance	70,690	4,416
• Facilities Operations, Security, & Support	202,515	2,684
• Information Technology	54,313	0
• Management Operations	67,490	1,687
<b>National Museum of African American History and Culture (Unit Rent: \$1,115K in Fixed Costs)</b>	<b>[13,415]</b>	<b>21,278</b>
<b>Total S&amp;E Program Increases</b>	<b>\$635,512</b>	<b>\$62,987</b>

Note: For a complete list of program categories, see page 33. The NMAAHC baseline number (\$13,415K) is a non-add to the total S&E number (\$635,512K). The NMAAHC baseline number is included in each of the above major program categories.

### EXCELLENT RESEARCH (GRAND CHALLENGES)

The Smithsonian's Strategic Plan for FYs 2010–2015 articulates four Grand Challenges that provide an overarching strategic framework for Smithsonian programs and operations. The four Grand Challenges are:

- *Unlocking the Mysteries of the Universe*
- *Understanding and Sustaining a Biodiverse Planet*
- *Valuing World Cultures*
- *Understanding the American Experience*

Meeting these Grand Challenges will allow the Smithsonian to integrate the work of many disciplines within its museums and research centers, as well as broaden the Institution's external collaborations. The challenges are grounded in

research and emphasize complementary education and outreach programs. Together, they will influence how the Smithsonian directs its resources and focuses its energies for maximum effectiveness.

The Institution has established consortia in each Grand Challenge area to fuse and optimize efforts across the Institution and coordinate work with the Smithsonian's research partners to ensure that our combined efforts have the maximum impact. The consortia will also help the Institution raise funds for these efforts. However, all research will continue to be conducted by our existing museums and research centers. For FY 2014, the Institution will continue implementing its Strategic Plan with the following requested increases:

### ***Unlocking the Mysteries of the Universe — Greenland Telescope (+\$500,000)***

The Institution requests \$500,000 to support the first phase of the Greenland Telescope project that will conduct groundbreaking, high-priority observations of supermassive black holes, and conduct terahertz observations of the cold universe as part of the only mid-scale priority in the 2010 decadal survey for astronomy. The Smithsonian Astrophysical Observatory, in partnership with the National Science Foundation (NSF) Polar Division, has identified a high, dry, northern site on the Greenland ice sheet as the ideal place for the Smithsonian's 12-meter radio antenna. The telescope will conduct single-dish terahertz observations and very long baseline observations with telescopes in Chile and the Smithsonian's submillimeter telescope array in Hawaii.

The Smithsonian requests these funds for the first phase of the project to buy infrastructure and logistics support in coordination with NSF Polar Division, which is developing a new site near their present Summit Station to enable clean climate and related research. Funding in FY 2014 and subsequent years will support work to conduct the first observations with the Greenland Telescope in 2017. A significant portion of the funding for the project will come from external partners, including the University community, which will provide scientific instruments. The Smithsonian and NSF consider this an excellent opportunity for a highly leveraged use of federal funds with high-value science returns on the investment. Additional information is included in the Major Scientific Instrumentation section of this budget.

## **REVITALIZING EDUCATION**

### **Science, Technology, Engineering, and Mathematics (STEM) Engagement — (+\$25,000,000, 48 FTEs)**

The Smithsonian is requesting **\$25 million** to provide inspiring STEM experiences for teachers and students by drawing on the scientific and engineering assets of the federal Government — including scientists, labs, satellites, museums and research centers. The Smithsonian will serve as a conduit between federal

mission agencies, other non-profits — including the Smithsonian's 170 Affiliate museums — and the Department of Education and school districts. The Institution will grow and support learning communities that include educators in schools and informal learning settings; assist with the identification of curriculum in a variety of modalities; and work with our partners to identify, develop and disseminate new STEM engagement materials and experiences and professional development opportunities that take into consideration the Next Generation Science Standards and align with state standards.

The Smithsonian will work collaboratively with federal agencies offering STEM programs so that we may: create content that takes advantage of each agency's unique assets, create complementary materials and avoid duplication of effort, and share a centralized portal for the broad dissemination of our engagement offerings. The Smithsonian will also create a knowledge-transfer infrastructure that serves students and teachers as well as the scientists and educators who are creating these educational assets.

The Smithsonian will manage these endeavors by creating a centralized oversight group that will coordinate the efforts of STEM engagement providers, including Smithsonian units, mission agencies and other non-profit collaborators. We will also increase the capacity of Smithsonian units that offer programs, experiences and services in the creation, dissemination and evaluation of STEM education content. Additional information is included in the Outreach section.

## **STRENGTHENING COLLECTIONS / BROADENING ACCESS**

Collections stewardship and broadening access through digitization are key components and core priorities of the Smithsonian's Strategic Plan. Assembled over 165 years, Smithsonian collections are fundamental to carrying out the Institution's mission and Grand Challenges, serving as the intellectual base for scholarship, discovery, exhibition, and education. As recognized by the America COMPETES Act reauthorization, the proper management, documentation, preservation, and accessibility of collections are critical to the nation's research and education infrastructure, enabling researchers to address such significant challenges facing society as the effects of climate change, the spread of invasive species, and the loss of biological diversity and its impact on the global ecosystem. The Institution must substantially improve collections care to ensure that Smithsonian collections remain available for current and future use. The volume, characteristics, complexity, and age of Smithsonian collections, as well as the variety of discipline-specific standards that apply to their care, make their management and digitization as unprecedented, challenging, and complex as the collections themselves.

This budget request supports the Smithsonian's Strategic Plan to continually improve the quality of collections preservation, storage space, management, information content, and physical and electronic access while leveraging internal resources to support Institution-wide initiatives that strategically address Smithsonian

collections care. Because collections stewardship is fundamental to the Smithsonian's mission, there is a critical need for new resources to accomplish basic collections management activities for accountability, preservation, storage, digitization, and accessibility of the collections.

The increase requested will assist in achieving the strategic goals of Strengthening Collections and Broadening Access by improving collections care, mitigating collections deterioration, digitizing collections, and supporting Smithsonian-wide initiatives that strategically address the most critical collections care and digitization needs. Additional details are provided in the Institution-wide Programs section.

### **Collections Care Initiative (+\$2,400,000)**

This request supports and maintains an integrated, strategic and pan-Institutional approach to collections care by prioritizing and systematically addressing critical collections care needs based on current collection care methodologies, sound assessment data, economies of scale, and project-driven activities, including collections moves. This increase provides critical resources to strategically correct collections care deficiencies identified by the comprehensive collections condition assessment and collections space survey; address the Smithsonian's Inspector General collections-related audit recommendations; and improve the preservation, storage, and accessibility of collections currently at risk of loss or damage.

### **Digitization (+\$2,342,000, 2 FTEs)**

This request implements cost-efficient operational models for digitizing Smithsonian collections systematically at scale, and execute on priorities as identified by digitization assessment data and unit digitization plans. The requested funding increase will establish workflow prototypes for common collection materials (for example photographs, prints or audiovisual materials) which can be leveraged across many units, and scaled up as additional funds become available. Establishing standard rapid digitization for common collection materials ensures maximum return on investment for Smithsonian digitization funding, and will improve access to assets for scientific inquiry and public engagement, particularly for audiences unable to visit the collections in person.

### **Animal Welfare (+\$1,550,000, +6 FTEs)**

The National Zoological Park (NZN) is requesting an increase of \$1,550,000 and 6 FTEs to support the Institution's living collections. The NZN has 179 independent aquatic systems containing 1.7 million gallons of treated water, managed to sustain the animal collection. This is the equivalent of a large public aquarium but, unlike an aquarium, the aquatic life-support systems (LSS) are located throughout the 163-acre park. Within the past two years, the Smithsonian

has significantly renewed two of the Zoo's aquatic facilities: the upgraded *Asia Trail* exhibit; and the *Seals and Sea Lions* exhibit in the new *American Trail*.

Accordingly, the NZP needs to create a dedicated LSS team, led by an experienced curator, with an extensive aquatic background, and assisted by a supervisory biologist. Together, they will lead a team of 4 dedicated LSS keepers, available 24 hours per day, seven days per week, and 365 days per year to support these new aquatic facilities. The requested **\$650,000** includes \$100,000 for the additional supplies required to operate and maintain the new systems.

In addition, this budget request provides resources to support the welfare of the Smithsonian's living collection. Excellence in animal care is paramount for maintaining the Zoo's accreditation by the Association of Zoos and Aquariums (AZA), as well as for maintaining compliance with the Animal Welfare Act. The requested increase of **\$900,000** supports animal nutrition (+\$200,000); increasing health care costs (+\$200,000); and necessary supplies, as well as costs incurred from operations, staff training, and transportation costs (+\$500,000). Details are provided in the National Zoological Park section.

#### **Web Access (+\$300,000, +2 FTEs)**

As an integral part of its role in Broadening Access, the Institution has developed a prototype of a Participant Access System (PAS) that will enable the Smithsonian to make all of its content and resources easily accessible and available to learners everywhere at any time. The PAS will integrate with existing Smithsonian websites, databases, and external data sets, including collections, archives, programming, and educational resources. Users of the PAS, called MySI, will be able to search Smithsonian content by any subject matter and receive information from any of the Smithsonian's museums or research centers addressing that subject matter.

At this time, the Smithsonian delivers content but does not engage users of this content as contributors and evaluators. MySI will facilitate use as well as the Institution's understanding of how the Smithsonian's content is used and the needs of learners of all ages. The Institution is requesting two FTEs who will directly support MySI: a senior technology manager (\$150,000) and a lead developer (\$150,000). Additional detail is included in the Administration section.

#### **Exhibit Maintenance (+\$830,000)**

Smithsonian museums have a long tradition of raising private funds to design and install new exhibitions. For generations, these exhibitions have been the reason why millions of visitors have come to the National Mall. However, the success of these exhibitions comes with a cost. The mere presence of record numbers of visitors results in significant damage to the spaces and displays within the museums' halls, and increases the cost to maintain them. Currently, exhibit maintenance is defined as custodial, exhibit, and conservation operations of exhibit areas; cleaning



of casework and objects; paint touch-ups; carpet replacement; and upkeep of other exhibit components, including media and interactive technology.

A Smithsonian task force worked to gather data on the current square footage for interior, exterior, staffing, and resources expended, and developed a methodology for rating the level of quality in maintaining exhibitions. This methodology closely resembles the benchmarking work already in place for Smithsonian-run facilities. It uses the APPA (Association of Higher Education Facilities Officers) service level standards to measure overall appearance and maintenance. The requested funding increase will begin to address the exhibition maintenance backlog and improve efforts to maintain existing and new exhibitions at a standard that reflects a world-class institution. This budget will ensure that the museums' exhibitions are clean and in good repair, and that the media components are fully operational and up to date. Priority will be given to providing energy-efficient lighting and updating the technological components in computerized interactive exhibits which, in many cases, have become obsolete. Specifically, funding would be provided to the National Museum of American History (**+\$250,000**); the National Museum of Natural History (**+\$330,000**); and the National Air and Space Museum (**+\$250,000**). Additional details are included in each Museum's narrative.

## **MISSION ENABLING**

### **Facilities Support (+\$7,100,000, +22 FTEs)**

- **Facilities Maintenance (+\$4,416,000, +9 FTEs)** — The Smithsonian requests an increase of \$4.4 million to enable its maintenance program to continue the work of stabilizing and standardizing the overall condition of its facilities. The increase will fund high-priority facilities maintenance needs, including: fire-protection systems; life-support equipment; security systems; and expanded building systems. The increase will support collection storage maintenance by providing dedicated collection storage areas for the Institution's national collections. The increase will also improve the Institution's electronic security maintenance to detect and replace failing or old equipment and will enable the staff to react to emergencies in a timely manner. The increase also includes partial-year funding to begin building the maintenance program required for the National Museum of African American History and Culture, which is slated to open in 2015. Additional detail is included in the Facilities Maintenance section.
- **Facilities Operations and Support (+\$2,684,000, +13 FTEs)** — The Institution also requests an increase of \$2.7 million to address high-priority operating and safety requirements. The increase supports critical maintenance requirements for the Institution's vehicle and boat program that is vital to conduct important scientific research. The increase also supports mandated background investigations, required safety support services, and the establishment of a branch to oversee critical projects. This increase will

provide partial support to improve facilities operations and cleanliness and also support for the Smithsonian's business continuity (disaster management) program — a critical security function. The request also includes partial-year funding to begin facilities and security operational planning for the National Museum of African American History and Culture. Finally, the request will provide required custodial support for an off-Mall unit facilities operation. Additional detail is included in the Facilities Operations, Security, and Support section.

## **Management Operations (+\$1,687,000, +7 FTEs)**

- **Internal Controls (+\$915,000, +5 FTEs)** — The Smithsonian is improving governance and internal controls, and the Institution is gaining congressional support in areas that were specifically noted by the Independent Review Committee (IRC). The additional positions (5 FTEs) for the Office of the Inspector General (IG), Office of the Comptroller, and the Office of General Counsel will support the continued elimination of internal controls deficiencies identified by the IRC, as reflected in the Board of Regents' governance recommendations. Details are provided in the IG and Administration sections.
- **Training (+\$450,000)** — This funding supports a comprehensive, centrally funded, mandated training program (5 U.S.C. §4121) which includes initial and follow-up supervisor training with the myriad rules, regulations, and policies involved in employee supervision. By having a centralized training fund, the Institution will ensure compliance with federal regulations, increase employee engagement, and mitigate costs. The details of this increase to the Office of Human Resources are included in the Administration section.
- **Diversity (+\$322,000, +2 FTEs)** — Diversity is one of the expressed values in the Smithsonian Strategic Plan. The Office of Equal Employment and Minority Affairs' (OEEMA) Supplier Diversity Program advocates for the use of small disadvantaged businesses in the Smithsonian's procurement and contracting opportunities. This program was established to demonstrate support for and commitment to the use of small, disadvantaged, women- and veteran-owned businesses in operations. This additional funding would support Smithsonian units in the development of unit annual procurement plans, small business participation goals, and timely preparation of the Smithsonian Forecast of Procurement Opportunities. The requested funds would also assist in developing and implementing small business and minority-owned small business outreach plans and initiatives in order to brand the Smithsonian to the small and minority-owned business communities. Details of this increase are included in the Administration section.

## **NATIONAL MUSEUM OF AFRICAN AMERICAN HISTORY AND CULTURE (+\$21,278,000, +60 FTEs)**

The National Museum of African American History and Culture (NMAAHC) has strategically planned for needed Federal support by addressing all its requirements — construction, staffing, and operation — until the Museum's opening as the Smithsonian Institution's newest Museum on the Mall. As the Museum moves ahead with plans and operations geared toward opening in two years, it is crucial that the required resources be fully provided to support the professional and technical expertise needed for all aspects of this project. It is equally important to leverage the contributions of potential donors (e.g., collections, in-kind services, and funding), which include NMAAHC's ability to cultivate relationships while securing a firm financial base of private funding. This will continue the momentum essential to the private-sector fundraising campaign.

NMAAHC has been cognizant of the constrained economic environment of the last several years and has been conservative in its budgetary requests. As the Museum prepares for its opening in 2015, the request is of crucial importance to continue essential momentum. Therefore, NMAAHC requests an increase of **\$21,278,000** in programmatic increases. In addition, the Institution requests \$1,115,000 to cover the lease costs of office space for new employees, included in the Fixed Costs section of this budget submission. It is equally important to leverage the contributions of potential donors (who provide collections, in-kind services, and funding), which includes NMAAHC cultivating relationships with supporters while building a firm financial base of private funding. Details of the increases are in NMAAHC's narrative section.

**NO-YEAR FUNDING** — The following table provides the FY 2014 Salaries and Expenses requests for No-Year Funding.

**No-Year Funding Request**  
(Dollars in Thousands)

<b>Salaries and Expenses</b>	<b>FY 2014 Request</b>
<b>No-Year Funds</b>	
National Museum of African American History and Culture	35,955
National Museum of Natural History	
Exhibition Reinstallation	1,006
Repatriation Program	1,436
Major Scientific Instrumentation	4,345
Collections Acquisition	462
<b>Total, No-Year</b>	<b>\$43,204</b>

**OBJECT CLASS** — The following table provides an object-class breakout of resources for the Salaries and Expenses account.

**Object-Class Request**  
(Dollars in Millions)

<b>Salaries and Expenses</b>	<b>FY 2014 Request</b>
Salaries and Benefits	433
Travel and Transportation	6
Rent, Utilities, Communications, and Other	85
Other Services	147
Supplies and Materials	19
Equipment	21
<b>Total</b>	<b>\$711</b>

## FEDERAL RESOURCE SUMMARY BY PERFORMANCE OBJECTIVE AND PROGRAM CATEGORY

The Smithsonian has developed its FY 2014 budget request by reviewing all resources, both base amounts and identified increases or decreases, in relation to the Institution's performance plan and Strategic Plan. In the sections that follow, detailed justifications are provided for all funding and FTEs by the Institution's strategic goals and by performance objectives under each goal.

The Institution's program performance goals and objectives are aligned with the program categories used in the federal budget and the Institution's financial accounting system. This enables the Institution to more clearly demonstrate the relationship between dollars budgeted and results achieved.

The table on the following page summarizes the Institution's FY 2014 **Salaries and Expenses** estimates by strategic goal, performance objective, and program category.

**Federal Resources by Performance Objective and Program Category**  
Salaries and Expenses (\$ in thousands)

Performance Objective/Program Category	FY 2012		FY 2013		FY 2014		Change	
	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000
<b>Excellent Research</b>								
<b>Research</b>								
Engage in research and discovery	432	69,674			450	71,683	18	2,009
Ensure the advancement of knowledge in the humanities	115	16,723			117	18,256	2	1,533
<b>Broadening Access</b>								
<b>Digitization and Web Support</b>								
Provide improved digitization and Web support	62	8,936			77	13,123	15	4,187
<b>Public Programs</b>								
Provide reference services and information	143	16,252			137	16,865	-6	613
<b>Exhibitions</b>								
Offer compelling, first-class exhibitions	420	53,288			434	59,969	14	6,681
<b>Revitalizing Education</b>								
<b>Education</b>								
Engage and inspire diverse audiences	154	17,720			209	44,181	55	26,461
<b>Strengthening Collections</b>								
<b>Collections</b>								
Improve the stewardship of the national collections	437	57,819			457	66,577	20	8,758
<b>Mission Enabling</b>								
<b>Facilities</b>								
Improve the overall cleanliness and efficient operation of Smithsonian facilities	676	130,814			688	137,342	12	6,528
Implement an aggressive and professional maintenance program	358	70,690			367	75,964	9	5,274
Execute an aggressive, long-range revitalization program and limited construction of new facilities	1	791			1	515	0	-276
<b>Security and Safety</b>								
Provide world-class protection for Smithsonian facilities, collections, staff, visitors, and volunteers	736	63,559			723	65,108	-13	1,549
Provide a safe and healthy environment	45	6,838			45	7,135	0	297
<b>Information Technology</b>								
Modernize the Institution's information technology systems and infrastructure	144	54,313			142	55,979	-2	1,666
<b>Management Operations</b>								
Strengthen an institutional culture that is customer centered and results oriented	193	25,344			204	27,982	11	2,638
Ensure that the Smithsonian workforce is efficient, collaborative, committed, innovative, and diverse	88	14,708			90	15,534	2	826
Modernize the Institution's financial management and accounting operations	88	14,690			96	15,815	8	1,125
Enhance the reputation of the Smithsonian by maintaining good relations with the news media and with federal, state, and local governments	38	4,353			30	4,016	-8	-337
Modernize and streamline the Institution's acquisitions management operations	56	7,226			58	7,712	2	486
<b>Ensuring Financial Strength</b>								
Secure the financial resources needed to carry out Institution's mission	9	1,774			17	7,477	8	5,703
<b>TOTAL</b>	<b>4,195</b>	<b>635,512</b>			<b>4,342</b>	<b>711,233</b>	<b>147</b>	<b>75,721</b>

## GRAND CHALLENGES AND INTERDISCIPLINARY RESEARCH

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	10	3,206	0	0	0	851	0	0
FY 2013 ESTIMATE			0	0	0	147	0	0
FY 2014 ESTIMATE	10	3,226	0	0	0	147	0	0

### STRATEGIC GOAL: EXCELLENT RESEARCH

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Excellent Research</b>							
<b>Research</b>							
Engage in research and discovery	4	2,147		4	2,167	0	20
Ensure the advancement of knowledge in the humanities	6	1,059		6	1,059	0	0
<b>Total</b>	<b>10</b>	<b>3,206</b>		<b>10</b>	<b>3,226</b>	<b>0</b>	<b>20</b>

### BACKGROUND AND CONTEXT

The Smithsonian's Strategic Plan for 2010–2015 articulates four Grand Challenges that provide an overarching strategic framework for Smithsonian programs and operations. Meeting these challenges will enable the Institution to integrate the work of many disciplines within the Smithsonian museums and research centers, as well as broaden our external collaborations. The challenges are grounded in research and emphasize complementary education and outreach programs; together, they influence how the Smithsonian directs its resources and focuses its energies. The Smithsonian has developed and implemented a Grand Challenges Awards initiative to advance cross-disciplinary, integrated scholarly efforts across the Institution that relate to one or more of the four Grand Challenges. Using a competitive internal process, the Smithsonian is distributing externally raised grant funds designated for the purpose of advancing research, broadening access, revitalizing education, and encouraging new ways of thinking that involve emerging technology. The grant funding may also help to leverage additional funding, both internal and external, thereby amplifying the scope and breadth of cross-cutting research initiatives. The Smithsonian uses

the Grand Challenges to present the high-level view in the budget; funds are distributed through interdisciplinary consortia, but most of the actual expenditures are made by existing Smithsonian units.

The Smithsonian created interdisciplinary consortia around each of the four Grand Challenges to leverage the scholarship and experience that reside in each field of knowledge. These consortia spark innovative research and educational programs, as well as broker partnerships with private and public entities that support these goals. In addition, the Smithsonian will fortify existing external relationships and forge new ones as potential collaborators emerge in priority areas. These consortia are not new programmatic units, but work through existing museums and research centers to facilitate innovative scholarship and outreach.

The four Grand Challenges are:

- *Unlocking the Mysteries of the Universe*
- *Understanding and Sustaining a Biodiverse Planet*
- *Valuing World Cultures*
- *Understanding the American Experience*

There are no programmatic increases for consortia research requested in FY 2014. The Institution will continue to advance the prior-year research funding in the four Grand Challenges. The budget estimate includes an increase of \$20,000 for necessary pay and related salary costs for existing staff funded under this line item. Below is a summary of the FY 2014 Consortia.

<b><u>Consortium</u></b>	<b><u>FTEs</u></b>	<b><u>\$000s</u></b>
Universe	1	300
Biodiversity	3	1,867
World Culture	2	300
American Experience	4	759
<b>Total</b>	<b>10</b>	<b>\$3,226</b>



## **Introduction, *Unlocking the Mysteries of the Universe***

The Smithsonian will continue to lead in the quest to understand the fundamental nature of the cosmos, using next-generation technologies to explore our own solar system, meteorites, the Earth's geological past and present, and the paleontological record of our planet.

**RESEARCH Goal:** The Smithsonian will continue to advance knowledge at the forefront of understanding the universe and the solid Earth.

**ACCESS Goal:** Inspire people to probe the mysteries of the universe and planetary systems.

UNITS primarily associated with this Grand Challenge:

- **National Air and Space Museum**
- **Smithsonian Astrophysical Observatory**
- **Major Scientific Instrumentation**

## NATIONAL AIR AND SPACE MUSEUM

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	161	18,217	40	5,754	23	3,667	3	1,076
FY 2013 ESTIMATE			46	6,001	22	6,460	6	499
FY 2014 ESTIMATE	161	18,733	46	6,001	22	6,460	6	499

### STRATEGIC GOALS: EXCELLENT RESEARCH; BROADENING ACCESS; REVITALIZING EDUCATION; STRENGTHENING COLLECTIONS; AND MISSION ENABLING

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012-2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Excellent Research</b>							
<i><b>Research</b></i>							
Engage in research and discovery	3	1,124		3	1,136	0	12
Ensure the advancement of knowledge in the humanities	25	3,107		25	3,144	0	37
<b>Broadening Access</b>							
<i><b>Public Programs</b></i>							
Provide reference services and information	6	880		6	884	0	4
<i><b>Exhibitions</b></i>							
Offer compelling, first-class exhibitions	40	5,478		40	5,634	0	156
<b>Revitalizing Education</b>							
<i><b>Education</b></i>							
Engage and inspire diverse audiences	12	1,292		12	1,313	0	21
<b>Strengthening Collections</b>							
<i><b>Collections</b></i>							
Improve the stewardship of the national collections	47	2,852		47	3,009	0	157
<b>Mission Enabling</b>							
<i><b>Information Technology</b></i>							
Modernize the Institution's information technology systems and infrastructure	9	1,043		9	1,064	0	21
<i><b>Management Operations</b></i>							
Strengthen an institutional culture that is customer centered and results oriented	19	2,441		19	2,549	0	108
<b>Total</b>	<b>161</b>	<b>18,217</b>		<b>161</b>	<b>18,733</b>	<b>0</b>	<b>516</b>

## BACKGROUND AND CONTEXT

The mission of the National Air and Space Museum (NASM) is to commemorate the development of aviation and space flight, and educate and inspire the nation by:

- preserving and displaying aeronautical and space flight equipment and data of historical interest and significance to the progress of aviation and space flight;
- developing educational materials and conducting programs to increase the public's understanding of, and involvement in, the development of aviation and space flight; and
- conducting and disseminating new research in the study of aviation and space flight and their related technologies.

NASM is administered as one Museum with multiple locations: the National Mall building; the Udvar-Hazy Center; and the Garber Facility. NASM provides access to the nation's aviation and space flight history to an average of 7–9 million on-site visitors from around the world each year, making it one of the most visited museums in the world. In addition, NASM draws tens of millions of virtual visitors to its website and broadcast and webcast educational programming.

In FY 2014, NASM will collect and preserve the nation's aviation and space artifacts and perform original research in aviation and space history and planetary science to support its broad array of exhibitions, programs, publications, and outreach activities. To accomplish its public service mandate and reach diverse audiences, the Museum draws upon a mixture of in-house resources and a large corps of volunteers.

The budget request includes an increase of \$516,000. The increase includes \$266,000 for necessary pay and other related salary costs for existing staff funded under this line item and an increase of \$250,000 for exhibition maintenance.

## MEANS AND STRATEGY

*Public Engagement* — NASM continues to reach diverse audiences through exhibitions, Museum programming, publications, and electronic outreach. The exhibitions incorporate written labels, interactive devices, and programming elements that appeal to a wide range of ages and interests. Based on the success of the renovated *Pioneers of Flight* exhibition, future plans for all galleries will include components that are physically and intellectually accessible to the Museum's youngest visitors, ages 3–8. To illustrate complex concepts, exhibitions will continue to build on past success by using mechanical and computer interactive devices, which are appealing to most visitors but especially to school-age children and their families.

To further enhance visitors' experiences, NASM staff and volunteers will continue to provide a variety of Museum programs, from daily activities, such as docent-led tours and science demonstrations that reach hundreds of thousands of visitors annually, to big family day events, such as the *Become a Pilot* Family Day, that can reach 10,000 to

50,000 visitors at one event. NASM programs will continue to encourage visitors, especially school groups, to use the Museum's collections and experts to support life-long learning. NASM will seek to replicate the National Mall building's Early Childhood Education Program at the Udvar-Hazy Center, and continue the student Explainers Programs at both Museum locations in FY 2014. The astronomy programs, which include the Public Observatory and educational programming in the planetarium, will remain an important component of STEM (science, technology, engineering and mathematics) education throughout FY 2014.

Electronic outreach continues to provide significant opportunities to engage new virtual audiences around the world, including those who may never be able to visit the Museum in person. In this arena, NASM has successfully used a variety of social media. FY 2014 should see a continued growth in social media as well as an increase in the use of mobile technology, and the applications of these online developments are expected to continue expanding in future years. NASM continues to work with partners to produce and provide educational broadcast programming to educators and students across the nation, and to archive the programs for future use. Production and dissemination of video will increase as it becomes easier and less expensive to create and access via the World Wide Web.

In FY 2012 — Work continued on the final installations in the *Moving Beyond Earth* gallery and on the construction of the *Time and Navigation* gallery. The *Moving Beyond Earth* gallery has been engaging audiences with its many hands-on and computer interactive activities, and providing the Museum with multiple educational broadcast capabilities with programs broadcast over National Aeronautics and Space Administration (NASA) TV and live programming for visitors of all ages. *Fly Marines: The Centennial of Marine Corps Aviation, 1912–2012*, a joint exhibition with the National Museum of the Marine Corps, recently concluded its run in the *Flight in the Arts* gallery from January 2012 until January 2013.

In FY 2013 — Exhibition installations continued with the March 2013 opening of *Time and Navigation: The Untold Story of Getting from Here to There*, a collaboration with the National Museum of American History. *Suited for Space and Recent Acquisitions, 2003–2013* — a Smithsonian Institution Traveling Exhibition Service (SITES) exhibition based on x-ray photographs of NASM's spacesuit collection and NASM art acquired in the last decade — will open in the *Flight and the Arts* gallery in July 2013. A temporary exhibit by George Washington University graduate students will open in late spring 2013. Concept planning continues for a complete redesign of the *Apollo to the Moon* gallery.

In FY 2014, NASM will continue to inspire and educate audiences at the National Mall building and the Udvar-Hazy Center through new and updated exhibitions. In the first quarter of FY 2014, the Museum will celebrate the tenth anniversary of the opening of the Udvar-Hazy Center. Also in FY 2014, an exhibition of Mars exploration images will be mounted in the *Flight and the Arts* gallery; *Hawaii by Air* will be displayed in gallery 104; and *Airport Towers*, images by NASM photographer Carolyn Russo, will be displayed in the *Flight and the Arts* gallery. Work

on the new gallery, *Apollo to the Moon*, will continue with concept planning, gallery layout and design, and the writing of the exhibit script, with a planned opening date in 2017. NASM will also explore new ways to leverage the Public Observatory's programming possibilities. In addition, the Museum will continue to expand its integrated website and on-site visitor information capabilities. These features enable visitors to plan their visit on the Web, and to customize their Museum experience — from pre-visit planning, to on-site Museum tours, to post-visit learning.

Aircraft and spacecraft will continue to be moved into the Udvar-Hazy Center as a part of the multi-year-long effort of restoration and relocation, and a small interactive exhibition will be developed to interpret the work of the restoration specialists in the Mary Baker Engen Restoration Hangar.

*Collections* —The Museum's new conservation and restoration hangar and collections storage areas handle portions of the Museum's collections of more than 46,000 artifacts. The traditionally high level of craftsmanship shown in the NASM restoration program now will be matched by first-class facilities that can handle the various types of objects and materials the Museum manages. Preparations continue for the move of the selected collections and restoration / conservation activities from the Paul E. Garber Facility in Suitland, Maryland, to the Udvar-Hazy Center, and will continue in FY 2014 and beyond, as funding permits. NASM will continue its loan program, which encompasses more than 1,300 aviation and space artifacts, including some of the most sought-after artifacts of the last century: spacesuits and lunar spacecraft.

NASM will advance the strategic goal of Broadening Access to its collections by continuing to move collections information to a publicly accessible website. The curatorial databases contain extensive information on the history and provenance of each artifact, and the best way to offer more of this in-depth information to the public is through electronic means. NASM's electronic resources allow more people access to the Museum's archival collections, with a resulting increase in archival information requests by the public.

*Scientific Research* — To achieve the strategic goal of Excellent Research, NASM's Center for Earth and Planetary Studies conducts basic research related to planetary exploration, with an emphasis on Mars, Mercury, and the moon, and curates galleries and public offerings in the planetary sciences. NASM scientists continue to work as members of the science teams for the Mars Exploration Rover, Mars Express, Mars Reconnaissance Orbiter, Lunar Reconnaissance Orbiter, Mars Science Laboratory, and MESSENGER missions. NASM scientists work with the data from these and other missions to solar system bodies, and convey this exciting information to the public. Basic research continues to concentrate on the National Research Council and NASA priorities to determine the origin of solar system bodies and habitable planets, with an emphasis on understanding the past climate of Mars and publishing the results of this research in the scientific literature.

*Historical Research* — NASM will continue to lead in the field of flight history by publishing books and papers, and by making presentations at professional conferences on the history of aerospace technology, aviation, aerodynamics, space flight, and space sciences. Based on their research and expertise, the curatorial staff will continue to evaluate potential acquisitions for the national collections and respond to numerous public inquiries. NASM will also continue to upgrade exhibits dealing with aviation and space flight, thereby ensuring that current materials are available to the public.

*Management* — NASM will achieve the Mission Enabling strategic goal by using the single infrastructure it has developed to support the National Mall building, the Udvar-Hazy Center, and the Garber Facility.

## **EXPLANATION OF CHANGE**

The budget estimate includes an increase of \$516,000. The increase includes \$266,000 for necessary pay and other related salary costs for existing staff and \$250,000 for exhibition maintenance.

- The \$250,000 for exhibit maintenance will ensure that the Museum's exhibitions are clean and in good repair, and that the media components are fully operational and up to date. The Museum has a long tradition of raising private funds to design and install new exhibitions. For more than a generation, these exhibitions have been the reason why millions of visitors come to the Museum. However, the very success of these exhibitions brings commensurate costs. The mere presence of record numbers of visitors results in increased wear and tear to displays within the halls, and increases the cost to maintain them. In addition, the increasingly interactive nature of today's exhibits increases maintenance needs. Specifically, the Museum will replace worn and dirty carpet and improve exhibit lighting by replacing outdated lighting track and fixtures with LED fixtures. The LED fixtures last longer and use less power, resulting in significant energy savings and reduced manpower costs.

**NONAPPROPRIATED RESOURCES** — General trust funds support research, education, exhibitions, and fund raising, including salaries and benefits. Donor/sponsor-designated funds support costs related to specific programs and projects. Fund raising is under way for future galleries and the endowment of public programs. Government grants and contracts support research and other scientific activities.

## SMITHSONIAN ASTROPHYSICAL OBSERVATORY

	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	106	23,962	94	20,818	12	4,610	216	73,667
FY 2013 ESTIMATE			100	24,089	11	5,815	224	75,298
FY 2014 ESTIMATE	106	24,293	102	24,074	7	5,246	204	72,663

### STRATEGIC GOALS: EXCELLENT RESEARCH; BROADENING ACCESS; AND MISSION ENABLING

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012-2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Excellent Research</b>							
<b>Research</b>							
Engage in research and discovery	97	22,053		97	22,280	0	227
<b>Broadening Access</b>							
<b>Public Programs</b>							
Provide reference services and information	4	507		4	518	0	11
<b>Mission Enabling</b>							
<b>Information Technology</b>							
Modernize the Institution's information technology systems and infrastructure	0	502		0	520	0	18
<b>Management Operations</b>							
Ensure that the Smithsonian workforce is efficient, collaborative, committed, innovative, and diverse	5	900		5	975	0	75
<b>Total</b>	<b>106</b>	<b>23,962</b>		<b>106</b>	<b>24,293</b>	<b>0</b>	<b>331</b>

### BACKGROUND AND CONTEXT

The mission of the Smithsonian Astrophysical Observatory (SAO) is to advance the public's knowledge and understanding of the universe through research and education in astronomy and astrophysics. The secondary mission is to be of service to the national and international astronomical communities, and to society in general, in areas associated with our primary mission. The Observatory has a strong record of achievement in developing and successfully implementing large, complex, and innovative observational and theoretical research projects. SAO also supports the investigative research carried out by individual researchers and small groups. These varied activities

create the distinctively fertile research environment that drives SAO's success and makes the Observatory a recognized leader in the global astrophysical field of science.

SAO's work directly supports the first of the Grand Challenges outlined in the Smithsonian's Strategic Plan: Unlocking the Mysteries of the Universe. The goal calls for the Smithsonian to "advance knowledge at the forefront of understanding the universe and solid Earth."

Founded in 1890, SAO is the largest and most diverse astrophysical research institution in the world. SAO has helped develop some of the world's most sophisticated astronomical instruments, with high resolution at wavelengths across the electromagnetic spectrum, to probe the universe. Alone, and in powerful partnerships with the National Science Foundation (NSF), the National Aeronautics and Space Administration (NASA), and the Department of Energy, it has pioneered the development of orbiting observatories and large, ground-based telescopes; the application of computers to study astrophysical problems; and the integration of laboratory measurements and theoretical astrophysics. Observational data are gathered at SAO's premier facilities: the Submillimeter Array (SMA) in Hawaii; the 6.5-meter diameter Multiple Mirror Telescope (MMT); the Very Energetic Radiation Imaging Telescope Array System (VERITAS); and related telescopes at the Fred Lawrence Whipple Observatory in Arizona. In addition, SAO conducts research with a broad range of powerful instruments aboard rockets, balloons, and spacecraft (most notably the Chandra X-ray Observatory, the Spitzer Space Telescope, the Hinode telescope, and the Solar Dynamics Observatory); and at locations as diverse as the high plateaus of northern Chile and the Amundsen South Pole Station. Headquartered in Cambridge, Massachusetts, SAO collaborates with the Harvard College Observatory to form the Harvard-Smithsonian Center for Astrophysics.

For more than 50 years, SAO astronomers and their colleagues have made revolutionary discoveries that have changed our fundamental understanding of the universe and our place in it. We have discovered and examined planets in orbits around other stars, watched as new stars are born, and discovered bizarre remnants of dead stars that emit vast quantities of x-rays. We have determined that the universe is 13.7 billion years old, and that it is populated with billions of galaxies, many of which have supermassive black holes at their centers. In addition, we have found convincing evidence that most of the matter in the universe is an unexpected mixture of some unseen "dark matter," with normal matter making up less than four percent of the total; and that the expansion of the universe is apparently accelerating, driven by a mysterious and invisible "dark energy." At the same time, SAO astronomers work systematically on the vital basic research that seeks to explain the sun and its x-ray-emitting corona, the nature of the solar system, the abundant elements in our Milky Way Galaxy, the gas and dust between the stars, the formation and evolution of galaxies, and other important questions about the nature of the universe. Today, SAO is taking a lead role in the science of "precision astronomy," using past discoveries and advanced technologies to produce a coherent story of the cosmos from the Big Bang to life here on Earth.



SAO's research is unique and world renowned because of the strength and diversity of its observers, theorists, instrument developers, engineers, and laboratory experimentalists, and because SAO emphasizes multiple strategies that draw from the strengths of both small projects and large research centers. Indeed, SAO's extraordinary research success is partly the result of the rich cross-fertilization that its outstanding scholars bring to each other in a climate that nurtures collaborative excellence.

SAO's discoveries, and its research leadership, have placed the Observatory at the forefront of the cutting-edge facilities for the new generation of astronomers and astrophysicists. SAO's pre-eminence is underscored by the recognition that its scientists receive from leading scientific organizations. For instance, Dr. Margaret Geller has received the 2013 Julius Edgar Lilienfeld Prize of the American Physical Society, which recognizes a most outstanding contribution to physics. Dr. Irwin Shapiro has been awarded the 2013 Einstein Prize of the American Physical Society for contributions to tests of relativistic theories of gravity. In 2012, Dr. Mark Reid was awarded the Jansky Lectureship by Associated Universities, Inc. for his pioneering work in very long baseline interferometry. These are only three examples of the many awards received by SAO staff in FY 2012 and FY 2013. Together with its partner, the Harvard College Observatory, SAO is the top choice of graduate- and postdoctoral-level young scientists. Federal support makes this continued leadership possible.

The budget estimate includes an increase of \$331,000 for the necessary pay and other related salary costs for existing staff funded under this line item.

## **MEANS AND STRATEGY**

To achieve the goal of Excellent Research, SAO scientists will make optimal use of various astronomical facilities to support their research, including the ground-based optical and radio telescopes owned and operated by SAO in Arizona and Hawaii, and space-based telescopes, most notably the Chandra X-ray Observatory, which is operated by SAO on behalf of NASA, and NASA's Solar Dynamics Observatory. SAO scientists also have research privileges at the two 6.5-meter Magellan telescopes in northern Chile (because of SAO's partnership with the Harvard College Observatory). In addition, SAO scientists and engineers are leading the science operations team and carrying out a vital scientific research program in very high-energy astrophysics at the VERITAS telescope in southern Arizona. These facilities enable SAO scientists to make substantial progress in answering fundamental questions about the origin and nature of the universe, including dark energy and dark matter, as well as questions about the formation and evolution of Earth and similar planets. In addition, SAO scientists will continue their work on future space missions, collaborating with NASA and its research center on missions to study the sun, the x-ray universe, and the outer solar system.

In FY 2011, the National Science Foundation awarded the title to the ALMA Vertex prototype Antenna (a state-of-the-art radio telescope with a 12-meter diameter dish) to SAO. Since then, SAO has been working with its partners, the Academia

Sinica, Institute of Astronomy and Astrophysics, and the NSF's Division of Polar Programs, to deploy this instrument to Summit Station in Greenland. This northern location has unique advantages for examination of the supermassive black hole in the nearby galaxy M87. In FY 2013, SAO will complete the deployment plan, and in FY 2014 the Observatory will complete the engineering analysis needed to deploy the ALMA Vertex instrument to this very cold location.

SAO scientists will continue to take a leadership role in astrophysics by participating in or hosting national and international conferences (e.g., the American Astronomical Society, the International Astronomical Union, and the Astronomical Data Analysis Software and Systems conference series), by participating as keynote and/or invited speakers at such meetings, and by serving on a diverse range of astronomical and astrophysical review panels. SAO scientists will also continue to publish in leading peer-reviewed journals such as the *Astrophysical Journal*, the *Astronomical Journal*, and *Astronomy & Astrophysics*. In addition, SAO developed and operates the Astrophysics Data System, which is a world leader in the dissemination of scientific literature.

SAO will achieve the strategic goal of Broadening Access by producing and delivering educational services and products rooted in SAO research to meet the educational needs of the Observatory's audiences. This sustained outreach effort will give SAO increased publicity and recognition.

The goal of Mission Enabling will be achieved by making SAO's information technology (IT) infrastructure robust, reliable, and secure; maintaining a cooperative environment through communication and activities that underscore SAO's special mission and each staff member's contribution to its success; evaluating management officials and supervisors on their compliance with applicable equal opportunity laws, rules, and regulations, and on the effectiveness of their efforts to achieve a diverse workforce; and facilitating the use of small, minority, women-owned, and other underused businesses in SAO's procurement and business relationships. These management tools will continue to support and enhance SAO's scientific and educational missions.

**NONAPPROPRIATED RESOURCES** — General trust funds come primarily from overhead charged on grants and contracts. SAO uses these funds to support administrative functions approved in the Indirect Cost Budget submitted to the Defense Contract Audit Agency and the Office of Naval Research, as required by Office of Management and Budget Circular A-122, *Cost Principles for Nonprofit Organizations*. Donor/sponsor-designated funds come primarily from restricted gifts from individuals, foundations, and corporations, which are earmarked for particular purposes; restricted endowment funds; and non-governmental grants and contracts. Government grants and contracts come from Government agencies for research in areas of SAO's expertise. SAO often conducts this research in cooperation with governmental, academic, and research institutions in the United States and abroad.

## MAJOR SCIENTIFIC INSTRUMENTATION

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	0	3,816	0	0	0	0	0	0
FY 2013 ESTIMATE			0	0	0	0	0	0
FY 2014 ESTIMATE	0	4,316	0	0	0	0	0	0

### STRATEGIC GOAL: EXCELLENT RESEARCH

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Excellent Research</b>							
<b>Research</b>							
Engage in research and discovery	0	3,816		0	4,316	0	500
<b>Total</b>	<b>0</b>	<b>3,816</b>		<b>0</b>	<b>4,316</b>	<b>0</b>	<b>500</b>

### BACKGROUND AND CONTEXT

Smithsonian science is engaged in research and discovery focused on the origin and evolution of the universe, the formation and evolution of Earth and similar planets, the discovery and understanding of biological diversity, and the study of human diversity and cultural change.

The Smithsonian Astrophysical Observatory's (SAO) work directly supports the first of the Grand Challenges outlined in the Smithsonian Institution Strategic Plan: Unlocking the Mysteries of the Universe. This goal calls for the Smithsonian to "advance knowledge at the forefront of understanding the universe and solid Earth."

To achieve the strategic goal of Excellent Research, the Smithsonian uses its no-year funding from the Major Scientific Instrumentation (MSI) line item to develop large-scale instrumentation projects with advanced technologies that enable scientists at SAO to remain at the forefront of astronomy and astrophysics research. The Smithsonian's criteria for selecting and proposing MSI projects are: 1) the instrumentation will enable compelling scientific advances that would not otherwise occur (either at SAO or anywhere else in the world) for some time to come; 2) the

instrumentation is novel and technically advanced, and would not be developed without SAO's contribution; and 3) the science enabled by the innovative instruments is consistent with the Smithsonian Institution's Strategic Plan. The fundamental role for federal appropriations is to support the basic scientific infrastructure that enables SAO to conduct research, compete for external grants and funding, publish in peer-reviewed journals, and inform the public about the latest scientific discoveries in an exciting and compelling manner. Because of the magnitude of the costs and the time required to fabricate major new instruments and reconfigure existing ones, the Institution requests that MSI funds for these projects be kept available until they are spent.

For the past 50 years, astronomers have made fundamental discoveries about the universe, such as the existence of more than 1,000 planets around nearby stars and the bizarre remnants of dead stars that emit large quantities of x-rays in the Milky Way Galaxy. Scientists have determined that the universe is 13.7 billion years old and that it is populated with billions of galaxies, many of which have super massive black holes at their centers. Research has produced strong evidence that the expansion of the universe is accelerating due to a mysterious and invisible "dark energy." Today, SAO scientists use advanced technologies to produce a coherent story of the cosmos from the Big Bang to the origins of life on Earth. MSI funds are essential to meet this objective.

Three SAO projects are included in the FY 2014 MSI line item: the Submillimeter Telescope Array (SMA) on Mauna Kea, Hawaii; the Greenland Telescope (a new project); and instrumentation for the converted Multiple Mirror Telescope (MMT) at SAO's Fred L. Whipple Observatory at Mt. Hopkins, Arizona.

The budget estimate includes an increase of \$500,000 to initiate the design of the cold-temperature instrumentation package for the Greenland Telescope.

## **MEANS AND STRATEGY**

SAO's mission is to engage in astrophysical research and discovery. Observational astrophysics is the basic science responsible for the understanding of the universe and its components beyond Earth. SAO has made leading contributions to many key discoveries in astrophysics, including: 1) the remarkable discovery that the universe is accelerating; 2) the discovery of enormous patterns traced by galaxies in the universe; 3) the most compelling demonstration of the existence of supermassive black holes at the centers of most galaxies; 4) the discovery of very high-energy gamma rays; 5) the most convincing observational evidence to date for the existence of dark matter; and 6) the discovery of planets orbiting other stars. SAO scientists contributed to these discoveries by using key facilities that enable observations in several different bands of the electromagnetic spectrum (i.e., the broad range of light that is emitted by objects in the universe). These contributions have put SAO in the forefront of this generation of astronomers and astrophysicists.

SAO's pre-eminence is underscored by the recognition that its researchers receive from leading scientific organizations. For instance, Dr. Margaret Geller received the 2013 Julius Edgar Lilienfeld Prize of the American Physical Society, which recognizes a most outstanding contribution to physics. Dr. Irwin Shapiro has been awarded the American Physical Society's 2013 Einstein Prize for contributions to tests of relativistic theories of gravity. Dr. Mark Reid has been awarded the 2012 Jansky Lectureship for his pioneering work in very long baseline interferometry. These are only three examples of the many awards received by SAO staff in FY 2012 and FY 2013. Together with its partner, the Harvard College Observatory, SAO is the top choice of graduate- and postdoctoral-level young scientists. Federal support makes this continued leadership possible.

SAO's strength in observational astrophysics depends on its major ground-based facilities, the SMA and MMT, and the National Aeronautics and Space Administration's space-based facilities, including the Chandra X-ray Observatory, the Spitzer Space Telescope, and the Solar Dynamics Observatory. Access to both ground- and space-based observatories enables SAO scientists to conduct research that would be impossible with either type of observatory alone. SAO's future strength in ground-based observational astrophysics is critically dependent on equipping the SMA and MMT with powerful new instrumentation and establishing the new Greenland Telescope. This leadership depends on developing specialized instruments and facilities that do not now exist. A team of talented scientists and engineers must work together, over a period of several years, to bring these tools into being with support from multi-year MSI funding.

#### *Submillimeter Telescope Array (\$1,923,000)*

The SMA, a collaborative project of SAO and the Academia Sinica Institute of Astronomy and Astrophysics in Taiwan, is an array of eight 20-foot-diameter antennas located on the summit of Mauna Kea, Hawaii, that functions as one giant telescope. With its unprecedented capability to observe at high resolution and high frequency, this facility enables scientists to study a wide range of astronomical phenomena, from the formation of the earliest galaxies in the universe to the formation of new planets around nearby stars.

The feasibility of conducting a particular scientific observation with the SMA is directly linked to instrument sensitivity. Given that the total collecting area of the array antennas is fixed, sensitivity is governed by three factors: the receiver noise, the instantaneous system bandwidth, and atmospheric transmission and stability.

Instrument sensitivity can be improved by adding duplicate sets of receivers similar to those currently in operation, increasing receiver bandwidth, or compensating for the effects of atmospheric instabilities to improve the signal and image quality. Thanks to recent developments in microwave technology, it is now possible, with a modest development effort, to increase the receiver bandwidth by a factor of four over the original design. In the short term, this would enable the observation of multiple molecular species within a single receiver tuning. In the long term, this will enable a

corresponding increase in signal-processing capacity by doubling the overall sensitivity of the SMA.

These upgrades will improve SMA observation speed by a factor of four times the original capability for both continuum observations and spectral line surveys, thereby opening up new discovery space for the SMA. While the pioneering SMA observations to date have concentrated largely on the first high-resolution studies of individual objects, the proposed improvements will enable the SMA to start addressing important scientific questions that can be answered only with observations of large samples that enable statistical analyses in the context of evolutionary and environmental factors. For example, to determine proto-planetary disk mass and lifetime as a function of stellar mass and multiplicity, and to assess the role of environmental factors such as proximity to massive stars and their harsh radiation fields, scientists require the finest angular scale observations of dust continuum emission and molecular gas tracers from hundreds of young stellar systems in several nearby star-forming regions. Such large surveys will be feasible with the increased SMA bandwidth.

In FY 2013, MSI funds are being used to develop a wide-band signal processor to handle the increased bandwidth from each antenna. FY 2014 funds are requested to complete and install the new wide-band signal processor.

#### *Multiple Mirror Telescope (\$1,922,000)*

The MMT, a joint project of SAO and the University of Arizona, dedicated in 1979, was originally made up of six identical 1.8-meter telescopes in a single altitude-azimuth (naval-gun-type) mount. The multiple-mirror design provided a state-of-the-art solution to the technological limitation in casting large mirrors at that time. Following advances in mirror-casting technology developed by the University of Arizona in the 1990s, SAO replaced the six smaller mirrors of the original MMT with a single mirror 6.5 meters in diameter. This large mirror more than doubled the light-gathering capability of the telescope, and a set of large corrector lenses increased its field of view 400 times.

The converted MMT is an extremely powerful telescope, but requires sophisticated instruments to analyze the light it collects. Binospec, an imaging spectrograph with dual 8'x15' fields of view, will replace two generations of earlier spectrographs and is expected to become the dominant instrument used during dark moon phases when the best observations can be made.

SAO expects Binospec to be a “game-changer,” enabling the MMT to compete on an equal footing with the largest current telescopes in the world. Binospec’s huge light grasp will enable SAO scientists to carry out pioneering explorations of the structure and evolution of galaxies, the structure of the Milky Way, and the nature of dark matter and dark energy. Binospec’s nimbleness in moving between spectroscopy and imaging will enable Smithsonian scientists to lead in observing transient events like supernova explosions and gamma-ray bursts to map the geometry of the universe and accurately detect objects at the furthest reaches of the universe. The scientific

opportunities opened by Binospec will help attract the critical next generation of astrophysicists who will exploit the power of the Giant Magellan Telescope in the next 20 to 30 years.

In FY 2014, MSI support will be used to complete the assembly of Binospec. With additional external support (in the form of committed NSF funds competed for in the Telescope System Instrumentation Program), Binospec will be shipped to the MMT for commissioning and its first research observations in FY 2015. SAO's expertise in building large and powerful instruments is a crucial capability in the era of extremely large telescopes that is now upon us. Continued MSI funding is essential to conduct this vital research and maintain the United States' lead in this important scientific field.

## **EXPLANATION OF CHANGE**

The budget request includes an increase of \$500,000 for the Greenland telescope as detailed below:

**Greenland Telescope (\$500,000)** — The Institution requests \$500,000 to support the first phase of the Greenland Telescope project that will conduct groundbreaking, high-priority observations of supermassive black holes, and conduct terahertz observations of the cold universe as part of the only mid-scale priority in the 2010 decadal survey for astronomy. The Smithsonian Astrophysical Observatory, in partnership with the National Science Foundation (NSF) Polar Division, has identified a high, dry, northern site on the Greenland ice sheet as the ideal place for the Smithsonian's 12-meter radio antenna. The telescope will conduct single-dish terahertz observations and very long baseline observations with telescopes in Chile and the Smithsonian's submillimeter telescope array in Hawaii.

The Smithsonian requests these funds for the first phase of the project to buy infrastructure and logistics support in coordination with NSF Polar Division, which is developing a new site near their present Summit Station to enable clean climate and related research. Specifically, FY 2014 MSI funds will be used to initiate the design of the cold-temperature instrumentation package for use in Greenland. Funding in FY 2014 and subsequent years will support work to conduct the first observations with the Greenland Telescope in 2017. A significant portion of the funding for the project will come from external partners, including the University community, which will provide scientific instruments. The Smithsonian considers this an excellent opportunity for a highly leveraged use of federal funds with high-value science returns on the investment.

NSF awarded to SAO its ALMA Vertex Prototype antenna, a state-of-the-art submillimeter radio antenna with a 12-meter diameter, after a competitive selection process. Together with its partners in Taiwan, the Academia Sinica Institute for Astronomy & Astrophysics (ASIAA, which is also a 25 percent partner in the Submillimeter Array), and NSF's Office of Polar Programs (OPP, which desires to improve the Greenland site for its own needs and for astronomy), SAO proposes to

relocate this telescope to near the NSF Summit Station, at a new site to be called APEX Station. The Greenland Telescope will be used to form the northernmost node of a Very Long Baseline Interferometer (VLBI) jointly with the SMA (Hawaii) and ALMA (Chile), to make unprecedented observations of the event horizon of the supermassive black hole (six billion times the mass of our Sun) at the heart of the giant galaxy M87. This will complement the observations to be made in the southern hemisphere of the less massive black hole (only four million solar masses) at the center of our own Milky Way Galaxy. The combination of these observations will revolutionize our understanding of gravity where it is at its strongest, the very edge of black holes. When the Greenland Telescope is not connected to the VLBI network, it will exploit its high, dry location to make sensitive measurements of molecules in space at the highest frequencies achievable: the Terahertz regime.



## **Introduction, *Understanding and Sustaining a Biodiverse Planet***

The Smithsonian will use the resources of its scientific museums and research centers to significantly advance our knowledge and understanding of life on Earth, respond to the growing threat of environmental change, and sustain human well-being.

RESEARCH Goal: The Smithsonian advances and synthesizes knowledge that contributes to the survival of at-risk ecosystems.

ACCESS Goal: The Smithsonian inspires all generations of learners to turn knowledge of life on Earth into awareness and action aimed at improving sustainability.

UNITS primarily associated with this Grand Challenge:

- **National Museum of Natural History**
- **National Zoological Park**
- **Smithsonian Environmental Research Center**
- **Smithsonian Tropical Research Institute**

## NATIONAL MUSEUM OF NATURAL HISTORY

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	358	48,086	21	4,896	52	13,787	9	2,883
FY 2013 ESTIMATE			23	5,496	57	18,907	9	2,971
FY 2014 ESTIMATE	358	49,084	23	5,600	57	19,706	9	3,001

**STRATEGIC GOALS: EXCELLENT RESEARCH; BROADENING ACCESS;  
REVITALIZING EDUCATION; STRENGTHENING COLLECTIONS; AND  
MISSION ENABLING**

### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Excellent Research</b>							
<b>Research</b>							
Engage in research and discovery	137	17,870		137	18,117	0	247
<b>Broadening Access</b>							
<b>Digitization and Web Support</b>							
Provide improved digitization and Web support	4	511		4	518	0	7
<b>Public Programs</b>							
Provide reference services and information	14	1,801		14	1,826	0	25
<b>Exhibitions</b>							
Offer compelling, first-class exhibitions	27	4,523		27	4,914	0	391
<b>Revitalizing Education</b>							
<b>Education</b>							
Engage and inspire diverse audiences	30	3,670		30	3,721	0	51
<b>Strengthening Collections</b>							
<b>Collections</b>							
Improve the stewardship of the national collections	116	15,101		116	15,311	0	210
<b>Mission Enabling</b>							
<b>Facilities</b>							
Improve the overall cleanliness and efficient operation of Smithsonian facilities	4	870		4	882	0	12
<b>Security and Safety</b>							
Provide a safe and healthy environment	1	187		1	190	0	3
<b>Information Technology</b>							
Modernize the Institution's information technology systems and infrastructure	15	2,308		15	2,340	0	32

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b><i>Management Operations</i></b>							
Strengthen an institutional culture that is customer centered and results oriented	4	594		4	602	0	8
Enhance the reputation of the Smithsonian by maintaining good relations with the news media and with federal, state, and local governments	1	106		1	107	0	1
Ensure that the Smithsonian workforce is efficient, collaborative, committed, innovative, and diverse	2	194		2	200	0	6
Modernize the Institution's financial management and accounting operations	3	351		3	356	0	5
<b>Total</b>	<b>358</b>	<b>48,086</b>		<b>358</b>	<b>49,084</b>	<b>0</b>	<b>998</b>

## BACKGROUND AND CONTEXT

The mission of the National Museum of Natural History (NMNH) is to inspire curiosity, discovery, and learning about nature and culture through outstanding research, collections, exhibitions, and education. Building upon its unique and vast collections and associated data, field research stations, specialized laboratories, and internationally recognized team of staff scientists, research associates, federal agency partners, and Fellows, the Museum provides fundamental research information to a wide array of constituencies ranging from federal agencies to the public. The Museum's particular strengths are in all four of the following Smithsonian Grand Challenges: Unlocking the Mysteries of the Universe; Understanding and Sustaining a Biodiverse Planet; Valuing World Cultures; and Understanding the American Experience. The Museum's research provides new understanding and relevance to broader national and international scientific agendas, looking at such important societal issues as global change, biodiversity, cultural conflict, and natural hazards.

The Museum's stewardship of its collections, making up more than 127 million natural history specimens and human artifacts, is at the core of its mission. This set of collections, the largest of its kind, is an unparalleled resource for collections-based research on the diversity of life on Earth, including plants, animals, fossils, minerals, and human activity. These anthropological, biological, and geological specimens and objects are the foundation for all of the Museum's scientific products. With their unparalleled spatial breadth and temporal depth, the collections promote analyses and interpretations that enable scientists to connect observations of contemporary phenomena with the past and around the world so that we can better understand our planet and the effect of human activities on it. The Museum's collections capture the imagination and stimulate the next generation of scientists, and are important for the intellectual infrastructure and the Administration's continuing goal of competitiveness in international science and application of scientific knowledge. NMNH collections

and their attendant information are a dynamic resource used by researchers, educators, and policy makers worldwide.

In addition, NMNH's collections serve as critical reference materials for U.S. Government agencies. These resources are actively and collaboratively used by staff members of the Departments of Defense, Commerce, Agriculture, and Interior, who are housed in NMNH facilities. For example, tens of thousands of insects urgently requiring identification are sent to NMNH from ports of entry each year. Scientists at the U.S. Department of Agriculture and NMNH consult the collections and rapidly provide identifications to border control agencies so that U.S. agricultural and economic interests are kept secure from damage by potential invasive species. The NMNH bird collections provide answers to the Federal Aviation Administration (FAA) and the U.S. Department of Defense, revealing the species of birds that damage aircraft, and leading to improved habitat control around airports and improved aircraft and engine design.

In addition, the National Cancer Institute relies upon NMNH as a trusted repository for plant specimens that must be kept as vouchers for pharmacological and biomolecular research. Similarly, the U.S. Department of the Interior Bureau of Ocean Energy Management relies on the NMNH as a trusted repository for the ecologically significant invertebrate animals it collects in the course of its research. Meteorites collected from Antarctica are deposited at NMNH by the Johnson Space Center and the National Aeronautics and Space Administration (NASA). One recent addition to the collections included a Martian meteorite that fell to Earth in the desert of southern Morocco; it was the first Martian meteorite to fall since 1962 and is only the fourth known.

In the area of law enforcement, the Federal Bureau of Investigation benefits from the identifications and analyses conducted by experts in the Department of Anthropology, who consult the human skeletal collections when providing answers about the remains of crime victims. In the area of public health, analyses of the collections have provided vital clues regarding the spread of H5N1, the Avian Flu virus, and the etiology of past influenza epidemics.

NMNH's first-class research supports its exhibitions and educational outreach. As one of the most visited museums in the world, NMNH provides diverse public audiences with presentations on every aspect of life on Earth. The Museum hosts nearly seven and a half million visitors a year, and, through many affiliations and partnerships, takes its science, exhibitions, and public programs to other museums and non-traditional exhibition venues, such as libraries, schools, and universities across the country. With a growing network of interactive websites, distance-learning experiences, social media and software applications (apps), the Museum is transforming itself into a true electronic classroom, which is potentially accessible to everyone — free of charge.

The budget request includes an increase of \$998,000. The increase includes an increase of \$668,000 for necessary pay and other related salary costs for existing staff funded under this line item and a program increase of \$330,000 for exhibit maintenance.

## **MEANS AND STRATEGY**

To achieve the strategic goals of Broadening Access and Revitalizing Education, funding will be used to replace outdated exhibits with integrated, multi-disciplinary, and interactive exhibitions on the Mall and in other venues through traveling exhibits and electronic outreach across the country. Both the permanent and traveling exhibitions reflect best practices in visitor experience upgrades and informal science education, and these exhibits are developed as part of an array of public outreach activities. In FY 2012, NMNH welcomed nearly 7.5 million visitors, and recent evaluations show that exhibitions now engage visitors for longer periods than they did 10 years ago. The effectiveness of NMNH exhibitions and presentations can be seen in the excitement they generate and their popularity with family audiences.

In FY 2014, NMNH will continue renovating its permanent exhibition halls. With donated funds, the Museum will continue the planning and concept design for a massive renovation of its 30,000-square-foot Paleontology Halls. This project requires removing and conserving four thousand paleontological specimens, including more than 50 complete dinosaurs. The specimens will then be remounted for display when the exhibit opens. In addition to these major projects, donated funding supports scientific updates and visitor experience upgrades throughout the Museum's 300,000 square feet of exhibition space.

Planning for five new temporary exhibits in FY 2014 will depend on donor support and creative partnerships. Federal support for temporary exhibits was eliminated in FY 2012 due to budget constraints. Temporary exhibitions under consideration for FY 2014 follow: *Beyond Bollywood: Indian Americans Shape the Nation* (January 2014) explores the heritage, daily experience and numerous, diverse contributions that Indian immigrants and Indian Americans have made to shaping the United States. This exhibition is a collaboration with the Smithsonian's Asian Pacific American Center, which is funding this exhibition; The Smithsonian Traveling Exhibition Service (SITES) will take the exhibition on tour for four years after its run of 12 months at NMNH. Putting *Dinosaurs in their Place* (June 2014) will introduce visitors to the major themes of our new *Deep Time* exhibition, provide our team with a venue to test exhibition concepts and strategies, and allow visitors continued access to the Fossil Lab, where paleontological experts prepare specimens for research and display. Funded by a gift from David H. Koch, and supplemented with federal funds, this exhibition will provide continued access to dinosaur collections while the principal halls are under renovation from 2014 through 2019. *Biocubes: Community Portraits of Life on Earth* will appear in the Focus Gallery of the *Sant Ocean Hall* in November 2014. Funded by the Summit

Endowment, this exhibition tells the story of how Smithsonian scientists exhaustively document biodiversity around the world through a simple but unique technique: a capture of all species living in one-cubic-foot increments. *Into Africa: Photographs by Frans Lanting* (September 2014) will feature approximately 50 stunning photographs of African landscapes, wildlife, and people by a world-renowned photographer; this exhibition will be developed and funded by the National Geographic Society, providing assistance to NMNH as part of our ongoing partnership. The *Wilderness Forever Photography Show* (September 2014) commemorates the 50th anniversary of the passage of the Wilderness Act and features approximately 50 images taken by people around the country. Selected through a nationwide photography contest developed specifically for this purpose, the images will feature wilderness landscapes and wildlife from around the United States. This exhibition is funded through donations from the Wilderness 50 Coalition, made up of non-Governmental organizations and Government agencies with a commitment to American wilderness.

In FY 2014, NMNH will continue implementing its public engagement plan to coordinate and integrate its many outreach efforts. This plan focuses the Museum's permanent and temporary exhibitions, educational programs, and Web outreach on the major research themes identified in the Science Strategic Plan: understanding the formation of the Earth and similar planets, discovering and understanding life's diversity, and exploring human diversity and cultural change.

In FY 2014, the Museum's fundamental commitment to education and outreach will be further deepened and expanded in support of the Smithsonian's strategic goal of Revitalizing Education. Building on the Museum's cutting-edge research, its vast collections, and exciting exhibitions such as the *Sant Ocean Hall*, *David H. Koch Hall of Human Origins*, *Race: Are We So Different?*, and *Butterflies + Plants: Partners in Evolution*, the Museum will reach out to a growing local, national, and international audience, including children and families, students and teachers, adults, and especially teenagers who visit the Museum on the Mall or its extensive presence online. Outreach activities will include traveling exhibitions, distance learning, and in-depth, online resources, including the Ocean Portal, Human Origins website, and digitized collections, as well as long-standing programs of lectures, films, teacher education, and hands-on opportunities. These efforts serve visitors to our nation's capital and, through our innovations in educational technology, tens of millions of people around the world who cannot visit the Museum in person. NMNH will continue to evaluate the effectiveness and impact of its public education and outreach efforts with focused audience research and evaluation.

Also in FY 2014, NMNH will continue a rich array of monthly on-site and online public programs to complement the Museum's exhibitions, including the *Hall of Human Origins* and *Sant Ocean Hall*, and will present programs locally and nationally for the new *Human Genome* exhibition. These programs will

include intergenerational programming, public lectures, hands-on lab experiences and additional events for local and national audiences. NMNH will continue to prepare and disseminate new educational resources for the public, and for students and teachers, to support major exhibitions. In particular, NMNH will focus its science programs on greater outreach to the public and on increased public access to the collections through Web-based resources and use of distance-learning technologies. This outreach includes maintaining engagement through the Ocean Portal and the Human Origins interactive educational websites, beginning development on a new Paleobiology website, and continuing to incorporate evolving social media. NMNH will continue to increase access to exhibits, research, and collections for people with disabilities as well as economically disadvantaged students. In addition, NMNH will continue to expand its professional volunteer community to enrich programming at the Museum. New media tools and new partnerships and services will be used to reach traditionally underserved audiences.

A critical element of NMNH's plans for FY 2014 is the Museum's commitment to the stewardship of its federal scientific collections in support of the Smithsonian's strategic goal of Strengthening Collections. As was underscored by a recent survey of federal collections, these resources play an important role in public health and safety, homeland security, trade and economic development, medical research, and environmental monitoring. They also provide the foundation for the Museum's diverse research, exhibits, and public outreach programs. NMNH will continue to strengthen its commitment to cutting-edge research and state-of-the-art stewardship of the collections, in partnership with affiliated federal agencies such as the Departments of Defense, Commerce, Agriculture, and the Interior. Federal funding is the linchpin for maintaining and preserving these priceless collections and their valuable information for future generations, while also supporting their use for critical ongoing research that, for example, facilitates recovery efforts after natural disasters such as volcanic eruptions and the associated loss of biodiversity. The breadth of NMNH research and its collections of biological, geological, and anthropological objects fosters an interdisciplinary environment that attracts other academic institutions, foreign researchers, and national and international policy makers.

Furthermore, the NMNH has a long history of training future scientists here and abroad to examine and monitor biodiversity in their own countries, among their other research endeavors, which also strengthens the NMNH collections and connections with these countries. The NMNH is committed to training future generations of scientists by increasing the number of its postdoctoral Fellowship awards and providing an entry-level research experience for the most talented undergraduates in the Earth and life sciences as well as anthropology. Collaboration with foreign students and colleagues will continue to be emphasized to broaden the international science network.

In FY 2014, the NMNH will continue collections preservation and access projects related to strategic initiatives in preserving indigenous languages through preservation of manuscripts, recordings and moving images, and photographs; preserving and digitizing fossil collections and associated paper records; and preserving biological specimens at ultra-cold temperatures to document biodiversity. In addition to these new strategic initiatives, other high-priority collections improvement projects identified through the comprehensive, quantitative assessment of the collections will continue. These include the re-housing of large collections of marine invertebrates, integration of DNA sequences generated from NMNH's research activities into the biorepository, inventory of selected ethnographic collections, re-housing of geological collections in need of microclimates to prevent deterioration, securing vertebrate collections cabinetry, improving mitigation and prevention strategies for management of pests, re-housing and organization of unique collections of slide-mounted microscopic invertebrates, and recuration and arrangement of paleobotanical collections.

NMNH will continue to significantly increase the number of specimen records in its electronic databases for scientists, the Research and Collections Information System, or RCIS, and to expand the availability of these valuable and unique assets via the Internet to worldwide researchers, policy makers, and the public. NMNH will continue digitization of selected plant, insect, and artifact collections.

To achieve the Smithsonian's goal of Excellent Research in FY 2014, NMNH will continue to implement its five-year strategic plan that is linked to the Smithsonian Strategic Plan, and focus on initiatives related to new insights in geology and mineralogy, paleobiology, systematics, evolutionary biology, ecology and its relationship to biodiversity, and anthropology. Increasing the number of digitized specimens will enable researchers to leverage the knowledge inherent in the diverse collections to address many of today's pressing issues regarding invasive species, disease vectors, and the impact of humans on biodiversity and climate. As a result, NMNH publications will have a more integrated quality, providing insights from all viewpoints of the Museum on pressing national and international topics.

The NMNH's strengths in research have been diversified and infused with some exciting new hires the past few years. Areas focused on, which also link directly to the Smithsonian's Grand Challenge areas of research, are as follows: maintenance, documentation, and analysis of indigenous languages of Mesoamerica; the analysis of microbial production of certain minerals in polluted environments to identify remediation strategies; the evolution of pelagic invertebrates that swim up off the sea floor, as opposed to their ancestors that actually lived on the sea floor; chemistry at the core-mantle boundary of our planet and its influence on geochemistry at the Earth's surface; discovery of unknown mammal species; the evolutionary and ecological histories of some



four-limbed marine tetrapods that made the great transition from life on land to sea; and the paleoecology of whales and dolphins.

Highlights of research that NMNH scientists will continue in FY 2014 include: spacecraft-based research that has shown the planet Mercury is rich in iron and titanium oxides, suggesting that Mercury has a more complex geologic history than was previously thought; potential survival of species once thought to be extinct, like the long-beaked echidna recently discovered by an NMNH researcher in Australia; microfossil research demonstrating that Neanderthals consumed both plants and cooked food; paleo-archeological research at Miles Point on the Chesapeake Bay Peninsula, demonstrating that the area was occupied more than 5,000 years before the presently accepted date for the human occupation of the Americas; study of the evolution and genetic diversity of vertebrates, which resulted in the discovery of a living fossil eel; work in ocean environments and studies on current circulation, focusing on past intervals and greenhouse climate; studies of the large-scale evolutionary relationships among birds, insects, and plants as part of collaborative research projects in the National Science Foundation (NSF)-funded *Tree of Life* initiative, and, in particular, studies of the large-scale evolutionary relationships among Lepidoptera (moths and butterflies), spiders, and ants; studies of deep-sea invertebrates in the Gulf of Mexico, including exploration of poorly known regions such as cold seeps and petroleum seeps, which are home to diverse but still largely unknown communities of animals; research on ecological recoveries from mass extinctions and the innovations in the history of life, with special emphasis on the Cambrian explosion, the Permo-Triassic, and the Paleogene eras (recent research in this area makes a case for a new form of developmental regulation in how animals diversified over time); research as part of the Endangered Language Program, which will preserve and make accessible through digitization more than 11,400 sound recordings of endangered languages in the National Anthropological Archives and Human Studies Film Archives, many of which currently exist only on endangered recording media; and NSF-funded research into the spread of the earliest humans from Africa and Asia.

In addition, the NMNH will continue its work on the scientific effort started in 2007, the *Encyclopedia of Life*, which has the simple and compelling mission to gather and share knowledge about Earth's 1.9 million known living species and make it freely accessible online to anyone, anywhere in the world. The NMNH hosts the Secretariat (administrative and leadership hub) for the *Encyclopedia of Life* (EOL), funded through two foundation leadership grants as well as base federal funding. This Web-based, online database is expected to encompass these 1.9 million known species of animals, plants, and other life forms and should be complete in four more years. The database will be configurable for all types of audiences, from students and scientists to policy makers and the general public. The most recent innovation involved translating the EOL for a more international audience and offering EOL in Spanish and Arabic in addition to English. The NMNH is uniquely positioned to contribute to

this global effort of documenting every known species currently living on Earth, because of its extensive and broad collections and scientific staff who provide the context for these specimens. The specimens require the scientific expertise of NMNH staff to provide related ecological and evolutionary information.

In FY 2014, the NMNH will continue to support the strategic goal of Strengthening Collections by providing maintenance for mobile shelving, nitrogen cabinets, and freezers at the state-of-the-art research, conservation, and collection storage facility at the Museum Support Center (MSC) in Suitland, Maryland, as well as by relocating tissue collections from various sites into the Bio-Repository at MSC, and assisting in remediating collections damaged in the earthquake. The Museum will continue renovating major building systems and improving security in the building, resulting in better collections housing, upgraded laboratory facilities for researchers, and more useful public spaces for exhibitions and educational opportunities. Management will continue to support a robust and reliable information technology infrastructure for new online facilities, and to broaden access to the Museum's collections and research through Web programs which support NMNH-specific electronic outreach goals. This focus on Broadening Access helps make collections data easily accessible via the Internet, maintain important collaborative Web projects such as the Ocean Portal and the Human Origins websites, and enables the Museum to launch new websites and update them with current information.

## **EXPLANATION OF CHANGE**

The budget estimate includes an increase of \$998,000. The request includes \$668,000 for necessary pay and other related salary costs for existing staff, and a program increase of \$330,000 for exhibit maintenance. The increase for exhibit maintenance is as follows:

- (+\$330,000) The request provides funding to support critical collections needs for exhibit maintenance. With this support, the NMNH will address wear and tear on its public spaces caused by hosting nearly seven and a half million visitors each year. The Museum will replace approximately 15,000 square feet of worn and dirty carpet, which covers two of NMNH's 30 exhibit halls. In addition, the Museum will improve exhibit lighting in at least two halls by replacing outdated lighting tracks and fixtures, using longer lasting LED fixtures, to reduce manpower and utility costs. The NMNH will also replace worn and faded graphics, non-functioning monitors and playback devices, and stained and unattractive cabinet and display finishes where needed. Many of these needed improvements have been pointed out by the visiting public.

**NONAPPROPRIATED RESOURCES** — General trust funds support salaries and benefits of administrative personnel, development and business activities, and other program-related costs. The Museum raises funds from private sources to support research, exhibitions, public programs, and administrative functions. This includes securing donations from special events to promote new exhibitions and educational initiatives, and public outreach. Donor/sponsor-designated funds are critical to support exhibition hall renovation, such as the major gifts that are helping to fund the Museum's *Human Origins Hall*, and Fellowships for the *Encyclopedia of Life* project, through which a freely accessible webpage is being created for each of the Earth's 1.9 million known species. In addition, significant endowment gifts support internships and Fellowships which will introduce more students into the natural sciences, as well as help the Museum maintain and update its educational programs for the *Ocean Hall*, and study of human origins. Other examples include the Johnson and Hunterdon endowments, which provide operational support for the Smithsonian Marine Station at Fort Pierce, Florida, in addition to supplying a significant portion of the base funds needed to run the NMNH research station at Carrie Bow Cay in Belize. The endowments also support research in the biodiversity, life histories, and ecology of marine organisms in the coastal waters of Florida by almost 50 scientists each year, including staff from NMNH, the Smithsonian Environmental Research Center, the Smithsonian Tropical Research Institute, and collaborators from universities nationwide.

The Museum continues to receive grants and contracts from both non-Government and Government institutions. The Museum was awarded grants and contracts totaling \$11.8 million in FY 2012 (an exceptional year for NMNH, mostly in multi-year grants), and anticipates awards totaling approximately \$4 million in FY 2013. These funds support both cutting-edge research and exhibitions, and demonstrate international collaboration in addition to cross-agency collaboration on shared projects and issues. For example, researchers in the Departments of Mineral Sciences and Paleobiology continue to receive significant grants from NASA and the NASA Jet Propulsion Laboratory for various research projects. The U.S. Air Force and the U.S. Department of Transportation continue to support the bird/aircraft strike hazard program that provides critical data to the FAA and other agencies on the types of birds that can get caught in airplane engines. Funds were provided to continue work on the Consortium for the Barcode of Life, an international initiative devoted to developing DNA barcoding as a global standard for the identification of biological species. In addition, NMNH has received funds from a health research company to analyze specimens related to malaria outbreaks in Brazil. Also, the U.S. Department of Health and Human Services provided funding to identify invasive fish species, and the U.S. Park Service is supporting indigenous language documentation in the Bering Strait region.

The effects of environmental change are documented, monitored, and assessed in various ways. One NMNH researcher and his colleagues at George

Mason University received a NSF grant to develop new computer models which will simulate human societies and analyze their responses to climate change. The NMNH also continues to receive funding from the National Cancer Institute to inventory important plant voucher and invertebrate specimens. Finally, NMNH also receives funds from the U.S. Department of Defense to continue environmental monitoring in and around the St. Lucie Estuary and the Southern Indian River Lagoon in Florida, an area rich in biological diversity.

The NSF also continues to support the NMNH's leadership in training the next generation of scientists, with funding to strengthen the Natural History Research Experience's Program through a multiple-year grant of nearly \$1 million. The 10-week internship program was implemented with seed money from NMNH endowments in 2010, and now has solid funding through FY 2015.

As part of the Smithsonian's planned National Campaign, the Museum is committed to raising private funds to support the strategic priorities outlined in the Museum's strategic plan for 2010–2015: *Knowledge for a Sustainable Future*.

## NATIONAL ZOOLOGICAL PARK

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	218	23,315	17	2,799	23	6,102	6	1,267
FY 2013 ESTIMATE			21	3,293	20	4,384	6	1,075
FY 2014 ESTIMATE	224	25,196	21	3,293	20	4,384	6	1,075

**STRATEGIC GOALS: EXCELLENT RESEARCH; BROADENING ACCESS;  
REVITALIZING EDUCATION; STRENGTHENING COLLECTIONS; AND  
MISSION ENABLING**

### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Excellent Research</b>							
<i><b>Research</b></i>							
Engage in research and discovery	30	2,586		30	2,586	0	0
<b>Broadening Access</b>							
<i><b>Exhibitions</b></i>							
Offer compelling, first-class exhibitions	113	10,765		119	12,315	6	1,550
<b>Revitalizing Education</b>							
<i><b>Education</b></i>							
Engage and inspire diverse audiences	2	259		2	259	0	0
<b>Strengthening Collections</b>							
<i><b>Collections</b></i>							
Improve the stewardship of the national collections	51	6,372		51	6,372	0	0
<b>Mission Enabling</b>							
<i><b>Security and Safety</b></i>							
Provide world-class protection for Smithsonian facilities, collections, staff, visitors and volunteers	5	793		5	793	0	0
<i><b>Information Technology</b></i>							
Modernize the Institution's information technology systems and infrastructure	4	816		4	816	0	0

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Management Operations</b>							
Strengthen an institutional culture that is customer centered and results oriented	9	1,126		9	1,457	0	331
Ensure that the Smithsonian workforce is efficient, collaborative, committed, innovative, and diverse	0	116		0	116	0	0
Enhance the reputation of the Smithsonian by maintaining good relations with the news media and with federal, state, and local governments	4	482		4	482	0	0
<b>Total</b>	<b>218</b>	<b>23,315</b>		<b>224</b>	<b>25,196</b>	<b>6</b>	<b>1,881</b>

## BACKGROUND AND CONTEXT

As the Nation’s Zoo, the mission of the Smithsonian’s National Zoological Park (NZIP) is to provide leadership in animal care, conservation science, education, sustainability, and visitor experience. For FY 2014, NZIP will focus on advancing global conservation and sustainability as well as enhancing the NZIP visitor experience and providing innovative education and targeted outreach to the public. These goals will be advanced as follows:

### Science and Animal Care:

Together, the staff at Front Royal, Virginia and Washington, DC’s Rock Creek Park works to ensure the future of endangered species in both captive zoo populations and in their home countries. NZIP tracks progress on this goal by monitoring published findings, participation in managed breeding programs, the number of species actively managed for breeding, the number of conservation programs in the field, and the number of range country partners working with our staff and students.

### Training the Next Generation:

In fall 2012, the Smithsonian’s Conservation Biology Institute (SCBI) opened the Smithsonian-Mason School of Conservation (SMSC) — a joint venture with George Mason University. The new facility launched operations in FY 2013. This important infrastructure project will enable us to succeed in the strategic goals of Excellent Research, Revitalizing Education, and Mission Enabling. In these capacities, NZIP will track the number of professionals/practitioners trained worldwide, the number of organizations partnering with NZIP/SCBI on training, and the number of students who take courses at the new campus in Front Royal, Virginia. NZIP will also continue to keep abreast of collaborations with other academic institutions and agencies, including the University of Maryland, Cornell University, Virginia Tech University, and others, as well as federal partners such as the United States Department of Agriculture (USDA).

### **Leveraging NZP's Position as a Free National Asset:**

FY 2013 marked the first full year of operation for the Zoo's newly renovated *American Trail*, with a rebuilt *Seals and Sea Lion* exhibit, and the re-opening of the historic Elephant House in the center of the Rock Creek campus. Visitation from 2011 to 2012 grew more than 20 percent and is expected to grow again as a result of opening these two new exhibit areas. Each visitor can gain knowledge about how to save endangered species and their habitats, and a key NZP goal is to reach more visitors through engaging on-site experiences or through the dynamic website and the many webcams. To achieve this goal, NZP is working to ensure the public know that the Zoo is part of Smithsonian and is free to enter.

### **Sustainability:**

Being true to its conservation mission, NZP is focused on ensuring that the Zoo showcases sustainability in all it does. That includes setting goals of reducing the growth in energy and water use despite increased visitations and a living collection that continues to grow in size. NZP uses variety of techniques in its most recent projects, such as geothermal heating, solar panels, green roofs, and permeable pavement to decrease storm water runoff. Furthermore, the new *American Trail* is a "closed-loop" system, meaning that the only water loss from the 300,000-gallon sea lion pool and the 125,000-gallon seal pool is from evaporation. A complex water treatment facility, using best practices in water management, ensures the health and safety of the animals, and reduces the burden on the water supply. NZP is also working to achieve sustainability of living collections in the Zoo and globally, and is working at the Front Royal facility to achieve sustainability in some animal foods by growing hay and browse.

The budget request includes an increase of 6 FTEs and \$1,881,000. The increase includes \$331,000 for necessary pay and other related salary costs for existing staff funded under this line item and programmatic increases of 6 FTEs and \$650,000 to support the Life Support Systems (LSS) and \$900,000 to support the welfare and care of the animal collection. These funds will enable NZP to continue its leadership in aquatic biology, water chemistry and animal husbandry fields, and to improve animal care including increases for food, medicine, enrichment, and safety.

### **MEANS AND STRATEGY**

NZP expects to build on the following highlights that occurred in FY 2013.

On October 18, 2012, the dedication and ribbon-cutting ceremony was held for the much-anticipated Smithsonian- Mason School of Conservation on site. The facility hosts up to 60 undergraduate students and 60 graduate students and professionals at a time, and it is an important component of fulfilling the mission of training the next generation of conservation practitioners.

In addition to the undergraduate program, the new facility continues to serve as a major center of professional conservation-based training, offering regular training classes on a variety of fronts, including the Global Tiger Initiative Smart Patrolling Course in which SCBI scientists spend a month working with wildlife officials in Thailand to better protect tigers. This course and others in Adaptive Management, Conservation Conflict Resolution, and Conservation Leadership all support the NZP's top goal of training the next generation.

Also supporting the theme of training the next generation, and in partnership with the National Museum of Natural History, NZP continues expanding participation in the successful YES! — Youth Engagement through Science — program. YES! interns come to the Rock Creek campus to participate as animal keeper aids. This program targets minority students at the high school level to become engaged in science and, in particular, conservation biology, and was awarded the Association of Zoos and Aquariums (AZA) Diversity Award in 2012. NZP continues to collaborate with USDA in its successful programs designed to train high school and university students from underserved communities, with the goal of increasing diversity within the zoo/conservation biology profession.

In FY 2014, NZP will expand on the progress of FY 2013, when the new *American Trail* completed its first full year of operation. The *American Trail* opened up a significant area of the Zoo that was closed for years during the rebuilding of the seal and sea lion pools. The new pools have advanced filtration systems that are not only more environmentally sustainable, but will enable staff to better monitor water quality for the animals, which have a history of eye problems. Harbor and grey seals are now on display and the Zoo's sea lions (once temporarily housed in the Pittsburgh Zoo) have been welcomed home.

The second phase of *Elephant Trails* also opened in FY 2013 with the re-opening of the historic Elephant House, now renamed the Elephant Community Center. For more than 100 years, NZP has worked with Asian elephants, which are now listed as endangered on the World Conservation Union's (IUCN) Red List of Threatened Animals. The Elephant Community Center provides an indoor area where the public can view elephants and the elephants can be active and socialize in inclement weather.

In addition to its on-site visitors, the Zoo continues to welcome many to its website. One popular feature is the many webcams — from the Amazon Rivercam to the ever-popular panda cam, to the video links that brought the lion cubs to the public before they could be exhibited outside. In addition to their popularity with the public, the webcams help the keepers monitor animals during sensitive periods such as during pregnancy and birth.

The NZP's next major undertaking at Rock Creek Park is the renovation of the historic Bird House and a new exhibit called *Marvelous Migrations*. In FY 2014,



the Zoo will continue much of the planning for the exhibit concepts, ideas, and fundraising strategies, with construction beginning in FYs 2017–2019. Another component of the NZP’s infrastructure is the construction of the perimeter fence. In accordance with AZA guidelines, NZP has identified a fence that provides secondary containment in case of animal escape. The design of the fence was completed in FY 2012. Construction has begun and will be completed in FY 2013. The construction projects above are included in Facilities Capital program.

Also occurring behind the scenes, in FY 2014, but of importance to NZP staff is the project to repair the General Services Building and the North Road retaining wall. These projects will require several years to complete, and will mainly impact staff working at the Zoo, but will have some negative impact on visitor parking. Additional details about this project are provided in the Facilities Capital section of the budget submission.

As part of its regular, ongoing research, NZP will place particular emphasis on endangered species, including giant panda, amphibian and bird, tiger, cheetah, clouded leopard, and other endangered cats, black-footed ferret, Przewalski’s horse, antelope, deer, and other ungulates, as well as the Asian elephant. Ongoing studies on these and many other species will help secure sustainable wild and captive populations, and are conducted in collaboration with other organizations worldwide. NZP scientists are also engaged in a variety of collaborative studies on forest ecology and climate change as part of the Smithsonian’s Global Earth Observatory (SIGEO) and the National Science Foundation’s National Ecological Observatory Network (NEON) initiatives. In FY 2014, NZP scientists will continue to share their research with the public and a wide range of scholars, university researchers, and field biologists.

In support of the Smithsonian’s Mission Enabling strategic goal, NZP has increased safety training and set a goal of zero injuries. Zoonotic training and increased biosecurity protocols have been implemented to minimize health risks to staff and the living collection. The NZP is aggressively executing its strategic and long-range renewal plans and continuing its modernization and improvement programs in the areas of life, health, and safety of people and animals, animal nutrition (including food distribution), pest management, training, records management, and information technology. In addition, the NZP continually assesses its around-the-clock infrastructure support operation for animal exhibits to ensure the safety and well-being of the living collection, visitors, facilities, and staff.

## **EXPLANATION OF CHANGE**

The budget estimate reflects an increase of 6 FTEs and \$1,881,000. This amount includes \$331,000 for necessary pay and other related salary costs for existing staff funded under this line item and programmatic increases of \$1,550,000 and 6 FTEs as detailed below:

## Animal Welfare

- (+\$650,000, +6 FTEs) — This request supports the Institution’s living collections. NZP has 179 independent aquatic systems, containing 1.7 million gallons of treated water, managed to sustain the animal collection. This is the equivalent of a large public aquarium but, unlike an aquarium, the aquatic LSS are located throughout the 163-acre park. Within the past two years, the Smithsonian has significantly renewed two of the Zoo’s aquatic facilities: the upgraded *Asia Trail* exhibit; and the *Seals and Sea Lions* exhibit in the new *American Trail*.

Traditionally, the Zoo’s pools have been either “drop and fill” (e.g., to clean the pool, all the water was drained, the pool manually scrubbed and refilled) or had a relatively simple system of filtered water in, dirty water out, with little complexity in the system. The new systems are “closed-loop” so that the only water loss is through evaporation. Beyond water conservation (and it is worth noting that the 2012 bill for water at Rock Creek reached almost \$2 million), the modernization delivers an additional benefit of specialized water chemistry that can be tailored to individual species’ health requirements. Although these new systems are clearly the right approach, given the importance of sustainability, the level of complexity requires a new staffing strategy.

Accordingly, NZP needs to create a dedicated LSS team, led by an experienced curator (GS-13) with an extensive aquatic background, and assisted by a supervisory biologist (GS-11). Together, they will lead a team of four dedicated LSS keepers, available 24 hours per day, seven days per week, and 365 days per year to support these new aquatic facilities. The requested \$650,000 includes \$100,000 for the additional supplies required to operate and maintain the new water-quality control systems.

- (+\$900,000) — This request provides resources to support the welfare and care of the animal collection. Excellence in animal care is paramount for the NZP to meet refined and adjusted AZA standards, especially now that the Zoo is up for AZA re-accreditation. The requested \$900,000 will provide necessary animal health associated costs such as operating, maintaining, and supplying a lab, medicine and medical supplies, enrichment, permit fees, and animal transportation and shipments. Higher prices, particularly for animal food, have driven operational costs higher.

**NONAPPROPRIATED RESOURCES** — General trust funds support salaries and benefits of the director and general operational requirements for adequate animal care, professional training in conservation sciences, and animal acquisitions. Donor/sponsor-designated funds support the costs related to

specific programs and projects, including field and captive studies on Sahelo-Saharan antelopes, amphibians, cheetahs, giant pandas, Asian elephants, tigers and clouded leopards; ecological studies on migratory birds; and the monitoring documentation of biodiversity and habitat quality in selected sites around the world. A large percentage of these funds supplement federal funding for renovating and modernizing the Zoo. Private donations for Asia Trail II, *Elephant Trails*, contribute to a portion of construction costs and support all exhibit interpretive design and implementation. A five-year, \$1,400,000 gift from State Farm Insurance enables the popular *Kids Farm* exhibit to stay open through 2015. Government grants and contracts support a wide array of scientific studies on the biology and habitats of endangered and threatened species. NZP education, visitor services, and volunteer programs are funded almost exclusively by the concessions-related activities managed by the Friends of the National Zoo (FONZ).

## SMITHSONIAN ENVIRONMENTAL RESEARCH CENTER

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	32	3,767	12	930	6	1,555	39	5,449
FY 2013 ESTIMATE			9	958	6	970	39	5,000
FY 2014 ESTIMATE	32	3,903	9	990	6	850	39	4,000

### STRATEGIC GOALS: EXCELLENT RESEARCH; REVITALIZING EDUCATION; AND MISSION ENABLING

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Excellent Research</b>							
<i><b>Research</b></i>							
Engage in research and discovery	24	3,016		24	3,120	5	104
<b>Revitalizing Education</b>							
<i><b>Education</b></i>							
Engage and inspire diverse audiences	1	108		1	112	0	4
<b>Mission Enabling</b>							
<i><b>Management Operations</b></i>							
Strengthen an institutional culture that is customer centered and results oriented	4	424		4	440	0	16
Modernize the Institution's financial management and accounting operations	3	219		3	231	0	12
<b>Total</b>	<b>32</b>	<b>3,767</b>		<b>32</b>	<b>3,903</b>	<b>0</b>	<b>136</b>

### BACKGROUND AND CONTEXT

The Smithsonian Environmental Research Center (SERC) is a leader in research on land and water ecosystems in the coastal zone. SERC's innovative research and unique setting advance basic environmental science in the zone where most of the world's population lives, and provides society with the knowledge to solve the environmental challenges of the 21st century.

Research and discovery remain the core activities at SERC. Scientists use the unique site on the shore of the Chesapeake Bay, and other sites, including

the Smithsonian Marine Science Network, to investigate the ecological interconnections of aquatic, terrestrial, and atmospheric components of complex landscapes, with comparative studies on regional, continental, and global scales.

SERC achieves the goal of Revitalizing Education by engaging and inspiring diverse audiences through school-based programs, teacher training, and public outreach. SERC programs serve more than 15,000 school children and public visitors annually.

SERC maintains a vigorous professional training program dedicated to producing the next generation of scientists. Through its efforts to achieve extramural funding and establish external partnerships, SERC hosts a large number of undergraduate interns, graduate students, postdoctoral Fellows and visiting scientists, with a particular success in reaching candidates from underserved communities.

SERC will continue to update and streamline management systems and functions, and advance construction of its Facilities Master Plan. In FY 2013, progress will be made on the renovation of the Mathias Laboratory, which includes replacing many temporary trailers on the campus, thus helping to ensure the safety and protection of staff, Fellows, volunteers, and visitors. The project is scheduled for completion in FY 2014.

The budget estimate includes an increase of \$136,000 for necessary pay and other related salary costs for existing staff funded under this line item.

## **MEANS AND STRATEGY**

SERC has an advantage in furthering its research goals and priorities by operating its 2,650-acre site on the Chesapeake Bay. Using the unique assemblage of streams, shoreline, forests and agricultural fields, its scientists investigate the interconnections of aquatic, terrestrial, and atmospheric components of complex landscapes. SERC's research campus also supports research efforts of other collaborators and agencies (e.g., U.S. Department of Agriculture, U.S. Geological Survey, U.S. Fish and Wildlife Service, and many universities). SERC develops innovative approaches and instrumentation to measure environmental changes at four ecological levels (i.e., global change, landscape ecology, ecology of coastal ecosystems, and population and community ecology), and has developed unique, long-term, and experimental data sets on environmental change. SERC also participates in developing the Smithsonian's Marine Science Network of sites along the western Atlantic Ocean for comparative coastal studies, and in using the Smithsonian's long-term field stations to assess ecological patterns and processes. SERC is a partner site in the National Ecological Observation Network (NEON). As such, the SERC campus will become a node for environmental data collection that will feed a national network established to observe and interpret changes in our terrestrial

environments. During its 47-year history, SERC has built a reputation for world-class research, producing many publications that are rich in data and multi-disciplinary and integrative in analysis.

SERC's research, education, and outreach efforts are closely aligned with the Smithsonian's Strategic Plan. By building on existing strengths and special programs, SERC enhances its successful research on the following topics: land-sea linkages of ecosystems; landscape ecology of coastal watersheds; estuarine ecology; invasive species (especially in coastal ecosystems); global change impacts on biotic and chemical interactions; biocomplexity of structure and processes in key ecosystems; and community and population ecology.

During the next five years, SERC research on coastal marine ecology will focus on four key, interrelated areas: the structure and dynamics of marine food webs; the integrity and biodiversity of crucial marine ecosystems; linkages of ecosystems at the land-sea interface; and the ecological regulation of marine biodiversity. SERC seeks to expand its expertise in the ecology of invasive species and how they affect coastal ecosystems. To implement these goals, SERC will link its research with national and international research networks and enhance the Marine Science Network. SERC is also developing scientific and technological capabilities in analytical chemistry, remote sensing, and instrumentation in coastal watersheds and connected ecosystems. SERC has been a lead contributor in establishing a pan-institutional consortium, known as MarineGEO, in an effort to coordinate and align the extensive marine research efforts ongoing throughout the Smithsonian. In addition, SERC is working with partners in the National Museum of Natural History and the regional research community to develop DNA barcode libraries for all of the species of fishes and major groups of invertebrates of the Chesapeake Bay. This will become a shared resource for tracking biodiversity, species distributions, and foodweb structures in the nation's largest estuary.

SERC uses its website to provide more information to the public about environmental issues in general, and the Center's research and education programs in particular. On-site education will focus on serving more than 15,000 students and members of the general public. SERC will continue to focus on improved access for traditionally underserved audiences, as well as those participants located off site from the SERC campus.

SERC has strengthened its public outreach programs and continues to participate in the National Park Service's Chesapeake Gateways Network. Through partnerships with various agencies in the Maryland state government and the Gateways program, SERC has continued developing a series of new trails and visitor experiences on the historic 575-acre Contee Farm, which was acquired in 2008. In addition to providing a lecture series, workshops, and expert consultation for the public, teachers, and public officials, SERC remains open to the public six days a week. Also, besides offering formal programs to the public,

SERC encourages visitors to explore the Center's many trails through forests and fields, as well as more than 12 miles of shoreline along the Chesapeake Bay.

SERC continues to implement its comprehensive Facilities Master Plan through projects that provide critical infrastructure improvements and allow for controlled and operationally sustainable growth during the next 20 years. One of the key components of the plan is the focus on reducing energy and water consumption across the campus. The incorporation of sustainable improvements into the campus will ensure long-term savings in operating costs and a reduction in SERC's carbon footprint.

SERC has established management controls to ensure proper accounting for its research activities, including indirect cost recovery in its sponsored research program. Moreover, the staff strives to maintain an excellent record of safety and protection for all staff and visitors. In conjunction with the Institution's central administrative offices, SERC maintains its excellent record of property management and protection of sensitive information and data.

**NONAPPROPRIATED RESOURCES** — General trust funds support fund raising and intern/fellowship programs. In addition, core administrative support is funded through an indirect cost surcharge applied to extramural research and education awards. Donor/sponsor-designated funds provide critical operating support related to specific programs and projects in research, public education, and professional training. Most of SERC's scientific research program of more than \$6 million annually is supported by Government grants and contracts, including the National Ballast Information Clearinghouse, which was established by Congress as part of the National Invasive Species Act of 1996.

## SMITHSONIAN TROPICAL RESEARCH INSTITUTE

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	202	12,581	36	1,105	32	5,797	15	1,945
FY2013 ESTIMATE			39	1,420	29	4,961	15	2,000
FY 2014 ESTIMATE	202	14,095	40	1,490	30	5,283	16	2,100

### STRATEGIC GOALS: EXCELLENT RESEARCH; BROADENING ACCESS; REVITALIZING EDUCATION; AND MISSION ENABLING

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Excellent Research</b>							
<b><i>Research</i></b>							
Engage in research and discovery	93	8,318		108	9,008	15	690
<b>Broadening Access</b>							
<b><i>Digitization and Web Support</i></b>							
Provide improved digitization and Web support	7	259		9	511	2	252
<b><i>Public Programs</i></b>							
Provide reference services and information	18	393		15	641	-3	248
<b>Revitalizing Education</b>							
<b><i>Education</i></b>							
Engage and inspire diverse audiences	2	406		3	450	1	44
<b>Mission Enabling</b>							
<b><i>Security and Safety</i></b>							
Provide world-class protection for Smithsonian facilities, collections, staff, visitors, and volunteers	30	646		15	578	-15	-68
Provide a safe and healthy environment	2	89		2	135	0	46
<b><i>Information Technology</i></b>							
Modernize the Institution's information technology systems and infrastructure	5	312		4	240	-1	-72
<b><i>Management Operations</i></b>							
Strengthen an institutional culture that is customer centered and results oriented	8	881		9	1,002	1	121
Ensure that the Smithsonian workforce is efficient, collaborative, committed, innovative, and diverse	5	217		5	280	0	63
Modernize the Institution's financial management and accounting operations	4	140		12	558	8	418



Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
Enhance the reputation of the Smithsonian by maintaining good relations with the news media and with federal, state, and local governments	13	547		5	171	-8	-376
Modernize and streamline the Institution's acquisitions management operations	15	373		15	521	0	148
<b>Total</b>	<b>202</b>	<b>12,581</b>		<b>202</b>	<b>14,095</b>	<b>0</b>	<b>1,514</b>

## BACKGROUND AND CONTEXT

From the humble beginnings of a single research station on Barro Colorado Island (BCI) located in the middle of the Panama Canal, with a greater than 100-year presence, the Smithsonian Tropical Research Institute (STRI) is now the principal U.S. organization dedicated to advancing fundamental scientific discovery and understanding of biological diversity in the tropics and its contribution to human welfare. STRI plays a critical role for the U.S. Government and the Smithsonian by maintaining world-class research facilities in Panama, where last year more than 1,400 resident and visiting scientists, representing 44 states in the United States and 42 countries around the world, accessed diverse tropical environments, including rain forest and coral reef ecosystems. STRI serves as official custodian for the Barro Colorado Nature Monument (BCNM) in Panama under the terms of the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere, ratified by the U.S. Senate in April 1941. The BCNM is the only mainland tropical reserve under U.S. stewardship.

The relevance, quality, and performance of STRI scientists is top tier, as evaluated by a Visiting Committee of outside experts. In their last review, the Visiting Committee used National Research Council criteria to measure the productivity and impact of STRI science compared to 142 of the best university research departments in the United States; STRI scientists ranked first in all measures of scientific relevance (e.g., publication citations), quality (e.g., scientific honors), and productivity (e.g., publication numbers). In addition, the number of young scientists who choose STRI as the base for their graduate and postgraduate research training provides an annual measure of the relevance and quality of STRI science to the future of tropical biology and policy. Even in a year marred by global economic contractions, the strong demand for conducting research at STRI continued. FY 2012 marked another year where the number of visiting scientists and students choosing to base their research at STRI exceeded 1,400 individuals and, remarkably, the total number of scientific visitor days reached an all-time new high for STRI, exceeding 115,000.

The long-term research conducted by STRI scientists and collaborators is a critical contribution to the Smithsonian Institution's 2010–2015 Strategic Plan "A Smithsonian for the 21st Century," set forth in 2009, particularly through its

contributions to the Grand Challenge, *Understanding and Sustaining a Biodiverse Planet*. However, STRI also contributes to *Unlocking the Mysteries of the Universe* through its Paleontology program and to *Valuing World Cultures* through its Anthropology and Archeology programs.

A major goal of the 2010–2015 Strategic Plan for the Smithsonian is the implementation of interdisciplinary consortia aimed at sparking innovative research and education programs, and brokering partnerships. The best current example of such an interdisciplinary consortium is the Smithsonian Institution Global Earth Observatories (SIGEOs), which have built on a unique research infrastructure that began at STRI in 1980. STRI leads the SIGEO initiative, successfully links environmental change expertise across Smithsonian science units, including the Smithsonian Environmental Research Center (SERC), the Smithsonian Conservation Biology Institute (part of the National Zoo), the National Air and Space Museum (NASM), National Museum of Natural History (NMNH), and the Smithsonian Astrophysical Observatory (SAO). To date, the Smithsonian has directed more than 12 FTEs and \$2,250,000 per year in federal funds, and more than \$40 million from other federal and private sources, toward the global network of Earth observatories. As one of the premier U.S.-led international partnerships, SIGEO integrates the Institution's network of forest dynamics plots with the U.S. Group on Earth Observations (USGEO), and promotes an international Global Earth Observation System of Systems (GEOSS) to advance the progress of science across borders. Each forest plot is managed in each country by one or more partner institutions, and the SIGEO network is a partnership involving more than 70 institutions and hundreds of scientists from around the world.

Together, STRI and SIGEO directly support the Administration's goals in the environmental sciences, and send a strong message regarding the U.S. commitment to providing objective, long-term data needed for understanding the impact of environmental change. In the context of Global Earth Observatories, the Smithsonian collaborates with the Environmental Protection Agency (EPA), United States Geological Survey (USGS), U.S. Department of Agriculture (USDA) Forest Service, the National Oceanic and Atmospheric Administration (NOAA), the National Science Foundation (NSF) National Ecological Observation Network (NEON), and the National Aeronautics and Space Administration (NASA). SIGEO promotes large-scale environmental monitoring and maintains enormous banks of data and metadata, which help galvanize advanced data networks and sophisticated analyses, extending from single forest plots to the remote sensing of forests at landscape scales monitored from space-based observatories.

The budget estimate includes an increase of \$1,514,000. This includes \$160,000 for necessary pay and other salary and related costs funded under this line item and \$1,354,000 to provide equitable salary and benefits to STRI staff scientists and locally hired Panamanian employees so that their compensation is comparable to what the Department of State provides to federal and locally hired

personnel at the U.S. Embassy in Panama. Both of these increases are further justified under the Fixed Cost section of this budget request.

## **MEANS AND STRATEGY**

As part of its core mission, STRI continues to enhance the Smithsonian's platform for long-term research on biodiversity, ecosystems, and the impacts of environmental change. As part of this effort, STRI administers the terrestrial component of the SIGEO network — ForestGEO. ForestGEO is made up of dynamic forest plots that now span 47 sites in 21 countries, including seven U.S. states, and includes more than four-and-a-half million trees with 8,500 different species represented. The network's overall aim is to forecast the effects of global environmental change on forest function and biodiversity in tropical and temperate forests, and to quickly provide objective and rigorous scientific data via the Internet to scientists, policy makers, and people around the world.

Global climate systems and life on the planet are in flux. Policy makers and scientists need long-term data on fluctuations in the primary productivity of forests around the globe, as well as information on changes in the abundance and distribution of biological diversity, to distinguish the components of global change that can be ascribed to planetary processes from those that may be caused by human activity. The Smithsonian Institution is building on its unique research infrastructure to provide the required data by expanding its global network of dynamic long-term tropical forest plots into the temperate zone, and by collecting additional data on vertebrates, insects, and soil microorganisms, in addition to the trees that scientists have monitored for more than three decades. Smithsonian researchers are answering the following questions: Does environmental change significantly alter forest biomass, and does the rate of carbon sequestration by forests vary with latitude, hydrological condition, and soil fertility? How are the diversity and the relative abundance of forest organisms changing over time and space? What components of observed changes are due to human activities? How can people modify their behavior and economies to ameliorate any changes detrimental to global society?

The Smithsonian Institution is uniquely positioned to use ForestGEO to broaden interdisciplinary research on complex ecosystems on a global scale. It will do this by expanding its extensive tropical forest-monitoring program into temperate regions, and by significantly integrating science units within the Smithsonian. As a result of an \$8 million, five-year grant from the Hong Kong Shanghai Banking Corporation (HSBC) that concluded in 2011, STRI, and the Smithsonian's Environmental Research Center (SERC), National Zoo, (NZP) and Natural History Museum, (NMNH) were able to launch the program's cross-unit research aimed at forecasting the consequences of global, environmental change on forest function and biodiversity. This initiative includes an important new research component directed at understanding the dynamics of water quality and distribution as a function of forest type and quality.

Currently, ForestGEO leverages huge intellectual horsepower; the network is extremely well used by independent, university-associated faculty and network partners. More than 200 scientists have published research from the ForestGEO data sets, attesting to the broad usability and benefits of the network. One measure of this effective leveraging is the large number of NSF-funded research projects based within the network. Also, Harvard and Yale universities have provided \$14 million, in addition to \$10 million pledged from a single private donor, to support the network for the next four years, maintain partnerships with ForestGEO, and strengthen the network's basic and social research programs.

ForestGEO has established a Global Carbon Research Program to provide *in situ* measures of above- and below-ground carbon and its change over time in response to rising levels of carbon dioxide (CO<sub>2</sub>). A publication by ForestGEO scientists, using 25 years' worth of data from two forest plots (in Barro Colorado Island, Panama and Pasoh, Malaysia), has shown that, despite increased atmospheric carbon fertilization, the growth rates of tropical forest trees have decreased, perhaps in response to global warming. Objective long-term data from a global network of forest plots provide critical empirical data for modeling carbon dynamics in the future, and permit direct measurement of the effectiveness of efforts to reduce carbon emissions worldwide.

In FY 2014, ForestGEO will continue to cement its inter-unit advances to study the consequences of global climate change on carbon sequestered by the world's forests. Tropical and temperate forests are believed to behave differently with regard to carbon, owing to differences in seasonality and other climate factors. Using the same methodology as that for studying the tropical plots, the ForestGEO initiative has taken advantage of long-term, forest plot-associated research at SERC, located in the Chesapeake Bay watershed in Maryland, and the National Zoo's Conservation Biology Institute in the forests of Front Royal, Virginia, Harvard Forest, Massachusetts, Yosemite National Park, California, and Wind River, Washington, to quickly establish a series of large-scale temperate plots in the United States that permit direct comparison to the forests in the tropical plot network. Partnerships in temperate China and Europe have helped expand temperate-tropical and temperate-temperate comparisons to a global scale. A recent ForestGEO publication in the *Proceedings of the National Academies of Science* has established increased growth rates of temperate forests, which translates to increased rates of carbon capture from the atmosphere.

## **ENABLING STRI'S MISSION THROUGH ORGANIZATIONAL EXCELLENCE**

STRI continues to advance the vision detailed in the 20-year plan for upgrading its facilities, many of which date back to the pre-World War II era of Panama Canal defense. The 20-year STRI facilities plan represents a spectacular opportunity for the Smithsonian to provide its world-class group of tropical scientists with the modernized, sustainable, and state-of-the-science facilities needed to face the challenges of the 21st century, when biological challenges will play a central

role in global events. These facilities will continue to serve not only the Smithsonian, but also the scientific and academic community of the United States for decades to come. The rate of landscape transformation, the loss of forests and reefs in the tropics, an ever-growing population to feed and house, the danger of emerging diseases, and the still uncertain science of climate change, taken together, highlight the fact that the research done at STRI — and the national and international role of the Institute — has never been more important.

STRI also offers important facility resources for federal agencies and universities. For terrestrial research, STRI serves as the headquarters for ForestGEO, and as a base for tsunami-monitoring equipment installed by the USGS. The Institute provides the EPA with sites to monitor mosquitoes and their role as disease vectors, and assists the National Institutes of Health (NIH) with its funded projects to survey birds as carriers of avian influenza. For marine research, the two-ocean stage provided by STRI marine facilities permits scientists to move between experiments in the eastern Pacific Ocean and the Caribbean Sea in a few hours, and represents a principal component of the Smithsonian MarineGEO network that extends from the Chesapeake Bay to Florida, Belize, and Panama. The recurring two-ocean theme in marine science at STRI has resulted in landmark studies of the evolution and ecology of tropical marine species and communities, as well as research funded by NSF and NIH for the ecologically guided discovery of new pharmaceutical compounds. STRI maintains two MarineGEO sites that provide direct access to two oceans, and take on increased importance as experimental platforms for studying the impact of climate change and ocean acidification on coastal coral reefs, sea grasses, and mangroves.

STRI's record of accomplishment during the past two decades is reflected in the increase in number of scientific visitors, funding available for education, new scientific programs in residence at STRI, peer-reviewed publications, grant awards, and other criteria. Managing growth is an enviable challenge, and STRI continues to position itself for scientific and educational success by never losing focus of the need to maintain operational excellence. FY 2014 will be another year STRI continues to lead changes that seek to more efficiently use the resources available while at the same time adjusting to working in the ever-expanding economy of Panama. STRI's organizational efforts will continue to upgrade its physical plant by seeking to reduce the aggregated deferred maintenance and by continuing construction on the new laboratory in Gamboa. STRI will also restructure its Information Technology department to better meet the needs of its scientific computing community as well as the business needs of its administrative departments. Lastly, STRI will complete the creation of its Advancement department to more effectively communicate with the communities critical to STRI while also positioning STRI to more effectively identify and raise funds to support its research and educational mission.

**NONAPPROPRIATED RESOURCES** — General trust funds support salaries for a small percentage of STRI employees involved in research, public outreach, and

fund raising. Donor/sponsor-designated funds support specific programs and projects to investigate key indicators of global environmental health. As a past example, HSBC, a major donor mentioned earlier, has formed a climate partnership with the Smithsonian and the environmental organization Earthwatch Institute to establish a regional training center on environmental change at SERC and to promote citizen involvement in science. Furthermore, the National Zoo's Conservation Biology Institute has become one of the NEON sites, providing a tremendous opportunity for cross-fertilization and synergy between ForestGEO and NEON.

Donor-designated support also provides an endowed chair for the director of STRI, an endowed staff position in tropical paleoecology and an endowed chair for the director of ForestGEO. The chair in paleoecology currently investigates climate change during the last 60 million years, in part by taking advantage of the multi-billion-dollar expansion of the Panama Canal, which is exposing new fossils and geology during the massive excavations. The Panama Canal expansion is a unique opportunity to improve our understanding of the role that the Isthmus of Panama has played with regard to climate and biodiversity change through time. Donor-designated support also funds postdoctoral studies of the relationship between brain size and behavioral complexity, and postdoctoral fellowships in tropical marine biology, using STRI's Bocas del Toro and Galeta field stations in the Caribbean and its Naos laboratory and Rancheria Island field station in the eastern Pacific Ocean. In addition, the generosity of donors has enabled STRI to initiate the first country-wide carbon sequestration study using advanced technologies such as Light Detection and Ranging, or LiDAR overflights in the tropics.

Government grants and contracts support programs such as the Panama International Cooperative Biodiversity Group (ICBG), funded by the NIH and administered by STRI, which conducts innovative biomedical research and training, and monitors wildlife that could be carriers of avian influenza and other animal-borne diseases.

## **Introduction, Valuing World Cultures**

As a steward and goodwill ambassador of cultural connections, with a presence in some 100 countries and expertise and collections that encompass the globe, the Smithsonian will build bridges of mutual respect and present the diversity of world cultures and the joy of creativity with accuracy and insight.

**RESEARCH Goal:** The Smithsonian contributes insights into the evolution of humanity and the diversity of the world's cultures, arts, and creativity.

**ACCESS Goal:** The Smithsonian will inspire audiences to explore the cultural and artistic heritages of diverse peoples.

UNITS primarily associated with this Grand Challenge:

- **Arthur M. Sackler/Freer Gallery of Art**
- **Center for Folklife and Cultural Heritage**
- **Cooper-Hewitt, National Design Museum**
- **Hirshhorn Museum and Sculpture Garden**
- **National Museum of African Art**

## ARTHUR M. SACKLER GALLERY/FREER GALLERY OF ART

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	45	6,125	6	1,153	52	9,718	0	101
FY 2013 ESTIMATE			7	1,548	59	9,996	0	64
FY 2014 ESTIMATE	45	6,206	7	1,548	58	8,717	0	0

### STRATEGIC GOALS: EXCELLENT RESEARCH; BROADENING ACCESS; REVITALIZING EDUCATION; STRENGTHENING COLLECTIONS; AND MISSION ENABLING

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Excellent Research</b>							
<i>Research</i>							
Engage in research and discovery	13	1,584		11	1,457	-2	-127
<b>Broadening Access</b>							
<i>Digitization and Web Support</i>							
Provide improved digitization and Web support	0	22		0	103	0	81
<i>Public Programs</i>							
Provide reference services and information	4	509		4	509	0	0
<i>Exhibitions</i>							
Offer compelling, first-class exhibitions	13	1,963		13	1,963	0	0
<b>Revitalizing Education</b>							
<i>Education</i>							
Engage and inspire diverse audiences	5	433		5	433	0	0
<b>Strengthening Collections</b>							
<i>Collections</i>							
Improve the stewardship of the national collections	6	767		8	894	2	127
<b>Mission Enabling</b>							
<i>Information Technology</i>							
Modernize the Institution's information technology systems and infrastructure	1	129		1	129	0	0
<i>Management Operations</i>							
Ensure that the Smithsonian workforce is efficient, collaborative, committed, innovative, and diverse	1	141		1	141	0	0
Modernize the Institution's financial management and accounting operations	2	577		2	577	0	0
<b>Total</b>	<b>45</b>	<b>6,125</b>		<b>45</b>	<b>6,206</b>	<b>0</b>	<b>81</b>



## **BACKGROUND AND CONTEXT**

The Freer Gallery of Art and the Arthur M. Sackler Gallery (F/S) celebrate the artistic traditions of Asia, and are widely regarded as among the most important collections of Asian art in the world. The Museums collect, study, exhibit, and preserve exemplary works of Asian art, as well as works by Whistler and other American artists of the “Aesthetic Movement” as represented in Charles Lang Freer’s original gift. The combined resources of the Museums are directed toward programs that advance the understanding of the arts of Asia and of the Museums’ collections.

In FY 2014 the Smithsonian will continue to build on the excitement generated from the 25th anniversary of the opening of the Arthur M. Sackler Gallery, with ambitious plans for the International Gallery in the S. Dillon Ripley Center that is shared with the National Museum of African Art. This area will link to both Museums, which will collaboratively develop the space with a coherent focus to achieve the Institution’s strategic goals of Broadening Access and Revitalizing Education. Additionally, the F/S will continue hosting international loan exhibitions and complementary public programs. The F/S will keep expanding the number and range of exhibitions and loans it offers to other museums throughout the nation and worldwide, and will be responsible for touring a major exhibition from Saudi Arabia. The Museums will also further the goal of Broadening Access by adding resources to improve the F/S website with a new search tool for online collections, and by enhancing the visitor experience. The F/S will also realign resources in FY 2014 to position itself as a world leader in digital collections management initiatives.

The F/S will achieve the goal of Excellent Research through the continued success of linking dispersed initiatives, making them better known both inside and outside the Museums, and seeking new funding sources.

In addition, the F/S will address the strategic goal of Mission Enabling by continually assessing and enhancing staff development and oversight of internal controls.

The budget request includes an increase of \$81,000 for necessary pay and other related salary costs for existing staff funded under this line item.

## **MEANS AND STRATEGY**

To achieve the goals of Broadening Access and Revitalizing Education, the F/S continues to direct resources to raise attendance and assert its pre-eminence in the field of Asian art by mounting high-profile exhibitions. Planned exhibitions in 2014 include *Yoga!: the Art of Transformation*, which is the first exhibition to explore yoga as a central theme in Indian art; and *Chigusa: From Rags to Riches*, arranged around a jar widely revered as an icon of Japanese tea culture which was recently acquired by the Smithsonian’s Freer Gallery of Art. In 2014, F/S will send the highly successful *Roads of Arabia* exhibition (on the archaeology of Saudi Arabia) to three U.S. venues. This is the first time this material has been displayed in North America other than at the Sackler.

F/S is also working on two major exhibition projects with collaborating institutions in China.

Most importantly in FY 2014, through an expansion of exhibition and programming space via the International Gallery, F/S will finalize plans for long-term use of the space aligned with two of the Smithsonian goals — Broadening Access and Revitalizing Education — by transforming the space into digital exhibitions, engaging audiences of all ages.

The F/S will also reach new audiences through a number of educational and scholarly programs on the arts of Asia. These include hosting a series of international conferences and workshops, and by collaborating within the Smithsonian and with outside organizations such as the National Museum in Beijing, the Uffizi in Florence, Italy, and the British Museum.

The Museums' website will be a center for public engagement through a redesigned site, an increase to the number of digitized records and images, and a new search tool for its online collections. The F/S will continue using students to work on collections management records, providing for timelier and greater public access to the entire collection. In FY 2014, the F/S will continue to improve its digitization efforts that will aim to be a world leader in its field within the next four years.

The F/S will achieve the Institution's goal of Excellent Research by focusing efforts on coordinating its own collections more vigorously with researchers in universities in the Washington, DC area, as well as internationally, and ensuring that the F/S has appropriate distribution, in print and online, of scholarly publications.

As part of its goal to advance Revitalizing Education initiatives, and to provide greater access to high-quality educational resources, the F/S will re-examine state, county, and municipal educational mandates to ensure that the Museums' programs support public schools' curricula. In addition, the F/S will devote more resources to develop long-lasting teaching materials based on the Museums' world-renowned collections, and to place more educational resources on the F/S website to make it the premier online resource in the United States for information on the arts of Asia. As a result of visitor surveys conducted in FY 2011, the F/S has appointed a Visitor Advisory Team to ensure that recommendations from these surveys are fully incorporated into future efforts to serve the public.

The F/S will achieve the goal of Strengthening Collections by continuing to devote resources to its internationally renowned conservation department and laboratory. Research work in the analysis, study, conservation, and long-term preservation of Asian art objects and materials of Asian art will help guarantee that objects from the F/S's collections and many other museums remain accessible to future generations. In FY 2014, curators and researchers will continue to study and publish new research on the collections, including ancient Chinese art from Dr. Paul Singer's collection. With the help of a major Getty Foundation grant, an online publication of the Pulverer Collection of Japanese books was recently launched. In addition, in the past

several years the F/S has collaborated with Ritsumeikan University to digitize more than 100,000 images of Japanese book art.

With a special allocation of funds to the Smithsonian, the F/S will continue its research into Nazi-era provenance issues. FY 2014 will see the Museums further strengthen the international ties developed in previous years to address this issue.

To meet the goal of Mission Enabling, the F/S will continue to improve its administrative efficiencies and reporting mechanisms, ensuring that its workforce is efficient and skilled, and to adopt best practices for safeguarding Smithsonian resources. The F/S has refined data entry into its management tracking system commissioned from ManagePro, which enhances accountability by linking the strategic plans and goals of the Museums directly to departmental activities and outputs. The F/S will complete its own strategic plan in FY 2014 so that it is aligned with the Smithsonian's overall strategic plan in terms of both timing and goals.

**NONAPPROPRIATED RESOURCES** — General trust and donor/sponsor-designated funds are generated from memberships, Museum shop sales, special events, unrestricted and restricted gifts and grants, and endowment income. The Freer Gallery of Art and the Arthur M. Sackler Gallery are highly dependent upon non-appropriated sources to fund the programs and operations necessary to provide the quality of exhibitions, programs, and publications expected by visitors and scholars, both online and on site.

## CENTER FOR FOLKLIFE AND CULTURAL HERITAGE

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	17	2,330	9	2,626	2	193	1	416
FY 2013 ESTIMATE			8	1,292	6	2,013	1	50
FY 2014 ESTIMATE	17	2,490	8	1,292	6	2,031	1	50

### STRATEGIC GOALS: BROADENING ACCESS; REVITALIZING EDUCATION; STRENGTHENING COLLECTIONS; AND MISSION ENABLING

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Broadening Access</b>							
<b><i>Exhibitions</i></b>							
Offer compelling, first-class exhibitions	9	1,264		9	1,278	0	14
<b>Revitalizing Education</b>							
<b><i>Education</i></b>							
Engage and inspire diverse audiences	2	326		2	332	0	6
<b>Strengthening Collections</b>							
<b><i>Collections</i></b>							
Improve the stewardship of the national collections	2	215		2	220	0	5
<b>Mission Enabling</b>							
<b><i>Facilities</i></b>							
Improve the overall cleanliness and efficient operation of Smithsonian facilities	0	34		0	160	0	126
<b><i>Security and Safety</i></b>							
Provide world-class protection for Smithsonian facilities, collections, staff, visitors and volunteers	0	100		0	100	0	0
<b><i>Information Technology</i></b>							
Modernize the Institution's information technology systems and infrastructure	1	125		1	127	0	2
<b><i>Management Operations</i></b>							
Strengthen an institutional culture that is customer centered and results oriented	1	56		1	58	0	2
Modernize the Institution's financial management and accounting operations	2	210		2	215	0	5
<b>Total</b>	<b>17</b>	<b>2,330</b>		<b>17</b>	<b>2,490</b>	<b>0</b>	<b>160</b>

## **BACKGROUND AND CONTEXT**

The Center for Folklife and Cultural Heritage (CFCH) is a research, collections, education, and public programming unit of the Smithsonian Institution with the mission of “promoting the understanding and sustainability of the world’s diverse traditional cultures.” It is the largest of a triumvirate of federal offices (with the Library of Congress’ American Folklife Center and National Endowment for the Arts’ Folk and Traditional Arts program) that supports traditional arts and culture in the United States and abroad. For more than four decades, the CFCH has accomplished this mission through research, documentation, preservation, presentation, education, social enterprise, and publication. It has collaborated with thousands of organizations, foundations, and governments in the United States and worldwide. The Smithsonian Folklife Festival and Smithsonian Folklife Recordings are its most visible products, reaching many millions of people each year and earning major recognition, including one of the first Best Practice Citizen Diplomacy awards from the U.S. Center for Citizen Diplomacy, 27 Grammy Award nominations, seven Grammys, and one Latin Grammy.

The CFCH, with its highly qualified staff, one-quarter of whom hold doctoral degrees, and first-rate production capabilities for public events, also produces multi-media website features and publications, exhibitions, documentary films, symposia, print publications, educational materials, and more. Ethnographic research and documentation are fundamental to all of its products and anchor its active engagement in high-profile international cultural heritage policy forums. Its Ralph Rinzler Folklife Archives and Collections house, preserve, and provide access to its world-class collections. Professional training efforts offer opportunities for more than 100 interns each year (150 in 2012) and host advanced study Fellows from countries around the world.

The budget estimate includes an increase of \$34,000 for necessary pay and other related salary costs for existing staff funded under this line item, and \$126,000 for rental costs of existing space, which is justified in the Fixed Costs section of this budget.

## **MEANS AND STRATEGY**

Research, production capacity, and entrepreneurial resource leveraging are the keys to how CFCH accomplishes its core mission. Earned revenues are used to employ half of its staff, create its public products, and deliver them to a broad national and international public of tens of millions. Institutional collaboration and major public impact nationally and internationally are also key to fulfilling its mission. Institutional collaborations (more than 100 partnerships in the past four years), fund raising, and mission-driven business activities leverage the Center’s modest federal investment many times over to reach millions of people per year. CFCH achieves this through the Smithsonian Folklife Festival (one million visitors plus tens of millions via the media), Smithsonian Folklife Recordings (more than 10 million listeners via recordings, radio programs,

downloads, and streams), websites (4.5 million visits), and other products. The CFCH also periodically applies its event production capacity to put on other major, national cultural events consistent with its mission, such as the National World War II Reunion, the First Americans Festival for the opening of the National Museum of the American Indian, and programs for the Olympic Games and Presidential inaugurations.

In 2013 and 2014, the CFCH will collaborate with at least eight Smithsonian units, 15 nonprofit organizations, and nine foreign countries to create and deliver programmatic content. The 2013 Folklife Festival will celebrate the rich folk traditions of Hungary, following a “Roots to Revival” theme, explore the expressive traditions of African American dress and other adornment, and highlight the depth and urgency of endangered languages around the world. In addition, a diverse fare of evening concerts will add a cultural panorama of performing arts from the United States and at least four foreign countries. The 2014 Festival will mount at least two major programs: *Cultural Treasures of China*, and *Kuna Mambo: Traditions of Modern Kenya*. The People’s Republic of China is more than any other nation home to living treasures of world heritage, as declared by UNESCO. Kenya is a mosaic of more than 40 distinctive cultures and languages, looking to strengthen these traditions while forging a unified modern nation. Also in 2013 and 2014, the CFCH will further harness the power and reach of the Web to broaden access to Festival content far beyond Washington, DC through programmatic features preceding, during, and following the 10-day Mall event. The CFCH will accomplish this by further increasing the interactivity of its websites, aggressively aiming to increase visits to all of its websites by one million in 2013, for a total of 5.5 million.

Smithsonian Folkways Recordings will release more than 30 productions in 2013 and 2014, including several recordings constituting an initiative to highlight the American banjo and its many musical forms, and the final volume of a series on the music of Central Asia. In 2013, it has already parlayed its multi-CD set of Woody Guthrie’s music, on the occasion of the 100th anniversary of his birth, into two Grammy nominations and one Grammy award, in addition to three other nominations and a Grammy award for its Latino series release *Imaginaries*, by the group Quetzal. In 2013 and 2014, Folkways will continue its *African American Legacy* and *Tradiciones/Traditions* series of African American and Latino music. By 2014, it will make available the recently acquired UNESCO collection of more than 100 albums of traditional music from dozens of countries around the world. Folkways will continue to extend its reach to millions more listeners, distributing its 3,000 album titles and 48,000 tracks of audio to teachers, students, scholars, and the general public. Digital distribution will expand further, opening new horizons for the creation and delivery of the Center’s educational content via downloadable streams, “podcast” feeds, and multi-media video features. Folkways will also bolster its million-plus circulation of digital content from non-Smithsonian websites such as iTunes U, now available in more than 67 countries. It will expand its collaboration with a private partner to deliver the entire Folkways collection to more than 440 libraries throughout the

continent and beyond. The *Musica del Pueblo* virtual exhibition will expand its offerings of American and Latin American content by featuring even more video and audio recordings as well as text from and about Latino roots musical traditions. This mission-critical content will also generate additional revenues through online and retail sales.

Center curators and research staff will continue to publish books, articles, and Web features, and make professional presentations at gatherings of specialists. One special book in progress will explore curatorial challenges, approaches, and highlights via the Smithsonian Folklife Festival. The CFCH's Cultural Heritage Policy team will continue its vital participation in U.S. and UNESCO cultural heritage policy formulation through consultation with the U.S. Department of State, cooperative work with UNESCO, and collaborations with other national and international organizations. In 2013 and 2014, it will launch and build upon a fresh cultural heritage policy section of the CFCH website.

The yield from ethnographic research and multi-media primary sources will add to the Ralph Rinzler Folklife Archives and Collections' strategically important holdings of music and cultural traditions from the United States and around the world. The Folklife Archives will tackle two principal challenges in 2013 and 2014 — receiving a plethora of incoming ethnographic research, and assessing, cataloguing, preserving, and making available endangered, valuable, multi-media holdings through sharp prioritization of delicate and critical collections materials. Central funds from within the Institution will further support The Rinzler Archives digitization and dissemination efforts.

Through these activities, the CFCH will take major steps to fulfill the Smithsonian Grand Challenges of Understanding the American Experience and Valuing World Cultures. The CFCH will contribute to the Smithsonian's goals of Broadening Access and Mission Enabling by taking special measures to provide for the security and safety of people and property on the National Mall during the Festival period, and for equipment collections in need of adequate storage year-round. The Center will also continue to improve its information technology infrastructure and related project budgeting and planning.

**NONAPPROPRIATED RESOURCES** — General trust funds support salaries and benefits of personnel. Donor/sponsor-designated funds cover costs related to specific projects such as the Smithsonian Folklife Festival and several other educational programs. Work at the Rinzler Archives will be supported by a grant from the Save America's Treasures program to digitize and preserve the entire Moses and Frances Asch collection of recordings and documentation, recognizing the national and international prominence of the Folkways collections. Income from sales of Smithsonian Folkways Recordings pays staff salaries and expenses. With the support of the Smithsonian National Campaign, the CFCH plans to increase its goals for raising private funds to support the mission of the Center.

## COOPER-HEWITT, NATIONAL DESIGN MUSEUM

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	33	4,207	26	4,592	12	4,158	0	65
FY 2013 ESTIMATE			27	4,597	13	6,013	0	110
FY 2014 ESTIMATE	36	4,710	29	4,747	13	6,541	0	78

### STRATEGIC GOALS: EXCELLENT RESEARCH; BROADENING ACCESS; REVITALIZING EDUCATION; STRENGTHENING COLLECTIONS; AND MISSION ENABLING

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Excellent Research</b>							
<b>Research</b>							
Ensure the advancement of knowledge in the humanities	4	325		4	335	0	10
<b>Broadening Access</b>							
<b>Digitization and Web Support</b>							
Provide improved digitization and Web support	1	90		1	100	0	10
<b>Public Programs</b>							
Provide reference services and information	1	120		1	120	0	0
<b>Exhibitions</b>							
Offer compelling, first-class exhibitions	4	295		4	305	0	10
<b>Revitalizing Education</b>							
<b>Education</b>							
Engage and inspire diverse audiences	3	250		3	250	0	0
<b>Strengthening Collections</b>							
<b>Collections</b>							
Improve the stewardship of the national collections	7	1,622		7	1,890	0	268
<b>Mission Enabling</b>							
<b>Facilities</b>							
Improve the overall cleanliness and efficient operation of Smithsonian facilities	8	885		11	1,085	3	200
<b>Information Technology</b>							
Modernize the Institution's information technology systems and infrastructure	1	167		1	167	0	0



Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b><i>Management Operations</i></b>							
Ensure that the Smithsonian workforce is efficient, collaborative, committed, innovative, and diverse	1	105		1	105	0	0
Modernize the Institution's financial management and accounting operations	2	268		2	268	0	0
Enhance the reputation of the Smithsonian by maintaining good relations with the news media and with federal, state, and local governments	1	80		1	85	0	5
<b>Total</b>	<b>33</b>	<b>4,207</b>		<b>36</b>	<b>4,710</b>	<b>3</b>	<b>503</b>

## BACKGROUND AND CONTEXT

Cooper-Hewitt, National Design Museum (CHNDM), in New York City, is one of two Smithsonian museums located outside of Washington, DC. CHNDM is the only museum in the nation dedicated exclusively to historic and contemporary design. Its collection is international in scope and encompasses 217,000 objects representing 24 centuries of design, from China's Han Dynasty (200 B.C.) to the present. The Museum presents compelling perspectives on the impact of design on daily life through active educational programs, exhibitions, and publications.

As the design authority of the United States, CHNDM's programs and exhibitions demonstrate how design shapes culture and history — past, present, and future. To achieve the Institution's goals of Broadening Access and Revitalizing Education, the Museum will continue its dynamic exhibition programming and active roster of educational and public programs, as well as expand the number of programs offered in venues outside the New York metropolitan area in 2014. Together, these programs will help CHNDM engage larger, more diverse audiences, and fulfill its mission to serve as a catalyst for design education, throughout the nation and internationally.

The Museum devotes resources to ensure the advancement of knowledge in the humanities by fostering a greater understanding of the role of design in everyday life and its impact on shaping the built environment of the past, present, and future; and to encourage the "by-products" of design thinking — such as creative problem solving and team work — in other disciplines and areas of life, through interactive, engaging in-person and online experiences.

The budget estimate includes an increase of \$503,000. This increase includes \$54,000 for necessary pay and other related salary costs for existing staff funded under this line item; \$249,000 to support rent costs, which is justified in the Fixed Costs section of this budget; and \$200,000 and 3 FTEs for facilities staff as justified in the Facilities Operations, Security, and Support line item.

## MEANS AND STRATEGY

In FY 2014, Cooper-Hewitt's 91st Street facility, located in the historic Carnegie mansion, will remain closed to the public due to major renovations. This will require the Museum to secure off-site locations to present exhibitions and provide educational opportunities. This period of time during the renovation has been coined "On the Move."

CHNDM resources will continue to support the strategic goal of Excellent Research, ensuring the advancement of knowledge in the humanities through exhibition-related scholarly research to create the most innovative and educational exhibitions for the public.

The Museum will be working on several exhibitions for the fall 2014 grand re-opening of the Museum — *TOOLS, PROCESS: DESIGN, Maira Kalman Selects from the Collection*, and *History of the Carnegie Mansion*, among others. The Museum will also be working on several publications to accompany these exhibitions — a collections handbook; a design book for children, written and illustrated by Maira Kalman; and a book on the Carnegie Mansion.

To achieve the goal of Strengthening Collections, the Museum will catalogue and put an additional 3,000 objects in the electronic collections information system and on the Web by the end of FY 2014. The Museum will also continue to support an on-site graduate program with the New School/Parsons on the history of decorative arts and design, which will enable students and scholars to access objects in CHNDM's collections.

CHNDM will achieve the goal of Revitalizing Education by continuing to engage and inspire diverse audiences through continual national outreach efforts. Cooper-Hewitt offers a wide variety of educational opportunities and programs, most of which are free. The goal across all of the programs is to engage K–12 students in the design process through active observation, critical discussion, creativity, and presentation. The programs foster collaboration among students, teaching them how to work in teams, and to define problems and find solutions, while improving their verbal and written communication skills. During the time Cooper-Hewitt is "On the Move" and unable to host school groups, it will bring design workshops into classrooms across New York City and other off-site locations.

The Museum will also continue to offer an expanded Smithsonian Design Institute program nationally as well as in New York City. This program is geared to K–12 educators and draws a steadily increasing national and international audience each year. In 2014, special emphasis will be placed on using the design process to enhance science, technology, engineering, and mathematics (STEM) skills.

CHNDM hopes to make its educational opportunities available to a broader audience in FY 2014 through greater use of the World Wide Web. In particular, the Museum plans to devote resources to increasing the accessibility of educational programs through its website for K–12 teachers, ([www.educatorresourcecenter.org](http://www.educatorresourcecenter.org)), through increased components of the *City of Neighborhoods* educational programs and Smithsonian Design Institute educational programs to make program resources available to broader audiences. The Educators' Resource Center is a website that uses downloadable lesson plans aligned to national standards to show K–12 teachers how design-based learning works with diverse learning styles. These online tools provide educators with the resources they need to engage in the design process and use it effectively in their classrooms.

To further the Smithsonian's goal of Mission Enabling, CHNDM will enhance its reputation, and that of the Smithsonian, by continuing to secure significant media coverage across national and international print and digital platforms such as *The New York Times*, *The Washington Post*, and *The Wall Street Journal*, as well as general interest publications and those relating to all fields of design. Cooper-Hewitt will maintain and cultivate substantive relationships with the public, its existing membership community, state and local governments, children, educators, business leaders, and designers.

Mission Enabling support goals will be achieved through reviews of on-site and off-site storage, redesign of CHNDM's website to create a world-class online resource for design education, and streamlined financial systems to improve the efficiency of the procurement process. Additionally, the Museum has embarked upon an ambitious two-phase renovation project.

Phase One (Townhouse) of the Museum's renovation was completed in 2011. The renovation provides a new public entrance on East 90th Street for direct access to a modernized National Design Library with two reading rooms and a rare book facility. The renovated space also includes curatorial and administrative offices, and an additional classroom.

Phase Two, Museum (Carnegie Mansion) renovation, which began in FY 2012, will increase exhibition space with a spectacular new third-floor gallery. The open floor plan will provide additional room for Cooper-Hewitt to showcase objects it previously did not have the capacity to exhibit before. Along with expanded gallery space on the second floor, Cooper-Hewitt's exhibition space will increase by 60 percent, resulting in four entire floors dedicated to exhibitions and public programming.

The renovation is a critical project that will enable the Museum to play an important and vibrant role locally and globally. After the renovation, it is estimated that the Museum will experience 100 percent growth in the number of students participating in Cooper-Hewitt's programs, and surpass 300,000 visitors to the

Museum per year. Only with renovated and improved facilities will Cooper-Hewitt be able to accommodate this growth and fulfill its mission as the nation's design education resource and authority for design enthusiasts of all ages.

**NONAPPROPRIATED RESOURCES** — Nonappropriated resources support 70 percent of the Museum's operating budget. General trust funds are generated from memberships, Museum shop sales, admissions, special events, and unrestricted donations. General trust funds support salaries and benefits of administrative personnel, development and business activities, and other program-related costs. The Museum also raises funds from private sources to support research, exhibitions, public programs, and administrative functions. This includes securing donations for new exhibitions, educational initiatives, and public outreach. Donor/sponsor-designated funds are critical to support exhibitions and educational initiatives. In addition, significant endowment gifts support research, exhibitions, public programs and administrative functions. The Museum's Board of Trustees has contributed to the campaign, and both New York City and New York state are also supporting CHNDM's Capital Campaign.

## HIRSHHORN MUSEUM AND SCULPTURE GARDEN

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	37	4,349	2	828	24	5,725	0	0
FY 2013 ESTIMATE			2	537	41	1,627	0	0
FY 2014 ESTIMATE	37	4,408	2	537	43	1,827	0	0

### STRATEGIC GOALS: EXCELLENT RESEARCH; BROADENING ACCESS; REVITALIZING EDUCATION; STRENGTHENING COLLECTIONS; AND MISSION ENABLING

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012-2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Excellent Research</b>							
<i>Research</i>							
Ensure the advancement of knowledge in the humanities	2	294		2	294	0	0
<b>Broadening Access</b>							
<i>Digitization and Web Support</i>							
Provide improved digitization and Web support	1	117		1	117	0	0
<i>Public Programs</i>							
Provide reference services and information	2	284		2	324	0	40
<i>Exhibitions</i>							
Offer compelling, first-class exhibitions	12	1,492		12	1,511	0	19
<b>Revitalizing Education</b>							
<i>Education</i>							
Engage and inspire diverse audiences	4	453		4	453	0	0
<b>Strengthening Collections</b>							
<i>Collections</i>							
Improve the stewardship of the national collections	9	1,111		9	1,111	0	0
<b>Mission Enabling</b>							
<i>Facilities</i>							
Improve the overall cleanliness and efficient operation of Smithsonian facilities	1	92		1	92	0	0

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012-2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b><i>Management Operations</i></b>							
Enhance the reputation of the Smithsonian by maintaining good relations with the news media and with federal, state, and local governments	2	162		2	162	0	0
Ensure that the Smithsonian workforce is efficient, collaborative, committed, innovative, and diverse	1	75		1	75	0	0
Modernize the Institution's financial management and accounting operations	2	203		2	203	0	0
Modernize and streamline the Institution's acquisitions management operations	1	66		1	66	0	0
<b>Total</b>	<b>37</b>	<b>4,349</b>		<b>37</b>	<b>4,408</b>	<b>0</b>	<b>59</b>

## BACKGROUND AND CONTEXT

The Hirshhorn Museum and Sculpture Garden (HMSG) is a leading voice for contemporary art and culture, and provides a national platform for the art and artists of our time. The Museum seeks to share the transformative power of modern and contemporary art with audiences at all levels of awareness and understanding by creating meaningful, personal experiences in which art, artists, audiences, and ideas converge. The HMSG enhances public understanding and appreciation of contemporary art through acquisition, exhibitions, education and public programs, conservation, and research.

The Museum allocates resources to further the Institution's goals so that progress toward one goal supplements work toward the others. For instance, through its efforts to pursue the goal of Excellent Research, the HMSG has developed a deep expertise in the conservation of time-based media works that are at the forefront of contemporary art, and this knowledge enables the Museum to sustain these works under the goal of Strengthening Collections, and to display these works in compelling exhibitions under the goal of Broadening Access.

The HMSG dedicates a significant portion of its resources to the Institution's goal of Broadening Access, primarily through its presentation of insightful, deeply researched exhibitions of modern and contemporary artists, many of them with novel thematic interpretations that win critical and public acclaim. The HMSG supplements these exhibitions with an active roster of public programs, critical essays, and carefully selected images in original catalogues, and through continued progress in digitizing images of every work in the collection and highlighting them on the Museum's newly re-designed website.

The Museum's extensive collection is central to its purpose, and, pursuant to the Institution's goal of Strengthening Collections, the HMSG dedicates another substantial portion of its resources to the preservation of its thousands of

artworks. These artworks have been highlighted in several recent collection shows such as *Dark Matters*, *Over Under Next*, *Out of the Ordinary*, and *Fragments in Time and Space* in FY 2012 and FY 2013. The strength of this collection and the need to preserve it will be highlighted significantly as the Museum approaches its 40th anniversary in 2014. Moreover, the HMSG makes these artworks available to museums around the country with a very active loan program, and lends staff expertise on conservation matters to arts organizations around the globe.

The Museum contributes to the goal of Revitalizing Education with Artlab+ and numerous educational programs, including a gallery interpretive guide project that is adapted to audience areas of interest and ongoing research from many fields of contemporary culture, and efforts to bring senior, non-museum education professionals into programs where they can expand on the HMSG's didactic approaches. Artlab+ is a digital media studio for local teens that give youth access to professional technology and art, connecting them to artist mentors who build a community of young creators. Artlab+ has been a signature achievement of the Museum and has received critical acclaim from the broader educational community and from one of its primary funders, the MacArthur Foundation. The Museum pursues the goal of Mission Enabling by constantly improving its financial and administrative management tools and procedures.

The budget request includes an increase of \$59,000 for necessary pay and other related salary costs for existing staff funded under this line item.

## **MEANS AND STRATEGY**

In FY 2014, Excellent Research continues as the Museum develops a major public forum on the intersections of art, design, technology and education, featuring international subject-matter experts and an interactive online component effectively extending participation to audiences far beyond the walls of the Museum. Also, the Museum will expand its series of online and on-site programs dealing with the role of technology and new media in contemporary art, museum culture and digital education.

FY 2014 exhibitions will remain at the forefront of the Hirshhorn Museum and Sculpture Garden's missions to broaden access to the arts and, specifically, to increase public understanding of and engagement in the transformative power of modern and contemporary art.

The Museum will open the year with a major exhibition called *Damage Control: Art and Destruction since 1950*, a thematic survey of the imagery and processes of destruction in international, postwar art. The Museum's chief curator, Kerry Broucher, will organize and oversee this show.

Other major thematic exhibitions in FY 2014 will be a survey of the role of the landscape in American 20th-century abstract art; a thematic exploration of animation and new moving-image technologies in art; and a comprehensive, historical, international survey of surrealist sculpture. The Museum will also move ahead in FY 2013 with plans for a large-scale exhibition in FY 2014, celebrating the Museum's 40th anniversary with a thematic exhibition project highlighting the Museum's collection and exploring the role and meaning of the art museum in 21st-century society.

The Museum's distinctive *Directions* series will continue, in FY 2014, to feature work by important emerging national and international artists.. A continuing series of moving-image artworks by emerging national and international artists will also be displayed in the Museum's dedicated Black Box gallery space. All exhibitions presented in FY 2014 will be complemented by a combination of public tours led by interpretive guides, docents, and invited specialists, lectures and other public programs, and brochures, catalogues, and online educational resources.

With a redesigned website, one that starts with the methods of social media rather than merely accommodating them, the Museum will further the goal of Broadening Access by engaging with local and remote audiences as they draw in information with individualized knowledge portals. HMSG will also refine its communication procedures to diffuse deep knowledge of contemporary art and culture, whether presented in the Museum or elsewhere, and not merely describe events in superficial terms. The Museum will still publish original catalogues to complement the viewing of its exhibitions and produce other books which examine modern art, design, and cultural shifts of the early 21st century.

The Museum will support Revitalizing Education with a range of programs geared toward people with varying levels of art experience and cultural interests, and by expanding or revising the concept of a museum as a center of learning. As in previous years, one or more working artists will design and lead Artist at Work with Youth workshops for elementary school-aged children, with three sessions in both the fall and spring. Artists will also present their ideas and inspirations to people of all ages in the "Meet the Artist" programs and "In Conversation" interviews and panel discussions. The Museum will draw upon a wide pool of artists, researchers, and experts from unexpected fields to provide interpretive tours in Friday Gallery Talks. It will present Washington's most thought-provoking film series, portraying art and critical thought from independent artists and documentary film makers from around the world. In concert with major educational foundation sponsors, HMSG will expand the Artlab+ program into the lobby of the Museum to create a design studio where teens can attend workshops to learn about and explore digital media. The Museum will sustain its "Interpretive Guides" program, which brings advanced art students into the galleries to aid visitors' critical experience with art on display, and which develops the students' own education objectives and teaching skills.



In FY 2014, the Museum's main action to achieve the goal of Strengthening Collections will involve the planning and fundraising effort to move the Conservation Lab from the basement of the building to the fourth floor, where the natural light will greatly improve the quality of scholarship and leadership the Museum already has in these fields. In addition, the HMSG will further develop itself as a center for research and preservation of time-based media (e.g., film, digital video and audio) artworks, by presenting the symposium, "TechFocus II" with the Museum's partner institution, the American Institute for Conservation of Historic and Artistic Works.

The Museum will seek to complete its efforts to photograph and catalogue the entire permanent collection, and bring ever more of the collection to the public via extensive search features on the Museum's public website.

Under the goal of Mission Enabling, the Museum will continue to pursue capital projects that merge the functional with the artistic through the inclusion of artists and designers with central Smithsonian engineering staff. The Museum will continue to refine its public spaces for visitors who apply mobile technology in every facet of life, and expect access to Web-based knowledge and social media platforms to enliven their interpretive experience as they explore Museum galleries. The HMSG administration will institute long-range program planning reviews to improve resource allocation, funds management, and more effective cost sharing of major exhibitions and programs with outside organizations.

**NONAPPROPRIATED RESOURCES** — General trust funds support salaries and benefits of administrative and development personnel, as well as some programs and public relations staff, development activities, and exhibition and program-related costs. Donor/sponsor-designated funds support development, exhibitions, public programs, communications, and marketing.

## NATIONAL MUSEUM OF AFRICAN ART

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	27	4,284	4	910	3	722	0	0
FY 2013 ESTIMATE			5	902	2	928	0	0
FY 2014 ESTIMATE	27	4,340	5	902	2	928	0	0

### STRATEGIC GOALS: EXCELLENT RESEARCH; BROADENING ACCESS; REVITALIZING EDUCATION; STRENGTHENING COLLECTIONS; AND MISSION ENABLING

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTEs	\$000	\$000	FTEs	\$000	FTEs	\$000
<b>Excellent Research</b>							
<i>Research</i>							
Engage in research and discovery	3	463		3	465	0	2
<b>Broadening Access</b>							
<i>Digitization and Web Support</i>							
Provide improved digitization and Web support	1	112		1	115	0	3
<i>Public Programs</i>							
Provide reference services and information	3	514		2	440	-1	-74
<i>Exhibitions</i>							
Offer compelling, first-class exhibitions	8	1,321		8	1,362	0	41
<b>Revitalizing Education</b>							
<i>Education</i>							
Engage and inspire diverse audiences	4	526		4	530	0	4
<b>Strengthening Collections</b>							
<i>Collections</i>							
Improve the stewardship of the national collections	3	693		4	769	1	76
<b>Mission Enabling</b>							
<i>Information Technology</i>							
Modernize the Institution's information technology systems and infrastructure	1	156		1	160	0	4
<i>Management Operations</i>							
Strengthen an institutional culture that is customer centered and results oriented	4	499		4	499	0	0
<b>Total</b>	<b>27</b>	<b>4,284</b>		<b>27</b>	<b>4,340</b>	<b>0</b>	<b>56</b>

## **BACKGROUND AND CONTEXT**

Africa — the cradle of humanity — is part of everyone’s heritage. The mission of the National Museum of African Art (NMAfA) is to inspire conversations about the beauty, power, and diversity of African arts and cultures worldwide. The Museum’s vision is to be the world’s leading center of scholarly and artistic excellence on the arts of Africa. The Museum accomplishes its mission and vision through effective use of its unparalleled collections, exhibitions, programs, publications, and educational initiatives, which are widely accessible and strengthened through collaborations with African, diasporic, and global arts communities. The Museum collects and exhibits ancient to contemporary works of art from the entire continent of Africa. NMAfA’s activities and programming support the Grand Challenges of the Smithsonian’s Strategic Plan, particularly in the areas of Valuing World Cultures and Understanding the American Experience.

To achieve the goal of Broadening Access, the NMAfA dedicates resources to the Web and to the Museum’s social media capabilities, integrates digital technology in exhibitions, provides online educational resources, and promotes public access to the Museum’s art and photographic collections. A key component of Museum operations is the creation of temporary and semi-permanent exhibitions of artworks from its own collection and from other museum and private collections. In FY 2014, the NMAfA will have four concurrent exhibitions on view that were opened in FY 2013 and feature works from the permanent collection, three of which are temporary and include a publication. An FY 2013 temporary exhibition featuring traditional and contemporary art — much of it from the Museum’s collection — includes a publication and continues through the first quarter of FY 2014. Another FY 2013 temporary exhibition featuring archival photographs from NMAfA’s Eliot Elisofon Photographic Archives will continue into the second quarter of FY 2014 and includes a publication. In addition, in FY 2014, the Museum will present two temporary exhibitions (one of contemporary art and one that mixes traditional and contemporary art), both organized by the Museum and including publications. Depending on the exhibition calendar and funding support, a possible third FY 2014 (or early FY 2015) exhibition on contemporary art may be scheduled.

Of the NMAfA-organized temporary exhibitions on view and/or opening in FY 2014, one includes a publication and features photographs from the Museum’s Eliot Elisofon Photographic Archives exhibit, along with objects from the art collection. The second exhibition, which opened in FY 2013 and extends into FY 2014, is also accompanied by a publication; it includes a mixture of Museum and loan objects, both traditional and contemporary, exploring African cultural astronomy and the arts. The third, which also includes a mixture of Museum and loan objects, both traditional and contemporary, explores the earth as material and metaphor in the arts of Africa. The third temporary exhibition, which also opened in FY 2013 and extends into FY 2014 and includes a

publication, has been developed by the Museum in collaboration with a guest curator; it features the photographic work of South African photographer Roger Ballen. The fourth temporary exhibition, which opens in FY 2014 and includes a mixture of Museum and loan objects, both traditional and contemporary, explores intersecting themes in African and African American arts, and also includes a publication. The Museum's fifth temporary exhibition, which opens in mid-FY 2014, features the contemporary works of two or three artists as part of NMAfA's Artists in Dialogue series. Finally, the Museum's sixth exhibition, *African Mosaic*, features changing displays of traditional, contemporary, and popular arts of Africa from the Museum's permanent collection; it does not include a publication other than a "How to Look" guide.

The Museum will not host any touring exhibitions in FY 2014; however, the Museum will seek venues for three of the temporary exhibitions noted above. A number of these exhibitions will extend into FY 2015. In addition, NMAfA staff will develop exhibition plans for gallery space on the Museum's third level, including a possible FY 2014 or FY 2015 exhibition on African artists' books, in collaboration with Smithsonian Institution Libraries. In FY 2014, NMAfA also plans to publish *The Royal Arts of Owo*, a publication by the late Nigerian archaeologist, Dr. Ekpo Eyo, which is supported in part by a grant from the Ford Foundation.

The NMAfA will present new educational programs online, continue to catalogue objects and images from its collections for online access, and expand its outreach to local communities and underserved or new audiences, particularly African immigrant communities and young adult audiences. In keeping with the Smithsonian's Strategic Plan, the NMAfA will forge meaningful collaborations within and outside the Smithsonian, and strengthen its networking nationally and internationally — particularly on the continent of Africa.

The Museum will achieve its goal of Broadening Access through organizational excellence by continuing to improve information technology (IT) operations, staff performance, and media relations and marketing. A comprehensive IT plan will integrate all of the Museum's IT operations. A media and marketing strategy, renewed annually, will expand NMAfA's visibility and membership, and promote its programs locally, nationally, and internationally. A fundraising plan, renewed annually, will enhance the Museum's capacity to offer outstanding exhibitions, publications, programs, and outreach activities. Furthermore, the Museum will continue to assess its effectiveness in reaching out to educators, scholars, and the public through of visitor surveys and other performance evaluation tools.

FY 2014 will see advances in the Museum's operational plan, which complements the NMAfA's strategic plan that was completed in FY 2011. As a way to establish the staff as stakeholders in the success of the NMAfA, the goals of the Museum's strategic plan and the Secretary's goals will continue to be

integrated into the performance plans of all staff members. Emphasis will be on public visibility and customer-centered performance. At the same time, quality programming and ongoing research will continue to be the foundation for all NMAfA programs, including exhibitions.

The Museum will continue to increase its public visibility and fulfill its mission to various stakeholders, including students, teachers, cultural community organizations, the diplomatic corps, African immigrant groups, scholars, collectors, and volunteers located in the metropolitan Washington, DC area. An enhanced Web presence and social media capabilities will expand the Museum's visibility and impact nationally and internationally.

The budget estimate includes an increase of \$56,000 for necessary pay and other related salary costs for existing staff funded under this line item.

## **MEANS AND STRATEGY**

The NMAfA will achieve the goals of Broadening Access and Revitalizing Education by directing resources to activities that will result in consistently high-quality programs and larger audiences. In FY 2014, the Museum will provide greater Web and digital access to NMAfA collections through enhanced navigation features via eMuseum and multimedia applications, and by completing additional image and object catalogue records for the Museum's public access database. The Museum's website will be revised and expanded to include additional podcasts, blogs, Facebook and Twitter options, online educational resources, activities for younger audiences, and an expanded Web presence for the Eliot Elisofon Photographic Archives.

Funding and staff permitting, the NMAfA will continue to seek visitor feedback on exhibitions and programs, and implement performance assessments of its public programs. In anticipation of the reinstallation of a gallery devoted to the permanent collection, the Museum will hold "town hall" meetings with teachers of primary, secondary, and college students, as well as representatives from the Museum's African Immigrant Advisory Group and local community groups, to solicit input for future exhibitions and activities. These efforts will result in more effective planning and development of programs and services which will enable the Museum to reach its target groups and expand its audience base. In addition, marketing strategies will be reviewed and tested to determine the most effective ways to engage and communicate with diverse audiences.

Ongoing educational programs will include "Africa in Motion" musical and dance performances, programs geared to younger visitors and family groups, such as "Let's Read About Africa," storytelling and art-making activities, exhibition-related teacher/student workshops and teleconferences, and an annual Community Day. FY 2014 will also see expanded summer-long programming

focused on the country of Kenya, in connection with the 2014 Folklife Festival, which features that nation in its festival activities on the Mall that year. The NMAfA will also use lectures, gallery tours, and film series based on the Museum's current exhibitions to attract mixed-generation audiences. For adult audiences, the Museum will continue to present African films and scholarly lectures, drawing on current exhibitions and featuring noted scholars and artists. In addition, the Museum will continue its very successful Director's Series, featuring NMAfA's director in conversation with leading figures associated with Africa and its diasporas.

The Museum will continue its quarterly Conservation Clinics to educate the public about conservation and the important relationships linking science, technology, and art. Ongoing quarterly Curatorial Clinics will continue to provide opportunities for members of the public to learn about African art forms, styles, materials, and contexts of use as part of museum connoisseurship and object quality assessments. To educate casual and serious collectors of African art, the Museum's website will expand to include helpful tips on object identification, assessment, and care.

To achieve the goal of Strengthening Collections, the Museum will continue online cataloguing of its art and photographic collections; the NMAfA's priorities will be recent acquisitions, the Walt Disney-Tishman African Art Collection and the Eliot Elisofon Photographic Archives. Digital access to these materials will facilitate research and study by students, teachers, scholars, conservators, and the public. The Museum will continue to integrate contextual photographs from the Eliot Elisofon Archives with related objects in the collection.

The Museum's *Walt Disney-Tishman Highlights* exhibition will close in the third quarter of FY 2014 to prepare the gallery for a temporary exhibition, opening at the start of FY 2015, of photographs from the Eliot Elisofon Photographic Archives. The FY 2011 exhibition *African Mosaic*, which features selected highlights from the Museum's acquisitions over the last decade, will continue through FY 2014 and into FY 2015, although plans will be developed to move this exhibition into a gallery devoted to the permanent collection but featuring changing cases and rotating themes. *Earth Matters: Land as Material and Metaphor in the Arts of Africa*, a major exhibition that opened in FY 2013 and features traditional and contemporary artworks drawn from the Museum's collections as well as loans from other institutions and private collections, will continue through part of FY 2014. The FY 2013 exhibition *Lines, Marks, and Drawings: Through the Lens of Roger Ballen*, featuring the work of the South African photographer and developed by the Museum in collaboration with a guest curator, will continue through part of FY 2014. The exhibition and publication of approximately 55 photographs explore the South African artist's use of lines and drawing to create photographs which are both expressive and gestural and result from a collaborative endeavor with his subjects.

Two new and innovative exhibitions organized by the Museum are slated to open in FY 2014. In June 2014, the Museum will open *Artists in Dialogue 3*, a contemporary exhibition with a publication organized by the Museum in collaboration with featured artists. This third exhibition in the Museum's series features the work of Kenyan-born artist Wengechi Mutu in conversation with one or two artists of her choosing. A few months later, the Museum will open an exhibition that explores intersecting themes of African and African American art. Accompanied by a publication, this exhibition will bring works of traditional and contemporary art from the Museum's collection together in a thematic dialogue with major works of African American art from an important private collection. The Museum will not host any loan exhibitions in FY 2014.

During FY 2014, all work will be completed for the early FY 2015 exhibition and publication *Chief S. O. Alonge: Photographer to the Court of Benin, 1926–1989*, which will celebrate the history of Nigerian photography with a special focus on the Museum's collection of photographs by one of that country's early premier photographers. As an official photographer for the Royal Court of the Benin Kingdom, Alonge documented the rituals, pageantry, and regalia of the court for more than a half century. The exhibition, drawn from the collection of the Eliot Elisofon Photographic Archives, will feature selected photographs and other materials which explore the history of photography in Nigeria, with a concentration on Alonge's work. The exhibition and accompanying publication, which will be developed and authored by the Museum's supervisory archivist in collaboration with an NMAfA curator and an outside scholar, will also highlight works of art from the court of Benin in the Museum's permanent collection and rare photographs from the Museum's Eliot Elisofon Photographic Archives.

Also in FY 2014, the Museum will devote staff resources to the planning of exhibitions in FY 2015 and beyond, including the reinstallation of 60 works from the Walt Disney-Tishman African Art Collection. Staff members will also devote considerable effort to planning the installation of a reconfigured gallery devoted to the Museum's permanent collection. This long-term display of selected works from the NMAfA's permanent collection will attract general audiences, collectors, and scholars, as well as local school groups that rely on consistently available works of art for their themed tours and curriculum projects. In FY 2014, the Museum will continue to develop rotating exhibitions from the permanent collection for the small Point of View gallery, when it is not in use for large contemporary exhibitions. The Museum will also prepare for the late FY 2014 or early FY 2015 opening of *Divine Comedy*, a major contemporary exhibition organized by the Museum in collaboration with a guest curator. Finally, the Museum will continue to plan for an FY 2015 exhibition focused on African women artists, as well as an exhibition on Ethiopian devotional arts slated for FY 2015 or FY 2016.

In FY 2014, the NMAfA will develop a schedule to deaccession works from the art collection. Additionally, the Museum will continue to assess and refine the

FY 2013 reorganization of object storage at the Museum, and will move selected works from the permanent collection to off-site storage in Pod 3 of the Museum Support Center.

To address the goal of Broadening Access, the NMAfA is focusing resources in several areas: IT operations, staff performance and accountability, and relations with the media. The Museum's IT plan has integrated information technology functions for administration, collections management, exhibitions, and public access. The IT plan will continue to be reviewed on an annual basis, with updates made as needed. Museum administrators will use the five-year strategic plan and feedback from visitor surveys to update the NMAfA's operational plan and ensure quality public programs and experiences for all audiences.

The Museum is becoming more accountable by integrating its strategic goals and operational plans with the Secretary's annual goals into the performance plans for all NMAfA staff members. In addition, personnel and programmatic management responsibilities have been incorporated into the performance plans of all department heads to provide more effective review of programs, activities, and relevant projects which meet the expectations of the Museum's audiences. Educational brochures and special websites will increase the educational value of NMAfA exhibits. The Museum will continue to forge better relations with news media, corporations, foundations, community interest groups, and congressional representatives by expanding its contact base and distributing more information about NMAfA activities, events and programs.

**NONAPPROPRIATED RESOURCES** — General trust funds support staff salaries, benefits, and travel. Funds raised from individual and corporate donors will support NMAfA's major exhibition efforts in FY 2014, including exhibition-related publications, educational programming, and outreach initiatives. Corporate and foundation sponsorships support the planning and development of exhibitions, including installation expenses and exhibition-related public programming, travel, and curatorial collaborations.



## **Introduction, *Understanding the American Experience***

America is an increasingly diverse society that shares a history, ideals, and an indomitable, innovative spirit. The Smithsonian will use its vast resources across disciplines to explore what it means to be an American and how the disparate experiences of individual groups strengthen the country as a whole, and to share our story with people of all nations.

**RESEARCH Goal:** The Smithsonian advances and synthesizes knowledge that contributes to understanding the American experience, particularly with regard to its history, art, and culture, as well as its connections to the rest of the world.

**ACCESS Goal:** The Smithsonian turns knowledge into awareness, action, and results, and encourages American cultural vitality.

UNITS primarily associated with this Grand Challenge:

- **Anacostia Community Museum**
- **Archives of American Art**
- **National Museum of African American History and Culture**
- **National Museum of American History, Behring Center**
- **National Postal Museum**
- **National Museum of the American Indian**
- **National Portrait Gallery**
- **Smithsonian American Art Museum**

## ANACOSTIA COMMUNITY MUSEUM

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	18	2,060	3	491	0	189	0	6
FY 2013 ESTIMATE			3	692	0	350	0	23
FY 2014 ESTIMATE	18	2,095	3	714	0	375	0	25

### STRATEGIC GOALS: EXCELLENT RESEARCH; BROADENING ACCESS; REVITALIZING EDUCATION; STRENGTHENING COLLECTIONS; AND MISSION ENABLING

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000	\$000	FTE	\$000	FTE	\$000
<b>Excellent Research</b>							
<i><b>Research</b></i>							
Engage in research and discovery	2	316		2	320	0	4
Ensure the advancement of knowledge in the humanities	1	131		1	132	0	1
<b>Broadening Access</b>							
<i><b>Public Programs</b></i>							
Provide reference services and information	3	389		3	397	0	8
<i><b>Exhibitions</b></i>							
Offer compelling, first-class exhibitions	3	389		3	397	0	8
<b>Revitalizing Education</b>							
<i><b>Education</b></i>							
Engage and inspire diverse audiences	1	69		1	71	0	2
<b>Strengthening Collections</b>							
<i><b>Collections</b></i>							
Improve the stewardship of the national collections	3	288		3	291	0	3
<b>Mission Enabling</b>							
<i><b>Management Operations</b></i>							
Strengthen an institutional culture that is customer centered and results oriented	2	216		2	219	0	3
Ensure that the Smithsonian workforce is efficient, collaborative, committed, innovative, and diverse	1	86		1	88	0	2
Modernize the Institution's financial management and accounting operations	1	88		1	90	0	2

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000	\$000	FTE	\$000	FTE	\$000
Enhance the reputation of the Smithsonian by maintaining good relations with the news media and with federal, state, and local governments	1	88		1	90	0	1
<b>Total</b>	<b>18</b>	<b>2,060</b>		<b>18</b>	<b>2,095</b>	<b>0</b>	<b>35</b>

## BACKGROUND AND CONTEXT

Since its inception on September 15, 1967 as the first federally funded, community-based museum, the Anacostia Community Museum (ACM) has faced unique challenges related to mission, resources, and location. In that time, ACM has developed into a valuable cultural resource for the region and the country, setting a groundbreaking direction in terms of expanding on traditional museological thought and practice.

Although the Anacostia Neighborhood Museum (as ACM was first called) had been originally intended to foster audience development and outreach — to take the Smithsonian’s cultural and historical treasures into neighborhoods whose residents did not venture to the Mall — residents quickly helped to make the Museum relevant to their own experiences. The Museum modified its focus to engage the predominantly African American local residents (97 percent) in the documentation, preservation, and interpretation of history and culture from a community-based perspective. It was the forerunner in using this approach to collaborate directly with different sectors of communities, including local museums, religious institutions, and arts, cultural, and civic organizations, to mobilize, organize, and equip them to research, document, interpret, and preserve their cultural heritage through research, education, and training programs.

During the past decade, the region has seen subtle but dramatic shifts in local demographics. With input from a broad range of stakeholders, the focus of the Museum was revised. The new mission moves ACM from a specifically ethnic focus to one that examines issues which impact urban communities. ACM is now committed to a mission that will challenge perceptions, generate new knowledge, and deepen understanding about the ever-changing concepts and realities of “community.” The Museum is focused on the documentation and interpretation of the impact of historical and contemporary social and cultural issues on communities east of the Anacostia River and other urban communities throughout the region, the country, and the world. Although the Museum’s new identity is a return to its original charter as a community museum, the new direction defines the term “community” in much broader terms.

The budget estimate includes an increase of \$35,000 for necessary pay and other related salary costs for existing staff funded under this line item.

## MEANS AND STRATEGY

ACM will continue to work toward accomplishing the Institution-wide goal of inspiring generations through knowledge and discovery. ACM will embrace the Smithsonian Grand Challenges and use its resources, strengthened through collaborative efforts, in research, exhibitions, collections, and public and other education programs. Using resources which engage the broad range of Smithsonian and external partners, ACM will draw upon those specific things that bring groups of people together — social, ethnic, religious, geographic, and other commonalities. Specifically, the Museum will work with community partners to document and preserve local heritage, identify cultural materials at risk, document significant local cultural materials, and develop an interpretation and appreciation of them through regionally based educational activities, publications, and exhibitions. Through its website, the Museum will disseminate information on heritage and community preservation projects.

The Museum's current exhibition, *Reclaiming the Edge: Urban Waterways and Civic Engagement*, marks the first exhibition to fully launch the new ACM focus. *Reclaiming the Edge* focuses on urban waterways, especially rivers, their watersheds, and associated creeks and streams. Based upon research on the Anacostia River and its watershed, the exhibit examines how people engage with urban rivers in other communities, including Los Angeles, Pittsburgh, Louisville, London, and Shanghai. The Anacostia River, formerly the Eastern Branch, has long been considered one of the nation's most troubled urban rivers. Its watershed covers more than 175 square miles and is one of the nation's most densely populated. The problems facing the Anacostia River are problems that confront other urban rivers in the industrialized world. This exhibit explores the impact of environmental burdens such as pollution, loss of flora and fauna, and resource depletion on urban communities as well as the interplay of environmental and social conditions. The exhibition also explores cultural and recreational traditions associated with the river, as well as health and other issues surrounding the contemporary ecology of the river. In FY 2014, it includes all galleries, program spaces, and some work areas.

In FY 2013, the Smithsonian Institution selected the ACM Urban Waterways project as one of its two Institution-wide initiatives that will travel throughout the United States. ACM received Smithsonian consortia grant funding in FY 2013 to continue and expand this research, which will engage "citizen scientists" in fieldwork and presentations, and the Museum requests that this funding continue in FY 2014.

Also in FY 2014, ACM will mount a new exhibition, *Ubuhle Women: Beadwork and the Art of Independence*. Ubuhle Beautiful Beads is an organization developed and established in South Africa by Bev Gibson and Ntombephi Ntombela, a master beader, in 1999. The devastation caused by poverty, HIV/AIDS, and the abuse of women and children in rural Kwa Zulu Natal

was the catalyst for the establishment of Ubuhle. Gibson and Ntombela created the organization to help restore the dignity of victims of poverty and abuse by providing local women with the opportunity to empower themselves not only through achieving a level of economic stability, but also by giving them the freedom to develop their own artistic visions. Ubuhle seeks to help women take control of their own lives through their own talents, thereby giving them the means to provide for themselves and their children, and is also committed to training rural women in the traditional art of beading to ensure that this skill is not lost.

*Ubuhle* means “beautiful,” and describes the intrinsic quality of the beads called *ubuhlalo* in the Xhosa language. The transformation and metamorphosis of the traditional art of beading from decoration and adornment into contemporary artwork is manifest in the Ubuhle story. The correlation to women’s issues in southeast Washington, DC, where HIV/AIDS and issues surrounding domestic violence are at epidemic proportions, will be punctuated with a series of public programs and complemented with an exhibition of African American quilts from the Museum’s permanent collection.

Several research and collections access initiatives, facilitated by the ACM Community Documentation Initiative (CDI), are ongoing. From a partnership with the American University Graduate School of Communication, students facilitate a project called Community Stories in which current and former residents of the city’s 8th Ward provide video oral histories and participate in the CDI project to document their personal experiences and observations. The videos and other data collected from the CDI real-time documentation of community history (Washington, DC Wards 7 and 8) will be made accessible to scholars, students, and the public through Web-based media. Continued digitization of the ACM archival and material culture collections will increase public access to the Museum’s holdings.

ACM’s highly acclaimed exhibition *Word, Shout, Song: Lorenzo Dow Turner Connecting Communities through Language* garnered tremendous accolades and support and, as a result, this exhibition has been traveling since October 2011. This traveling exhibition has been hosted by the I.P. Stanback Museum, South Carolina State University, Orangeburg, SC; The Avery Research Center for African American History and Culture, The College of Charleston, Charleston, SC; and the DuSable Museum of African American History, Chicago, IL. The exhibit is scheduled to appear at the New Orleans African American Museum in Louisiana, and additional bookings are anticipated throughout FY 2014.

Recognizing ACM’s unique responsibility to youth development within the southeast Washington, DC community and beyond, the Museum Academy Program (MAP) will continue its partnership with the Savoy Elementary School and will expand its out-of-school-time programming to include middle school

students. There will be a menu of programmatic activities, from cultural enrichment to educational enhancement and career training, which can be tailored to meet the specific needs of each collaborative community partner. ACM staff is working with grades 6–8 of the SEED Public Charter School to develop a curriculum that includes use of the Hirshhorn Museum and Sculpture Garden's ARTLab+.

ACM will maintain substantive relationships with state and local governments through the regional partnership process. Museum staff will offer training and technical assistance to strengthen local, regional, and national partners' abilities to preserve local heritage. In addition, the Museum will increase its public relations efforts directed toward local, regional, national, and international press outlets, and will seek news media coverage in periodicals related to its field.

**NONAPPROPRIATED RESOURCES** — FY 2014 general trust and other non-designated trust funds support the salaries and benefits of the Museum director, director of advancement, and development officer. These trust funds also support donor cultivation and fundraising activities that will assist efforts to reach the ACM's Smithsonian Campaign fundraising goal.

## ARCHIVES OF AMERICAN ART

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	17	1,877	0	173	21	1,975	0	29
FY 2013 ESTIMATE			1	293	21	2,001	0	0
FY 2014 ESTIMATE	17	1,904	2	510	20	1,998	0	0

### STRATEGIC GOALS: EXCELLENT RESEARCH; BROADENING ACCESS; REVITALIZING EDUCATION; STRENGTHENING COLLECTIONS; AND MISSION ENABLING

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012-2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Excellent Research</b>							
<i>Research</i>							
Ensure the advancement of knowledge in the humanities	0	9		0	4	0	-5
<b>Broadening Access</b>							
<i>Digitization and Web Support</i>							
Provide improved digitization and Web support	3	323		4	442	1	119
<i>Public Programs</i>							
Provide reference services and information	3	267		3	271	0	4
<i>Exhibitions</i>							
Offer compelling, first-class exhibitions	1	79		1	75	0	-4
<b>Revitalizing Education</b>							
<i>Education</i>							
Engage and inspire diverse audiences	0	9		0	4	0	-5
<b>Strengthening Collections</b>							
<i>Collections</i>							
Improve the stewardship of the national collections	8	864		7	788	-1	-76
<b>Mission Enabling</b>							
<i>Management Operations</i>							
Strengthen an institutional culture that is customer centered and results oriented	2	326		2	320	0	-6
<b>Total</b>	<b>17</b>	<b>1,877</b>		<b>17</b>	<b>1,904</b>	<b>0</b>	<b>27</b>

## **BACKGROUND AND CONTEXT**

Founded in 1954, the Smithsonian's Archives of American Art (AAA) is the world's pre-eminent and most widely used resource for original papers and other primary records documenting the visual arts in the United States. By collecting, preserving and making available more than 20 million unique letters, diaries, photographs, financial records, sketchbooks, scrapbooks, and the like, AAA shares and exemplifies the Smithsonian's mission of "the increase and diffusion of knowledge."

To achieve the Institution's goal of Broadening Access, AAA continues its ambitious digitization program, begun in 2005, to provide online access to a significant portion of its extensive holdings. AAA's website will continue to improve delivery of unprecedented numbers of new digital files, the core of which represents AAA's innovative work to digitize entire archival collections, representing hundreds of linear feet, along with descriptive information, engaging content, online exhibitions, and robust search and reference services. AAA's Lawrence A. Fleischman Gallery in the Donald W. Reynolds Center (DWRC) continues to reach new and diverse audiences.

The strategic goal of Strengthening Collections will be achieved by continuing to implement preservation actions based upon results derived from comprehensive and systematic collection assessment surveys. Particular focus will be on decreasing the backlog of unprocessed collections and audiovisual and born-digital holdings.

AAA will accomplish the goal of Mission Enabling through organizational excellence by continually assessing and enhancing staff development and maintaining conscientious oversight of internal controls.

The budget estimate includes \$27,000 for necessary pay and other related salary costs for existing staff funded under this line item.

## **MEANS AND STRATEGY**

AAA will achieve the Institution's goal of Broadening Access by continuing to direct resources to optimize its presence in the DWRC and specifically by mounting compelling exhibitions in its Lawrence A. Fleischman Gallery. The exhibitions planned for FY 2014 include *Fragments*, guest curated by David Ward from the National Portrait Gallery, that explores fragments as a metaphor for all archival evidence and the problems of historical writing, followed by an exhibition of rejection letters from the Archives, *I Regret to Inform You*, celebrating the spirit of perseverance.

In addition, AAA will reach new audiences through traveling exhibitions. In October 2013, the exhibition *Six Degrees of Peggy Bacon* will travel to the Art



Students League of New York, and *Season's Greetings: Handmade Holiday Cards by 20th Century Artists* will be on display at the Morgan Library and Museum in December 2013. In FY 2014, the Archives will continue its Archives of American Art Graduate Student Research Essay Prize funded by the Dedalus Foundation. The competition, open to anyone currently enrolled in a graduate program in Art History, Visual Culture, or American Studies, will introduce a new generation of scholars to the Archives' online resources. Through public programs, professional presentations, online exhibitions, and loans to other museums and institutions worldwide, AAA will continue to widen its audience and provide a greater understanding of the history of visual arts in the United States.

The AAA website will continue to be developed to promote public engagement, through increased emphasis on social media, incorporating emerging trends and technologies, and efficient and effective reference services. AAA will continue to encourage public visits to its website by adding finding aids to processed collections; tens of thousands of images of digitized documents; transcripts and audio of interviews conducted for the Archives' Oral History Program; audio and video recordings; and online exhibitions. The Archives will use grant funding from the Terra Foundation of American Art to continue a new position dedicated to enhancing AAA's online educational and scholarly outreach. The Terra Foundation project manager for online scholarly and educational initiatives will develop online learning initiatives to spark new discoveries and create a dialogue between AAA staff and the Archives' ever-expanding audience of Web visitors.

In FY 2014, AAA will increase its development of the Terra Foundation Center for Digital Collections with at least an additional 65 linear feet of AAA's collections digitized in their entirety as part of the continuing support from the Terra Foundation for American Art through June 2016. This effort, in combination with digitization completed for reference requests, exhibitions, loans, and special projects, will add an estimated 150,000 digital image files and continue to bring increased public Web access to AAA collections. AAA will continue developing its internal digitization and Collection Information Systems database to ensure proper collections documentation and support increasingly complex workflows, including digitization on demand. These efforts will enable AAA to encompass the life cycle of the collections and oral histories from pre-acquisition to storage and access. AAA's investment in the digitization of its collections will be preserved by fully participating in the Smithsonian's Artesia Digital Asset Management System (DAMS) and initiatives of the Smithsonian's digitization program, as well as by working closely with the Institution's research and collections data management offices.

In FY 2014, between 35 and 45 significant research collections, totaling about 800 to 900 linear feet, will be preserved and processed according to national standards and best practices, resulting in new, fully searchable finding aids added to AAA's website. This work will encompass minimal-level processing

and preservation strategies begun in FY 2012 and FY 2013, which were designed to efficiently and effectively diminish AAA's backlog of unprocessed collections and address new accessions within one year of acquisition.

AAA will continue to strengthen its collections stewardship through its ongoing, comprehensive collections assessment surveys, begun in 2004 for manuscript collections, and expanded since then to include at-risk audiovisual and born-digital holdings. This assessment methodology systematically evaluates the Institution's preservation and access needs, and additionally rates the research value of each one of the Smithsonian's collections. Reports generated from this data provide valuable information about AAA's backlog and holdings so that the Archives' staff can make informed decisions about how to most effectively prioritize and allocate ever-dwindling resources.

In FY 2014, AAA will continue to identify and digitally reformat at-risk audiovisual media items from collections, and continue a major audiovisual media preservation and access project begun in FY 2013. Implementing digital curatorial practices will result in improved long-term preservation and access of more than 85 terabytes of digital image, audiovisual, and oral history collections, and the increasing volume of born-digital media acquisitions.

AAA will continue to provide researchers with access to its collections and microfilm in its Washington, DC and New York research centers, as well as affiliated research centers throughout the United States, by providing remote reference services through its Web-based form and interlibrary loan program.

The Archives will achieve the Institution's strategic goal of Excellent Research by continuing to engage a national advisory committee in support of its ongoing efforts to acquire high-priority collections.

The goal of Mission Enabling through organizational excellence will be addressed by continuing to implement the strategic goals of the Smithsonian, thereby ensuring that the AAA workforce is efficient and skilled, and by adopting best practices to safeguard and make the most of Smithsonian resources.

**NONAPPROPRIATED RESOURCES** — General trust funds support AAA's development office, including salaries and benefits. Donor-designated funds support specific programs and projects, including exhibitions, internships, production of oral history interviews, collections and media processing, and publication of the *Archives of American Art Journal*. FY 2014 grant funding from the Terra Foundation for American Art will support AAA's digitization program. A grant from the Mellon Foundation's Council of Library and Information Resources (CLIR) Hidden Collections grant program will increase online access to hidden and at-risk audiovisual media items. AAA will engage in fund raising as part of the Smithsonian Institution's National Campaign, seeking to raise money for general operating expenses.

## NATIONAL MUSEUM OF AFRICAN AMERICAN HISTORY AND CULTURE

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	46	13,411	17	1,283	1	622	0	165
FY 2013 ESTIMATE			19	1,920	8	1,596	0	60
FY 2014 ESTIMATE	106	35,955	19	1,715	8	1,111	0	0

### STRATEGIC GOALS: EXCELLENT RESEARCH; BROADENING ACCESS; REVITALIZING EDUCATION; STRENGTHENING COLLECTIONS; AND MISSION ENABLING

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Excellent Research</b>							
<b>Research</b>							
Ensure the advancement of knowledge in the humanities	6	1,506		11	3,118	5	1,612
<b>Broadening Access</b>							
<b>Digitization and Web Support</b>							
Provide improved digitization and Web support	1	246		3	767	2	521
<b>Public Programs</b>							
Provide reference services and information	0	0		6	788	6	788
<b>Exhibitions</b>							
Offer compelling, first-class exhibitions	4	1,594		8	5,053	4	3,459
<b>Revitalizing Education</b>							
<b>Education</b>							
Engage and inspire diverse audiences	5	1,035		14	2,553	9	1,518
<b>Strengthening Collections</b>							
<b>Collections</b>							
Improve the stewardship of the national collections	7	2,023		26	6,943	19	4,920
<b>Mission Enabling</b>							
<b>Facilities</b>							
Improve the overall cleanliness and efficient operation of Smithsonian facilities	0	1,967		0	5,202	0	3,235
<b>Information Technology</b>							
Modernize the Institution's information technology systems and infrastructure	0	200		0	200	0	0

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b><i>Management Operations</i></b>							
Strengthen an institutional culture that is customer centered and results oriented	5	1,129		9	1,811	4	682
Ensure that the Smithsonian workforce is efficient, collaborative, committed, innovative, and diverse	1	129		1	129	0	0
Modernize the Institution's financial management and accounting operations	2	266		2	480	0	214
Enhance the reputation of the Smithsonian by maintaining good relations with the news media and with federal, state, and local governments	3	956		3	956	0	0
Modernize and streamline the Institution's acquisitions management operations	3	586		6	586	3	0
<b><i>Ensuring Financial Strength</i></b>							
Secure financial resources required for the Institution's mission	9	1,774		17	7,369	8	5,595
<b>Total</b>	<b>46</b>	<b>13,411</b>		<b>106</b>	<b>35,955</b>	<b>60</b>	<b>22,544</b>

## BACKGROUND AND CONTEXT

The National Museum of African American History and Culture (NMAAHC) was established by Congress to document, collect, conserve, interpret, and display the historical and cultural experiences and achievements of Americans of African descent. When completed, the NMAAHC will provide a national meeting place for all to learn about the history and culture of African Americans and their contributions to every aspect of American life. This effort will encompass the period of slavery, the era of Reconstruction, the Harlem Renaissance, the civil rights movement, and other periods of the African American Diaspora. The mission of the NMAAHC is to help all Americans remember and, by remembering, stimulate a dialogue about race and help to foster a spirit of reconciliation and healing. It will be a beacon for the nation that reminds us of what we were, what challenges we still face, and what we can become. As a truly national institution whose vision is to be a place that has meaning for all citizens, the NMAAHC will use the African American experience as a lens into what it means to be an American.

The National Museum of African American History and Culture (NMAAHC) has strategically leveraged private and public support in the effort to open its doors to an eagerly awaiting public in 2015. Fully cognizant of the constrained economic environment of the last several years, the Museum has been conservative in its budgetary requests. Nevertheless, with a planned opening only two years away, the Museum must ramp up its requests for programmatic and staffing resources to complete development of the Museum on schedule and within planned budget estimates.

The budget request includes an increase of 60 FTEs and \$22,544,000. The increase includes \$151,000 for necessary pay and other related salary costs for

existing staff funded under this line item; \$1,115,000 for increased lease costs, which is further justified in the Fixed Costs section of this budget submission; and a programmatic increase of \$21,278,000 and 60 FTEs to strengthen and expand the Museum's fundraising capacity; expand research in support of inaugural exhibitions; facilitate collections acquisitions and digitization; support editorial services for publications and educational materials; and plan events supporting the Museum's mission.

As authorized by Public Law 108-184, these funds are requested to remain available until expended.

## **MEANS AND STRATEGY**

The focus of NMAAHC activities is to continue laying the groundwork required to design, build, and open the Museum on the National Mall in 2015. This includes the completion of designs for inaugural exhibitions, and the commencement of the fabrication of the inaugural exhibitions required to open the Museum on the National Mall in 2015. This will be accomplished through temporary and permanent exhibitions, first-class scholarly research, comprehensive collections of African American history and culture, innovative public and educational programs, state-of-the-art technology and associated websites, publications, conferences, and enhanced fundraising efforts.

The NMAAHC has met the required benchmarks for design and construction of the Museum's building — selecting a building site, establishing a gallery for temporary exhibits, choosing an architect to design the facility, and choosing an exhibition designer for its inaugural exhibitions. A strategic communications firm was engaged to navigate the regulatory environment as well as inform the public via an intensified marketing and strategic communications plan. The Museum continues the major part of the NMAAHC's visibility campaign: the management of strategic marketing and communications services, and the development and management of a public information campaign to help disseminate information about the Museum's exhibitions and programs.

The Museum will continue its capital campaign to raise the required matching funds for design and construction of the new building. A national membership campaign has been successfully included within the capital campaign.

The NMAAHC will continue collaborative partnerships within the Smithsonian Institution, with African American peer organizations such as the Association of African American Museums, with national organizations like the National Trust for Historic Preservation and the Alliance of American Museums, as well as with regional and state organizations like the Southeast Museums Association, Florida African American Heritage Preservation Network, and the Virginia Association of African American Museums. These partnerships will enable the NMAAHC to generate support to build and develop the Museum, acquire collections, support the development of exhibitions, test interpretive methods and concepts, leverage

resources, and disseminate and share information via various electronic media and websites.

The Museum will continue to work with other institutions, such as universities, libraries and archives, where research is being done on African American subjects to ensure that the information presented in the Museum is drawn from scholars engaged in the field and from numerous national resources. The Museum is also developing long-term partnerships with national organizations such as the National Park Service, the National Archives, and the Library of Congress to ensure that the work of the Museum is disseminated across the United States.

As part of its mission, the Museum must situate the story of African Americans into an international context. To that end, the Museum continues to develop collaborative partnerships with museums, archives, libraries, universities and organizations in Europe, Africa, the Caribbean, and North, Central and South America. African Americans came to different areas of what is now the United States from different parts of Africa, brought by Dutch, Danish, French, Spanish, British, and American slave traders, and much of the archival data is located in Europe. The Museum has begun development of partnerships with AFRICOM (International Council of African Museums), with the Museum Association of the Caribbean, and with the Digital Archeological Archive of Comparative Slavery, a multi-national project that involves gathering material and associated archival data from four continents. Documentation of African American soldiers from World War I and World War II is located in European national archives and collaborative partnerships are necessary to access the information so that NMAAHC can properly tell the role of African American expatriates and service personnel in the U.S. military. The Museum has begun a partnership with the National WWI Centennial Commission in France and the American Battle Monuments Commission to collaboratively develop a major observance of the WWI Centennial in 2017 and 2018.

To build a national collection, the Museum will continue its scholarly research in all areas of African American history and culture, as well as its acquisition of objects, books, papers, photographs, and other items. The NMAAHC will offer compelling, first-class exhibitions when it opens in 2015. In FY 2014, the fourth phase of the exhibition design process will be complete and the Museum will begin fabrication and gallery installation for its inaugural exhibitions. Temporary exhibitions are being created to inform the public about the new Museum and to test ideas and strategies for incorporation into permanent exhibitions. The NMAAHC has established a website and several social media outlets (Facebook, Twitter, YouTube, Flickr, MySpace, etc.) to disseminate information, gain outreach to wider audiences, preview exhibitions and public and educational programs, and serve as the principal platform of the Museum's national membership program.

To achieve the goal of Excellent Research, the NMAAHC will use its resources to build on planned partnerships as follows:

- In May of 2009, Public Law 111-19, The Civil Rights History Project Act of 2009, was passed to support the preservation of personal stories and testimonials of people who participated in the civil rights movement during the 1950s and 1960s. The Library of Congress and the NMAAHC are jointly responsible for documenting and preserving these valuable historical memories. To date, the project has completed 56 interview sessions representing 71 individuals who were involved in the civil rights movement. Phase II is currently under way with an additional 50 interview sessions planned. In FY 2014, the Museum will, through a third party, conduct an additional 50 interview sessions with such persons.
- In 2011, the NMAAHC entered a partnership with FamilySearch, a genealogical research website owned by The Church of Jesus Christ of the Latter-Day Saints. The Museum will be one of three host sites (along with FamilySearch, and the National Archives and Records Administration) that will provide access to a relatively unknown treasure trove of information: The Freedmen's Bureau Records. Once these records are fully digitized and indexed, they will provide access to a comprehensive collection of letters, diaries, marriage records, and bank records, representing freed slaves in 15 states and the District of Columbia. A website is planned that will enable members of the public to conduct genealogical and historical research on the lives of previously enslaved individuals and their descendants.
- In 2013 the NMAAHC will partner with the National Endowment for the Humanities on an initiative titled *The Long Road: America's Civil Rights Movement*. With the intention of encouraging "public conversations about the changing meanings of freedom and equality in U.S. history," the Museum will collaborate on a traveling exhibition using new and extant research and material produced for the exhibition, *Changing America: The Emancipation Proclamation, 1863 and the March on Washington, 1963*.
- The Museum is participating in two collaborative efforts to seek artifacts related to the transatlantic slave trade, as follows:
  - The Museum has become a core partner in the African Slave Wrecks Project (ASWP), along with George Washington University (GWU), the National Park Service, the National Association of Black Scuba Divers, the Southern African Heritage Resources Agency, and the Associated Museums of Cape Town, South Africa. The NMAAHC, along with the ASWP, has conducted an archival and archaeological survey of two slave ship sites in southern Africa and off the coast of the Florida Keys. Preliminary archeological evidence of a sunken slaver has been discovered in one site and promising data continues to come in from the other site. Additionally, the NMAAHC and the ASWP are actively engaged in capacity building efforts to train and mentor African and African American students in maritime archeology and archival research.

- The Museum is participating in a collaborative effort with Michigan State University's MATRIX: The Center for the Arts, Letters, and Social Sciences Online and the Institute Fondamental d'Afrique Noire (IFAN) at the University of Dakar, Senegal. The Gorée Island Archaeological Digital Repository project is an open-source digital repository intended specifically for cultural heritage materials. The digital repository will be housed at MATRIX and will provide completely open global accessibility to both scholars and the interested public. Select artifacts from this repository will be on display as part of the Museum's inaugural freedom and slavery exhibition, as well as digitally available to Museum visitors for more extensive and deeper access.

The NMAAHC will achieve the goal of Broadening Access by directing resources to:

- **Digitization and Web Support**

- The foundation of the Museum's efforts to broaden access is to create and enhance searchable and accessible digital records for collection and to make these records available via a number of different platforms, including the Smithsonian's Collection Search Center, the Museum's website; and mobile applications. It is expected that new acquisitions will continue to be added to the collections information system as they become available and that the staff will continue to make progress in inventorying and digitizing the materials acquired before FY 2010.
- The NMAAHC will continue to create and enhance digital surrogates of collections (e.g., digital images of artifacts, digital copies of analog video and film, etc.) to make the museum's collections more widely and easily accessible over the Web. The NMAAHC will continue to maintain its Digital Imaging Station, to be established in FY 2013, to allow the Museum to create Web-quality images of three-dimensional artifacts, and continue to collaborate with the National Portrait Gallery to produce very high-quality images.
- In order to radically increase the creation of digital surrogates of two-dimensional artifacts, and, as a result, improve the accessibility of the Museum's photographic prints, negatives, and documents, the NMAAHC is continuing to partner with the Smithsonian Institution Archives to apply for a major grant. This grant would provide funding for equipment and staffing required for a Rapid Capture capability. This arrangement would enable NMAAHC to digitize its current collection of photographs, negatives, and other two-dimensional materials before opening in 2015. Also envisioned is a program in which the Museum would borrow and scan photographs, negatives, slides, and archival documents from other collections, such as those in local historical associations and at small, historically black colleges and universities, which would then be available to students and scholars through the NMAAHC portal.



- The NMAAHC will use its digital collection records and surrogates to produce several print and online publications in anticipation of the Museum's inauguration.
  - The NMAAHC will use examples of its digital collection records and surrogates in brochures, publicity, and Web applications to promote the accessibility and range of its collections and surrogates.
  - The NMAAHC will continue to build upon its recently launched website that will act as a full-service communications, engagement, experiential, educational, and outreach arm of the Museum. The NMAAHC will continue to use social media technology to inform and transform, and to create and develop a sense of shared community.
  - The NMAAHC will plan, pilot, and test several digital content projects to be made available in the new Museum and which will be fully integrated with the Web, interactives, and mobile applications.
- **Public, Educator, and Classroom Programs**
    - The NMAAHC will continue to produce signature educational public programs of all genres (musical performances, literary works, staged-readings, dance programs, film series, poetry, food-ways, crafts, etc.). The Museum will conduct family days and programs that support all federally mandated heritage celebrations. Programs will target a variety of audiences. NMAAHC programs will be collaborative in nature and begin to preview specific content of the inaugural exhibitions. Programs that support the scholarship of the Museum will include panels with noted scholars interviewed by renowned journalists and others, as well as symposia that explore the richness and diversity of African American history and culture.
    - The NMAAHC educator programs will provide unique experiences for classroom, home school, and online educators to connect with the rich resources of the Museum. These programs will allow educators to have direct access to the leading scholars and pedagogy specialists. The Museum will also provide a variety of classroom print and online materials (posters, bookmarks, youth guides, and hard drives, pre-loaded with primary source materials).
    - Classroom programs will bring a variety of materials and resources into schools nationwide. DC/MD/VA schools will receive in-person visits and schools across America will participate in experiential online learning sessions through the NMAAHC telepresence program. The NMAAHC will offer digital badges for students to collect, as well as educational games students can play and learn from at the same time.

- **Exhibitions**

- Exhibitions will document, examine, and display the history of African Americans from slavery to the present. Each exhibit will showcase the culture of African Americans, their ongoing struggles for freedom and equality, and their role in building the country and shaping its economic life.
- Design Development, the third design phase, will be completed in mid-FY 2013. The start of Final Design, the fourth and final design phase, will be completed in mid-FY 2014. Exhibition fabrication and gallery fit-out is scheduled to begin in mid-FY 2014.
- Exhibitions will reside in three principal areas: History, Culture, and Community:

- **History** will include three exhibitions: *Slavery and Freedom*; *Defending Freedom*, *Defining Freedom: Era of Segregation*; and *Beyond 1968*.

*Slavery and Freedom* will provide a wide-ranging and sharply nuanced look at American slavery, from its beginnings in Africa and its role in the global economy during the 16th century to the beginnings of Reconstruction following the Civil War. *Defending Freedom*, *Defining Freedom: Era of Segregation* will explore the years following the end of Reconstruction to examine how the nation struggled to define the status of African Americans. *Beyond 1968* will explore the experiences of African Americans during the first 40 years of an integrated American society, 1968 to 2008.

- **Culture** will include four exhibitions: *Cultural Expressions*, *Musical Crossroads*, *Taking the Stage: African Americans in Entertainment*, and *Visual Arts*.

*Cultural Expressions* will be a dynamic exhibit focusing on the significant cultural contributions of African Americans beyond music and the visual arts, including oratory, the building arts, folk art and craft, fashion, and intellectual arts such as architecture, literature, playwriting, science, and philosophy. *Musical Crossroads* will examine African American music as an integral American phenomenon through the lens of social and historical change. *Taking the Stage: African Americans in Entertainment* explores the history of African Americans in theater, film, television, and other popular media, to celebrate their creative achievements, demonstrate their cultural impact, and illuminate their struggles for equal representation on the stage of American entertainment. *Visual Arts* will provide a showcase for historic and contemporary African American art and artists.

- **Community** will include four exhibitions: *Power of Place*, *Sports*, *Military History*, and *Making a Way Out of No Way*.

*Power of Place* is a thematic exhibition that will immerse visitors in the broad geographic diversity of the African American experience. *Sports* will use the world of sport as a unique and popular lens that provides an understanding of the African American experience and the role of race in America. *Military History* tells stories that illustrate the service and sacrifice of black soldiers during the course of American history. *Making a Way Out of No Way* will show how African Americans crafted possibilities in a harsh world that consistently denied them opportunities.

The twelfth exhibition gallery will be a youth gallery entitled *Explore More!* It will be a highly exploratory, content-rich space designed to engage NMAAHC's youngest visitors in age-appropriate, higher-order thinking skills, kinesthetic experiences, and tactile activities. The gallery will serve as an introduction to, and a direct content and interpretive link between, the History, Culture, and Community clusters.

- The NMAAHC is organizing temporary exhibitions to be presented in the Museum's gallery at the National Museum of American History (NMAH):
  - *Rising Up: Hale Woodruff's Murals* from Talladega College will showcase a series of Woodruff's murals commissioned for Talladega College, Alabama, one of the first colleges established for blacks in the United States. The six murals portray noteworthy events in the rise of blacks from slavery to freedom.
  - *NMAAHC Collections and Black Fashion* (working title) will be the eighth and final temporary exhibition to be presented in the Museum's gallery at the National Museum of American History. The exhibition will showcase objects related to the contributions of African Americans including photographs, black fashion, and other notable artifacts from the NMAAHC collections.

The Museum will achieve the goal of Revitalizing Education by continuing to fund:

- *Save Our African American Treasures: A National Collections Initiative of Discovery and Preservation*. Treasures will enable the Museum to continue engaging the American public in discovering, collecting, preserving, and sharing the material culture of African American heritage through a series of programs and collaborations with other museums and historical institutions.
- The ongoing *Classroom Treasures Program*, a gift from the W. F. Kellogg Foundation, continues to take place in classrooms and community centers around the country. Through literacy-based, hands-on programming, students learn about historic events and then examine real and mock material culture from the past to piece together family biography. They then are charged with

investigating light, water, and pest damage of those materials to learn how to preserve both objects and their family oral histories. Older students continue to be engaged in conversations on race where they are encouraged to ask complex questions, voice their opinions, and explore their creative potential.

To achieve the goal of Strengthening Collections, the NMAAHC will continue to identify, acquire, and process collections as the Museum prepares for the inaugural exhibitions that will accompany the opening of the building, as well as to develop public programs. To date, the Museum has collected more than 20,000 items. Most of the collections are being housed in the new Pennsy Drive facility in Maryland. This facility includes specialized office and training spaces, exhibit design and fabrication shops, conservation facilities, and climate-controlled space to house the Museum's collections.

To achieve the goal of Mission Enabling, the NMAAHC will continue to develop its operating organizational structure and make revisions as necessary to accomplish program goals. Staff will develop estimates of future personnel requirements, space and storage needs, and operating budgets and plans.

- **Management Operations**

- The NMAAHC will continue to direct its resources to support an expanded national visibility campaign. The Museum's Public Affairs Department will engage and work with a strategic communications firm to design and implement an intensified marketing and public relations campaign, targeting the media and the general public in major cities across the country.

- **Ensuring Financial Strength**

- To secure the resources needed to build and develop the Museum, the NMAAHC continues to use its federal fundraising resources to support fundraising activities, expand its base of high-potential donors, and use advanced fundraising techniques to identify and cultivate sources of new and larger donations. Specific initiatives include the expansion of the cultivation and solicitation of high net-worth individuals, corporations, and foundations, and the launch of the public phase of the fundraising campaign which will focus on outreach to potential donors at all gift levels and to key African American organizations. Along with the request for increased number of staff members, NMAAHC is also requesting additional funds to support their travel and cultivation activities of campaign donors. Additional campaign materials will be developed for these initiatives.
- In preparation for opening in 2015, the Museum has launched its national membership campaign to reach out to communities across the nation to build a wide base of supporters and create a sense of ownership by the general public. Plans include three acquisition mailings to 2-3 million households, an enhanced renewal program for existing members, in-house

appeals to current members, and an expanded online presence for membership. The membership program will incorporate direct mail and online strategies to further engage members and will produce a biannual newsletter and a regular series of online communications. The Museum currently has approximately 40,000 charter members.

## EXPLANATION OF CHANGE

The budget request includes an increase of 60 FTEs and \$22,544,000. The increase includes \$151,000 for necessary pay and other related salary costs for existing staff funded under this line item; \$1,115,000 for increased lease costs that is justified in the Fixed Costs section of this budget; and a programmatic increase of \$21,278,000 and 60 FTEs as detailed below:

Program Category	\$s (000s)
Excellent Research	1,612
Broadening Access	3,980
Revitalizing Education	2,306
Strengthening Collections	4,920
Mission Enabling	
o Fund Raising	5,021
o Management Operations	739
o Collections Storage	2,700
<b>Total</b>	<b>21,278</b>

### EXCELLENT RESEARCH

- **(+\$1,612,000, +5 FTEs)** This increase will support research activities in history, art, and culture; expansion of outreach activities to various constituencies, including different ethnic groups, schools, families, and cultural and historical organizations; and historical research for future resource centers and publications. This increase will also permit the Museum to expand research in the history and contributions of African Americans, including popular culture, and continue to support activities in oral history and genealogical research.

### BROADENING ACCESS

- **(+\$3,730,000, +6 FTEs)** This increase will support the development of plans, designs, fabrication, and installation of the inaugural exhibitions; the acquisition of use-rights and permissions for still photography, audio recordings, and video footage; contractual support for artifact preparation, handling, packing and transport; and rigging and installations services; inventory and digitization of collections; and optimization of the Museum's website and current social media sites, (i.e., Facebook, Twitter, YouTube, and Flickr).

- **(+\$250,000)** This increase will support the design, development, and maintenance of a Museum-wide digital learning initiative. The goal of this initiative is to create transformative experiences for children and youth, using a variety of digital media (audio, video, 3D-imaging, gaming, online and mobile content, eBooks, Wi-Fi triangulation, etc.) that will enrich and support lifelong learning.

## REVITALIZING EDUCATION

- **(+\$460,000, +3 FTEs)** — This increase will support the planning, development, and implementation of the Office of Community and Constituent Services (OCCS). The OCCS will expand the Museum’s outreach to African American communities through collaborative projects with other cultural heritage institutions, museums and agencies; alliances with cultural service institutions (libraries/ archives, historically black colleges and universities); and partnerships and programs with international organizations. The goal of this expanded outreach will be to raise awareness and understanding of African American and African culture and history.
- **(+\$1,846,000, +12 FTEs)** — This increase will provide support for several activities that are critical to the Museum’s efforts to tell the story of America’s history through an African American lens and also to inspire life-long learning among visitors:
  - To assist the Museum’s Office of Education to continue producing signature educational public programs (performances, films, book-signings, etc.) for a variety of audiences in support of its exhibitions; support a series of workshops for educators on topics related to current and future exhibitions; support editorial services for publications and educational materials; and to create methods and models for innovative informal education and link them to the formal K-12 education system.
  - To conduct large-scale audience evaluation of exhibitions (as well as programming and digital initiatives) to ensure the design of the best and most useful interpretive activities. This will be a multi-year, multi-scope evaluation of exhibitions (concept, design, and built-environment); online, mobile, and in-gallery technologies; visitor experience; and programming.
  - To expand the Museum’s website to incorporate in-depth content about exhibitions by using new media and social networking tools to deliver information in customized ways and bring the Museum’s resources to audiences who cannot visit in person.
  - To continue and maintain support for: 1) *Save Our African American Treasures*, a collaboration among cultural institutions, community leaders, and the public to preserve and collect African American material culture, and 2) *Classroom Treasures*, an object-based, standards-related classroom program that focuses on learning from primary resources and preserving family oral histories and objects. Grant funds supporting both initiatives will expire in the near future.

## STRENGTHENING COLLECTIONS

- **(+\$4,920,000, +19 FTEs)** This increase will support continuing efforts to identify, acquire, transport and process collections in preparation for the Museum's opening in late 2015. Additionally, this increase will support the development of the Collections Department and its continuing efforts to process collections as the Museum develops and mounts pre-opening exhibitions. Staff increase support the continued multi-phase collaborative collections project aided by the Pennsy renovation project. Phase I of the Pennsy project will provide additional processing capacity and necessary storage space; Phase II will provide a multi-use conservation lab and mount-making shop; and Phase III will provide cold storage capacity for SIA, Smithsonian Institution Archives and other necessary storage furniture/equipment.

## MISSION ENABLING

- **(+\$5,021,000, +8 FTEs)** — This increase will support the Museum's outreach efforts to increase awareness and visibility of the Museum and contribute to building the Museum's financial strength. These funds will enable the Museum to expand its presence on social media sites, engage new participants, and garner additional support. The Museum will expand collaborative partnerships with national organizations, build a reliable base of regular donors, and use advanced fundraising techniques to identify and cultivate sources of new and larger donations. Increased funding to augment development resources is critical for cultivation events which the Museum uses to solicit key prospects. In FY 2014, the Museum will focus on donor and member development and cultivation as the Museum moves toward the 2015 opening. Of particular interest is a National Outreach Campaign to African American professional, social, civic, and faith-based groups to engage them in the Museum. The NMAAHC will continue to support the donor-stewardship activities (receptions, galas, and other special events) critical to major fundraising efforts and gaining an increased presence in key markets. Achieving and sustaining fundraising success is one of the most pressing challenges facing the new Museum, and increased funding to augment development resources is critical for NMAAHC to raise \$250 million in private matching funds for the Museum's capital construction costs and exhibition design, fabrication, and installation. Planning and implementation of the Museum's grand opening activities will require the assistance of outside consultants to manage the different components of the plan.
- **(+\$739,000, +7 FTEs)** — This increase will continue to support NMAAHC's operating organizational structure and to make revisions as necessary to accomplish program goals. Staff will develop estimates of future personnel requirements, space and storage needs, and operating budgets and plans. Funding is necessary to support increased operations in support of increased staff and programs, including costs for equipment such as copiers, computers and

printers, and other necessary office supplies, rentals, and equipment maintenance contracts.

- **One-time Activities (+\$2,700,000)** — This one-time increase will support the installation of compact and high-bay storage shelving, as well as the fit-out and equipping of a multi-use conservation lab. The Museum currently has more than 20,000 collection objects and has fully occupied the original allocated space. The collection is growing and will triple in size, at a minimum, before the 2015 opening. The remaining unfinished space must be finished and outfitted so that it can be used to house new collections. Lack of adequate collections storage and maintenance facilities will seriously impact the scheduled opening of the Museum's inaugural exhibitions.

**NONAPPROPRIATED RESOURCES** — General trust funds support salary and benefit costs of the Museum director. Donor/sponsor-designated funds support staff, special events for exhibition openings, and costs related to specific programs and projects, including educational programs, donor-related special events, and outreach activities.



**NATIONAL MUSEUM OF AMERICAN HISTORY,  
KENNETH E. BEHRING CENTER**

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	171	22,600	24	3,968	40	6,975	19	3,236
FY 2013 ESTIMATE			27	3,904	39	9,889	20	4,956
FY 2014 ESTIMATE	171	23,176	24	3,693	42	10,052	20	3,450

Note: Operating resources include the National Postal Museum

**NATIONAL MUSEUM OF AMERICAN HISTORY,  
KENNETH E. BEHRING CENTER**

**STRATEGIC GOALS: EXCELLENT RESEARCH; BROADENING ACCESS;  
REVITALIZING EDUCATION; STRENGTHENING COLLECTIONS; AND MISSION  
ENABLING**

**Federal Resource Summary by Performance Objective and Program Category**

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Excellent Research</b>							
<i>Research</i>							
Ensure the advancement of knowledge in the humanities	23	3,070		21	3,080	-2	10
<b>Broadening Access</b>							
<i>Digitization and Web Support</i>							
Provide improved digitization and Web support	10	1,240		13	1,340	3	100
<i>Public Programs</i>							
Provide reference services and information	15	1,720		16	1,870	1	150
<i>Exhibitions</i>							
Offer compelling, first-class exhibitions	48	6,390		49	6,860	1	470
<b>Revitalizing Education</b>							
<i>Education</i>							
Engage and inspire diverse audiences	6	820		5	764	-1	-56
<b>Strengthening Collections</b>							
<i>Collections</i>							
Improve the stewardship of the national collections	41	5,275		39	5,250	-2	-25
<b>Mission Enabling</b>							
<i>Facilities</i>							
Improve the overall cleanliness and efficient operation of Smithsonian facilities	1	252		1	225	0	-27

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
Execute an aggressive, long-range revitalization program and limited construction of new facilities	1	491		1	215	0	-276
<b><i>Security and Safety</i></b>							
Provide a safe and healthy environment	1	117		1	120	0	3
<b><i>Information Technology</i></b>							
Modernize the Institution's information technology systems and infrastructure	4	686		4	740	0	54
<b><i>Management Operations</i></b>							
Strengthen an institutional culture that is customer centered and results oriented	4	414		3	405	-1	-9
Ensure that the Smithsonian workforce is efficient, collaborative, committed, innovative, and diverse	3	227		3	295	0	18
Modernize the Institution's financial management and accounting operations	8	785		9	935	1	150
<b>Total</b>	<b>165</b>	<b>21,537</b>		<b>165</b>	<b>22,099</b>	<b>0</b>	<b>562</b>

## BACKGROUND AND CONTEXT

The National Museum of American History (NMAH), Kenneth E. Behring Center, inspires a broader understanding of our nation and its people through research, exhibitions, collections activity, education, and public programs. The Museum's primary goal is to tell an overarching American story that is inclusive, respectful, and compassionate of all the peoples in America who were here, who came here, and who were brought here. Through incomparable collections, rigorous research, and dynamic public outreach, the Museum explores the richness and complexity of American history; NMAH helps people understand the past in order to make sense of the present and shape a more humane future.

Almost five million people visit the Museum every year. In addition, almost 13 million people annually visit the Museum online, making NMAH the most visited history museum in the world. We present our history as substantial and challenging, inviting and accessible, inspiring, and wonderfully human. Together with the American people, we wrestle with the hardest issues that we have faced, and do so in an inspirational manner, aiming to make a difference in the current life of the nation.

The physical revitalization of the NMAH continues in FY 2014 with the renovation of the Museum's West Wing. The revitalization is a multi-phased effort that involves constructing new public spaces, redefining the visitor experience, modernizing and clarifying circulation, providing amenities, and bringing the Museum into compliance with current building code standards. The physical revitalization of the West Wing construction will be completed in 2015 and includes the renovation of three public floors and a mechanical room located on the fourth floor, totaling approximately 120,000 square feet.

The Museum will revitalize and refresh its presentation of the American Experience with new exhibits in the renovated West Wing. Each of the three new exhibit floors will be focused on an overarching and inclusive theme. The first floor will focus on the theme of American innovation and enterprise. The second floor will focus on the essentials of America — the origins of the American people and the evolution of their Government. The third floor will reflect a focus on American culture. Previously, the NMAH renovated the building's center core and created a new chamber for the *Star-Spangled Banner* at the heart of the Museum, when it reopened to the public in 2008.

The Museum is fund raising for the West Wing exhibits and programs that will captivate visitors with compelling stories, invaluable objects, state-of-the-art media, public plazas and fresh exhibitions to make American History vital, fascinating, and central to understanding and embracing the American Experience. The Museum's private fundraising goal of roughly \$76 million for the West Wing exhibits and programs leverages the federal investment in the building renovation and contributes greatly to the Museum's official \$120 million goal for the Smithsonian Capital Campaign.

The budget estimate includes a net increase of \$562,000. The estimate includes an increase of \$312,000 for necessary pay and other related salary costs for existing staff funded under this line item and a program increase of \$250,000 for exhibit maintenance.

## **MEANS AND STRATEGY**

The NMAH is most closely aligned with the Smithsonian's Strategic Plan Grand Challenge of Understanding the American Experience. Through its research, scholarship, public programs, exhibitions and collaboration, the Museum shares with the public scholarly insights and historical views that illustrate the richness and depth of the American Experience. The Museum engages people in the telling of America's story — interweaving multiple stories of perseverance, triumph, and optimism with those of struggle.

The Museum recently issued a new strategic plan to establish a vision and strategic direction from the present through 2018. The plan establishes four key goals for the NMAH:

1. Lead the nation in understanding the American Experience
2. Expand, strengthen and share our collections
3. Engage diverse national and international audiences
4. Revitalize our staff, Board, and facilities

### **Goal: Lead the Nation in Understanding the American Experience**

The NMAH places a priority on scholarship and quality research in American history. Research is the foundation for our exhibits and all of our programs, which portray significant eras and events from American history in the context of social, cultural, economic, political, scientific, and technological themes. The Museum

experiments with innovative ways to think about and present American history as an encompassing, multi-faceted story, drawing on many strands and illuminating a multitude of people, ideas, and experiences.

A recent example of this is the new exhibit, *Food: Transforming the American Table, 1950–2000*, which opened in November 2012. This exhibit contains the Julia Child kitchen, one of the Museum's most popular objects, and surrounds it with historical and chronological context — telling the story of changes in American agriculture, the food production system, food science, and American food preparation and preferences during the second half of the 20th century.

In 2014, the Museum is planning a small exhibit about 19th century sound recording inventions from Alexander Graham Bell's Volta Laboratory in Washington, DC. The gallery will offer the Museum's visitors an opportunity to see some of the laboratory notes and apparatus from the 1880's and hear some of the earliest sound recordings ever made. The Museum's ability to address the Volta Lab contributions in new ways is made possible by new sound recovery techniques developed by the Lawrence Berkeley Laboratory staff in partnership with the Library of Congress. Visitors will hear the content of some of the recordings in the Museum's collection, which until recently were considered unavailable. Recovering sound from the six Volta discs is the first step in an ongoing project to preserve and catalogue the Museum's early recording collection.

Two major new exhibits at the Museum will open in 2015 when the renovation of the Museum's West Wing is complete. Curators and staff are focused on research, object selection and design of these new exhibits, which both highlight the theme of American innovation and enterprise.

Specifically, the *American Enterprise* exhibit will examine the business and consumer history of the United States from the 1770s to the present. Visitors will learn how the nation's economy has been shaped by the dynamic interplay between capitalism and democracy. They will see that innovation, opportunity, competition and the common good play integral roles in the nation's history and comprise the underlying themes of America's business. The exhibition team has pioneered the use of a website to "learn in public" by sharing access to ongoing research, collections exploration, and nascent exhibition ideas with audiences around the world. The website, [americanenterprise.si.edu](http://americanenterprise.si.edu), encourages Web users to interact with the staff in all these areas. A second exhibit, *Places of Invention*, features six American communities representing a surprising array of people, places, time periods, and technologies. The exhibition examines what can happen when the right mix of inventive people, ready resources, and inspiring surroundings come together to create "hot spots" for invention and innovation.

The NMAH contributes to the discussion of the American Experience through its ongoing scholarship and research. In 2013, Museum scholars are producing more than

25 new publications, including books, articles and musical recordings. Listed below are three examples:

- *Smithsonian Civil War: Inside the National Collection*, Smithsonian Books, October 2013
- Helena E. Wright, "George Perkins Marsh and the Smithsonian," essay in an edited volume, *George Perkins Marsh; An American for all Seasons*, Ed. Lisa Dolling, (Hoboken, N.J: Stevens Institute of Technology)
- Kenneth Slowik/Smithsonian Chamber Music Players CD, *Felix Mendelssohn; the Piano Trios*, performed by the Smithsonian Chamber Players

#### Goal: Expand, Strengthen, and Share our Collections

The NMAH is committed to preserving our collections for future generations by ensuring that they are stable and respectfully stored, as well as increasing digital access to artifacts and programs to serve off-site audiences, making our collections and research relevant across the nation and around the world.

For FY 2013, the Museum has targeted 25,000 collection objects to be rigorously inventoried. Establishing inventory control over the collection will enable the Museum to be more accountable and meet a basic requirement of responsible collections stewardship. Inventory control also facilitates physical and intellectual access to the collection, creates the foundation for more active scholarship and public outreach, and lays the cornerstone for Broadening Access to the collection. Information is captured, controlled, and maintained in the Museum's collections information system. The Museum also continues to work on plans for the decontamination of objects stored in Garber Buildings 14 and 15. In compliance with the recommendations from a recent Office of Inspector General audit, the Museum is assessing staffing needs in the areas of collections care and developing management plans and strategies, including succession plans, training, and identifying resource needs to address this strategic priority.

For FY 2014, the Museum will begin to inventory 30,000 objects in the collections of Armed Forces History, Work and Industry, and Garber Building 15. The Museum will begin lead decontamination, accountability, preservation, and relocation work for objects stored in Garber Building 15; and will construct the new temporary off-site storage building (as described in the Facilities Capital section). This work will address long-standing collections access issues and staff health and safety concerns.

#### Goal: Engage Diverse National and International Audiences

The Museum engages people onsite and online, encouraging them to explore history through objects as well as ideas and facts. With this approach, the NMAH will

become the “go-to” place for American history by creating educational opportunities that spark curiosity and build historical thinking skills.

In addition, the Museum will continue collaborating with partners to expand its reach and broaden the conversation about the complexities of American history. In FY 2013, the Museum is organizing and hosting two National Youth Summits, webcast nationally to schools and museums, on two subjects that are topical for today’s society: the Dust Bowl and Abolition. The Museum estimates that about 30,000 students across the country will participate in these two summits.

Besides maintaining a well-established Internet site, the NMAH actively uses social media, such as blogs and Twitter, to reach new visitors through innovative and targeted social media that encourages people to stay connected to the NMAH and explore the American Experience by making history relevant, interesting and thought provoking. Through the various forms of electronic and online outreach, the Museum estimates that it reached more than 13 million people in FY 2012.

In FY 2014, NMAH will expand our support of K-12 teachers and students, providing them with object-based resources, classroom materials, and unique skill-building opportunities that make exploring history accessible and participatory. *History Explorer*, the Museum’s award-winning website, provides tens of thousands of downloadable resources for teaching and learning American history that are aligned with National History Standards, Common Core State Standards, and 21st Century Skills. The site augments these resources with innovative activities; just two examples: an interactive video in which students judge John Brown’s legacy and an iPad game that lets them explore *cartes de visite*, small photographs that were a 19th century form of social media.

To engage even more people and expand its audience, the Museum is developing an Education Center that will open in mid-2015. The new center represents a major commitment to improving history education and helping the nation understand the American Experience. This lively hub will provide visitors with the opportunity to “do history” while developing a better understanding of the role they play in creating that ongoing story. It will become a location for energizing history teaching nationwide by offering object-centered resources and professional development training for teachers.

#### Goal: Revitalize and Expand our Staff, Board, and Facilities

The Museum values every resource it has and is committed to making every expenditure and investment as productive as possible. The NMAH is pursuing this with an eye to the future through careful administrative reviews of expenditures and staffing, and by fostering a culture that rewards collaboration, inclusion and creative partnerships.

In November 2012, the Museum closed its West Wing to allow for the construction and upgrade of its HVAC and other utility systems as well as a much-needed renovation of the exhibit galleries. This construction is the next phase of the Museum’s master plan

for renovation and improvement. Design and construction is being managed by the Smithsonian Office of Facilities Engineering and Operations. Construction of the West Wing is expected to be complete at the end of calendar year 2014, allowing for the fabrication of new exhibits and public spaces that will first open in 2015. While the renovation is occurring, NMAH curators are researching and developing major new exhibitions that explore the American Experience.

The NMAH is assessing the continued loss of key staff positions and how best to position scarce personnel resources for the future. During the last 20 years, the Museum has lost 50 percent of its curatorial positions, which has reduced the scholarly talent and capability necessary to research and explain the broad sweep of American history to our nation. As one strategy, the Museum is committed to expanding and building relationships with other Smithsonian units, and developing more partnerships with outside organizations, to increase available resources and leverage talent. For example, the Museum is collaborating with other Smithsonian units on a major research initiative on immigration to and migration from America which will result in a new exhibit at the NMAH. Furthermore, the NMAH has extremely active internship and Fellowship programs, hosting more than 180 interns and 20 Fellows in FY 2012. The Museum is committed to raising funds for endowed curator positions as part of its continuing fundraising efforts for exhibits and programs.

## **EXPLANATION OF CHANGE**

The budget estimate includes a net increase of \$562,000. The estimate includes an increase of \$312,000 for necessary pay and a program increase of \$250,000 for exhibit maintenance. Details are as follows:

- The President's budget request includes \$250,000 for improved maintenance of exhibits at the National Museum of American History. The Museum is displaying 96,800 square feet of exhibits in calendar year 2013. The funding will be used for repairs and maintenance of the sophisticated audiovisual technology, lighting, exhibit fabrication, signage, and overall upkeep required to keep the exhibits fresh, inviting, and appealing to five million on-site visitors every year. This investment will substantially improve the quality of the visitor experience at the Museum.

**NONAPPROPRIATED RESOURCES** — General trust funds support salaries and benefits for 30 percent of NMAH staff — administrative, development, special events, actors, et al.— and other program-related costs. In addition to restricted gifts, grants, and endowments, trust revenue sources include donations from special events, revenue sharing from business operations, honoraria for speaking engagements, and tuition reimbursements. Donor/sponsor-designated funds are used to develop, install and promote new exhibitions, fund public programs and educational initiatives, and support research, travel and collection acquisitions. Donor-designated funds are vital to continuing the renovation of the public spaces in the Museum, including the design and fabrication of approximately 75,000 square feet of exhibit and program space in the ongoing West Wing project.

## NATIONAL POSTAL MUSEUM

### STRATEGIC GOALS: BROADENING ACCESS; STRENGTHENING COLLECTIONS; AND MISSION ENABLING

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000	\$000	FTEs	\$000	FTEs	\$000
<b>Broadening Access</b>							
<b><i>Digitization and Web Support</i></b>							
Provide improved digitization and Web support	1	75		1	87	0	12
<b><i>Exhibitions</i></b>							
Offer compelling, first-class exhibitions	1	158		1	160	0	2
<b>Strengthening Collections</b>							
<b><i>Collections</i></b>							
Improve the stewardship of the national collections	4	510		4	510	0	0
<b>Mission Enabling</b>							
<b><i>Facilities</i></b>							
Execute an aggressive, long-range revitalization program and limited construction of new facilities	0	300		0	300	0	0
<b><i>Information Technology</i></b>							
Modernize the Institution's information technology systems and infrastructure	0	10		0	10	0	0
<b><i>Management Operations</i></b>							
Strengthen an institutional culture that is customer centered and results oriented	0	10		0	10	0	0
<b>Total</b>	<b>6</b>	<b>1,063</b>		<b>6</b>	<b>1,077</b>	<b>0</b>	<b>14</b>

### BACKGROUND AND CONTEXT

The National Postal Museum (NPM), with the world's largest museum collection of stamps and postal artifacts, is dedicated to creating visitor experiences that educate, excite, entertain and inspire. With more than six million objects, the Museum is responsible for the Smithsonian's second-largest collection. The Museum dedicates its resources to developing new and innovative ways to explore the vital role of the postal system in American life, and to make its vast philatelic and postal collections available to all visitors — both in person and online. The NPM uses its collections in exhibits and programs which educate the public on the history of America, transportation, economics, and commerce.

In addition to the many activities and programs completed throughout the year, the NPM is focused on several major initiatives aimed at increasing visitation to both the Museum and its website. These initiatives include the design and fabrication of new history galleries; continued enhancements to the increasingly popular, Web-based collection



information system; and new rotating exhibitions in the recently completed *William H. Gross Stamp Gallery*.

The budget estimate includes an increase of \$14,000 for necessary pay and related salary costs for existing staff funded under this line item.

## **MEANS AND STRATEGY**

The National Postal Museum's primary activities are aimed at meeting the Smithsonian's Grand Challenges of Valuing World Cultures and Understanding the American Experience through the prism of postal communications and philately. These challenges will be met by Broadening Access to the Museum's collections, programs and exhibitions; Revitalizing Education through the creation of new models and methods of innovative educational programs; Strengthening Collections through improved preservation, storage, and digital imaging; and Mission Enabling by working with other Smithsonian units and external partners to improve the operation of the Museum.

In FY 2014, the Museum's new Education Center, part of the *William H. Gross Stamp Gallery*, will enter its first year of programming. Focusing on six target audience groups and several newly developed programs, the center's two education spaces will provide enhanced learning opportunities that incorporate the newest media tools. One of the two spaces will be the home of NPM's signature EdLab teacher training programs. It is designed to support the inclusion of digital media and project-based programming using classroom teaching and field trips. The space will also be used for Institution-wide Smithsonian meetings, offering a location to test new ideas for visitor participation using the latest technologies. The second space will support the Museum's on-site school tours, community engagement activities, and family programming such as our traditional programs, like Stamp Stampede and the Mail Art Workshops.

Also, in FY 2014, the Museum will open a new history exhibition focused on the United States Postal Inspection Service (USPIS). The 1,574-square-foot exhibition gallery will examine the USPIS, focusing primarily on security protections that accompany the mail, threat-investigation work and procedures, and actions consumers can take to protect themselves from mail fraud. The new gallery will focus on three broad themes: consumer awareness, investigations, and who and what is the USPIS. Visitors will experience an engaging and active environment that will feature the people involved — inspectors, postal workers, and consumers — to tell the stories of the USPIS. The exhibit experience will encourage visitors to share their experiences through social media, and reassure them that information found in the exhibit (and through online resources) is safe and reliable. Visitors will leave the experience more aware of potential frauds and dangers, but secure in the knowledge needed to address them, and help others do so as well. Prospective objects for exhibition include counterfeit checks and money orders; case materials related to mail-fraud schemes; a puppet used in consumer education programs; the original mailbox used to mail the anthrax-laced letters sent to Capitol Hill and news outlets; the DeAutremont detonator used in the famous train car robbery; forensic tools used in the USPIS labs; and stamp and handstamp forgery examples from various cases.

In addition, the Museum will begin work on an exhibition highlighting the United States Postal Service and their efforts to conserve and save energy through a variety of green initiatives. The exhibit will educate and inform the public through the presentation and interpretation of specific examples of green initiatives in building construction, transportation, and mail processing.

The NPM's federal resources are primarily dedicated to improving the stewardship of the national collections for present and future generations. In FY 2014, the Museum will continue to process new acquisitions, which include digitizing and cataloguing these entries using the automated collections information system (CIS). Enhanced cataloguing and digital records created for the USPS exhibition will be placed online for ready access by the public. A major initiative to improve accessibility to off-site collections will remain a Museum priority.

In FY 2014, the Museum will continue to catalogue, image, and conserve the Postmaster General's Collection of original stamp art. The Postmaster General's Collection, transferred to the Museum from the United States Postal Service in FY 2012, represents one of the most important philatelic collections in the world. It includes the original artwork, as well as rejected designs and preliminary sketches, commissioned for more than 3,000 U.S. postage stamps between 1942 and the present. The NPM will re-house and conserve the collection, and make it available to the public through online exhibitions and through the Museum's loan program to other museums across the country.

Finally, the NPM will continue to direct resources toward maintaining the Museum's information technology (IT) systems and infrastructure requirements to meet the strategic goal of Mission Enabling. The Museum will continue to replace network hardware and software to meet requirements which support programmatic and exhibition needs, and to modernize its IT systems. Resources also will be directed toward the general administrative support needed to enhance Museum operations for the public.

**NONAPPROPRIATED RESOURCES** — The United States Postal Service provides the NPM with an annual grant, which supports nearly 75 percent of the Museum's core functions and operational costs. These costs include salaries and benefits, utilities, facility maintenance, exhibitions, education, and collection management programs. Fundraising initiatives continue to generate increased support from the private sector to develop and promote new exhibitions, research opportunities, educational initiatives, and special events.

## NATIONAL MUSEUM OF THE AMERICAN INDIAN

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	246	31,849	2	833	16	3,991	0	116
FY 2013 ESTIMATE			3	1,094	19	7,830	0	0
FY 2014 ESTIMATE	246	32,265	3	951	19	7,370	0	0

**STRATEGIC GOALS: EXCELLENT RESEARCH; BROADENING ACCESS;  
REVITALIZING EDUCATION; STRENGTHENING COLLECTIONS; AND  
MISSION ENABLING**

### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Excellent Research</b>							
<i><b>Research</b></i>							
Ensure the advancement of knowledge in the humanities	17	2,334		15	2,167	-2	-167
<b>Broadening Access</b>							
<i><b>Digitization and Web Support</b></i>							
Provide improved digitization and Web support	8	1,307		8	1,309	0	2
<i><b>Public Programs</b></i>							
Provide reference services and information	33	4,065		28	3,758	-5	-307
<i><b>Exhibitions</b></i>							
Offer compelling, first-class exhibitions	32	5,775		35	6,006	3	231
<b>Revitalizing Education</b>							
<i><b>Education</b></i>							
Engage and inspire diverse audiences	50	5,184		48	5,152	-2	-32
<b>Strengthening Collections</b>							
<i><b>Collections</b></i>							
Improve the stewardship of the national collections	31	3,648		34	3,970	3	322
<b>Mission Enabling</b>							
<i><b>Facilities</b></i>							
Improve the overall cleanliness and efficient operation of Smithsonian facilities	14	1,824		15	1,879	1	55
<i><b>Security and Safety</b></i>							
Provide world-class protection for Smithsonian facilities, collections, staff, visitors, and volunteers	1	198		1	202	0	4

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b><i>Information Technology</i></b>							
Modernize the Institution’s information technology systems and infrastructure	15	2,236		14	2,290	-1	54
<b><i>Management Operations</i></b>							
Strengthen an institutional culture that is customer centered and results oriented	27	3,384		31	3,694	4	310
Ensure that the Smithsonian workforce is efficient, collaborative, committed, innovative, and diverse	2	200		2	199	0	-1
Modernize the Institution’s financial management and accounting operations	8	899		8	904	0	5
Enhance the reputation of the Smithsonian by maintaining good relations with the news media and with federal, state, and local governments	3	320		3	329	0	9
Modernize and streamline the Institution’s acquisitions management operations	5	475		4	406	-1	-69
<b>Total</b>	<b>246</b>	<b>31,849</b>		<b>246</b>	<b>32,265</b>	<b>0</b>	<b>416</b>

## BACKGROUND AND CONTEXT

The National Museum of the American Indian (NMAI) is committed to advancing knowledge and understanding of the Native cultures of the Western hemisphere — past, present, and future — through partnerships with Native people and others.

The NMAI will focus its resources to support exhibits concerning the cultures and histories of Native communities and to present contemporary works of art to the public at the NMAI in Washington, DC and New York City. These exhibits, along with educational and cultural arts programming, attract two million visitors annually. The offering of arts and crafts demonstrations, educational presentations, seminars, and symposia at both locations will ensure a meaningful visitor experience. Web content based on these programs will reach distant “virtual visitors” to the Museum, who may not be able to come to the East Coast but who can still avail themselves of content developed at NMAI through webcasts. Through its exhibitions and public programming, the Museum continues to present the contemporary voices of Native peoples to educate and inform the public while countering widespread stereotypes.

NMAI will also focus on the stewardship of more than a million collection items entrusted to the Museum’s care — honoring the histories and promoting the cultural legacies of hundreds of Native nations throughout the Western hemisphere.

The budget request includes an increase of \$416,000 for necessary pay and other related salary costs for existing staff funded under this line item.

## MEANS AND STRATEGY

To achieve the goal of Broadening Access, the NMAI is directing its resources to: 1) activities that will result in increased visitation to the NMAI in Washington, DC and New York City; 2) public programming that will encompass information about the indigenous peoples of the Western hemisphere and Hawaii (as mandated in the NMAI legislation) and that will demonstrate the presence and cultural contributions of contemporary Native peoples today; 3) outreach to Native communities, tribes, and organizations through Web-based technologies, video conferences, internships, seminars, and symposia; and 4) expanding access to the NMAI collections online.

Public engagement efforts will continue to bring the Museum and its resources to audiences through media such as radio and the Web, and via innovative outreach and training programs. These contacts will link external communities to public audiences through technology and involvement in planning and programming.

To achieve the strategic goal of Revitalizing Education, the Museum will continue raising funds to plan and operate programs seven days a week, including interpretive activities, cultural arts performances, demonstrations, and resource materials about Native American history and cultural heritage. In addition, the Film and Video Center will present the variety and excellence of Native productions at both the Washington, DC and New York City locations. The NMAI will continue working with Native educators and cultural experts on the Museum's National Education Initiative, "Sharing American Indian Knowledge through Educational Excellence," to create exemplary materials that reflect indigenous pedagogy and knowledge, and develop model materials that Native communities can expand upon for their own purposes. The George Gustav Heye resource center in New York will continue to provide daily information about Native peoples of the Western hemisphere, and Hawaii, thereby providing opportunities to correct stereotyping and expand public knowledge. To promote learning across generations, the ImagiNations Activity center in Washington, DC will introduce indigenous science understanding of the natural world to 150,000 school children and Museum visitors. In September 2014, NMAI will open an ImagiNations Activity Center in New York. Various tribal educational resources, including curricula, will be made available to teachers.

In addition, as part of the Excellent Research strategic goal to advance knowledge in the humanities, NMAI staff will make research, film, video, audio, and photographic content developed for exhibitions broadly available at the Museum and to Native American communities and public audiences, through the Web, printed materials, and collaborative activities with other groups and organizations.

NMAI staff will continue to oversee group and school tour programs, and volunteers, and will also direct presentations in galleries and all public spaces and program areas to ensure maximum use of all the educational resources available to enhance the visitor experience.

Through its ongoing dialogue with Native communities and cultural experts, NMAI staff will also continue to advance the strategic goal of Strengthening Collections by putting the Museum's treasures into better context for the visiting public.

The strategic goal of Mission Enabling will be addressed by efficiently and economically designating resources to meet the mission of the Museum, implementing the goals of the Smithsonian Institution, and enhancing the collections by acquiring works that document Native experiences and expressive cultures, including the representation of modern and contemporary arts.

**NONAPPROPRIATED RESOURCES** — General trust funds support salary and benefit costs for the Museum director and other program-related costs. Donor/sponsor-designated funds support salaries and benefits for development staff; costs associated with reaching NMAI's National Campaign fundraising goals; publications and special events for exhibition openings; costs related to specific programs and projects, including educational programs, advertising, production of fundraising proposals, member- and donor-related special events; and outreach activities.

## NATIONAL PORTRAIT GALLERY

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	55	5,989	2	583	7	1,746	0	0
FY 2013 ESTIMATE			3	904	7	1,957	0	0
FY 2014 ESTIMATE	55	6,076	3	914	7	1,977	0	0

### STRATEGIC GOALS: EXCELLENT RESEARCH; BROADENING ACCESS; REVITALIZING EDUCATION; STRENGTHENING COLLECTIONS; AND MISSION ENABLING

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Excellent Research</b>							
<b>Research</b>							
Ensure the advancement of knowledge in the humanities	4	508		4	497	0	-11
<b>Broadening Access</b>							
<b>Digitization and Web Support</b>							
Provide improved digitization and Web support	2	223		2	229	0	6
<b>Public Programs</b>							
Provide reference services and information	5	465		5	475	0	10
<b>Exhibitions</b>							
Offer compelling, first-class exhibitions	16	1,730		16	1,735	0	5
<b>Revitalizing Education</b>							
<b>Education</b>							
Engage and inspire diverse audiences	7	623		7	664	0	41
<b>Strengthening Collections</b>							
<b>Collections</b>							
Improve the stewardship of the national collections	14	1,575		14	1,628	0	53
<b>Mission Enabling</b>							
<b>Information Technology</b>							
Modernize the Institution's information technology systems and infrastructure	1	131		1	154	0	23

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Management Operations</b>							
Strengthen an institutional culture that is customer centered and results oriented	3	371		3	347	0	-24
Ensure that the Smithsonian workforce is efficient, collaborative, committed, innovative, and diverse	1	126		1	117	0	-9
Modernize the Institution's financial management and accounting operations	1	123		1	120	0	-3
Modernize and streamline the Institution's acquisitions management operations	1	114		1	110	0	-4
<b>Total</b>	<b>55</b>	<b>5,989</b>		<b>55</b>	<b>6,076</b>	<b>0</b>	<b>87</b>

## BACKGROUND AND CONTEXT

The Smithsonian National Portrait Gallery (NPG) inspires visitors from around the world by illuminating the American experience through powerful images that connect people and their stories.

The NPG strives to bring visitors face to face — literally — with exceptional Americans and their remarkable stories across time, place, and circumstance. The Museum uses diverse approaches in visual biography to focus on changing notions of American identity, and to track evolving ideas about who is significant and has an impact on American culture. The NPG aspires to be widely known as the place that sparks thought and conversation, and includes the audience as an active participant in defining American identity through portraiture and biography.

NPG devotes a major portion of its resources to Broadening Access, thereby increasing the availability and accessibility of the Museum's collections through exhibitions, public programs, and publications. The collections are digitized, featuring 15,000 records with searchable biographic keywords and 11,000 images, and the digitization efforts continue in order to make the collection more accessible to the public and researchers. The exhibitions explore themes in history, biography, and art in a way that brings out new meaning and understanding of the American experience. Highlights of special exhibitions planned for the remainder of FY 2013 include:

- *150th Commemoration of the Civil War — “Bound for Freedom’s Light”: African Americans and the Civil War*: Part of the ongoing study of the pivotal conflict of 19th century America, this exhibition commemorates the 150th anniversary of the Emancipation Proclamation by exploring the roles played by individual African Americans during the Civil War.
- *The Outwin Boochever Portrait Competition 2013*: This third competition celebrates excellence and innovation, with a strong focus on the variety of portrait media used by artists today. A fully illustrated publication will accompany the exhibition.



- *One Life: Martin Luther King, Jr.*: The year 2013 marks the 50th anniversary of the 1963 March on Washington, and King's stirring *I Have a Dream* speech. This exhibition, with images documenting the civil rights leader's life from his early days as a pastor in Montgomery, Alabama, will profile his leadership of the national civil rights movement in the 1960s.

NPG exhibitions also travel beyond Washington. In 2013, *Portraiture Now: Asian American Portraits of Encounter* will be presented at the Asia Society Texas Center in Houston and the Japanese American National Museum in Los Angeles.

The Museum continues to expand its use of current technologies, including Web, audio and video, and social media in order to engage with a worldwide public. The NPG websites receive approximately four million visits annually, with new online features added regularly. The Museum has posted more than 100 videos thus far to YouTube, iTunes and iTunesU, which have been downloaded more than 1.3 million times. NPG's Face to Face blog is on track to receive approximately 150,000 visits in 2013. The Google Art Project, launched in 2012, continues to bring the Museum's collections to a vast worldwide audience. Also, the NPG will release mobile device applications for enhanced on-site and remote viewing of America's Presidents, the Outwin Boochever Portrait Competition, and a Civil War e-reader. In an effort to expand and enhance its scholarly outreach, NPG will implement an open-access policy for its digital images in the public domain, beginning with 200 of the Museum's most iconic portraits, digital images that will be made freely available to the public via Flickr and Flickr Commons.

The Museum also dedicates a significant portion of resources to Strengthening Collections, which is fundamental to the purpose of NPG. The Museum continuously collects a diverse array of artworks that document the historic and ongoing accomplishments and creativity of the American people. The NPG also exerts considerable efforts to preserve and safeguard its growing permanent collection to ensure its value as an educational resource to future generations. The Museum's conservation staff continues to digitize and store on the Smithsonian's Digital Asset Management System (DAMS) all treatment images for long-term preservation purposes, and the Museum as a whole implements and develops best practices related to our time-based media art in its collection.

Budgetary resources are also used for Mission Enabling activities such as Museum administration and operations. The NPG strives to understand the distinct and evolving needs of the public, communities, and stakeholders served by NPG, and then support the program delivery to meet these needs by honing its abilities in information technology, procurement, human resources and financial management, business activities, and strategic planning.

The budget estimate includes an increase of \$87,000 for necessary pay and other related salary costs for existing staff funded under this line item.

## MEANS AND STRATEGY

In FY 2014, the Museum will continue to concentrate its efforts and resources on exhibitions, developing and maintaining its collection, expanding public education offerings, and pursuing new research directions.

To support the strategic goal of Broadening Access, the Museum's exhibition schedule in the fiscal year will feature:

- *Dancing the Dream*: Drawn mainly from the Museum's permanent collection this exhibition will showcase the generations of performers and choreographers who harnessed America's diversity and dynamism into styles that reverberated with the American experience. This exhibition will explore the relationship between the art of dance and the evolution of a modern American identity. Dance performances and programs will complement the exhibition.
- *American Cool*: An original American sensibility, "cool" is a supreme compliment that evokes public figures who carry a social charge of rebellious self-expression, edge and charisma. *American Cool* will use 100 photographic works to illustrate those who have contributed an original artistic vision to American culture, symbolic of a given historical moment. The exhibition is augmented by video material and a fully illustrated catalogue.
- *Face Value: Portraiture in the Age of Abstraction*: This scholarly exhibition will celebrate the reinvention of portraiture at the very moment the art world considered it hopelessly out of fashion. Art critics' focus on Abstract Expressionism and other modes of art forced progressive portraiture under the radar. Mid-20th century artists challenged the homogenous stereotype of American life by reassessing the individual.
- *150th Commemoration of the Civil War: Grant and Lee*: Robert E. Lee was a polished and seemingly invincible Confederate commander until he encountered Ulysses S. Grant, a rough-hewn upstart, in the Virginia campaigns of 1864 and 1865. This exhibition considers their personal lives and professional rivalries.
- *Portraiture Now*: This eighth exhibition in the Portraiture Now series will explore the art of portrayal as seen through the eyes of today's Latino and Latina artists. This exhibition will feature six artists whose work exemplifies dynamic ideas and visions in contemporary portraiture.

The NPG will pursue multiple initiatives in order to advance the goal of Broadening Access to the Museum's collections. The Museum will continue to add images to Flickr and Flickr Commons, constantly increasing the collection's electronic accessibility to scholars, educators and the public. The NPG will also partner with Oxford University Press to supply portraits from the NPG collection to the online

edition of the *American National Biography* (ANB.) The ANB is the pre-eminent biographical resource used by scholars worldwide and this initiative is expected to develop into a longstanding partnership between the National Portrait Gallery and Oxford University Press.

The Museum will upgrade its Collections Information System to a Web-based system that meets the ever-expanding functional needs of the staff and the access needs of the public. NPG's research archives, the Catalog of American Portraits, will expand with more in-depth information digitized and available to researchers and the public via its Web portal, and will leverage data-harvesting technologies and crowd-sourcing initiatives such as tagging.

The Museum will continue Strengthening Collections, with efforts to enhance NPG's collection with the acquisition of rare and unique pre-1825 portraits of individuals, portraits of under-represented minorities, and likenesses of significant contemporary figures. Also, the Museum will sustain efforts for the ongoing conservation of works on paper in the permanent collection, and continue restoring frames for significant paintings in the collection.

The NPG will further invest in Revitalizing Education in FY 2014 by developing and presenting new learning programs for different age groups and for educators. The NPG will host summer workshops for teen student artists revolving around themes of identity. Programming for adults will expand to include Maker Spaces, setting aside areas in the Gallery for visitors to explore their creative side and learn about the techniques and methods of artists on view. For educators, NPG will design and conduct challenge-based professional development with an emphasis on multi-day and multi-disciplinary workshops. The Museum will also sustain its existing range of educational programming, including the Teen Ambassadors Program, which partners with the District of Columbia Department of Employment Services' youth summer jobs program, as well as the popular Family Days, and interviews and original dramatic works in the Reynolds Center auditorium.

The NPG will work on the Mission Enabling goal by assessing the skill requirements of all its entry and mid-grade positions. It will also incorporate new technologies to reduce operational costs and enhance the visitor experience in the galleries.

**NONAPPROPRIATED RESOURCES** — General trust funds support critical positions and help defray costs of special events for exhibition openings, loan exhibition development, outreach, fund raising, management, and research. NPG must support exhibitions, publications, public lectures and gallery programs, symposia, and some collection acquisitions with donor/sponsor-designated funds. Private donations are thus critical to the Museum's planning, programming, and ability to deliver on its public mission. It is through a public-private partnership that the National Portrait Gallery achieves its goals.

## SMITHSONIAN AMERICAN ART MUSEUM

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	88	9,328	7	1,323	26	6,625	2	133
FY 2013 ESTIMATE			7	1,424	34	7,367	2	134
FY 2014 ESTIMATE	88	9,462	7	1,336	33	7,361	2	469

### STRATEGIC GOALS: EXCELLENT RESEARCH; BROADENING ACCESS; REVITALIZING EDUCATION; STRENGTHENING COLLECTIONS; AND MISSION ENABLING

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Excellent Research</b>							
<b>Research</b>							
Ensure the advancement of knowledge in the humanities	4	485		5	560	1	75
<b>Broadening Access</b>							
<b>Digitization and Web Support</b>							
Provide improved digitization and Web support	7	745		6	740	-1	-5
<b>Public Programs</b>							
Provide reference services and information	13	1,283		13	1,300	0	17
<b>Exhibitions</b>							
Offer compelling, first-class exhibitions	21	2,315		22	2,537	1	222
<b>Revitalizing Education</b>							
<b>Education</b>							
Engage and inspire diverse audiences	4	565		4	450	0	-115
<b>Strengthening Collections</b>							
<b>Collections</b>							
Improve the stewardship of the national collections	21	2,235		21	2,310	0	75
<b>Mission Enabling</b>							
<b>Security and Safety</b>							
Provide a safe and healthy environment	1	75		1	75	0	0
<b>Information Technology</b>							
Modernize the Institution's information technology systems and infrastructure	3	250		3	240	0	-10

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b><i>Management Operations</i></b>							
Strengthen an institutional culture that is customer centered and results oriented	13	1,375		13	1,250	0	-125
<b>Total</b>	<b>88</b>	<b>9,328</b>		<b>88</b>	<b>9,462</b>	<b>0</b>	<b>134</b>

## BACKGROUND AND CONTEXT

The Smithsonian American Art Museum (American Art) is the nation’s Museum dedicated to the arts and artists of the United States from colonial times to the present. It is the home of the largest and most inclusive collection of American art in the world, and its holdings of more than 42,000 works, spanning three centuries of the nation’s cultural development, tell the story of America through the visual arts. The Museum’s programs make the collection available to national audiences and beyond, as well as to those who visit its two historic landmark buildings in Washington, DC: the Donald W. Reynolds Center (DWRC) for American Art and Portraiture (shared by American Art and the National Portrait Gallery) and the Renwick Gallery, dedicated to American crafts and decorative arts.

To achieve the goal of Excellent Research, American Art curators and research Fellows-in-residence use the collection and other resources to develop new insights into America’s cultural and artistic legacy. The resulting knowledge informs collections development and serves as the basis for exhibitions, associated award-winning catalogues and scholarly publications, and material for online content and educational programs. The Museum’s peer-reviewed journal, *American Art*, serves as an additional venue for scholarship in the field. The Museum hosts international symposia on topics of relevance in the field of American art.

Broadening Access is achieved through a web of activities. The Museum is taking full advantage of the latest technologies (e.g., audio, multi-media, podcast tours, smart phones, tablets, and applications) as well as social media to engage audiences both online and on site. Three videoconference centers deliver the Museum’s programs around the world. Digitization of the collection continues apace, allowing the Museum to add new content and features to its online resources.

An ambitious schedule of exhibitions developed in-house and complemented by shows obtained from other organizations attracts new visitors and encourages repeat visits. Large exhibition spaces, shops, and a restaurant greet visitors with a broad range of activities to maintain their interest. The Lunder Conservation Center provides a window on preservation of the nation’s collections, and the Luce Foundation Center for American Art displays 3,500 collection objects in an inviting visible storage center. The Renwick Gallery has additional space for exhibitions, public programs, and rotating displays of its permanent collection of American crafts. Multiple traveling exhibitions organized by the Museum are shared with museums throughout the United States, giving the public broad, direct access to the nation’s artistic and cultural heritage.

Public programs complement Museum exhibitions and collections through courtyard concerts, family days, heritage month programs, tours and gallery talks, scavenger hunts, and craft and sketching workshops.

Diverse activities advance the goal of Revitalizing Education. National education programs directly reach K–12 teachers and students. These include adoption of the latest technologies where most effective, as well as incorporation of art into core curricula. Resident teacher institutes are supplemented by online/on-demand courses for the K–12 community. The Museum regularly collaborates with private and public organizations to provide teachers with new tools and resources. Students are brought into the Museum as often as possible to provide that unique direct experience with great art. The MacMillan Education Center, located in the galleries, benefits students in classrooms across the nation and U.S. military bases worldwide as well as school groups touring the Museum, conservators, research Fellows, and educators.

The goal of Strengthening Collections is achieved through multiple activities. Scholarship and research help set acquisition objectives. Gifts of art and private funds raised through development activities pay for additions to the national collection. Conservators obtain new tools and training to preserve the artwork. These are shared with colleagues and with the public in the Lunder Conservation Center. Conservation Fellowships ensure that experience and knowledge are shared within the larger community of conservation practitioners.

Mission Enabling encompasses many activities. A proactive safety program ensures a safe and healthy environment for Museum staff and visitors. Information technology staff implement and maintain the information framework on which so many other efforts depend. This includes the exhibition space screens, kiosks, and optimizing online information for mobile devices. Managers carefully plan, promote, protect and conserve the Museum's resources.

The budget estimate includes an increase of \$134,000 for necessary pay for existing staff funded under this line item.

## **MEANS AND STRATEGY**

Research on the collections and related topics by staff, augmented by a three-year term curator of Latino art (in collaboration with the Smithsonian Latino Center), continues in support of exhibitions and the permanent collection, including four new exhibition catalogues scheduled for publication in FY 2014. The Museum's award-winning, peer-reviewed journal, *American Art*, will publish three issues of new scholarship. *American Art* hosts approximately 20 research Fellows from throughout the country, greatly increasing the number of scholars using the collections. The resulting discoveries and interpretations by staff and Fellows help Americans understand and appreciate their rich cultural heritage as well as advance scholarship in American art. Research also will feed into educational programs as well as the Web and new media.

Two-thirds of American Art's collection already is online and the Museum continues to digitize and post new images and content. The Museum makes images and content available through online image- and video-sharing sites and collaborative initiatives with other organizations. American Art will expand its online presence via social media (e.g., Facebook, Twitter, and YouTube) and hosts the art blog, *Eye Level*. More podcasts and videos will be added to the Museum's online library. All these assets will be accessible regardless of device used. Video capture and editing technology will enable the Museum to expand its audience by webcasting events and hosting online discussions via instant messaging and blogs. Interactive exhibition components are added whenever appropriate to provide a richer, customized cultural experience.

Six exhibitions are planned for FY 2014 at American Art and its Renwick Gallery. Major exhibitions at the DWRC include: *Our America: the Latino Presence in American Art*, *Western Art and Artifacts*, *James Castle*, and *Ralph Fasanella*. The Renwick Gallery will feature *Infinite Place: The Ceramic Art of Wayne Higby* and *A Measure of the Earth: The Cole-Ware Collection of American Baskets* before closing for a much-needed renovation. The well-received rotating exhibit *Watch This!* will showcase video and new media art from the Museum's permanent collection.

As part of its ongoing efforts to make as much material as possible accessible to the public, the Museum regularly rotates artworks in the permanent collection galleries to show the many facets of American art and culture, as well as to encourage return visits. In FY 2013, the Museum reinstalled its second-floor permanent collection galleries; reinstallation of the folk art galleries will begin on the first floor in FY 2014. The Luce Foundation Center for American Art displays an additional 3,500 collection objects in densely installed glass cases.

National outreach includes touring exhibitions with *The Art of Video Games*; *African American Art: Harlem Renaissance, Civil Rights Era, and Beyond*; *Annie Leibovitz: Pilgrimage*; and *George Catlin's American Buffalo*. Another exhibition, *1934: A New Deal for Art* continues to crisscross America, traveling to its twelfth and final museum in FY 2014. Interactive exhibition components continue evolving to keep pace with proliferating information conduits. In addition, whenever possible, American Art honors requests by other museums for loans from the national collection.

American Art engages a diverse audience through a range of public programs and online resources. The Museum will continue its popular tours, gallery talks, demonstrations and workshops. Individuals may bring in objects and talk with conservators about the proper care and handling of family heirlooms. Family Days and heritage month programs will create and sustain new relationships between the public and their cultural history. Public programs in the galleries, McEvoy Auditorium and Kogod Courtyard will be supplemented by new Web content, as well as by making them accessible regardless of platform.

Education initiatives will expand as the Museum takes advantage of new online tools and assets. American Art continues to develop its highly successful distance-learning program that reaches classrooms worldwide. The new videoconference center

within the MacMillan Education Center enables American Art to serve more students. Partnerships with Government agencies such as the National Park Service and National Archives and Records Administration expand the Museum's reach to more diverse audiences. The intern program, hosting approximately 50 students (this past year, from 17 states, Washington, DC, Japan, France, Canada, Great Britain, Greece, Turkey and Israel), will prepare the next generation of museum professionals. The Clarice Smith American Art Education Initiative will again host two institutes for more than 50 teachers (last year representing 21 states, Washington, DC, and Thailand). The CISCO Virtual Institute will provide online, on-demand courses for K–12 teachers to develop resources and skills so they can more effectively use technology to incorporate art into their core curricula.

The safe storage and display of collection objects remains a top priority. American Art continues to develop public interest in and awareness of preservation issues through the Luce Foundation Center and the Lunder Conservation Center and their many public programs. The acquisition of new tools and instrumentation will allow more complete monitoring of the collection and application of leading-edge conservation techniques to preserve the collection. Artworks will be acquired to fill gaps in the collection identified through the Museum's collections plan. Time-based media (i.e., works which exhibit a changing observable state, such as videos or light-emitting diodes [LEDs]) and Latino art will receive special attention.

The Museum has been a lead partner, with the Department of Energy, in developing LED technology for use by museums, which will save the Institution thousands of dollars in energy costs. Information technology and administrative procedures will be strengthened through close monitoring of resources and processes, especially as budgets tighten. Strong partnerships with Smithsonian central offices enable American Art to provide an end-user perspective on policy changes. Use of the Museum's Wiki and SharePoint web sites keeps staff current on the ever-changing procedural and regulatory environment. Continual review of work processes and conditions will be followed by proactive implementation and use of safer techniques and materials for both staff and the Museum environment.

**NONAPPROPRIATED RESOURCES** — Nearly all of American Art's non-personnel costs, including those for exhibitions, educational and public programs, and additions to the national collection, are paid with funds provided by individuals, foundations, and corporations. Donor/sponsor-designated funds support specific programs and projects. American Art's National Campaign is putting special emphasis on endowments to provide secure funding for these ongoing projects and activities. For example, in FYs 2012 and 2013, the Museum added new curatorial, Fellowship, acquisition, and exhibition endowments to support its programs. Additionally, trust funds support salaries and benefits for about one-third of staff, as well as all fundraising activities and related costs.

The Renwick Gallery's major building systems are past their life expectancy after more than 40 years of use. Design and engineering plans are complete and this Historic Landmark Building is scheduled for renovation to begin in 2014. The Museum is committed to raising 50 percent of the funds needed for the renovation.



## **Introduction, *Mission Enabling***

The backbone of the Smithsonian must remain a dedicated workforce of employees and volunteers with 21st century skills and perspectives. Strong, responsive support services — such as collections stewardship, facilities management, Web and new media, audience research, marketing, and financial management — are essential to accomplish the Smithsonian's mission and vision. Finally, we need to generate revenue in new ways to ensure that we can fund our vision for the future.

UNITS primarily associated with Mission Enabling:

- **Outreach**
- **Communications**
- **Institution-wide Programs**
- **Office of Exhibits Central**
- **Museum Support Center**
- **Museum Conservation Institute**
- **Smithsonian Institution Archives**
- **Smithsonian Institution Libraries**
- **Office of the Chief Information Officer**
- **Administration**
- **Office of the Inspector General**
- **Facilities Maintenance**
- **Facilities Operations, Security, and Support**

## OUTREACH

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	62	9,277	32	5,789	6	3,049	8	5,388
FY 2013 ESTIMATE			38	5,888	7	5,704	13	5,832
FY 2014 ESTIMATE	110	34,392	38	5,998	6	3,784	13	5,837

### STRATEGIC GOALS: EXCELLENT RESEARCH; BROADENING ACCESS; REVITALIZING EDUCATION; AND MISSION ENABLING

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Excellent Research</b>							
<i>Research</i>							
Engage in research and discovery	2	1,325		2	1,413	0	88
Ensure the advancement of knowledge in the humanities	0	1,013		0	946	0	(67)
<b>Broadening Access</b>							
<i>Public Programs</i>							
Provide reference services and information	3	414		3	421	0	7
<i>Exhibitions</i>							
Offer compelling, first-class exhibitions	40	4,750		39	4,815	(1)	65
<b>Revitalizing Education</b>							
<i>Education</i>							
Engage and inspire diverse audiences	11	1,241		59	26,162	48	24,921
<b>Mission Enabling</b>							
<i>Information Technology</i>							
Modernize the Institution's information technology systems and infrastructure	1	95		2	191	1	96
<i>Management Operations</i>							
Strengthen an institutional culture that is customer centered and results oriented	5	439		5	444	0	5
<b>Total</b>	<b>62</b>	<b>9,277</b>		<b>110</b>	<b>34,392</b>	<b>48</b>	<b>25,115</b>

## BACKGROUND AND CONTEXT

Broadening Access is a key component of the Smithsonian's Strategic Plan. All of the Institution's outreach activities link the Smithsonian's national collections, research, and educational resources with Americans from coast to coast. Its aims are to 1) broaden the audiences who share in the nation's rich cultural heritage; 2) enhance widespread research-based knowledge of science, history, and art; and 3) provide opportunities for educators and scholars to further increase and diffuse knowledge.

Smithsonian outreach programs serve millions of Americans, thousands of communities, and hundreds of institutions in all 50 states, through loans of objects, traveling exhibitions, and sharing of educational resources via publications, lectures and presentations, training programs, and websites. Smithsonian outreach programs work in close cooperation with Smithsonian museums and research centers, as well as with 150 affiliated institutions and others across the nation.

This line item includes the programs that provide the critical mass of Smithsonian Across America outreach activity: the Smithsonian Institution Traveling Exhibition Service (SITES); Smithsonian Affiliations; the Smithsonian Center for Learning and Digital Access (SCLDA), formerly, the Smithsonian Center for Education and Museum Studies; the Office of Fellowships and Internships (OFI); and the Smithsonian Institution Scholarly Press (SISP). A new addition to Outreach in FY 2014 is the Science, Technology, Engineering, and Mathematics (STEM) initiative. The Smithsonian Associates and the Smithsonian Science Education Center, which receive no direct federal funding, are also part of this national outreach effort.

The budget request includes an increase of \$25,115,000. This increase includes \$115,000 for necessary pay and other related salary costs for existing staff funded under this line item and a programmatic increase of \$25,000,000 and 48 FTEs to improve the STEM engagement program.

## ADDITIONAL BACKGROUND AND CONTENT — STEM ENGAGEMENT

Since its creation in 2010, the Smithsonian's Office of the Assistant Secretary for Education and Access has been charged with the Institution-wide effort of Revitalizing Education, Broadening Access, Supporting Evaluation, and Creating a Learning Community for 19 museums and nine research centers. In implementing the Institution's effort to **Revitalize Education**, more than 300 museum educators, IT staff, and public programmers have been creating content that specifically addresses the articulated needs of teachers; identifying, evaluating, and organizing assets that can be integrated into, or used to supplement curriculum; tagging content that aligns with state and national standards; and supporting active learning that includes inquiry based science learning in rich and immersive settings. **Broadening Access** involves the Smithsonian's development of educational assets for a national audience, many of which will be delivered via a Web-based Participant Access System (PAS) that

facilitates our ability to share collections, images, lessons, and citizen-scholar activities. We are also strengthening our partnerships and sharing and exchanging resources with more than 170 Smithsonian Museum Affiliates across the country, colleagues from federal agencies and the private sector. We are **Supporting Evaluation** by training our staff and our peers, working with internal and external evaluators, and, when completed, our PAS will provide us with metrics and key information about our users and their interaction with our content. The Institution's efforts to **Create a Learning Community** are linked to our strategies for *knowledge transfer*. In an Institution with more than 24 education departments, knowledge-transfer mechanisms enable us to better coordinate our collective assets, identify and solve common problems, broker collaborations, realize economies of scale, avoid redundancies, and learn from our successes and challenges.

## MEANS AND STRATEGY

**Smithsonian Institution Traveling Exhibition Service (40 FTEs and \$4,815,000)** — Now operating under the Smithsonian's Office of the Assistant Secretary for Education and Access, SITES will celebrate its 62nd year of sharing the national collections with the public in FY 2014. More than 500 communities in all 50 states will host SITES shows, in formats ranging from large-scale interactive exhibits for mainstream art, history, and natural history museums to portfolio and poster sets tailored to school classrooms. Encompassing subjects that parlay the Smithsonian's vast collection and research pursuits into educational resources, SITES' FY 2014 offerings will address such varied topics as veterinary medicine, astronomy, paleontology, and Chinese food.

SITES is a national leader in exhibitions that honor and celebrate the cultural heritages of African Americans, Latinos, Asian Pacific Americans, Native Americans, and the many other peoples who give our nation its unique vitality. FY 2014 resources will continue to be dedicated to this focus, generating cross-cultural public engagement through such exhibition topics as migrant labor; a celebration of Asian Pacific American achievement; ethnic foodways; African American art; and the cross-cultural ties between African American and Native American communities. Broad distribution of a poster exhibit on the value of teaching tolerance, especially among school-age youth in all 50 states, will address the human values essential to American pluralism.

SITES' landmark Museum on Main Street (MoMS) initiative will continue to enrich the underserved populations of rural America, whose access to national cultural programs is limited. Community enthusiasts join with local merchants and regional educators when small-town USA opens its doors to the Smithsonian. In FY 2014, SITES will launch its newest MoMS exhibit on hometown teams, focusing on the central role of sports in creating and sustaining community identity and local pride.

Education, scientific research, and the harnessing of technology to reach younger generations are central tenets of today's Smithsonian, and SITES will be

positioned in FY 2014 to address all three in a groundbreaking initiative. *Animal Connections* examines the bond between humans and animals in an exhibit mounted in a unique truck slated to visit 40 cities across the country this year alone. Digital interactive Web-based educational resources, and innovative social media components, will broaden access to the exhibit, not only inside the truck but also for global audiences who follow the truck's route. At each stop across the country, the truck staff will present an outdoor festival featuring veterinarians, researchers, animal care professionals, and others offering public programs and demonstrations.

While Americans may know the Smithsonian from one-time school trips or family visits, the presence of the Institution's resources on their hometown turf has a deeper resonance. SITES exhibitions represent the valuable public impact of the federal dollar. They are a source of immense local pride, bringing together people from diverse ethnic, age, and socio-economic groups to celebrate a shared national heritage.

**Smithsonian Affiliations (2 FTEs and \$313,000)** — The mission of Smithsonian Affiliations is to build a strong, national network of affiliated museums, educational, and cultural organizations that will facilitate the display of Smithsonian artifacts and dissemination of the Institution's expertise to communities across America. By working with both emerging and well-established museums of diverse sizes, subject areas, audience bases, and scholarly disciplines, Smithsonian Affiliations creates the framework through which visitors unable to come to the Smithsonian facilities can still experience the Smithsonian in their own communities. In addition, the Smithsonian is working closely with affiliated organizations to increase their audiences, expand their professional capabilities, and gain greater recognition in their local communities. There are currently 171 affiliate organizations in 41 states, Puerto Rico, and Panama.

These strategies have resulted in the display of more than 8,000 Smithsonian artifacts in Affiliate locations, including such historic and topical items as U.S. spacecraft, First Ladies' gowns, Civil War arms and uniforms, outdoor sculptures, scientifically significant collections, and many more. Smithsonian scholars have participated in science literacy, American history, and art education programs at Affiliate locations. Professional development workshops, internships, and visiting professional residencies have given Affiliate staff the opportunity to increase their knowledge and skills in areas such as collections management, exhibition planning, and museum administration. The Smithsonian Affiliations' annual conference creates a forum for networking, information sharing, and future planning. New videoconferencing capabilities have also extended the reach of Smithsonian Affiliations. Current Affiliate projects build on and amplify the "Grand Challenges" outlined in the Smithsonian's Strategic Plan.

**Smithsonian Center for Learning and Digital Access (13 FTEs and \$1,461,000)** — Smithsonian content experts and educators work together to help strengthen American education and enhance our nation's ability to compete globally.

The Smithsonian will serve as a laboratory to create methods and models of innovative informal education and link them to the formal education system. SCLDA venues will take advantage of a range of interactive, Web-based technologies, and its programs will encourage continual exploration by learners of all ages. To guide these educational efforts across the Smithsonian, SCLDA has created an Institution-wide approach for education that leverages resources, strengthens communications, coordinates programming, and rewards innovative thinking and collaboration.

**Office of Fellowships and Internships (6 FTEs and \$2,007,000)** — The OFI has the central management and administrative responsibility for the Institution's programs of research, Fellowships, and other scholarly appointments. One of its primary objectives is to facilitate the Smithsonian's academic interactions with students and scholars at universities, museums, and other research institutions around the world. The Office administers Institution-wide research support programs, and encourages and assists other Smithsonian museums, research centers and offices with developing additional Fellowships and visiting appointments.

The Smithsonian Institution offers Fellowships to provide opportunities for graduate students, pre-doctoral students, and postdoctoral and senior investigators to conduct research in association with members of the Smithsonian professional research staff, and to more effectively use the resources of the Institution.

To achieve the goal of Excellent Research and maintain the Smithsonian's level of expertise in the research community, the Institution must continue attracting the best scholars. OFI is increasing Fellowship stipends to provide awards comparable to other prestigious programs so the Smithsonian can maintain a competitive edge. Since funding for stipends has remained flat, the Smithsonian has increased the value of each award, but has decreased the number of Fellowships awarded. The Smithsonian is trying to raise private funding for the Institution's Fellowships and Scholarly Studies Program so that the Institution has the resources necessary to help today's young scientists become the next generation's top researchers. In addition, OFI continues to provide current staff with the financial support needed to develop new research initiatives, collaborate with other scholars, and determine the scope and feasibility of projects.

**Smithsonian Institution Scholarly Press (1 FTE and \$796,000)** — Through the Smithsonian Contributions Series program, continually published since 1875, SISP publishes and disseminates research conducted by Smithsonian staff and their collaborators. The federal funds will support the production of first-class science results and widespread public distribution to libraries, universities, other organizations, and the public. The program publishes, in both print and electronic formats, monograph series in subject areas ranging from art, anthropology, botany, and marine sciences to paleobiology, zoology, museum conservation, and history and technology, as well as edited collections and proceedings of interdisciplinary findings. Furthermore, federal resources will underpin the publishing of scholarly books written by Smithsonian staff or books closely related to Smithsonian

collections. This advances the Institution's strategic goal of Broadening Access to scientific research and the national collections.

### **ADDITIONAL MEANS AND STRATEGY — STEM ENGAGEMENT**

The reach of the Smithsonian — nationally and internationally — and its ability to motivate and inspire students, educators and enthusiasts exceeds 100 million people annually.

The Institution's digital education assets are managed by the Smithsonian Center for Learning and Digital Access (SCLDA), which aligns content with national and state education standards, pilots and coordinates Institution-wide initiatives, provides training opportunities for educators, and conducts evaluations. The Smithsonian Science Education Center (SSEC) (formerly the National Science Resources Center) provides school districts with tools and resources for initiating and sustaining effective science education programs. Using the SSEC model for science education reform, these school districts produce research- and standards-based science instructional materials, provide professional development for their teachers, and continually assess student progress. They also develop a system-wide support structure that provides science materials to the classroom and builds support from school district administrations and communities nationwide. These programs have led to significant, documented improvement in student achievement. Research-based STEM programs are also offered at the National Zoological Park (NZIP), the Smithsonian Environmental Research Center (SERC), the Smithsonian Tropical Research Institute (STRI), the Smithsonian Astrophysical Observatory (SAO), the National Air and Space Museum (NASM), the National Museum of Natural History (NMNH), the National Museum of American History (NMAH) — specifically, with regard to the history of science and American life, the Smithsonian Gardens (SG), and the Cooper-Hewitt, National Design Museum (CHNDM) — which offers design and technology education.

### **EXPLANATION OF CHANGE — STEM (48 FTEs and \$25,000,000)**

To meet future workforce needs, and to leverage their expertise and unique assets in support of STEM education, federal agencies have developed a range of education programs. In the absence of a single guiding plan, these efforts have proliferated over many years to include over 220 programs across 13 different agencies at an annual federal investment of almost \$3 billion. Many of these initiatives are not effectively aligned either to the needs of students or to national priorities, and this fragmented approach to investment has made it difficult to reform and improve Federal STEM education efforts. The Administration is proposing a comprehensive reorganization of STEM programs across the government to facilitate a cohesive national strategy of STEM education programs to increase the impact of Federal investments in four areas: K-12 instruction; undergraduate education; graduate fellowships; and education activities that typically take place outside the classroom.

The reorganization involves consolidating or restructuring 114 programs across 11 agencies and improving the delivery, impact, and visibility of STEM efforts. Nearly \$180 million will be redirected from consolidated programs to the Department of Education, the National Science Foundation (NSF), and the Smithsonian Institution to implement initiatives in the four core reform areas. The Administration will ensure that all science mission agencies have input into the development and implementation of these initiatives so that they align with agency goals while improving STEM education at all levels in a streamlined way.

As part of this reorganization, the Smithsonian is requesting **+\$25 million** and will serve as a conduit between federal mission agencies, Smithsonian units, other non-profit organizations (including the Smithsonian’s 170 Affiliate museums), the Department of Education, and school districts. We will work collaboratively to create informal STEM engagement resources and experiences that advance agencies’ unique assets, support the creation of complementary materials, avoid duplication of effort, share a centralized portal for the broad dissemination of engagement offerings and create opportunities for the cross-referencing of content on agency sites. Informal STEM engagement resources include: curriculum development, professional development, as well as inspirational and out-of-classroom educational experiences that are aligned with State standards so that they are relevant to what students are learning in the classroom.

The Smithsonian will manage this collaborative initiative by creating a centralized group that will coordinate the efforts of STEM engagement providers and increase the capabilities of our technical team. We will also work with education specialists at each site and increase the capacity of all participants to create, disseminate and evaluate STEM education resources and experiences. The following chart details the requested STEM engagement increases:

Items	\$(000)	FTEs
<b>SERVICES</b>		
Co-Creating Content and Programs	9,032	21
Develop Infrastructure to Deliver Content	8,924	8
<b>CREATING COMMUNITY</b>		
Teachers, Students, and Agency Partners	5,834	14
<b>EVALUATION</b>		
Learning and Evolving	1,210	5
<b>TOTAL</b>	<b>\$25,000</b>	<b>48</b>

**Goal 1: Co-Creating Content and Programs (+\$9,032,000, +21 FTEs) — Collaborating with its partners to create a cohesive strategy for the creation and dissemination of informal STEM engagement resources**

The Smithsonian will: **identify materials** from Smithsonian units and partnering federal agencies engaged in informal STEM education efforts that will be aligned with school curriculum. We will **create new resources and experiences** that have a measurable impact; **engage in front-end evaluation** to determine the appropriate



uses for the content as well as the audiences; **develop and implement strategies for content dissemination** that might include distance learning, Web-based content, apps, games/simulations, webinars, and other scalable approaches; and **establish feedback loops** with educators and learners to facilitate course correction.

**Goal 2: Developing and Maintaining an Infrastructure to Deliver Content**  
**(+\$8,924,000, +8 FTEs) — Creating a portal for the transfer of knowledge that supports the work of the collaborators**

The Smithsonian is piloting MySI, an online Participant Access System that will enable centralization of education assets and interactive relationships with users. MySI will be used to tag, manage, and disseminate standards-aligned STEM content developed by partners working in the public and non-profit sectors. Staff will align all content with learning standards, create finder tools so that the content can be cross-referenced, and develop a surveying capacity, content management tools, and a portal for the collection and management of citizen-science data. This system will also generate daily access and usage metrics for all content creators and stakeholders.

**Goal 3: Creating Community/Teachers and Students/Agency Partners**  
**(+\$5,834,000, +14 FTEs) — Creating learning communities that identify and share research and best practices**

Teachers have historically rated Smithsonian content both online and at convenings. Based on the requests of teachers, the Smithsonian has undertaken a long-term research and evaluation program to understand their needs. The Smithsonian is developing a toolset that allows teachers to aggregate learning resources from a variety of sources so that they may customize learning experiences and align content and activities with local standards. They can then share their resources with their students and peers. This tool is currently in the prototype stage. Concurrently, the Smithsonian also creates both online and on-site opportunities for content developers to share their research, vet their projects and collaborate on new ideas. These opportunities will be offered to all participants and managed with MySI tools.

**Goal 4: Evaluation/Learning and Evolving** **(+\$1,210,000, +5 FTEs) — Creating an evidence-based approach to resource development that leads to pre-tested, effective and appropriately targeted assets**

The Smithsonian embraces evaluation as a tool for STEM engagement in both formal and informal learning settings. Our approaches to evaluation include the use of logic models as tools for planning and assessment, front-end evaluation, rapid-prototyping, pre- and post-assessments, random control studies, the development of assessment tools and online surveys, and the collection of data on the use and effectiveness of content. We are committed to refining and upgrading resources and experiences based on new research and evaluations.

**NONAPPROPRIATED RESOURCES** — General trust funds defray the costs of staff salaries and benefits, fund raising, exhibition design and production, publications, materials, outside specialists, and contractual services. Donor/sponsor-designated funds cover costs related to specific projects and programs.

## COMMUNICATIONS

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	22	2,744	26	3,794	0	14	0	0
FY 2013 ESTIMATE			33	3,791	0	25	0	0
FY 2014 ESTIMATE	22	2,780	31	3,765	0	25	0	0

### STRATEGIC GOALS: BROADENING ACCESS AND MISSION ENABLING

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTEs	\$000	FTEs	\$000
<b>Broadening Access</b>							
<b>Public Programs</b>							
Provide reference services and information	8	663		8	671	0	8
<b>Mission Enabling</b>							
<b>Management Operations</b>							
Strengthen an institutional culture that is customer centered and results oriented	1	117		1	119	0	2
Enhance the reputation of the Smithsonian by maintaining good relations with the news media and with federal, state, and local governments	10	1,612		10	1,634	0	22
Ensure that the Smithsonian workforce is efficient, collaborative, committed, innovative, and diverse	3	352		3	356	0	4
<b>Total</b>	<b>22</b>	<b>2,744</b>		<b>22</b>	<b>2,780</b>	<b>0</b>	<b>36</b>

### BACKGROUND AND CONTEXT

The Office of Communications and External Affairs (OCEA) consists of four departments: the Office of Public Affairs (OPA), the Office of Government Relations (OGR), the Office of Visitor Services (OVS), and the Office of Special Events and Protocol (OSEP).

OCEA coordinates the Smithsonian brand strategy and oversees internal communications. The Office resources support the Strategic Plan by training staff about the Institution's priorities and objectives, and informing them about

important initiatives, thereby enabling the Institution to better execute its mission. OCEA is responsible for implementing the Smithsonian brand strategy, both internally and externally, so that the Smithsonian reaches more people. By improving internal communications to more effectively and efficiently inform staff of Institution-wide policies, initiatives and events, OCEA encourages cross-unit collaboration.

OPA coordinates public relations and communications with museums, research centers and offices to present a consistent and positive image of the Institution. The Office supports the Strategic Plan by strategically advancing the Institution's objectives, connecting people with Smithsonian experts, research, exhibitions, and public programs, and by working with conventional media outlets and social media. OPA connects to online audiences by overseeing content such as Visitor Information, Events, Exhibits, and *Encyclopedia Smithsonian* on the central website. The office also administers content on Newsdesk, the Smithsonian's online newsroom. In addition, OPA works with units throughout the Institution to establish and maintain professional guidelines and standards.

OGR is the liaison between the Smithsonian Institution and the federal Government. This includes members and staff of the U.S. House of Representatives and Senate appropriations and oversight committees and other congressional offices, the White House, the Office of Management and Budget, and various federal agencies. The Office supports the Institution's overall Strategic Plan by explaining the accomplishments, relevance, and wealth of Smithsonian's offerings to the Congress and the Administration. OGR also works with other Smithsonian offices, informing them of federal-sector activities, tracking legislation pertinent to them, showcasing their exhibits, programs and discoveries for interested congressional offices, and managing their requests for high-ranking Government officials to participate in official Institution events.

OVS enables the Smithsonian's mission through its activities as the primary point of contact for Smithsonian visitors and volunteers. The Office resources support the Strategic Plan by recruiting and training highly qualified, motivated and diverse volunteers to engage with visitors and assist Smithsonian staff with accomplishing research projects. OVS also provides online and print resources for visitors, and answers any questions the Office receives from the public.

OSEP contributes to the advancement of the Institution by taking a leadership role in the planning and execution of a wide variety of special events and conferences. The Office supports the Strategic Plan by developing events to help the Institution engage in strategic decision making and achieve its goals and objectives.

The budget estimate includes \$36,000 for necessary pay and other related salary costs for existing staff funded under this line item.

## MEANS AND STRATEGY

OPA allocates resources for national and international media publicity and to expand minority relationships through targeted social media outlets. As the Smithsonian office with primary responsibility for extending the Institution's communications message to online audiences, OPA manages content on the central website and on Newsdesk. OPA works with units throughout the Institution to establish and maintain professional guidelines and standards. OPA also produces *Smithsonian Science*, an online blog devoted to scientific research.

In addition, OPA initiates and responds to all media inquiries in a timely manner with accurate, concise information, and generates story ideas for the media featuring Smithsonian experts, exhibitions, research, and programs. In terms of new initiatives, OPA also has a leading role in coordinating the Smithsonian's "Seriously Amazing" national branding campaign to educate the public about the Institution's mission and many programs, as well as appeals for private support.

OVS formats and edits information for Smithsonian visitor-based websites, a central events calendar, a central exhibitions database, and selected publications. Staffers oversee the Smithsonian-wide visitor orientation information signs. Through the general Smithsonian email address, central telephone number, and the Smithsonian Information Center, personnel promote visitor education and direct Smithsonian stakeholders to appropriate Smithsonian staff offices. OVS docents educate visitors about the history of the Smithsonian Institution Building. Staff implements strategies for volunteer recruitment, training, placement, and scheduling to support the Smithsonian's mission.

**NONAPPROPRIATED RESOURCES** — General trust funds support salaries and benefits of personnel and other related costs. In addition, these funds support information dissemination, outreach, publications, and general operations.

## INSTITUTION-WIDE PROGRAMS

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	0	10,910	0	0	0	0	0	0
FY 2013 ESTIMATE			0	0	0	0	0	0
FY 2014 ESTIMATE	0	13,310	0	0	0	0	0	0

### STRATEGIC GOALS: EXCELLENT RESEARCH; BROADENING ACCESS; STRENGTHENING COLLECTIONS; AND MISSION ENABLING

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Excellent Research</b>							
<i>Research</i>							
Engage in research and discovery	0	1,301		0	1,301	0	0
<b>Broadening Access</b>							
<i>Public Programs</i>							
Provide reference services and information	0	1,119		0	1,119	0	0
<b>Strengthening Collections</b>							
<i>Collections</i>							
Improve the stewardship of the national collections	0	5,460		0	7,860	0	2,400
<b>Mission Enabling</b>							
<i>Information Technology</i>							
Modernize the Institution's information technology systems and infrastructure	0	3,030		0	3,030	0	0
<b>Total</b>	<b>0</b>	<b>10,910</b>		<b>0</b>	<b>13,310</b>	<b>0</b>	<b>2,400</b>

### BACKGROUND AND CONTEXT

Since 1993, Congress has approved the creation of the following four Institution-wide funding programs:

- Research Equipment Pool
- Latino Initiatives Pool
- Collections Care and Preservation Fund
- Information Resources Management Pool

In 1993, Congress approved the Smithsonian's reallocation of funds to create two Institution-wide funding programs: the Research Equipment Pool to support the units' needs for state-of-the-art research equipment, and the Information Resources Management (IRM) Pool to systematically address information technology (IT) needs throughout the Institution. The Institution first received funds in FY 1995 to support the development of a third Institution-wide program, this one for Latino initiatives, including research, exhibitions, and educational programming. In FY 1998, Congress approved a \$960,000 increase to the IRM Pool specifically dedicated to collections information systems (CIS) needs. The FY 2006 appropriation included an increase of \$1 million to establish another Institution-wide program — the Collections Care and Preservation Fund (CCPF). The CCPF provides resources for the highest priority collections management needs throughout the Institution to improve the overall stewardship of Smithsonian collections.

The budget request includes an increase of \$2,400,000 in the Institution-wide programs for the Collections Care Initiative. The budget request also includes an increase of \$900,000 for collections needs for the National Zoological Park (NZIP), which is justified here to strategically address critical collections care needs, but is included in the NZIP unit narrative of this budget submission.

## **ADDITIONAL BACKGROUND AND CONTEXT — COLLECTIONS CARE INITIATIVE**

Collections stewardship and Broadening Access through digitization are a key component and core priority of the Smithsonian's Strategic Plan. Assembled over 167 years, Smithsonian collections are fundamental to carrying out the Institution's mission and Grand Challenges, serving as the intellectual base for scholarship, discovery, exhibition, and education. As recognized by the America COMPETES Act reauthorization, the proper management, documentation, preservation, and accessibility of collections are critical to the nation's research and education infrastructure, enabling researchers to address such significant challenges facing society as the effects of climate change, the spread of invasive species, and the loss of biological diversity and its impact on the global ecosystem. The Institution must substantially improve collections care to ensure that Smithsonian collections remain available for current and future use. The volume, characteristics, complexity, and age of Smithsonian collections, as well as the variety of discipline-specific standards that apply to their care, make their management and digitization as unprecedented, challenging, and complex as the collections themselves.

Currently, Smithsonian collections total 137 million objects and specimens; more than 137,000 cubic feet of archives; and two million library volumes and materials, including rare books. Among the vast collections are irreplaceable national icons, examples of everyday life, and scientific material vital to the study of the world's scientific and cultural heritage, covering subjects from aeronautics to zoology. Through its collections, the Smithsonian presents the astonishing record of American and international artistic, historical, cultural,

and scientific achievement, with a scope and depth that no other institution in the world can match. As the steward of the national collections, the Smithsonian has the unique responsibility and historic tradition of preserving and making accessible its collections that are held in trust for the public.

Collections stewardship — the systematic development, documentation, management, preservation, and use of collections — is not a single process or procedure but a series of components which are interwoven, interdependent, and ongoing. The condition of facilities housing collections, the quality of storage and preservation, and the ability to document collections in manual and digital formats directly affect the Smithsonian's ability to make collections available to scholars and the general public worldwide. Because collections stewardship is fundamental to the Smithsonian's mission, there is a critical need for new resources to accomplish basic collections management activities for accountability, preservation, storage, digitization, and accessibility of the collections.

The Administration has defined stewardship of federal scientific collections as a key priority that is critical for maintaining America's excellence and leadership in science and technology. Smithsonian scientific collections serve an important role in public health and safety, national security, trade and economic development, medical research, and environmental monitoring. In addition, Smithsonian cryo-collections support the use of new technologies in emerging Institution-wide and national research initiatives.

Improved care of collections is a national priority. In early 2009, the Interagency Working Group on Scientific Collections (IWGSC), established by the Committee on Science of the National Science and Technology Council and co-chaired by the Smithsonian, issued a report on the current state of federal scientific collections and provided recommendations for their management and use. The Smithsonian has made excellent progress at raising the level of collections care and accessibility with improved collections care funding in recent years, and is now a leader in the federal community. The Smithsonian's collections care initiative and the FY 2014 requested increase directly support the recommendations of the IWGSC report, *Scientific Collections: Mission-Critical Infrastructure for Federal Science Agencies*, the Organization for Economic Cooperation and Development Global Science Forum, and the America COMPETES Act reauthorization, by taking a systematic approach to safeguarding collections for current and future generations of researchers and scientists.

## **MEANS AND STRATEGY — RESEARCH EQUIPMENT POOL**

The Smithsonian's ambitious research agenda requires appropriate equipment to reach its goal of Excellent Research. This basic equipment infrastructure requires regular maintenance, upgrades, and routine replacement.

With the current allocation, the Institution will strive to prioritize and address the many research needs throughout the Smithsonian community.

### **MEANS AND STRATEGY — LATINO INITIATIVES POOL**

To achieve the goal of Broadening Access through research, exhibitions, collections, performing arts, and educational initiatives, the Latino Initiatives Pool provides annual funding for Smithsonian programs that focus on U.S.-Latino experiences and contributions to science, history, art, music, and society. Pool funds enhance the Smithsonian's ability to provide relevant programming through the support of exhibits, collections management, public programs, education, research, and community/public outreach and the acquisition of Latino art and artifacts. Projects are selected on a competitive basis from proposals that demonstrate effective deployment of the pool funds, other Smithsonian resources, and external funding.

### **MEANS AND STRATEGY — COLLECTIONS CARE INITIATIVE**

To achieve the goals of Strengthening Collections and Broadening Access, resources will be applied to address these most critical collections areas:

- Collections care and preservation; and
- Collections information systems

The collections care and preservation resources will enable the Smithsonian to implement an Institution-wide collections assessment program, properly preserve collections, and store them in better conditions for use; the collections information systems resources will further the digitization of collections information and images, and provide improved public access to the national collections through the World Wide Web and mobile applications.

Smithsonian management acknowledges that an effective strategy for addressing collections challenges depends on a coordinated, Institution-wide approach. Three important pan-Institutional initiatives currently under way inform the Smithsonian's strategies, budget request, and the allocation of resources:

- the implementation of an Institution-wide collections assessment that guides long-term strategic plans for collections, identifying areas where improvements are needed, establishing priorities, measuring progress, and providing a practical framework for the allocation of collections resources;
- the implementation of a Digitization Strategic Plan to guide the digitization of collections and research holdings, including the issuance of central policy guidance, development of unit digitization plans and asset management plans, and documentation of progress in the digitization of collections; and



- the implementation of Institution-wide collections space planning to survey the current condition of Smithsonian collections space and develop a framework plan for addressing current and projected Smithsonian-wide collections space requirements.

- **Collections Care and Preservation**

The Smithsonian has made significant progress at raising the level of collections care and accessibility with targeted collections care funding. Through collections assessments, long-term planning, and prioritization, the Smithsonian is Strengthening Collections in a pragmatic, strategic, and integrated manner. Holistic collections-level management has capitalized on economies of scale and enabled comprehensive collections care improvements that benefit the greatest number of collections items in an efficient, practical, and cost-effective way.

In FY 2010, the Smithsonian conducted an Institution-wide collections condition assessment. As part of the assessment, Smithsonian collecting units grouped and evaluated their collections holdings by defined pragmatic subunits, based on their management and use, and characterizing the quality of collections storage equipment, objects housing, preservation, physical access, space, and information content. Based on the collections assessment results, this budget request will target specific collections and improve substandard aspects of collections care to an acceptable level, providing essential resources to meet professional standards of collections care, correct specific collections management deficiencies identified in the Smithsonian's Inspector General audit recommendations, and address the Institution's highest priority collections management needs. This will enable the Smithsonian to use the requested funds in the most efficient and cost-effective manner possible.

During FY 2011, as part of the Institution's collections space planning initiative, the Smithsonian completed a survey of existing collections space — representing more than 2.1 million square feet of space, or 18 percent of total Smithsonian building space. The baseline data provides a snapshot of current collections space conditions across the Institution. To address near-term space requirements based on the collections space survey and collections assessment, the Smithsonian requests Capital funding to address the most severe collections space deficiencies at the Garber Facility in Suitland, Maryland. Constructed in the 1950s and 1960s, the Butler-style buildings were originally designed as temporary structures. Although some buildings have been added or replaced, most have long passed their useful lifespan, are structurally compromised or failing, and are substandard facilities for housing collections — environmental conditions are inadequate and hazardous to collections, including asbestos and lead-containing dust contamination, while

overcrowding severely restricts physical access, preservation, and use of the collections. The Facilities Capital request supports the decontamination, accountability, stabilization, crating, and move of National Museum of American History (NMAH) and National Postal Museum (NPM) collections in Building 15, which will be the first step towards a phased redevelopment plan for the Garber Facility.

The Collections Care and Preservation Fund provides vital resources to assure the Institution meets its collections stewardship responsibilities and makes progress toward addressing the Smithsonian's critical collections needs. Collections care funding provides resources for the Smithsonian to implement the Institution-wide collections assessment program, address the Smithsonian Inspector General's collections-related audit recommendations, and improve the preservation, storage, and accessibility of collections currently at risk of loss or damage.

The Smithsonian will strategically correct collections care deficiencies identified in the Institution-wide collections assessment that serves as a model for use by museums and federal agencies in the management and preservation of collections. Stewardship of collections is a key component of the Smithsonian's mission and a core priority of the Smithsonian's Strategic Plan, as well as a national priority critical to the country's research infrastructure. Collections care funding directly supports the Smithsonian's overarching goal of strengthening the preservation and accessibility of collections that are vital to current and future scholarly research, education, and the nation's scientific enterprise.

In FY 2014, the Smithsonian will continue to build on these initiatives and follow an action plan for strategically addressing the critical preservation and storage needs of collections, based on the results of the Institution-wide collections assessment and collections space survey.

- **Collections Information Systems**

The Digitization Program Office (DPO) leads the implementation of the first-ever Institution-wide digitization strategic plan. Increasing the quantity and quality of digital inventory records and digital images advances each of the major goals of the Smithsonian's Strategic Plan, and is a basic requirement for Broadening Access, Revitalizing Education, and Strengthening Collections. The DPO has successfully implemented a framework of digitization policies, metrics to account for the state and progress of digitization, and pan-Institutional digitization priorities to guide resource allocations and planning. The FY 2011 Digitization Progress Survey showed that the Smithsonian needs to create 17 million digital inventory records and 25 million digital images for its museum, archival, and library collections holdings to successfully digitize priority collections. Priorities for digitization are Institution-wide guidance and unit digitization plans, which highlight

inventory control, compelling research interest, education, and preservation as the primary drivers of the digitization program. A study by the Smithsonian's Office of Policy and Analysis (OP&A) in FY 2013 will recommend a cost-effective operational model for digitization to ensure that digitization funding yields optimal return on investment.

The DPO budget request, described in the Office of the Chief Information Officer section, supports cost-efficient operational models for digitizing Smithsonian collections systematically at scale, and for executing on priorities as identified by digitization assessment data and unit digitization plans. The requested funding increase will establish workflow prototypes for common collection materials (for example, photographs, prints or audio-visual materials) which can be leveraged across many units, and scaled up as additional funds become available. Establishing standard rapid digitization for common collection materials ensures maximum return on investment for Smithsonian digitization funding, and will improve access to assets for scientific inquiry and public engagement, particularly for audiences unable to visit the collections in person.

Smithsonian collections information systems (CIS) serve as a foundation for accountability, public education, and research of the Institution's collections. Digitizing collections information supports the strategic goals of Strengthening Collections and Broadening Access by improving accountability and accessibility of the national collections via the Web and mobile applications. CIS resources directly support the Institution's mission and Grand Challenges by building and maintaining core collections information systems; funding the continued digitization of collections; and improving access to digital collections information for scientific inquiry and public engagement. Successful results of past funded projects include:

- the digitization of millions of collections records and images made available to researchers and the public;
- the migration of millions of records from obsolete legacy database systems to stable and accessible collections information systems;
- the improved accountability of registration-level records with curatorial research, digitized legal documentation, and verified provenance;
- the sharing of scientific data with researchers and scientists around the globe;
- the purchase and customization of a digital asset management system used by multiple Smithsonian units, which delivers images to the Enterprise Digital Asset Network (EDAN); and
- the purchase and implementation of a single, commercial collections information system for the Smithsonian's six art museums as well as the National Air and Space Museum, the National Postal Museum, the Anacostia Community Museum, and the National Museum of African American History and Culture.

## **MEANS AND STRATEGY — INFORMATION RESOURCES MANAGEMENT POOL**

Digitization funding directly supports the Smithsonian's ambition to serve a national and international audience online, offering important collections that are not currently on exhibit, and the need to document collections for improved inventory control. Creating a portfolio of rapid capture prototypes to address some of the Smithsonian's most commonly held collection materials establishes an infrastructure for standardized high-throughput digitization which brings the Smithsonian one step closer to sharing its collections with the world. Because collections stewardship is fundamental to the Smithsonian's mission, there is a critical need for new resources to accomplish basic collections management activities for accountability, preservation, storage, digitization, and accessibility of the collections.

IRM Pool funds support network operations and server administration. Specifically, funds are used for:

- Upgrades and enhancements to the Smithsonian's IT infrastructure
- Contractor support in the Network Operations Center
- Provision of Active Directory and desktop migration technicians
- Network hardware/software maintenance
- Digitization of collections information and images
- Public delivery of Smithsonian digital assets

## **EXPLANATION OF CHANGE (COLLECTIONS CARE INITIATIVE)**

The FY 2014 budget estimate for Institution-wide programs includes an increase of \$2,400,000 for the Collections Care and Preservation Fund. This request directly supports the Smithsonian's Strategic Plan to continually improve the quality of collections preservation, storage space, management, information content, and physical and electronic access while leveraging resources to support Institution-wide initiatives that strategically address Smithsonian collections care. Collections care funding directly supports the Smithsonian's overarching goal of improving the preservation of and accessibility to the collections that are vital to current and future scholarly research, education, and the nation's scientific enterprise.

The increase requested will assist in achieving the strategic goal of Strengthening Collections by improving collections management, mitigating collections deterioration, and supporting Smithsonian-wide initiatives that strategically address the Institution's most critical collections care needs.

- **Collections Care and Preservation Fund (+\$2,400,000)**

This budget increase provides essential resources to meet professional standards of collections care. These funds will support and maintain an integrated, strategic and pan-Institutional approach to collections care by

prioritizing and systematically addressing critical collections care needs based on current collection care methodologies, sound assessment data, economies of scale, and project-driven activities, including collections moves. The increases are as follows:

- (+\$1,000,000) to address the Smithsonian's Inspector General audit recommendations regarding specific deficiencies in collections management at NMAH and NMNH. The funding increase will strengthen inventory controls, documentation, preservation, and storage, thereby improving collections accountability and accessibility.
- (+\$400,000) to stabilize, conserve, re-house, catalogue, and digitize collections for long-term preservation and accessibility. Collections, by their nature and use, are subject to deterioration. The increase will improve the preservation, management, and accessibility of collections identified as being at risk during the collections condition assessment.
- (+\$400,000) to purchase storage units and drawers to replace storage cabinetry identified during the collections condition assessment and collections space survey as obsolete and substandard, which is detrimental and hazardous to collections, staff, and researchers. Providing sufficient, secure, and appropriate storage equipment is the most effective and efficient way to minimize physical and security risks to the collections and to improve overall accessibility. The purchase of such cabinetry is a lasting investment in the long-term preservation of Smithsonian collections.
- (+\$350,000) to support the management and preservation of the Smithsonian's cryo-collections held by NZP, NMNH, and STRI, totaling nearly 1 million samples of frozen tissue products, germ-plasma, embryos, DNA, and animal / plant products from more than 18,500 species. This increase will leverage the shared expertise and resources dispersed across the Institution to support an integrated, pan-Institutional, and efficient approach to curation and data sharing of these frozen collections to ensure their accessibility for scientific research worldwide.
- (+\$250,000) to provide care and support for collections of digital art and time-based media across the Institution, implementing best practices in the acquisition, documentation, and long-term preservation of this growing and fragile collection material. This increase will position the Smithsonian as a leader in the acquisition, care, and exhibition of digital art and time-based media in the professional museum community.

- **Unit-Based Collections Care and Preservation (+\$900,000)**

This budget increase provides the National Zoological Park (NZIP) with resources to support the welfare and care of the animal collection. Excellence in animal care is paramount for maintaining the Zoo's accreditation by the Association of Zoos and Aquariums (AZA), as well as for maintaining compliance with the Animal Welfare Act. The requested increase supports animal nutrition, and will cover increasing health care costs as well as necessary supplies, operational, enrichment, and transportation costs needed to care for the animal collection. Additional details are provided in the NZP unit narrative of this budget submission.

## OFFICE OF EXHIBITS CENTRAL

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	28	3,007	5	165	0	71	0	1
FY 2013 ESTIMATE			3	165	0	0	0	0
FY 2014 ESTIMATE	28	3,048	3	165	0	0	0	0

### STRATEGIC GOALS: BROADENING ACCESS AND MISSION ENABLING

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Broadening Access</b>							
<i><b>Exhibitions</b></i>							
Offer compelling, first-class exhibitions	23	2,429		23	2,465	0	36
<b>Mission Enabling</b>							
<i><b>Management Operations</b></i>							
Ensure that the Smithsonian workforce is efficient, collaborative, committed, innovative, and diverse	5	578		5	583	0	5
<b>Total</b>	<b>28</b>	<b>3,007</b>		<b>28</b>	<b>3,048</b>	<b>0</b>	<b>41</b>

### BACKGROUND AND CONTEXT

The mission of the Office of Exhibits Central (OEC) is to be a full-service design, editing, and production shop supporting Smithsonian public exhibitions; serving units within the Smithsonian that have no design, editing or production capabilities; providing the entire Smithsonian exhibition community with specialized skills and equipment; and supporting resource-sharing among units.

To achieve the strategic goal of Broadening Access, the OEC will continue to focus on its core mission of designing and producing exhibitions for the Institution. Clients with limited or no design or production capabilities can use the OEC for full exhibition services, including design, editing, graphics production, cabinetry, model making, and crating. The OEC fosters collaboration among units by providing consultations, especially in the early stages of an exhibition. With their broad array of skills, the OEC team of experts can network across the entire Smithsonian, resulting in more compelling exhibits that connect the American people to their history and cultural

and scientific heritages. For clients who need specialized services, the OEC will continue to develop its expertise in computer-controlled production and automated modeling technologies, such as 3D scanning and printing. In addition, the OEC will provide opportunities for Smithsonian colleagues to take advantage of its state-of-the-art facility, allowing trained staff to work with its specialized equipment. The OEC's Object Storage Facility (OSF) offers secure, climate-controlled storage for artifacts during production.

The OEC's Special Exhibitions Division (SED) will continue supporting exhibitions in the S. Dillon Ripley Center galleries, as well as in the Commons, Schermer, and Great Hall galleries in the Smithsonian Castle.

The budget request includes an increase of \$41,000 for necessary pay and other related salary costs for existing staff funded under this line item.

## **MEANS AND STRATEGY**

As the most comprehensive producer of exhibits, the OEC is dedicated to providing its Smithsonian clients with first-class exhibition design, editing, production, and installation services. Each year, the OEC designs and produces approximately 100 projects, large and small, for almost every office and museum in the Smithsonian.

In FY 2014, most OEC resources will be focused on achieving the goals of Broadening Access and Mission Enabling by improving the quality of exhibition design and production at the Smithsonian. This will be done by:

- improving the quality of exhibition design, consultation, production, and installation services
- increasing and maintaining staff knowledge and expertise in state-of-the-art technology, techniques, and advances in the exhibition field, and upgrading equipment to support emerging trends
- cross-training staff within the OEC to share expertise and maximize efficiencies
- providing industry demonstrations of new technologies to Smithsonian units
- playing a lead role in the Exhibition Redesign Team's commitment to exhibition excellence, unit sharing, and advancement

The OEC will accomplish these objectives by focusing exclusively on exhibit-related work, freeing up OEC staff with specialized experience to concentrate on OEC's core mission: the design and production of exhibits. Building on well-established, collaborative relationships with other Smithsonian design and production units, OEC will play a stronger role in sharing their expertise with other Smithsonian units. These initiatives should result in a more informed and expert staff capable of promoting collaboration in the museum community, and dedicated to making the Smithsonian a leader in the exhibition field.

**NONAPPROPRIATED RESOURCES** — General trust funds support salaries and benefits of personnel and associated costs for the OEC's record-keeping system and specialized computer support.



## MUSEUM SUPPORT CENTER

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	23	1,871	0	0	0	0	0	0
FY 2013 ESTIMATE			0	0	0	0	0	0
FY 2014 ESTIMATE	23	1,897	0	0	0	0	0	0

### STRATEGIC GOAL: STRENGTHENING COLLECTIONS

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Strengthening Collections</b>							
<b><i>Collections</i></b>							
Improve the stewardship of the national collections	23	1,871		23	1,897	0	26
<b>Total</b>	<b>23</b>	<b>1,871</b>		<b>23</b>	<b>1,897</b>	<b>0</b>	<b>26</b>

### BACKGROUND AND CONTEXT

The Museum Support Center (MSC) is the Smithsonian's principal off-site collections preservation and research facility. Located in Suitland, Maryland, this facility houses more than 55 million objects, or 40 percent of the Institution's irreplaceable national collections, primarily from the National Museum of Natural History (NMNH). Other Smithsonian museums that use MSC are the National Museum of American History, the Hirshhorn Museum and Sculpture Garden, the Freer and Sackler Galleries, the National Museum of African Art, the National Postal Museum, the Smithsonian Environmental Research Center, and the National Zoological Park. Recently, the MSC has greatly expanded the capacity of the facility by renovating a Pod, and by installing high-density mobile storage systems. This Pod was renovated using LEED principles. The MSC accommodates collections in a variety of state-of-the-art equipment: collections in cabinets; mobile shelving for biological specimens preserved in alcohol; meteorites in nitrogen atmosphere, and tissues and film in mechanical and nitrogen vapor freezers; high-bay storage for very large objects such as totem poles, boats, and large mounted mammals; and large mobile racks for storing art.

The facility also houses laboratories for molecular systematics, conservation, and other specialized research. The MSC supports contracted maintenance services and required calibration for much of the specialty collections preservation and laboratory equipment, such as environmental chambers, freezers, nitrogen systems, fume hoods, reverse osmosis water systems, and oxygen detection systems. The MSC staff provides disaster response and management services, including a hazardous response team; construction coordination and logistics support; safety and pest control; collections relocation; administrative, shipping and receiving services; and computer support services for administrative, research, and collections data management needs.

The budget estimate includes an increase of \$26,000 for necessary pay and other related salary costs for existing staff funded under this line item.

## **MEANS AND STRATEGY**

To support the Smithsonian strategic goal of Strengthening Collections, the FY 2014 funding will be used to enhance pest management, improve storage of hazardous collection materials, upgrade finding aids for oversized collections, and assist museum staff in improving storage of collections at MSC. Staff will also work on recovering from the earthquake of August 2011, moving 10,000 cabinets filled with collections to allow contractors to repair structural damage, and stabilizing broken and unsecured collection objects to protect them and prevent future damage.

In FY 2014, MSC staff will continue to support maintenance of the collections and the research equipment needed to protect staff and collections. In addition, the MSC will prepare for the multi-phased master plan renovations at the Center, which will improve and update support systems and laboratory spaces at the facility.

## MUSEUM CONSERVATION INSTITUTE

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	22	3,231	0	26	1	146	0	92
FY 2013 ESTIMATE			0	20	1	249	0	228
FY 2014 ESTIMATE	22	3,276	0	20	1	143	0	147

**STRATEGIC GOALS: EXCELLENT RESEARCH; BROADENING ACCESS;  
REVITALIZING EDUCATION; STRENGTHENING COLLECTIONS; AND  
MISSION ENABLING**

### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Performance Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Excellent Research</b>							
<i><b>Research</b></i>							
Engage in research and discovery	7	1,049		7	982	0	-67
<b>Broadening Access</b>							
<i><b>Digitization and Web Support</b></i>							
Provide improved digitization and Web support	0	0		1	93	1	93
<i><b>Public Programs</b></i>							
Provide reference services and information	1	123		1	131	0	8
<b>Revitalizing Education</b>							
<i><b>Education</b></i>							
Engage and inspire diverse audiences	1	91		1	144	0	53
<b>Strengthening Collections</b>							
<i><b>Collections</b></i>							
Improve the stewardship of the national collections	8	1,182		7	1,118	-1	-64
<b>Mission Enabling</b>							
<i><b>Management Operations</b></i>							
Strengthen an institutional culture that is customer centered and results oriented	4	680		4	700	0	20
Modernize the Institution's financial management and accounting operations	1	106		1	108	0	2
<b>Total</b>	<b>22</b>	<b>3,231</b>		<b>22</b>	<b>3,276</b>	<b>0</b>	<b>45</b>

## **BACKGROUND AND CONTEXT**

The Smithsonian's Museum Conservation Institute (MCI) is the center for specialized technical collections research and conservation for all Smithsonian museums and collections. The MCI combines knowledge of materials and the history of technology with state-of-the-art instrumentation and scientific techniques to provide technical research studies and interpretation of artistic, anthropological, biological, and historical objects. Through its *Healthy Environments, Healthy Practices, Healthy Collections* initiative and the training program "Preventing Illicit Trafficking — Protecting Cultural Heritage," the MCI responds to the threats affecting cultural heritage in multiple and complex ways, including developing less invasive and damaging storage, display, and conservation techniques, and by supporting U.S. agencies and the museum community in understanding and identifying illicitly trafficked cultural heritage.

The MCI, as the only Smithsonian resource for technical studies and scientific analyses for most of the Smithsonian's collections, brings unique analytical capabilities to Smithsonian researchers, including a central mass spectroscopy instrument core and advanced technological capabilities. These services are available to Smithsonian units at no charge. In addition to requests for consultations from within the Smithsonian, the MCI responds to requests from affiliates and outside organizations, such as the White House, U.S. Congress, U.S. Department of Homeland Security — Immigration and Customs Enforcement, U.S. Department of State, and other federal, museum, and academic organizations.

The budget estimate includes an increase of \$45,000 for necessary pay and other related salary costs for existing staff funded under this line item.

## **MEANS AND STRATEGY**

To achieve the strategic goal of Excellent Research, the MCI will provide increased technical and research assistance to the museums and scientific research centers. The MCI will initiate, facilitate, and support collaborative research projects on biological isotopes and proteomics, nanoscale analysis of museum materials, modern museum and collection materials such as plastics, the mechanisms of degradation and biodeterioration, and historical and archaeological technologies. The MCI will also use its website, publications, hosted symposia, presentations, invited seminars, and lectures to disseminate the results of its research programs.

The MCI's technology transfer initiatives (digital and spectroscopic imaging, proteomics, modern materials, and biodeterioration) will cross all of the boundaries between Smithsonian units and support all of the Institution's Grand Challenges and consortia. The MCI's exploration of new technologies in spectroscopic imaging and proteomics will support the Grand Challenges of

Unlocking the Mysteries of the Universe and Understanding and Sustaining a Biodiverse Planet, respectively. MCI's exploration of materials science related to modern materials will support the Grand Challenge of Understanding the American Experience and its research program on The Age of Plastic. Biodeterioration research will use technology from Sustaining a Biodiverse Planet to support the Grand Challenge of Valuing World Cultures. The MCI's investigations of historical and archaeological materials and technologies will also support Valuing World Cultures.

To achieve the goal of Broadening Access, the MCI's technical information office will continue serving the museum and cultural heritage management communities, museum studies students, and the public. The technical information office answers direct inquiries and distributes general guidelines in printed and electronic formats, handling more than 800 information requests annually. MCI's website will be enhanced to increase the impact of the Institute's research and outreach programs. In addition, MCI is contributing to the Smithsonian's initiative in digitization and new media by developing new digital imaging capabilities appropriate for Facebook, Twitter, YouTube, Flickr, blogs, mobile applications, podcasts and virtual reality in ways that broaden public access to collections, exhibitions, and outreach programs.

The MCI will achieve the goal of Revitalizing Education by continuing to promote career development for Smithsonian conservators and other collections care providers through Grand Challenge consortia participation, colloquia, symposia, and workshops, as well as distance-learning opportunities. The MCI, in collaboration with Smithsonian museums and affiliates, will offer public programs to present the results of MCI research, heighten awareness of the problems of preserving cultural heritage, and gain information about the nature and scope of problems that the Institute's constituencies encounter. The MCI will also collaborate with Smithsonian museums and affiliates to offer media events, printed and Internet materials, presentations, workshops, and demonstrations to reach new audiences, especially those that will be targeted by the Institution's newest museums. The MCI will continue to offer internships for students pursuing careers in conservation and conservation science.

To achieve the goal of Strengthening Collections, the MCI will support Smithsonian museums and research centers in their efforts to care for the national collections and disseminate that information to the larger museum community and the public. The MCI will continue its study of the assessment and remediation of collection hazards. In addition, the MCI will focus on developing and using less invasive and less damaging materials and procedures for collection conservation, reflecting the importance of incorporating energy-efficient and "green" materials and practices into the Institute's work. The MCI will pursue collaborative conservation treatment projects with other Smithsonian units to provide conservation guidance and art history technical consultations to the art and history museums for their more challenging and unique objects. Through

continuing communication and interaction with museum conservators, the MCI will identify special training needs and research projects, and will develop research and symposia to address the most urgent collections preservation needs, such as museum environments (involving light, temperature, and humidity), museum hazards (such as pests and pesticides), and collections storage.

The MCI's umbrella theme, *Healthy Environments, Healthy Practices, Healthy Collections*, directly supports the Smithsonian's Strategic Plan priorities in all four Grand Challenge areas, although its primary impact will be in Understanding the American Experience and Valuing World Cultures.

To achieve the goal of Mission Enabling, the MCI will use the Smithsonian's Strategic Plan and its own strategic plan to allocate its budgetary and human resources, and to secure additional financial resources for its high-priority programs. Resource allocations will be tracked against performance metrics in each of the strategic areas, and against the needs and goals of the Smithsonian's museums and research centers. The MCI will encourage staff to participate in budget-performance integration, succession management, and leadership development programs. In addition, the MCI will continue to implement and communicate efficient, rational, and creative operational and administrative practices which enable staff to advance the Smithsonian mission while ensuring that resources are wisely managed in a manner that reflects transparency and the Smithsonian's status as a public trust. The MCI will maintain an efficient, collaborative, committed, innovative, and accountable workforce through leadership, development, evaluation, and support of staff and the recruitment, selection, and development of diverse, highly skilled employees. The MCI will promote diversity in all aspects of working with the Institution's operations, employees, Fellows, interns, and vendors. Finally, the MCI will continue to improve communications with internal and external stakeholders.

**NONAPPROPRIATED RESOURCES** — Annually, the MCI receives non-appropriated resources from gifts and endowments, grants and contracts, discretionary income, and business ventures. These sources provide funds for specific programs and projects in research, education, and outreach designated by the donor/sponsor and for general activities at the discretion of the director. The Andrew W. Mellon Foundation challenge grant provides a restricted endowment of \$5 million, with an annual payout of approximately \$250,000. The funds released by the endowment will remain in the MCI budget for strengthening conservation science research.

## SMITHSONIAN INSTITUTION ARCHIVES

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	20	2,189	4	451	2	220	0	21
FY 2013 ESTIMATE			6	535	0	0	1	43
FY 2014 ESTIMATE	20	2,220	6	542	0	0	0	0

### STRATEGIC GOALS: EXCELLENT RESEARCH; BROADENING ACCESS; STRENGTHENING COLLECTIONS; AND MISSION ENABLING

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Excellent Research</b>							
<i>Research</i>							
Ensure the advancement of knowledge in the humanities	2	217		2	220	0	3
<b>Broadening Access</b>							
<i>Digitization and Web Support</i>							
Provide improved digitization and Web support	2	143		2	149	0	6
<i>Public Programs</i>							
Provide reference services and information	3	284		3	290	0	6
<b>Strengthening Collections</b>							
<i>Collections</i>							
Improve the stewardship of the national collections	10	1,115		10	1,126	0	11
<b>Mission Enabling</b>							
<i>Management Operations</i>							
Strengthen an institutional culture that is customer centered and results oriented	3	430		3	435	0	5
<b>Total</b>	<b>20</b>	<b>2,189</b>		<b>20</b>	<b>2,220</b>	<b>0</b>	<b>31</b>

### BACKGROUND AND CONTEXT

The Smithsonian Institution Archives (SIA) serves as the institutional memory of a unique cultural organization. The history of the Smithsonian, in many ways, is the history of scientific enterprise in America, particularly in the 19th century. SIA supports the Smithsonian community, scholars, and the public by evaluating, acquiring, and

preserving the records of the Institution and related documentary materials, as well as making them accessible online and on site. SIA manages the care, storage, packing, and retrieval services for most of the Institution's records. The permanent records are safeguarded and preserved in leased facilities in Washington, DC and Iron Mountain in Boyers, Pennsylvania. Electronic records are supported on SIA-owned computer servers and at the Institution's data center in Herndon, Virginia. In addition, SIA develops policies and provides guidance for managing and preserving the Institution's vast archival collections, offers a range of reference, research, and record-keeping services, and creates products that promote understanding of the Smithsonian and its history and mission.

The budget estimate includes an increase of \$31,000 for necessary pay and other related salary costs for existing staff funded under this line item.

## **MEANS AND STRATEGY**

In FY 2014, SIA will continue to focus on capturing, preserving, and providing access to research materials on Smithsonian history. SIA will continue to support the needs of thousands of researchers seeking information from the Archives; provide online access to ever more information from or about the holdings via its robust website; collaborate fully with units serving broad external audiences (such as The Smithsonian Associates and the Smithsonian Affiliations Program); set archival collections-management standards; and assist all Smithsonian units with the proper disposition of their records.

An ongoing challenge will be to care for and preserve the historical photographic collection that documents the visual history of the Institution. Currently, this collection is at risk in an aging, cold-storage vault facility located in the basement of the National Museum of American History. The vault is rapidly reaching the end of its useful lifespan, thereby jeopardizing the safekeeping of those photographic collections. SIA is working to secure private funding to install a new cold-storage vault, which will provide pan-Institutional collections storage. SIA will re-house, stabilize, and move its nearly three million negatives and color transparencies to this new cold-storage vault to ensure the continued preservation of the Institution's photographic collection.

**NONAPPROPRIATED RESOURCES** — General trust funds support SIA's basic operational costs, such as office, archival, and conservation supplies; software licenses; and maintenance of high-end equipment. Trust funds also support the salaries and benefits of archivists and conservators, their work to manage and preserve the collections of the Institution, and their efforts to provide professional conservation expertise throughout the Smithsonian, to other institutions, and to the public. Additionally, general trust funds support SIA's Web and new media outreach program that seeks to expand the awareness, use, and accessibility of SIA's collections and resources. Greater knowledge about these collections and other resources will illuminate the Smithsonian's catalytic role in American history, world cultures, scientific research, and the arts. Finally, general trust funds support salaries and benefits of development staff to support donor cultivation and fundraising activities for SIA.



## SMITHSONIAN INSTITUTION LIBRARIES

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	86	9,967	11	1,608	4	1,770	0	0
FY 2013 ESTIMATE			11	1,842	5	1,084	0	0
FY 2014 ESTIMATE	86	10,402	11	1,786	5	970	0	0

### STRATEGIC GOALS: EXCELLENT RESEARCH; BROADENING ACCESS; STRENGTHENING COLLECTIONS; AND MISSION ENABLING

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012-2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Excellent Research</b>							
<i><b>Research</b></i>							
Engage in research and discovery	17	2,976		22	3,242	5	266
Ensure the advancement of knowledge in the humanities	21	2,396		21	2,423	0	27
<b>Broadening Access</b>							
<i><b>Digitization and Web Support</b></i>							
Provide improved digitization and Web support	6	516		8	900	2	384
<i><b>Public Programs</b></i>							
Provide reference services and information	4	365		0	71	-4	-294
<i><b>Exhibitions</b></i>							
Offer compelling, first-class exhibitions	1	74		1	71	0	-3
<b>Strengthening Collections</b>							
<i><b>Collections</b></i>							
Improve the stewardship of the national collections	24	1,994		23	2,221	-1	227
<b>Mission Enabling</b>							
<i><b>Management Operations</b></i>							
Ensure that the Smithsonian workforce is efficient, collaborative, committed, innovative, and diverse	1	109		1	112	0	3
Strengthen an institutional culture that is customer centered and results oriented	12	1,537		10	1,362	-2	-175
<b>Total</b>	<b>86</b>	<b>9,967</b>		<b>86</b>	<b>10,402</b>	<b>0</b>	<b>435</b>

## **BACKGROUND AND CONTEXT**

As the largest and most diverse museum library in the world, the Smithsonian Institution Libraries (SIL) leads the Smithsonian in taking advantage of the opportunities of the digital society. SIL provides authoritative information and innovative services for Smithsonian Institution researchers, scholars, visiting Fellows, and the general public, to further their quest for knowledge. Through paper preservation and digital technologies, SIL ensures broad and enduring access to the Libraries' collections for all users.

The budget request includes an increase of \$435,000. The increase includes an increase of \$135,000 for necessary pay and other related salary costs for existing staff funded under this line item, and an increase of \$300,000 for inflationary increases in library subscriptions. Both of the above increases are included in the Fixed Costs section of this budget submission.

## **MEANS AND STRATEGY**

SIL's strategic plan for 2009–2013, *A Focus on Service*, demonstrates the Libraries' dedication to providing information and creating innovative services and programs for the Institution and general public. SIL offers a wide variety of information resources (digital and print), and discovery tools to improve research productivity in support of the four Grand Challenges and Smithsonian Strategic Plan priorities. In FY 2014, SIL will continue to broaden interactive engagement with users — through experimentation, trial projects, and Web-based communities — making SIL collections and other Web content available to millions of scholars, students, teachers, researchers, and interested people worldwide. SIL will expand its use of social media by making information available on mobile and tablet devices and by using blogs, Facebook, Twitter, and other emerging social media tools to promote services and broaden access to collections.

SIL will enhance access by offering more useful collections information on networked resources. Initiatives include implementing Web-based discovery and retrieval tools and continuing to add new information to the Smithsonian Institution Research and Information System (SIRIS). For example, through the Smithsonian Collections Search Center, SIL provides access to research collections covering more than 460,000 pieces of trade literature and commercial catalogues, representing more than 27,000 manufacturers, corporations, and companies. SIL also makes available the Index to Art and Artists File material from the Libraries' art collections. In addition, SIL provides metadata guidance and incorporates, as appropriate, emerging national metadata standards on an Institution-wide basis for SIL and Smithsonian digital publications and products.

SIL collaborates with other Smithsonian units and external organizations in many ways. The Libraries creates and publishes digital research products to

give scholars the documentation they need for their research in all fields. These products include republication of significant out-of-print books and articles, original diaries and manuscripts, collections of archival literature, illustrations, topical exhibitions, and bibliographic guides and databases. With the support of private funding, SIL hosts the Secretariat for the Biodiversity Heritage Library, an international project to digitize and make easily available the legacy literature of biodiversity, involving partners in the United States, China, Egypt, the European Union, Australia, and Brazil and sub-Saharan Africa. SIL continues digitizing its own biodiversity literature to contribute to this digital library. In FY 2014, SIL will increase digitization projects in history, arts, and culture as part of the Smithsonian Libraries initiative, the Cultural Heritage Library. As a member of the Global Philatelic Library project, SIL's National Postal Museum branch library will be able to make its unique collections available to a wider audience.

SIL partners with the Smithsonian Scholarly Press to produce the electronic *SI Contributions* series and other publications, including conference proceedings, and also hosts and maintains the Scholarly Press's website. SIL maintains the Smithsonian Research Online (SRO) database (<http://research.si.edu/>), comprising both the Smithsonian Digital Repository (SDR) and the Smithsonian Research Bibliography (SRB) to preserve and provide permanent access to the published results of the Institution's scholarly research. Data from the SRO are used as Smithsonian key performance indicators. As part of its collaborative operations, SIL will continue working with the Institution's art and history museums to expand the content of the SRO system, with the goal of eventually providing a complete record of Smithsonian research productivity.

Furthermore, SIL continues to supply scholarly, often rare, material that is critical to the Smithsonian's work. This involves acquiring, preserving, cataloguing, and managing print and digital collections; with particular attention to Smithsonian research centers and areas of interdisciplinary research. SIL's Book Conservation Laboratory staff work to preserve and stabilize damaged volumes to ensure their availability for exhibition and future use. Through interlibrary lending, SIL provides information directly to individual researchers and members of the public in every state and many foreign countries.

As a resource for learners everywhere, SIL responds to staff and on-site visitor needs by redesigning facilities to retain tightly focused, local collections integrated with collaborative space, while relieving overcrowded libraries by providing environmentally sound off-site shelving and housing at the Pennsy Drive facility.

In FYs 2013–2014, renovations will continue in the libraries in the National Museum of Natural History (NMNH), the Smithsonian Environmental Research Center, and the Museum Support Center, as well as at the National Zoological Park's Smithsonian Conservation Biology Institute at Front Royal, Virginia. In

addition, SIL partners with the National Museum of African American History and Culture in planning for its library space needs.

As part of its work to advance the strategic goals of Broadening Access and Excellent Research, the SIL Resident Scholar Program builds collaborative partnerships worldwide with scholarly programs and individuals who find the Libraries' collections vital to their research. An active internship program amplifies work experiences for emerging professionals and exposes them to the research library environment.

SIL informs the nation about its collections and creates interest in them through its exhibition program, which shows the intrinsic beauty of books as artifacts and cultural icons, as well as their value for the information they provide as documentation of art, science, and artifact collections. In FY 2014, SIL will present an exhibition about "Martha," the last passenger pigeon, whose death 100 years ago marked the extinction of the species. Most of the Libraries' exhibitions have an online component to reach a larger audience and keep the exhibitions updated for future learning.

#### **EXPLANATION OF INCREASE**

The budget request includes an increase of \$435,000. The estimate includes \$135,000 for necessary pay for existing staff and an increase of \$300,000 for inflationary increases in library subscriptions. Both of the above increases are included in the Fixed Costs section. The explanation for inflationary increases in library subscriptions is as follows:

- (+\$300,000) The request includes an increase to help address inflationary increases in library subscriptions. This increase will enable the Smithsonian Institution Libraries to cover the extraordinary inflation costs in purchasing journals and electronic databases which are critical to support the Institution's many research programs.

**NONAPPROPRIATED RESOURCES** — General trust funds help defray the costs of providing information services to Smithsonian units, and support publications, public programs, and fundraising efforts. In FY 2014, SIL will increase its efforts to raise funds through full participation in the Smithsonian's comprehensive fundraising campaign. The Libraries intend to focus efforts on established priorities: acquisitions, conservation, digitization, Fellowships, and exhibitions.

## OFFICE OF THE CHIEF INFORMATION OFFICER

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	91	45,920	17	3,309	0	0	0	0
FY 2013 ESTIMATE			18	2,882	0	0	0	0
FY 2014 ESTIMATE	93	49,660	17	2,882	0	0	0	0

### STRATEGIC GOALS: BROADENING ACCESS AND MISSION ENABLING

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Broadening Access</b>							
<i><b>Digitization and Web Support</b></i>							
Provide improved digitization and Web support	7	2,900		9	5,100	2	2,200
<b>Mission Enabling</b>							
<i><b>Information Technology</b></i>							
Modernize the Institution's information technology systems and infrastructure	84	43,020		84	44,560	0	1,540
<b>Total</b>	<b>91</b>	<b>45,920</b>		<b>93</b>	<b>49,660</b>	<b>2</b>	<b>3,740</b>

### BACKGROUND AND CONTEXT

The Office of the Chief Information Officer (OCIO) provides vision, leadership, policy, and oversight associated with managing and operating the information technology (IT) for the Institution's many museums and research centers.

The budget request includes an increase of 2 FTEs and \$3,740,000. The increase includes \$458,000 for necessary pay and other related salary costs for existing staff funded under this line item; \$940,000 for increased communication costs, which is further justified in the Fixed Costs section of this budget submission; \$2,200,000 and 2 FTEs in programmatic increases for digitization; and \$142,000 to fund the salaries and benefits of the deputy CIO position.

## MEANS AND STRATEGY

The OCIO will use best practices in the management and operations of information technology to enhance the “increase and diffusion of knowledge” and achieve the Institution’s goals of Broadening Access and Mission Enabling. The following strategies are cross-cutting and central to the Smithsonian’s mission of connecting Americans to their history and heritage, as well as to promoting innovation, research, and discovery in science:

- Use state-of-the-art, secure information systems to modernize financial, human resources, facilities management, collections, education, and research processes
- Replace network equipment, servers, desktop computers, and scientific workstations on an industry best practice life cycle to increase reliability and improve the security of information systems and the data that they contain
- Leverage commercially available technology to enhance existing IT systems at the Smithsonian so that they will increase public access to and use of digital surrogates of collection objects and research data; and implement an Institution-wide Digitization Strategic Plan that addresses the creation, management, and use of these digital assets
- Maintain the Institution’s telecommunications infrastructure to provide reliable, secure, and cost-effective voice and data communications systems that support Smithsonian missions
- Meet federal requirements for providing timely and accurate financial information
- Improve the Institution’s ability to integrate financial and performance management systems as part of the Enterprise Resource Planning (ERP) effort.

## EXPLANATION OF CHANGE

The budget request includes an increase of 2 FTEs and \$3,740,000. The increase includes \$458,000 for necessary pay and other related salary costs for existing staff funded under this line item; 2 FTEs and \$2,200,000 for programmatic increases for the Digitization program; \$142,000 to fund the salary and benefits of the deputy CIO; and \$940,000 for increased communications costs. The pay and other related salary costs and communications increase requests are justified in the Fixed Costs section of this budget submission.

The programmatic summary of 2 FTEs and \$2,342,000 for the requested budget increase is described in greater detail below:

- **(+\$700,000)** — Expand Digital Access — Provides critical resources to strategically correct collections care deficiencies identified by the comprehensive collections condition assessment and addressed by the Inspector General collections-related audit recommendations. The increase will improve access to assets for scientific inquiry and public engagement, and particularly benefit viewers unable to visit the collections in person. The increase will also expand the number of collections under digital inventory control. Creating adequate digital records for collections is essential to appropriately manage the collections. The requested increase will upgrade existing stub records and create standardized new records.

- **(+\$500,000)** — Digitization Program Office (DPO) — The DPO leads the implementation of the first-ever Institution-wide digitization strategic plan. Increasing the quality and quantity of digital descriptions and surrogates advances each of the major goals of the overall Smithsonian Strategic Plan, in particular Broadening Access, Revitalizing Education, and Strengthening Collections. The increase provides resources to invest in the continuing execution of the digitization strategy.

In support of all Smithsonian units, the DPO currently nurtures the 3D Digitization Center of Excellence as a cost-conscious model for investing in cutting-edge expertise and expensive digitization equipment. The increase allows the Center to continue growing its capacity to turn three-dimensional objects into electronic images which directly support the work of educators, scientists, and curators, thereby granting them access to collections and tools to engage in active research. Additional hardware and software investments will ensure 3D applications can move from pilot to program and fill gaps in the patchwork of existing and expected industry donations.

- **(+\$250,000)** — Housing the Digital Smithsonian, Storage and Backup — As the Smithsonian continues to build its digital Institution, OCIO must ensure that it offers enough storage and backup capacity to meet increasing demands. Centralized storage and backup solutions enable the sharing and exchange of digital assets both internally and with our constituents worldwide. Tools for increased capacity are increasingly driven by digitization and the larger share of research data that is born digital and that, once lost, cannot be reconstructed. External collaboration, education, and research through SharePoint software tools will also drive storage and backup needs.
- **(+\$155,000, +1 FTE)** — Digitization Asset Management System (DAMS) — Provides the Institution with a centrally supported solution for the storage, preservation, search, and re-use of its image, video, audio, and other digital assets. A standardized DAMS infrastructure is critical if the Smithsonian Institution is to use its digital holdings to meet its strategic goals, such as Broadening Access. Many of the Smithsonian's digital assets are inaccessible because they reside on locally held external hard drives and CDs, and are in danger of being lost. During FYs 2010 – 2012, DAMS grew from supporting 11 units to 40 and added support for video. Units are beginning to ingest whole collections and staff is needed to support both the system and the unit projects. In approximately two years, the system licenses will need to be doubled in order to support newer, higher processor core servers.
- **(+\$140,000, +1 FTE)** — Research and Scientific Data Repository — The OCIO Office of Research Information Services (ORIS) will assist units with managing their digital research information, from project inception to preservation and access of the data set by communities internally and externally. These funds will be used to create a software environment that encompasses the complete life cycle of data management. This will be done by hiring staff to expand the

pilot Trusted Digital Repository into a production system for the long-term preservation and access of the Institution's humanities and scientific research. ORIS is poised to fill this need by providing researchers with data management planning, preservation, and access and support services, in addition to supporting the Institution's strategic goals in education, research and Broadening Access.

- **(+\$200,000)** — SharePoint Collaboration and Forms — This increase is required to maintain the current service level agreements with units as usage continues to increase, to migrate to SharePoint 2010; to expand functionality built on the SharePoint platform to include MySite; and to implement project management on a common electronic platform. The requested increase will allow SharePoint to be used to its full potential, thereby enabling the Smithsonian to streamline processes and create a more productive work environment.
- **(+\$100,000)** — Web Analytics and Search Engine Optimization (SEO) — Web analytics and SEO software and services provide valuable information to Smithsonian webmasters to allow them to improve Web and new media experiences and better meet the needs of virtual visitors and participants. In addition, these services provide metrics to capture feedback on the Smithsonian's efforts to improve the quality and quantity of its Broadening Access initiatives through Web, new media, and mobile outreach.
- **(+\$155,000)** — Enterprise Digital Asset Network (EDAN) Support — The Smithsonian EDAN provides the Institution with a single point of access to data and associated images for all of its major collections. EDAN supports a reusable data and service infrastructure for search and retrieval of collection objects and digital assets, tagging of objects, Smithsonian creation of collection groups (e.g., a top 100), and end-user creation of personal collections (e.g., MyList). It also provides users a full-feature image delivery service with on-the-fly resizing and zoom-in/out viewer. All of this is accessible for Smithsonian-developed Web and mobile applications. Programmer support is critical to the success of Institution-wide Web and mobile projects which use Smithsonian collections to advance the Broadening Access strategic goal.
- **(+\$142,000)** — To fund the salary and benefits of the deputy CIO position, which was previously paid from non-federal resources. This increase will enable the Smithsonian to use federal funds to pay for the deputy CIO position, a position that is more appropriately compensated from federal resources in a manner consistent with how federal agencies elsewhere in the Government support this function.

**NONAPPROPRIATED RESOURCES** — General trust funds support salaries and benefits costs of personnel and other related costs of the OCIO.



## ADMINISTRATION

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	182	34,272	176	32,021	9	2,894	2	278
FY 2013 ESTIMATE			209	40,596	13	2,919	1	218
FY 2014 ESTIMATE	189	36,779	215	38,568	10	2,589	1	97

### STRATEGIC GOALS: EXCELLENT RESEARCH; BROADENING ACCESS; REVITALIZING EDUCATION; STRENGTHENING COLLECTIONS; AND MISSION ENABLING

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Excellent Research</b>							
<i><b>Research</b></i>							
Engage in research and discovery	0	20		0	20	0	0
Ensure the advancement of knowledge in the humanities	0	22		0	22	0	0
<b>Broadening Access</b>							
<i><b>Digitization and Web Support</b></i>							
Provide improved digitization and Web support	0	12		2	312	2	300
<i><b>Public Programs</b></i>							
Provide reference services and information	0	44		0	44	0	0
<i><b>Exhibitions</b></i>							
Offer compelling, first-class exhibitions	0	44		0	44	0	0
<b>Revitalizing Education</b>							
<i><b>Education</b></i>							
Engage and inspire diverse audiences	4	360		4	364	0	4
<b>Strengthening Collections</b>							
<i><b>Collections</b></i>							
Improve the stewardship of the national collections	2	238		2	281	0	43
<b>Mission Enabling</b>							
<i><b>Management Operations</b></i>							
Strengthen an institutional culture that is customer centered and results oriented	40	6,362		44	7,028	4	666
Ensure that the Smithsonian workforce is efficient, collaborative, committed, innovative, and diverse	56	11,103		58	11,763	2	660
Modernize the Institution's financial management and accounting operations	49	10,455		48	10,770	-1	315

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
Modernize and streamline the Institution's acquisitions management operations	31	5,612		31	6,131	0	519
<b>Total</b>	<b>182</b>	<b>34,272</b>		<b>189</b>	<b>36,779</b>	<b>7</b>	<b>2,507</b>

## BACKGROUND AND CONTEXT

The Smithsonian Institution Administration program provides vision, leadership, policy, and oversight associated with managing and operating the Institution's museums and research centers. Administration includes executive leadership provided by the offices of the Secretary, the Under Secretary for Science, the Under Secretary for History, Art, and Culture, the Under Secretary for Finance and Administration/Chief Financial Officer, the Assistant Secretary for Education and Access, and the Deputy Under Secretary for Collections and Interdisciplinary Support, as well as the central administrative activities of human resources, diversity, financial, and contract management, as well as legal services.

The budget request includes an increase of 7 FTEs and \$2,507,000. This request includes:

- \$634,000 for necessary pay and other related salary costs for existing staff funded under this line item, which are justified in the Fixed Costs section of this budget submission
- \$100,000 for the Central Accessibility program to cover mandated costs of reasonable accommodation services, which are justified in the Fixed Costs section
- \$174,000 increase for Workers' Compensation, which is justified in the Fixed Costs section
- \$160,000 for the annual audit of the Smithsonian's financial statements (+\$85,000) and increased processing fees for the Smithsonian's payroll services (+\$75,000), which are justified in the Fixed Costs section
- \$1,439,000 and 7 FTEs in programmatic increases to provide additional supplier diversity support to units and advocate for greater participation of small businesses in contracting (2 FTEs and \$322,000); support critical requirements to strengthen internal controls (1 FTE and \$95,000); implement Web Participant Access System (PAS), or MySI, which enables audiences to access all of the Smithsonian's content and research through one system (2 FTEs and \$300,000); two accountants to strengthen the Smithsonian's governance and financial internal controls (2 FTEs and \$272,000); and increase mandated supervisory training throughout the Institution (\$450,000).

## MEANS AND STRATEGY

The Smithsonian will use best practices in management to enhance the “increase and diffusion of knowledge” and achieve the Institution’s goals while translating James Smithson’s 19th century vision into a modern 21st century reality. The following strategies are cross-cutting and central to performing the Smithsonian’s mission of connecting Americans to their history and heritage, as well as to promote innovation, research, and discovery in science:

- Support the Institution’s Board of Regents and its committees
- Develop and implement necessary internal controls as recommended by the Board of Regents’ Governance Committee, which involves strengthening personal property management inventory and meeting increased demands for acquisition of goods and services by realigning and augmenting resources
- Provide high-quality leadership and oversight for all policies, programs, and activities of the Institution’s museums and research centers by attracting, recruiting, and retaining leaders with superior talent
- Provide oversight of the Smithsonian budget process as it is developed and executed to support the operating and capital programs of the Institution, establish and enforce budgetary policies and procedures, and ensure that resources enable the Institution to achieve its goals and objectives
- Provide high-quality legal counsel and advice to the Regents, the Secretary, Under Secretaries, advisory boards, unit directors, Smithsonian Enterprises, and the Woodrow Wilson International Center for Scholars
- Provide leadership and guidance for Institution-wide collections initiatives, policies, and programs to improve the stewardship of the national collections
- Manage human resources, foster diversity, and align human capital with the Institution’s goals and performance objectives. Continue to conduct workforce and gap analyses, strengthen training policies, develop succession planning, and evaluate and improve assessment tools for human resources performance
- Ensure the financial strength of the Institution and provide the Smithsonian with effective and efficient budgeting, financial, contracting, and management support services, including reliable financial reporting
- Advance the Institution’s mission in the most economic, efficient, and cost-effective way by supporting audit, evaluation, investigative, contracting, and other advisory services
- Increase the Latino Center’s public and educational outreach by: 1) developing exhibitions and correlative public and educational programs on Latino culture, art, and scientific achievement at the Smithsonian and affiliated institutions nationwide; 2) supporting Latino research, collections, exhibitions, and related projects at various Smithsonian museums and research centers; and 3) continuing innovation in new media, including the Latino Virtual Museum, social media, mobile applications, and other strategies which make full use of rapidly growing and accessible technologies and permit expanded delivery of programs and services to increasingly diverse audiences in a cost-effective and efficient manner

- Support the Institution's commitment to teaching Americans about their rich heritage by increasing the capacity of the Asian Pacific American Center to offer innovative online initiatives that provide educational, programmatic, and outreach materials nationwide
- Establish and maintain partnerships with the various Administration agencies and initiatives related to under-represented groups, such as Asian Americans and Pacific Islanders, Hispanic Serving Institutions, Historically Black Colleges and Universities, the American Association of University Women, and Tribal Colleges and Universities, and perform the necessary public outreach to enhance the Smithsonian brand in these communities
- Work with the Secretary's executive diversity committee, Office of Human Resources, and Office of Equal Employment and Minority Affairs to ensure compliance with federal Equal Employment Opportunity Commission mandates, promote the Smithsonian's Equal Employment Opportunity (EEO) and workforce diversity policies, and advocate for the use of small and disadvantaged businesses throughout the Smithsonian Institution

## **EXPLANATION OF CHANGE**

The Administration budget estimate includes an increase of 7 FTEs and \$2,507,000, which includes \$634,000 for necessary pay and other related salary costs for existing staff funded under this line item; \$100,000 for the Central Accessibility program to cover mandated costs of reasonable accommodation services; \$85,000 for inflation costs for the annual audit of the Smithsonian's financial statements; \$75,000 for increased processing fees for the Smithsonian's payroll services; and an increase of \$174,000 for the Workers' Compensation bill for FY 2014. These amounts are justified in the Fixed Costs section of this budget submission.

The programmatic summary of 7 FTEs and \$1,439,000 for the requested budget increase is described in greater detail as follows:

### **Broadening Access**

- (+\$300,000, + 2 FTEs) This increase for the Office of the Assistant Secretary for Education and Access supports a prototype of a Participant Access System (PAS) that will enable the Smithsonian to make all of its content and resources easily accessible and available to learners everywhere at any time. The PAS will work with existing Smithsonian websites, databases, and external data sets, including collections, archives, programming, and educational resources. Users of the PAS, or MySI, will be able to search Smithsonian content by any subject matter and receive information from any of the Smithsonian's museums or research centers addressing that topic. The Institution is requesting two FTEs who will directly support MySI: a senior technology manager GS-14 (\$150,000) and a lead developer GS-14 (\$150,000).

With the FY 2014 funds requested the Smithsonian will be able to conduct comprehensive and regular audits on EEO compliance and issue reports of audit findings; improve its existing Supplier Diversity Program; maintain responsiveness to FOIA requests and litigation; strengthen critical financial internal controls with improved cash-management processes; support a comprehensive, supervisory training program for office managers and senior leadership; and for the first time provide our audiences with access to all of our content and research through one system, MySI. This will enable the Institution to identify and evaluate the impact of our engagement with our audiences.

## **Mission Enabling**

- (+\$322,000, +2 FTEs) This increase for the Office of Equal Employment and Minority Affairs is requested to hire one affirmative employment specialist to conduct and report on comprehensive and regular audits of Smithsonian units to identify barriers to EEO compliance, including: hiring and promotion practices; retention and extension of term appointments; reviews of internal policies; and practices regarding leave, telework, and display of EEO posters. The increase is requested to hire one supplier diversity program analyst to enable the Office of Diversity Initiatives to provide additional supplier diversity support to units; increase outreach initiatives; create training and awareness materials; enhance small and minority-owned business matching; advocate for greater participation of small businesses in subcontracting plans on large-dollar contracts; conduct reviews of unit Supplier Diversity Program implementation; and recognize units for their Supplier Diversity Program achievements.
- (+\$95,000, +1 FTE) This increase for the Office of the General Counsel (OGC) supports a GS-11 paralegal specialist whose position is crucial to maintaining the Institution's responsiveness to the current level of FOIA requests and litigation that OGC handles. Litigation actions include personal injury, property damage, defense of claims arising under Title VII of the Civil Rights Act, the Age Discrimination in Employment Act, and claims alleging violations of federal environmental laws.
- (+\$272,000, +2 FTEs) This increase for the Office of the Comptroller supports two GS-13 accountant positions to strengthen the Smithsonian's governance and financial internal controls. The first position is responsible for developing financial policies, procedures, and practices, and for evaluating the effectiveness of internal controls, including the monitoring of generally accepted accounting and financial management operations and formulating new policies and procedures as required. The second position will provide accounting advisory support to better manage accounting policies, procedures, and systems, and to provide proficient and authoritative financial support to the Smithsonian and all of its individual units. Additionally, this position will conduct vulnerability assessments of key cash processes and develop appropriate corrective actions to strengthen internal controls and improve financial management-related processes throughout the Institution.

- (+\$450,000) This increase supports a comprehensive, centrally funded program that includes training in: leadership; recruitment and hiring; equal employment; leave and pay administration; labor and employee relations; staff motivation; performance evaluation; coaching; and mentoring. Initial and follow-up supervisor training is mandated by law and supervisory competency is an identified weakness throughout the Smithsonian Institution. The need for well-trained supervisors is critical to ensure maximum staff productivity and performance while complying with the myriad rules, regulations, and policies involved in employee supervision. By having a centralized training fund, the Institution will ensure compliance with federal regulations, increase employee engagement, and mitigate costs resulting from insufficiently trained supervisors and leaders.

**NONAPPROPRIATED RESOURCES** — General trust funds support salaries and benefits of personnel and other related costs. General trust funds are also used to support administrative activities, information dissemination, outreach, publications, and fund raising. Donor/sponsor-designated funds support costs related to programs and projects such as scientific research. For example, the Seward Johnson and Hunterdon endowment funds are used to improve basic support and strengthen important research efforts carried out at marine stations, and for pursuing scientific opportunities in oceanographic research. The Smithsonian received a \$10 million grant from the Gates Foundation to identify areas where the Institution wishes to expand its operations. Some of those funds have been applied to support the Grand Challenge “Understanding and Sustaining a Biodiverse Planet.” One of the signature programs expected to emerge from that Grand Challenge, and being supported in part by the Gates Foundation funding, is an initiative to build a Smithsonian Marine Global Earth Observatory (GEO) network. The Gates Foundation grant supports a series of planning workshops that include partners throughout Government and academia. Preliminary projects have been funded to design these GEOs and conduct some initial experiments to determine their uses and needs.

## OFFICE OF THE INSPECTOR GENERAL

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	22	2,645	0	29	0	0	0	0
FY 2013 ESTIMATE			0	0	0	0	0	0
FY 2014 ESTIMATE	24	3,231	0	0	0	0	0	0

### STRATEGIC GOAL: MISSION ENABLING

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Mission Enabling</b>							
<b>Management Operations</b>							
Strengthen an institutional culture that is customer centered and results oriented	22	2,645		24	3,231	2	586
<b>Total</b>	<b>22</b>	<b>2,645</b>		<b>24</b>	<b>3,231</b>	<b>2</b>	<b>586</b>

### BACKGROUND AND CONTEXT

The Inspector General Act requires the Office of the Inspector General (OIG) to conduct and supervise audits and investigations relating to programs and operations of the Smithsonian Institution (SI) that are, in the judgment of the IG, necessary or desirable.

The OIG fulfills its mandate by engaging in audits and reviews of Smithsonian Institution operations and programs, and by conducting administrative and criminal investigations. The OIG's audits include annually required reports, such as the quality assurance review of the Institution's annual financial statement audits and Federal Information Security Management Act (FISMA) reviews. The OIG also conducts audits and reviews as listed in its annual Audit Plan.

The budget estimate includes an increase of \$38,000 for necessary pay and other related salary costs for existing staff funded under this line item; \$250,000 and 1 FTE to fund the salary, benefits, and support costs of the Inspector General; \$181,000 and 1 FTE to fund the salary, benefits, and support costs of a supervisory

information technology (IT) auditor; and \$117,000 for necessary expenses for training, travel, and career progression for existing staff.

The Inspector General Reform Act of 2008 requires that the budget request detail the amount of funds requested by the OIG for staff training and to support the Council of the Inspectors General on Integrity and Efficiency (CIGIE). The OIG has requested \$40,000 for training, which is funded in the base resources.

## **MEANS AND STRATEGY**

The resources requested will be used to fund salaries, benefits, and support costs for staff engaged in audits, investigations, and other activities necessary to accomplish the OIG's mission. To balance its oversight responsibility with available resources, the OIG selects mission-critical areas for evaluation that:

- figure prominently in the Smithsonian's Strategic Plan and annual performance plans and reports;
- are the focus of congressional and executive branch attention;
- have high public interest or large dollar outlays; or
- have known performance or accountability risks

The OIG's Audit Plan includes four mandatory sets of audits: (1) the annual audits of the Smithsonian's financial statements, which the OIG oversees; (2) the annual reviews under FISMA, which the OIG also oversees; (3) an audit of the travel and other expenses of the Regents, conducted at their request to fulfill a statutory requirement; and (4) an external peer review, as required every three years to meet Government auditing standards. In addition, the plan includes the following audits: collections management; the National Museum of African American History and Culture project; the Smithsonian Tropical Research Institute; the Government purchase card program; leased office space; and accountability and maintenance of the Smithsonian vehicle fleet.

The investigative staff will continue to conduct administrative and criminal investigations, resolve complaints, and proactively engage the Smithsonian's staff to detect and prevent waste, fraud, and abuse.

In addition, the OIG will respond to requests for audits and reviews from the Board of Regents, the Secretary, and the Congress. The OIG will also continue to maintain an inventory of areas identified as warranting review or oversight.

## **EXPLANATION OF CHANGE**

Smithsonian management has requested increased OIG support to help ensure that operations and major projects are efficient and effective. Other stakeholders, e.g., the Board of Regents and congressional oversight committees, continue to seek OIG assurance that the Smithsonian is an effective steward of its



resources, and that senior SI leaders are aware of and take appropriate steps to mitigate risks to the Institution's mission.

The budget estimate includes \$38,000 for necessary pay for existing staff and a program increase of \$548,000 and 2 FTEs to convert the Inspector General (IG) position to a federally funded position, to hire a supervisory IT auditor, and to provide general support for existing staff. Details are as follows:

- (+\$250,000, +1 FTE) The request provides funding to convert the Inspector General (IG) position to a federally funded job. The Board of Regents determined that the duties and responsibilities of the IG are primarily federal in nature and the position should therefore be funded with federal resources and be consistent with federal agencies. The Regents also concluded that the most robust and relevant candidate pool would be in the federal sector.
- (+\$181,000, +1 FTE) — The request provides funding for a supervisory IT auditor who will help the OIG better address the additional risks the Smithsonian faces as it has undergone significant expansion with additional museums, fundraising activities, greater reliance on contractors, and an increasing dependence on information technology.
- (+\$117,000) — The request provides funding for necessary expenses for training, travel, and career progression for existing staff. This will allow the OIG the ability to fulfill its mission and support the strategic goals of the Smithsonian.

**NONAPPROPRIATED RESOURCES** — The Office of the Inspector General does not receive any nonappropriated funds.

## FACILITIES MAINTENANCE

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	358	70,690	0	0	0	0	0	0
FY 2013 ESTIMATE			0	0	0	0	0	0
FY 2014 ESTIMATE	367	75,964	0	0	0	0	0	0

### STRATEGIC GOAL: MISSION ENABLING

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Excellent Research</b>							
<b>Mission Enabling</b>							
<b>Facilities</b>							
Implement an aggressive and professional maintenance program	358	70,690		367	75,964	9	5,274
<b>Total</b>	<b>358</b>	<b>70,690</b>		<b>367</b>	<b>75,964</b>	<b>9</b>	<b>5,274</b>

### BACKGROUND AND CONTEXT

The mission of the Office of Facilities Engineering and Operations (OFEO) is to provide world-class services and stewardship by building, operating, maintaining, and ensuring a safe, secure, and healthy environment to enhance the Smithsonian experience for all visitors. More than 30 million people visit the Smithsonian annually.

OFEO is responsible for the maintenance and repair of an infrastructure of approximately 12 million square feet of owned and leased buildings and structures, including 19 museums and galleries, nine research centers, and the National Zoological Park (NZIP). The buildings and structures range from the well-known museums to supporting structures such as guard booths, animal shelters, and hay barns. Facilities Maintenance focuses on facility preservation activities and encompasses the upkeep of property and equipment. This work is necessary to realize the originally anticipated useful life of facility assets.

As new and renovated museum spaces and major exhibitions open, maintenance requirements rise due to increased square footage, technological advances, and an increase in the number of systems supporting the Smithsonian's infrastructure. For example, the renovation of the Elephant House at NZP, completed in February 2013, resulted in a 30 percent increase in the number of assets requiring maintenance in that facility.

In an effort to stretch current resources, OFEO has undertaken a number of initiatives to gain efficiencies. OFEO benchmarked its maintenance staffing levels with other museums and professional organizations, including the Association of Higher Education Facilities Officers (APPA), to ensure that resources were being effectively deployed. The Smithsonian is a past recipient of the prestigious Award of Excellence from APPA in recognition of the Institution's excellence in facilities management and its efforts to establish measurable performance standards and staffing levels for maintenance and efficient operations. To build on these efforts, OFEO is exploring ways to more effectively identify and group requirements.

Ultimately, the Institution intends to achieve APPA's recommended level-1 standard for building maintenance ("Showpiece Facility"). That requirement has been validated through the Facility Condition Assessment process and Reliability Centered Maintenance (RCM) analysis. With existing resources, the Smithsonian operates at the lower end of the APPA maintenance level 3, "Managed Care," which provides a minimal level of preventive maintenance and building system reliability to ensure that proper conditions are maintained for collections and public expectations are met.

The budget estimate includes an increase of 9 FTEs and \$5,274,000. The increase includes \$858,000 for necessary pay and other related salary costs for existing staff funded under this line item, and a programmatic increase of 9 FTEs and \$4,416,000 to support the Institution's high-priority facilities maintenance needs.

## **MEANS AND STRATEGY**

To support the Institution's goal of Mission Enabling, OFEO continues an aggressive, long-range facilities maintenance and minor repair program, using an RCM approach that includes benchmarking efforts with organizations such as the APPA. The RCM approach is a widely accepted maintenance industry philosophy that incorporates a cost-effective mix of predictive, proactive, preventive, and reactive maintenance practices.

The Smithsonian's goal is to reduce its maintenance backlog through the coordinated efforts and appropriate funding of its maintenance and capital programs. Proper maintenance funding prevents the accelerated degradation of building systems and components that would increase the number and cost of major repairs. Through increased preventive maintenance and by addressing

deficiencies in a timely manner, the Institution can realize the originally anticipated useful life of facilities systems and avoid the accelerated degradation of its infrastructure, and the associated costs, mentioned above.

During FY 2014, the Institution will continue to identify efficiencies in managing its existing resources to improve its current level of service. Additionally, OFEO will continue work to improve electronic security systems and physical security measures which provide protection for the Institution's facilities, collections, staff, visitors, and volunteers.

## **EXPLANATION OF CHANGE**

The budget estimate includes an increase of 9 FTEs and \$5,274,000. The increase includes \$858,000 for necessary pay and other related salary costs for existing staff funded under this line item, and a programmatic increase of 9 FTEs and \$4,416,000 to support high-priority maintenance requirements, provide continued security systems maintenance, and develop a maintenance program for the new National Museum of African American History and Culture (NMAAHC). The specific increases are detailed as follows:

- **Facilities Maintenance (+\$3,731,000, +6 FTEs)** — The Smithsonian has a well-documented goal to achieve APPA's recommended level-1 standard for building maintenance. Progress toward that goal has been made in recent years, owing to increased federal support. To reach a more solid "Managed Care" level 3 Smithsonian-wide, the Institution requires \$3,731,000 and 6 FTEs to support facilities and systems that have expanded the Smithsonian's requirements in recent years. The requested funding will support maintenance of fire-protection systems and life-support equipment at the National Zoo; the Contee Farm complex at the Smithsonian Environmental Research Center; and additional systems at the National Museum of American History. The request also supports collection-storage maintenance for the national collections, which are housed in various spaces that require well-regulated environmental conditions. The funding will ensure continued preservation of the national collections in stable environments. The request includes funding to support one integrated electronics technician, two life-support system repair operators, and three utility system repair operators (\$546,000).
- **Security System Maintenance (+\$485,000, +1 FTE)** — Security maintenance responsibilities have also increased due to the increased footprint of the Smithsonian and an increase in the number and complexity of security systems. The request supports one FTE for an alarm technician (\$84,000) and contract security maintenance (\$401,000). The increase will improve the reliability of critical security systems, including electronic security monitoring equipment; life-safety intercom systems; screening equipment; radio systems; perimeter barrier equipment; and

locksmith services. The resources will allow the Smithsonian to proactively detect and replace failing or old equipment and react to emergencies in a timely manner.

- **Support for NMAAHC (+\$200,000, +2 FTEs)** — the 400,000-square-foot National Museum of African American History and Culture is scheduled to open in 2015. The Smithsonian requests \$200,000 and 2 FTEs to develop a maintenance program for the new Museum and to maintain building systems as they come online during construction. The request represents partial-year funding for salaries and benefits, and support costs for four staff: two utility system repair operators, a utility system supervisor, and an engineering technician. The remaining balance required for annual salaries and benefits will be included in the Smithsonian's FY 2015 budget submission.

The requested funds are critical to provide the maintenance coverage required to keep facility systems fully functioning. Through diligent maintenance of the facilities and systems, the Smithsonian can prolong the operational life of the equipment while maintaining reliable output to protect the national collections. Additionally, proper maintenance reduces the potential for unplanned equipment shutdowns which have a severe negative impact on visitors, staff, and collections — including the possible closure of exhibits, galleries or entire facilities.

## FACILITIES OPERATIONS, SECURITY, AND SUPPORT

	APPLICATION OF OPERATING RESOURCES							
	FEDERAL APPROPRIATIONS		GENERAL TRUST		DONOR/SPONSOR-DESIGNATED		GOV'T GRANTS & CONTRACTS	
	FTE	\$000	FTE	\$000	FTE	\$000	FTE	\$000
FY 2012 ESTIMATE	1,392	193,430	12	1,876	4	432	0	0
FY 2013 ESTIMATE			12	1,940	4	395	0	0
FY 2014 ESTIMATE	1,402	198,339	12	1,975	4	400	0	0

### STRATEGIC GOALS: BROADENING ACCESS AND MISSION ENABLING

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		FY 2012–2014 Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Broadening Access</b>							
<b>Exhibitions</b>							
Offer compelling, first-class exhibitions	4	460		4	472	0	12
<b>Mission Enabling</b>							
<b>Facilities</b>							
Improve the overall cleanliness and efficient operation of Smithsonian facilities	648	124,890		656	127,817	8	2,927
<b>Security and Safety</b>							
Provide world-class protection for Smithsonian facilities, collections, staff, visitors, and volunteers	700	61,710		702	63,435	2	1,725
Provide a safe and healthy environment	40	6,370		40	6,615	0	245
<b>Total</b>	<b>1,392</b>	<b>193,430</b>		<b>1,402</b>	<b>198,339</b>	<b>10</b>	<b>4,909</b>

### BACKGROUND AND CONTEXT

The mission of the Office of Facilities Engineering and Operations (OFEO) is to provide world-class services and stewardship by building, operating, maintaining, and ensuring a safe, secure, and healthy environment to enhance the Smithsonian experience for all visitors. The Smithsonian receives more than 30 million visits annually.

The Facilities Operations, Security, and Support (OSS) program within OFEO operates, secures, and supports the Smithsonian's physical infrastructure in partnership with Smithsonian program staff. OFEO provides operational

security and support services for approximately 12 million square feet of owned and leased facilities, including 19 museums and galleries, nine research centers, and the National Zoological Park.

Resources within OSS support facilities operations, including activities such as custodial work; fire protection; building system operations; grounds care and landscaping; snow removal; pest control; refuse collection and disposal; fleet operations and maintenance; security services; and safety, environmental, and health services. Resources also support facilities planning, architectural and engineering design, as well as postage, utilities, and central rent costs.

The budget estimate includes an increase of 10 FTEs and \$4,909,000. The increase includes \$2,217,000 for necessary pay and other related salary costs for existing staff funded under this line item; and \$208,000 for utilities, postage, and rent, all of which are justified in the Fixed Costs section of this budget. The request also includes programmatic increases of 10 FTEs and \$2,484,000 to address high-priority operating, safety, and security requirements.

## **MEANS AND STRATEGY**

OFEO will achieve the Institution's goal of Broadening Access by continuing to develop exhibits and public programs for horticulture, architectural history, and historic preservation.

To achieve the Institution's goal of Mission Enabling, OFEO's base resources will focus on meeting the growing operational requirements of the Institution's facilities. OFEO will continue its efforts to efficiently use its resources to operate and secure facilities and grounds; and to provide safe, attractive, and appealing spaces to meet program needs and public expectations. In addition, OFEO will continue benchmarking the Institution's custodial staffing and service levels with other museums and professional organizations, including the Association of Higher Education Facilities Officers (APPA). As a past recipient of the prestigious APPA Award of Excellence, OFEO is committed to measuring performance and staffing levels to ensure that the highest affordable levels of appearance and cleanliness, as well as efficient operations, are maintained.

The Institution is committed to achieving APPA's appearance level 2, referred to as "Ordinary Tidiness." This level of appearance will provide an acceptable level of cleanliness that meets public expectations. With current resources, on average OFEO achieves appearance level 3, "Casual Inattention." While this level of appearance is not totally acceptable, it ensures a generally clean and odorless environment.

Just as OFEO is committed to providing the highest levels of facility care, it is equally committed to providing the highest levels of security. OFEO will continue to provide protection for the Smithsonian's facilities, collections, staff,

visitors, and volunteers, while also permitting an appropriate level of access to the national collections. The Institution will continue to focus on security measures required to address any identified risks.

OFEQ continues its commitment to ensure that Smithsonian employees have a safe and healthy workplace by creating a culture that embraces and promotes zero injuries; provides professional services promoting a culture of health and wellness; and ensures that all Smithsonian facilities comply with environmental regulations and best practices.

## **EXPLANATION OF CHANGE**

The budget estimate includes an increase of 10 FTEs and \$4,909,000. The increase includes \$2,217,000 for necessary pay and other related salary costs for existing staff funded under this line item; and \$208,000 for utilities, postage, and rent, all of which are justified in the Fixed Costs section of this budget. The request also includes programmatic increases of 10 FTEs and \$2,484,000, as follows:

- **Facilities Operations (+\$649,000, +5 FTEs)** — The Institution requests \$649,000 and 5 FTEs to support urgent needs, while maintaining the APPA “Casual Inattention” level of appearance. The request will improve operations and cleanliness at the National Zoo, National Museum of Natural History, and Smithsonian Environmental Research Center. The request includes salaries, benefits, and support costs for four building service workers and a groundskeeper (+\$267,000).
- **Security Requirements (+\$505,000)** — The Office of Personnel Management increased the requirements for background investigations in November 2008. The request includes funding to support the Smithsonian’s investigation needs and ensure a more thorough background check of all employees (\$440,000).

In addition, labor rate increases mandated by the Panamanian government have increased security contract costs at the Smithsonian Tropical Research Institute. The request includes additional security funding for these critical services (\$65,000).

- **National Museum of African American History and Culture (+\$190,000, +3 FTEs)** — The 400,000-square-foot National Museum of African American History and Culture is slated to open in 2015. The Smithsonian requests \$190,000 and 3 FTEs to develop the required operations and security programs for the new Museum. The request represents partial-year funding to hire six staff: a building manager, supervisory physical security specialist, facilities services supervisor, two building service workers, and a horticulturist. The addition of a national



Museum to the Smithsonian is a tremendous operational responsibility. NMAAHC will be a major Museum, with high traffic and major security responsibilities. The requested positions are critical to ensure appropriate planning for the operation and security of this new facility.

- **Fleet Management Program (+\$750,000, +1 FTE)** — The goal of the Fleet Management Program is to purchase, operate, and dispose of vehicle and marine fleet assets at optimal times — when the total cost of ownership is at its lowest. The program will optimize fleet size, minimize maintenance and fuel costs, and reduce fleet carbon emissions through the acquisition of fuel-efficient motor vehicles, boats, and electric carts. In addition, the program will reduce repair costs and the amount of time that assets are out of service. At present, the marine fleet (boats) represents the most pressing fleet need. The most recent condition survey revealed that most of the assets are in a state of disrepair and need critical upgrades and/or replacement. The Institution requests \$750,000 to support one marine equipment specialist (\$95,000) and funding to initiate a fleet management/replacement program (\$655,000). The program will be life-cycle based, considering the cost of acquisition, fuel, maintenance, repair, disposal, administration, accidents, inventory, and downtime.
- **Disaster Management and Safety Programs (+\$290,000, +1 FTE)** — An internal control review and a subsequent risk analysis identified that the Institution's Business Continuity (Disaster Management) Program lacked the necessary staffing and resources to reasonably ensure the Smithsonian's ability to recover from a major disaster or interruption to its mission. A disaster management specialist is needed to further develop the Smithsonian's Business Continuity and Disaster Management policies and procedures (i.e., Safe Haven, Shelter-in-Place, Active Shooter procedures, etc.) for high-risk events, support the unit disaster management plans of all Smithsonian facilities, and provide back-up within a program currently staffed by only one person. The request includes salaries and benefits for one disaster management specialist (\$110,000, 1 FTE).

In addition, the Smithsonian is committed to providing a safe and healthy environment in all of its facilities. OFEO will achieve this objective by developing an Institution-wide culture that embraces and promotes a safe and healthful workplace. The Smithsonian will implement a program at two or three facilities in FY 2014 to educate all staff on how to recognize and reduce potential hazards, and implement intervention methods to enhance the culture of safety within the Institution. The results will be evaluated to determine the best next steps for implementation at other facilities. The Institution expects to reduce injuries and illnesses to its workers, volunteers, and visitors; limit work time lost due to injury; and reduce workers' compensation claims and costs. The request includes funding to implement a culture of safety program at the Smithsonian (\$180,000).

- **Requirements Branch (+\$100,000)** — To ensure that all facilities projects, including maintenance and capital, are properly coordinated, the Institution requests \$100,000 to establish a Requirements Branch within OFEO. This branch will take a cross-functional approach to identify, summarize, prioritize, and bundle facilities requirements to most efficiently use and balance existing maintenance and capital resources. OFEO will facilitate the work of this branch by improving its systems to create a central repository for all requirements. The request will fund information technology support services, including development of software and reporting capabilities, as well as training and ongoing branch operations.
- **Unit Facilities Operations** — Justified here but included under the Cooper-Hewitt, National Design Museum section of this budget, the Smithsonian requests \$200,000 and 3 FTEs to address additional cleaning and service requirements. The recent renovation of the Carnegie Mansion created an additional 10,000 square feet of public space that will incorporate new technologies for lighting, security and environmental controls. The request provides funding for salaries, benefits, and support costs for one facilities specialist and two custodial workers to maintain the space for the thousands of visitors expected when the Museum reopens to the public.

**NONAPPROPRIATED RESOURCES** — General trust funds support salaries and benefits, and other related costs. Donor/sponsor-designated funds cover costs related to Smithsonian programs, such as horticulture operations, and architectural history and historic preservation projects.



## FACILITIES CAPITAL

FY 2012 Estimate	\$174,720,000
FY 2013 Estimate	
FY 2014 Estimate	\$158,000,000

### STRATEGIC GOAL: MISSION ENABLING

#### Federal Resource Summary by Performance Objective and Program Category

Performance Objective/ Program Category	FY 2012		FY 2013	FY 2014		Change	
	FTE	\$000		FTE	\$000	FTE	\$000
<b>Mission Enabling</b>							
<b>Facilities</b>							
Execute an aggressive, long-range revitalization program and limited construction of new facilities	48	77,970		48	94,980	0	17,010
<b>Security and Safety</b>							
Provide world-class protection for Smithsonian facilities, collections, staff, visitors, and volunteers	0	3,650		0	3,750	0	100
Provide a safe and healthy environment	0	18,220		0	4,270	0	-13,950
<b>Subtotal</b>	<b>48</b>	<b>99,840</b>		<b>48</b>	<b>103,000</b>	<b>0</b>	<b>3,160</b>
National Museum of African American History and Culture	0	74,880		0	55,000	0	-19,880
Earthquake Emergency Repairs	0	0		0	0	0	0
<b>Total</b>	<b>48</b>	<b>174,720</b>		<b>48</b>	<b>158,000</b>	<b>0</b>	<b>-16,720</b>

### BACKGROUND AND CONTEXT

The Facilities Capital Program underpins the Smithsonian's mission and represents a vital investment in the long-term interest of the nation. It is intended to provide modern facilities that satisfy public programming needs and facilitate world-renowned research efforts.

In the Facilities Capital Program, revitalization involves making major repairs or replacing declining or failed infrastructure to address the problems of advanced deterioration. Once completed, these projects will enable the Smithsonian to avoid the failures in building systems that can create hazardous conditions for visitors and staff, harm animals, damage collections, and cause the loss of precious scientific

data. Fulfilling the Smithsonian's mission also requires construction of the National Museum of African American History and Culture (NMAAHC).

Funding for facilities routine maintenance and minor repairs is included in the Institution's Salaries and Expenses request. These resources are critical to realize the intended design life and full economic value of Smithsonian facilities and to protect the Institution's investment in revitalization. Underfunding maintenance devalues the Institution's capital investment by prematurely shifting increased costs to the Facilities Capital Program.

The Institution plans to use these resources to provide for safe, code-compliant, and functional facilities that support Smithsonian programs. Sustained future funding to meet these requirements is essential to sustain the viability of the Institution's physical plant.

## **EXPLANATION OF CHANGE**

The Institution requests \$158,000,000 and 48 FTEs for the Facilities Capital Program in FY 2014. The Institution is requesting \$55 million for the National Museum of African American History and Culture (NMAAHC) and \$103 million for revitalization and planning and design of future projects. Major renovation efforts will continue at the National Zoological Park (NZIP), which will be guided by the master plan to correct the deficiencies there. This request also recognizes the need to sustain progress in other priority areas, which include revitalizing the National Museum of Natural History (NMNH) and the National Museum of American History (NMAH). This request also provides funding to begin renovating the Renwick Gallery (RG). Other priorities include funding to complete phase one of the Suitland collections storage project, and address various safety and security deficiencies throughout the Institution.

The chart that follows summarizes the Institution's full request for the highest priority FY 2014 projects and the related future program funding requirements through FY 2018.

<b>SMITHSONIAN INSTITUTION</b>												
<b>Federal Facilities Capital Program Summary</b>												
<b>FY 2012 _ FY 2018</b>												
<b>CATEGORY</b>	<i>Federal Received</i>	<i>Trust*</i>		<i>Congress Request</i>	<i>Trust* Estimate</i>	<i>Future Program Estimates</i>						
	<i>\$Millions</i>					FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
<b>REVITALIZATION</b>												
<i>Major Projects</i>												
Arts & Industries Building											TBD	TBD
Cooper-Hewitt National Design Museum	7.0	3.2			7.0							
Freer Gallery of Art						6.0						
Hirshhorn Museum and Sculpture Garden						4.0	11.2	4.0				
Museum Support Center						3.4	5.6	13.0	7.0	18.0	25.0	20.0
National Air and Space Museum	0.7											
National Museum of American History	11.0	3.5		24.2				4.5				
National Museum of Natural History	10.2			17.7		19.0	16.9	8.1	6.0			
National Zoological Park	17.0	0.5		15.0	2.5	16.0	20.2	33.2	37.0			
Quadrangle												
Renwick Gallery				8.0	7.5	7.5						
Smithsonian Environmental Research Center	15.2				5.5	2.0	3.3					
Smithsonian Castle												19.0
STRI	4.0											
Suitland Collections Center				2.1		2.5	2.9	1.3	2.0			
Udvar-Hazy Center								7.5	3.0			
<i>Other Revitalization Projects</i>	19.6	2.0		22.2	4.2	50.3	46.5	40.6	36.0			
<i>Facilities Planning and Design</i>	15.1			13.8		29.2	17.4	16.3	15.0			
<i>Anti-terrorism Protection</i>						3.1	3.5	1.0	5.0			
<b>SUBTOTAL</b>	<b>99.8</b>	<b>9.2</b>		<b>103.0</b>	<b>26.7</b>	<b>150.0</b>	<b>150.0</b>	<b>150.0</b>	<b>150.0</b>	<b>150.0</b>	<b>150.0</b>	<b>150.0</b>
<b>CONSTRUCTION</b>												
National Museum of African American History & Culture	74.9	40.8		55.0	29.2							
<b>SUBTOTAL</b>	<b>74.9</b>	<b>40.8</b>		<b>55.0</b>	<b>29.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>EARTHQUAKE REPAIRS</b>												
Museum Support Center & National Air and Space Museum												
<b>TOTAL PROGRAM</b>	<b>174.7</b>			<b>158.0</b>		<b>150.0</b>	<b>150.0</b>	<b>150.0</b>	<b>150.0</b>	<b>150.0</b>	<b>150.0</b>	<b>150.0</b>

\* Trust funding is mostly programmatic. Does not include funds spent by other organizations, such as GMU.

## SUMMARY TABLES

### **REVITALIZATION**

#### **Major Projects**

Investment in major projects provides for the replacement of failing or failed major building systems and equipment, and for major renovation projects to preserve the buildings. It primarily includes the exterior envelope, HVAC, electrical, and other utility systems at the older buildings. Projects also entail modifications to ensure compliance with life-safety and Americans with Disabilities Act (ADA) codes, restoration of historic features, and modernization of the buildings to support current program requirements. Major projects are those that cost more than \$5 million.

<b>Facility</b>	<b>Project</b>	<b>\$000</b>
National Museum of American History	West Wing Renovation	24,200
National Museum of Natural History	Revitalize Public and Non-Public Space	17,700
National Zoological Park	Repair General Services Building	10,000
	Upgrade Fire Suppression, Life-Safety, and Infrastructure Systems	4,970
Renwick Gallery	Restore Renwick Gallery	8,000
Suitland Collections Facility	Construct Collections Storage Swing Space	2,120
<b>TOTAL MAJOR PROJECTS</b>		<b>\$66,990</b>

## Other Revitalization Projects

These projects correct extensive and serious facilities deficiencies to materially extend the service life of systems. Unlike the major projects, these are smaller in scale, costing \$5 million or less, and usually involve capital repair or replacement of individual systems or components.

<b>Facility</b>	<b>Project</b>	<b>\$000</b>
National Air and Space Museum	Renovate Elevators	800
National Museum of American History	Upgrade Electronic Security	1,500
	Replace Motor Control Panels	1,000
Smithsonian Tropical Research Institute	Panama Canal Expansion Mitigation	2,600
	Install Wastewater Treatment Plant	1,300
	Improve Tupper Security	1,500
Multiple Locations	Construction Supervision Administration	6,200
	Misc. projects \$500,000 and under	<u>7,330</u>
<b>TOTAL OTHER PROJECTS</b>		<b>\$22,230</b>
<b>FACILITIES PLANNING AND DESIGN</b>		<b><u>\$13,780</u></b>
<b>TOTAL REVITALIZATION</b>		<b>\$103,000</b>

## New Facilities Design/Construction

<b>Facility</b>	<b>Project</b>	<b>\$000</b>
National Museum of African American History and Culture	Construct Museum	<u>55,000</u>
<b>TOTAL NEW FACILITIES</b>		<b>\$55,000</b>
<b>TOTAL REQUEST</b>		<b><u>\$158,000</u></b>



## **REVITALIZATION PROJECTS**

### **Major Projects:**

**PROJECT TITLE:** Revitalize NMAH West Wing Public Space (Package III)

**INSTALLATION:** National Museum of American History (NMAH)

**LOCATION:** Washington, DC

FY 2014 COST ESTIMATE (Thousands of Dollars): \$24,200

PRIOR-YEAR FUNDING: \$32,982

Total \$57,182

### PROJECT JUSTIFICATION:

This project continues the National Museum of American History (NMAH), *Kenneth E. Behring Center*, modernization. All three public floors of the Museum's West Wing, comprising approximately 119,000 square feet, are part of this major renewal, which redefines the visitors' experience, and modernizes and clarifies circulation. The Museum's West Wing renovation, which is the next step outlined in the NMAH Master Plan of February 2006, is guided by the report of the Blue Ribbon Commission on the National Museum of American History, dated March 2002.

### PROJECT DESCRIPTION:

The scope of work for this project includes replacement of two zones of the HVAC system, a new power-distribution system, fire-detection and alarm system, life-safety egress paths, and improved fire protection. In addition, the modernization will provide new gallery space for exhibitions focused on *American Enterprise*, *Democracy*, and *Music*, as well as the replacement of existing West Wing windows with new, thermally efficient and blast-proof windows, a new first floor window on the west façade, and the refurbishment of the existing west lawn pool to allow the re-installation of the restored Alexander Calder "Gwenfritz" sculpture in its original location. The Institution requests \$24.2 million in FY 2014 to complete construction.

### PROGRESS TO DATE:

The Smithsonian selected a design firm in July 2009 and completed design and construction documents in November 2011. The construction award was made the fourth quarter of FY 2012 and construction began in November 2012. By the second quarter of FY 2013, site preparation, asbestos abatement and construction demolition had begun. Future-year funding will allow construction to continue uninterrupted during the two-year construction schedule, allowing the installation of donor-funded exhibits to begin in 2015.

### IMPACT OF DELAY:

Delays to the West Wing renovation increase the risk of mechanical systems failures and prevent the Museum from meeting fire-protection and safety standards, potentially putting NMAH's collections, visitors, and staff at risk. Equipment and systems are at the end of their useful lives and will increasingly fail, adding maintenance staff time and increasing replacement costs. In addition, a delay of the West Wing renovation could breach agreements with major donors and put pledges at risk.

**PROJECT TITLE:** Revitalize Public and Non-Public Space  
**INSTALLATION:** National Museum of Natural History (NMNH)  
**LOCATION:** Washington, DC

FY 2014 COST ESTIMATE (Thousands of Dollars):

Continue HVAC/Utility System Replacement and Building Renovation	\$17,700
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<u>PRIOR-YEAR FUNDING:</u>	\$255,754
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FUTURE-YEAR FUNDING:

Ongoing HVAC Replacement and Code Improvements	<u>\$136,800*</u>
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Total	\$410,254
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\* Does not include funding in Planning and Design account to complete future design of revitalization project.

BUILDING BACKGROUND:

The NMNH building opened to the public in 1910. The East and West Wings were added in the early 1960s. Two infill buildings were constructed in the original building's East and West courtyards in the late 1990s. The gross interior square footage of the building is approximately 1.5 million square feet. The building includes 300,000 square feet of public museum space, with collections, laboratory, office, and building service spaces filling the remainder. NMNH is one of the most visited museums in the world and hosted more than seven million visitors in FY 2012.

PROJECT JUSTIFICATION:

The building's mechanical and electrical systems were installed in the early 1960s. At 50 years of age, they are in need of major replacement. Breakdowns of the mechanical systems are frequent, repair parts are often difficult to procure, and the system does not provide the environmental air quality necessary for visitors or collections. The reliability of the electrical system is compromised by the deteriorated condition of the building's three main electrical switchgears, and the antiquated distribution system poses a safety hazard. In addition, main stairwells and auditorium exit corridors are dark, violating building codes, and are insufficiently served by smoke-evacuation fans. Asbestos-laden pipes in the utility tunnels are a potential health hazard and hamper proper maintenance and response to utility failures. In addition, the windows in the original portion of the building are deteriorated and do not comply with current security standards.

PROJECT DESCRIPTION:

Based on the master implementation plan completed in 1987, and revised in 2006, the Institution is slowly completing a comprehensive renovation program in the NMNH building, which will replace the HVAC equipment, ductwork, electrical equipment and wiring, piping systems, and windows of the main building. Asbestos and lead will be abated or encapsulated; the fire-protection, communications, alarm, and emergency power systems will be upgraded; and storm-water systems and a hazardous-chemical control facility will be installed.

The Institution requests \$17.7 million in FY 2014 to continue the renovation. Specific work will include: continuing replacement of the main building windows (\$1.0 million); continuation of HVAC renovations in the southeast section of the main building ground floor and mezzanine (\$11.1 million); continuation of HVAC renovations in the East Wing ground floor (\$4.6 million); and completion of the renovation of the West Wing second floor (\$1.0 million).

PROGRESS TO DATE:

Recent projects completed include HVAC renovations of the West Wing ground and first floors; a building-wide modernization of electronic security; and improvements to the chiller plant and air towers. Construction is almost complete on the HVAC renovation of the northeast and northwest main building ground floor, which includes the replacement of 22 ground-floor monumental windows. During FY 2012, work continued to replace the doors in the North Lobby, and work started on the HVAC system renovation for the West Wing second floor and Exhibition Hall 26. Additionally, design work continued on the next major projects: HVAC renovation of the southeast main building ground floor and Phase 1 renovation of the East Wing ground floor. These two projects must be completed before Halls 2–6 (the dinosaur exhibit halls) can be renovated. The Fossil Café will close when Halls 2–6 are renovated and, therefore, a feasibility study was started for a replacement to the café. The master plan provides the basis for prioritizing future infrastructure renovations.

IMPACT OF DELAY:

If funding is delayed, building systems will continue to deteriorate and environmental conditions required for the Museum's collections and the visiting public cannot be maintained. In addition, the Museum's exhibit re-installation program would not proceed according to the planned schedule, causing the continued closure of several important exhibition areas to the public.

**PROJECT TITLE:** Repair Structural Systems and North Road Retaining Wall,  
General Services Building (GSB), Phases 1 & 2  
**INSTALLATION:** National Zoological Park (NZIP), Rock Creek Park  
**LOCATION:** Washington, DC

<u>FY 2014 COST ESTIMATE (Thousands of Dollars):</u>	\$10,000
<u>PRIOR-YEAR CONSTRUCTION FUNDING:</u> (Design funding not shown)	\$17,757
<u>FUTURE-YEAR CONSTRUCTION FUNDING:</u>	<u>\$9,500</u>
Total	\$37,257

PROJECT JUSTIFICATION:

The General Services Building (GSB) houses numerous critical functions at the NZIP, including the animal nutrition commissary, maintenance and repair shops, and offices for safety, horticulture, exhibits, project management, engineering design and space for construction staff, as well as parking for staff and visitors. Recent studies identified critical structural deficiencies that are responsible for cracks in the foundation walls that are allowing water into the commissary, which was cited by the USDA in November 2005 as a deficiency requiring immediate attention. If the structural deficiencies are not repaired, they will cause structural failure and localized collapse.

PROJECT DESCRIPTION:

This project will strengthen and repair structural deficiencies (e.g., cracked concrete, deteriorated steel reinforcement, and degraded tie-back tension rods) in the GSB and in the retaining wall that supports the North Road, the major public and private route through the Zoo. These extremely complex and disruptive repairs include the installation of structural shear walls and mezzanines for lateral stability, reinforcement of columns, underpinning of a portion of the foundation wall, and waterproofing. In order to accomplish this, the GSB functions and occupants must be relocated during the course of a phased construction period. The planned fire-protection and life-safety upgrades that were previously identified as a separate effort are now incorporated into this structural renovation to minimize impact on the functionality of critical services. During the course of design in 2008–2009, the Institution re-evaluated programmatic uses of the GSB with the view that all functions except the commissary would need to be relocated during the construction period. Nearly all functions will be relocated temporarily into swing space for the duration of the phased construction. For FY 2014, the Institution requests \$10 million to continue the work on the GSB structural renovation and retaining wall reconstruction.

PROGRESS TO DATE:

Phase 1 of the project is complete. Repairs addressing the most immediate structural concerns in the GSB were completed early in 2009. Temporary repairs to the wood lagging on the existing retaining wall were completed in 2010. Construction of the Vehicle Maintenance Branch facility in Suitland was completed in November 2011 and the facility is now operational. Design for structural stabilization, fire-protection, and life-

safety upgrades and replacement of the failing retaining wall reconstruction were completed in 2012. Also during FY 2012, the Institution began Phase 2 of the project by awarding preparatory and swing space contracts for the GSB renovation and retaining wall projects. Construction bids for the GSB renovation and retaining wall were received in February of 2013 and award is anticipated by mid-year. As future funds become available, they will allow construction activities to continue in an uninterrupted fashion during the construction period. This phase of the project is scheduled to be completed in FY 2016.

IMPACT OF DELAY:

Delay of the project will risk structural failure in the building and injury to staff or visitors. Deterioration of the building and retaining wall will accelerate, the amount of intervention needed to correct the problems will increase, and the costs will escalate. Until the work is completed, the NZP will not be able to comply with the USDA requirement to stop water infiltration into the commissary.

**PROJECT TITLE:** Upgrade Life-Safety and Infrastructure Systems  
**INSTALLATION:** National Zoological Park (NZIP), Rock Creek and Front Royal  
**LOCATIONS:** Washington, DC and Front Royal, Virginia

<u>FY 2014 COST ESTIMATE (Thousands of Dollars):</u>	\$4,970
<u>PRIOR-YEAR FUNDING:</u>	\$34,080
<u>FUTURE-YEAR FUNDING:</u> (projection based on master plan)	<u>\$13,280</u>
Total	\$52,330

PROJECT JUSTIFICATION:

Much of NZP's current utility, safety, and fire-protection infrastructure is obsolete and failing, and does not meet the needs of the National Zoo to protect and support the safety of animals, staff, and visitors. Correcting deficiencies in water and electrical service mains and distribution is crucial to provide critical fire-suppression systems in many of the unprotected areas of the Zoo, and to supply adequate water for the animals.

PROJECT DESCRIPTION:

The Institution requests \$4.97 million in FY 2014 to install critical fire-protection and life-safety systems at both the Rock Creek Park and Front Royal, Virginia facilities, including utility upgrades and upgrades to water, sewage, and storm-water management; power distribution system upgrades; correction of containment and structural deficiencies; and installation of smoke-evacuation equipment in areas where animals are kept.

PROGRESS TO DATE:

The Institution uses a master plan to coordinate work at its Rock Creek Park and Front Royal locations by developing and implementing projects in priority order to address its infrastructure needs. Through FY 2012, many critical infrastructure and fire-protection projects were completed, including replacement of a medium-voltage electrical distribution system; new ductbank conduits, feeders, switches and transformers; replacement of the fire-protection water supply from the Adams Mill gate to the Great Ape House (phases 1 and 2 of the utility master plan); installation/replacement of fire hydrants; upgrades to the fire-alarm, smoke-detection, and fire-suppression systems throughout all animal facilities; and installation of and/or upgrades to the central fire alarm-monitoring system and fire protection for several facilities at NZP-Front Royal. Design continues for smoke-evacuation systems in animal facilities, phased implementation of fire protection is under way for remaining Front Royal facilities, and the Zoo will continue implementing utility master plans for both the Rock Creek and Front Royal facilities. In FY 2013, steam lines were installed beneath the Conservation Carousel and fire protection improvements were completed at Residence Row in Front Royal. The Vet Hospital and Auditorium at Front Royal are on target for FY 2013 construction awards.

IMPACT OF DELAY:

A delay in completing this work would endanger the animals, visitors, and staff, and would hamper the care and safety of the live animal collections.

**PROJECT TITLE:** Renwick Gallery Major Renovation  
**INSTALLATION:** Renwick Gallery (RG)  
**LOCATION:** Washington, DC

<u>FY 2014 COST ESTIMATE (Thousands of Dollars):</u>	\$8,000
<u>FUTURE-YEAR FUNDING:</u>	<u>\$7,500</u>
Total	\$15,500

**BUILDING BACKGROUND:**

Architect James Renwick designed this National Historic Landmark in the Second Empire style. It was constructed in 1858 as the city's first art museum, the original Corcoran Gallery of Art. With the advent of the Civil War, the building became a warehouse for military material and the headquarters of the Quartermaster General before finally opening as a museum in 1871. When the Corcoran moved to its new gallery in 1897, the Renwick became the home of the U.S. Court of Claims for 65 years. In 1965, the building was transferred to the Smithsonian and returned to use as a museum. An extension of the Smithsonian American Art Museum, the Gallery is dedicated to the collection, exhibition, study, and preservation of American crafts from the 19th century to the present.

**PROJECT JUSTIFICATION:**

The Renwick Gallery requires a major renewal to address failing infrastructure, including: chilled water reliability; HVAC and electrical systems installed in 1967-72; fire-alarm and life-safety systems; roof repairs; roof drainage system; energy efficiency; exterior façade repairs; visitor entrance accessibility; rest room upgrades; electronic security modernization; use of high-efficiency plumbing fixtures and plumbing code compliance; and anti-terrorism improvements. It is not possible to schedule these individual projects over many years while the Gallery remains open because of the severe impact each project would have on operations. Instead, the Gallery will be closed to renovate its infrastructure as part of a single major project.

**PROJECT DESCRIPTION:**

The Renwick Gallery will be closed for the duration of the major renewal project, approximately 18-24 months. All major mechanical, electrical, and plumbing systems will be upgraded and/or replaced. As part of the work completed in 1967-72 to insert 20th century systems into a 19th century building, designers in-filled the original interior light courts with mezzanines and wedged in two of the building's four air-handling units (AHUs). This made it impossible to perform routine maintenance in a safe and effective manner. These units will be relocated to a more accessible location that will be carved out of existing attic space. Several significant projects in the building have been studied or designed individually in the past, yet not implemented because they would cause major disruption of staff, collections, and operations if done while the building is occupied. Therefore, the major renewal project will incorporate these previously studied projects: installing backflow preventers, upgrading electronic security, and improving anti-terrorism blast protection. In addition, the major renewal project also includes

repairs to the exterior, historic façade, replacement of the windows with historically accurate profiles and appropriate thermal properties, and accessibility improvements.

The project will be split-funded between federal and trust resources, with each covering 50 percent of the cost. For FY 2014, the Smithsonian requests \$8 million to begin construction.

PROGRESS TO DATE:

The Smithsonian spent \$250,000 in FY 2011 for a feasibility study and rough concept design, and \$2 million (\$1.5 million in federal/ \$500,000 in trust) in FY 2012 for design services. The design is scheduled to be complete at the end of FY 2013 and construction can begin in early FY 2014.

IMPACT OF DELAY:

Delays to the Renwick Gallery major renovation increase the risk of mechanical systems failures and delay improvements needed to meet current fire-protection coverage and safety standards. The planned renovation will help minimize threats to the safety of the Museum's collections, visitors, and staff. Existing equipment and systems are at the end of their useful lives and will begin to fail at increasing rates, demand increasing maintenance staff time, and be more expensive to replace if this project is delayed.

In addition, a delay of funding this major renovation could result in a breach of agreements with several major donors. This could put anticipated pledge payments at risk.



**PROJECT TITLE:** Construct Collections Storage Swing Space  
**INSTALLATION:** Suitland Collections Facility  
**LOCATION:** Suitland, Maryland

<u>FY 2014 COST ESTIMATE (Thousands of Dollars):</u>	\$2,120
<u>PRIOR-YEAR FUNDING:</u>	\$4,000
<u>FUTURE-YEAR FUNDING:</u>	<u>\$8,760</u>
Total	\$14,880

**BACKGROUND:**

An exhaustive evaluation of the Smithsonian's collections storage space has identified the Suitland Collections Facility, specifically, the Garber collections storage site, as having almost half of the Smithsonian's unacceptable collections space. Much of the more than 230,000 square feet of space is either not up to code requirements for structural support or is compromised by hazardous materials in and around the collections.

**PROJECT JUSTIFICATION:**

Buildings 15, 16, and 18 contain asbestos and/or lead, and the collections therein have been contaminated. Encapsulation and containment fields of heavy polyethylene sheeting, which are more than 10 years old, are beginning to fail, further contaminating the collections. The August 2011 earthquake and hurricane exacerbated this problem by causing the sheeting to split in many locations. Only a few highly trained and qualified Smithsonian staff, properly outfitted in full hazmat suits with respirators, are permitted in the buildings. Otherwise, they are closed and locked, and the collections within the three buildings are not available for research, exhibition, display, or loan, and are off limits to academia and the public. In addition to hazmat concerns, the structural designs of the buildings have been evaluated and found to be structurally inadequate to withstand current code-required combination wind and snow loads. This project will provide swing space, permitting cleanup and temporary storage of collections, and allow for remediation and removal of the contaminated facilities.

**PROJECT DESCRIPTION:**

The first phase is to create swing space to store cleaned collection items, by erecting a temporary, pre-manufactured 20,000-square-foot building on the adjacent concrete pad of recently removed Building 21. The Smithsonian will also temporarily lease 20,000 square feet of off-site collections storage space. The next step will be to build a decontamination chamber within Building 15, and begin the process of decontaminating the collections. This labor-intensive process includes accounting and inventory assessments, stabilizing the collection, and moving cleaned collections into the new temporary swing space at Garber. This swing space will serve as the area for emergency conservation and treatment, packing and crating, and will be the new shipping and receiving hub for Garber. The collections will then be shipped to the leased space for short-term storage. Once its contents are removed, Building 15 will be demolished. Phase II and Phase III will repeat this process for Buildings 16 and 18. For FY 2014, the Institution requests \$2.12 million to continue the first phase of this project.

### PROGRESS TO DATE:

This project is part of the larger Garber redevelopment portion of the Suitland master plan that was revised most recently in 2005. Additional work to implement the master plan cannot proceed until the swing space is available. Design of a temporary, pre-manufactured 20,000-square-foot building will be completed in mid-FY 2013, with the construction contract to be awarded in late-FY 2013.

### IMPACT OF DELAY:

Temporary fixes and “Band-Aids”™ to these three buildings, which were originally constructed as 10–15 year temporary buildings in the 1950s, continue to be applied to these collections spaces. The temporary fixes are holding the facilities stable, but, to be prudent stewards of the national collections, action must be taken to protect, preserve and provide access to these trapped collections before the facilities are further contaminated or the structures collapse and potentially spread hazmat contamination in the surrounding area. Aside from the risk to the public that this situation presents, the Smithsonian cannot proceed with the remainder of the master plan improvements at the Garber and Suitland facilities without this first phase being initiated.

## Other Revitalization Projects

**PROJECT TITLE:** Renovate Elevators  
**INSTALLATION:** National Air and Space Museum (NASM)  
**LOCATION:** Washington, DC

FY 2014 COST ESTIMATE (Thousands of Dollars): \$800

PROJECT DESCRIPTION: Most of the elevators in NASM are 10 to 15 years beyond their useful life. Funding from the American Recovery and Reinvestment Act addressed four of the Museum's most unreliable escalators. Two elevators are being modernized in FY 2012, but the machinery and equipment for the Museum's remaining elevators are in constant need of maintenance and repair. Service outages are becoming increasingly frequent. This request will address the Museum's most urgent elevator renovation needs, including modernization of the building's only freight elevator. The Smithsonian's current five-year capital plan includes similar, smaller future requests to modernize the rest of the elevators in this 36-year-old facility.

**PROJECT TITLE:** Upgrade Electronic Security  
**INSTALLATION:** National Museum of American History (NMAH)  
**LOCATION:** Washington, DC

FY 2014 COST ESTIMATE (Thousands of Dollars): \$1,500

PROJECT DESCRIPTION: Public spaces at NMAH have been undergoing significant renovations. As part of that work, security systems and elements have been upgraded and renovated. However, non-public areas have not had similar security improvements. In particular, collection storage spaces are in need of significant renovation. This was confirmed as part of a Smithsonian Office of Inspector General (OIG) audit in September 2011, which recommended that the NMAH collection storage spaces be brought into compliance with Smithsonian security standards. This project responds to these recommendations and brings these areas, as well as other non-public spaces, into compliance with Smithsonian security standards.

**PROJECT TITLE:** Replace Motor Control Panels  
**INSTALLATION:** National Museum of American History (NMAH)  
**LOCATION:** Washington, DC

FY 2014 COST ESTIMATE (Thousands of Dollars): \$1,000

PROJECT DESCRIPTION: Motor control panels throughout the Museum are beyond their expected useful life. The panels have been modified to keep them functioning, but replacement parts are no longer available. Many of the panels have deteriorated to where they have become a potential hazard to staff working in the area. The requested funds will be used to replace the panels, alleviating this life-safety concern and reducing the risk of system failures.

**PROJECT TITLE:** Panama Canal Expansion Mitigation  
**INSTALLATION:** Smithsonian Tropical Research Institute (STRI)  
**LOCATION:** Panama

FY 2014 COST ESTIMATE (Thousands of Dollars): \$2,600

PROJECT DESCRIPTION: The Panama Canal Authority, through its modernization program, will raise the elevation of Gatun Lake by the year 2014, when a new set of canal locks will be completed. The increased water level will be higher than the piers and the buildings near the current shorelines at several STRI locations such as Barro Colorado Island (maintenance building, game warden office and concrete pier), Gigante (pier and generator room) and Gamboa (concrete pier). STRI infrastructure will be raised approximately 0.80 meters to remain above the waterline and preserve these structures.

**PROJECT TITLE:** Install Wastewater Treatment Plant  
**INSTALLATION:** Smithsonian Tropical Research Institute (STRI)  
**LOCATION:** Panama

FY 2014 COST ESTIMATE (Thousands of Dollars): \$1,300

PROJECT DESCRIPTION: The Bocas Del Toro Research Station includes more than 10 buildings, each with a septic tank and an infiltration system. Due to the age of these systems, the amount of rain received at Bocas Del Toro, and the difficulty in servicing septic tanks at such a remote location, it is necessary to install a wastewater treatment plant to centralize the waste treatment and create a water outflow value that is acceptable to the Panamanian environmental agency. This treatment plant will improve the land and water condition around the station.

**PROJECT TITLE:** Install Security Gates/Booths (Tupper)  
**INSTALLATION:** Smithsonian Tropical Research Institute (STRI)  
**LOCATION:** Panama

FY 2014 COST ESTIMATE (Thousands of Dollars): \$1,500

PROJECT DESCRIPTION: Security at the STRI Tupper site has suffered over time as a result of changes to adjacent roadways. Roosevelt Avenue is now a high-speed roadway, making access and egress via the former main entrance to Tupper hazardous. In addition, the inadequate existing site perimeter security and access control present a risk to the security and safety of the complex. This project will consolidate parking, reconfigure the entrance and driveway at the rear of the compound, relocate security gates, and provide adequate, code-compliant access for emergency vehicles needing to enter and exit the Tupper complex.

**PROJECT TITLE:** Construction Supervision and Administration  
**INSTALLATION:** Multiple Locations  
**LOCATION:** Institution-wide

FY 2014 COST ESTIMATE (Thousands of Dollars): \$6,200

PRIOR-YEAR FUNDING: \$5,750

PROJECT DESCRIPTION: This request includes staff costs for permanent cost-estimating staff, the construction management staff required to supervise and administer construction contracts, as well as term and temporary staff required to perform specialized work associated with revitalization projects. A total of 48 FTEs will be funded from the \$6.2 million. The construction managers directly supervise construction contractors to ensure that quality work is performed safely. In addition, they resolve issues that arise during construction, negotiate change orders, approve payments, and perform other administrative functions as contracting officer's technical representatives (COTRs). These necessary "owner functions" are critical to ensure that quality work is completed safely, on time, and within budget.

This request also funds five contract specialists who support all aspects of the procurement process for acquiring the necessary contract services to execute the Capital Program. These five positions provide essential expertise to ensure the timely award of planning, design, and construction contracts for the Capital Program.

## ***FACILITIES PLANNING AND DESIGN***

Feasibility studies, needs assessments, and design for capital projects are required before site work can take place. This category includes all costs for contract facility master planning, preliminary and final design for all revitalization and construction projects, special studies, and a small amount for facility engineering, capital leveraging, and research activities, similar to operations at the Department of Defense and the National Aeronautics and Space Administration (NASA). The funding will enable development of project baselines, including costs, scope, and schedules, prior to receiving funds to perform the work.

In order to plan and design ahead of Capital Program execution, funding of 10 to 15 percent of the following year's program is required each year. The funding requested for FY 2014 will provide necessary planning and design to the 35 percent stage for most projects included in the planned FY 2016 program, and will complete design for projects planned for FY 2015. This will move the Institution closer to meeting the National Academy of Public Administration's (NAPA) recommendation that firm baselines be established before funding requests to provide more accurate cost estimates and to enable timely award of construction contracts upon receipt of future-year funding.

The Institution requests a total of \$13,780,000 for planning and design in FY 2014. These funds will be used to design several major revitalization projects at the National Air and Space Museum (\$4.75 million), National Zoological Park (\$2.5 million), and the National Museum of Natural History (\$2.0 million). The request also includes funding to prepare designs for numerous smaller revitalization projects, including security upgrades and master planning (\$4.53 million). This budget request will also enable the Smithsonian to prepare comprehensive master planning studies to guide future facilities decisions, and other studies to ensure more effective use of existing space.

If these essential resources are not provided, the Institution will be unable to proceed with vital planning and design activities to ensure the successful execution of the Smithsonian's long-range Capital Program.

## **CONSTRUCTION PROJECTS**

**PROJECT TITLE:** Plan, Design, and Construct the National Museum of African American History and Culture (NMAAHC)

**INSTALLATION:** National Museum of African American History and Culture

**LOCATION:** Washington, DC

FY 2014 COST ESTIMATE (Thousands of Dollars): \$55,000

PRIOR-YEAR FUNDING: \$195,000

Total \$250,000

### BUILDING BACKGROUND:

The National Museum of African American History and Culture Act, signed by President George W. Bush on December 19, 2003, established the newest museum within the Smithsonian Institution. The Act stipulates that project funding be shared equally between federal appropriations and privately raised funds.

### PROJECT JUSTIFICATION:

The purpose of the proposed action is to fulfill the mandate of the National Museum of African American History and Culture Act (NMAAHC Act), P.L. 108–184, enacted by the Congress on December 16, 2003. The law directs that the new Museum provide for the collection, study, and establishment of programs relating to African American life, art, history, and culture. To that end, the Museum will create and maintain permanent and temporary exhibits documenting the history of African American life during the periods of slavery, Reconstruction, the Harlem Renaissance, the civil rights movement, and other periods of the African American diaspora. The Museum will also provide for the collection and study of artifacts and documents relating to African American life, and foster collaboration with other museums, historically black colleges and universities, and other organizations to promote the study and appreciation of African American life and its impact on the nation and its entire people.

Section 2 of the NMAAHC Act outlines the findings of Congress as to why such a museum is needed. The findings of Congress were based in large part on the conclusions of the Presidential Commission, known as the NMAAHC Plan for Action Presidential Commission, in its 2003 study, *The Time Has Come: Report to the President and Congress*. This Presidential Commission stated that:

“... the time has come to establish the National Museum of African American History and Culture because the museum is important not only for African Americans but for all Americans. It is the only institution that can provide a national meeting place for all Americans to learn about the history and culture of African Americans and their contributions to and relationship with every aspect of our national life. Further, the museum is the only national venue that can respond to the interests and needs of diverse racial constituencies who share a common commitment to a full and accurate telling of our country’s past as we prepare for our country’s

future. And, even more importantly, it is the only national venue that can serve as an educational healing space to further racial reconciliation.”

PROJECT DESCRIPTION:

The Museum is under construction on a five-acre site, located on the National Mall near the Washington Monument. The site is bounded by Constitution Avenue and Madison Drive, between 14th and 15th Streets, NW. This site has westerly panoramic views, sweeping from the White House grounds on the northwest to the Jefferson Memorial on the southwest. The National Mall and the Washington Monument are both listed on the National Register of Historic Places. For FY 2014, the Smithsonian requests \$55 million to complete the federal funding portion of the construction of this congressionally mandated Museum.

PROGRESS TO DATE:

The Smithsonian Board of Regents selected the Monument site for the new Museum building in January 2006. Transfer of the site from the National Park Service to the Smithsonian was completed in June 2007. The Cultural Resources Report (Section 106) and the “Tier 1” environmental impact statement (EIS), as well as the “Master Facilities Programming” (Architectural Programming/Exhibitions Master Planning), were completed in 2008. A design competition involving six invited architect-engineer (A/E) teams culminated in April 2009 with the selection of Freelon Adjaye Bond/SmithGroup as the A/E team for the Museum design. The Institution awarded an A/E design contract in FY 2010. Extensive historic preservation consultations resulted in a “programmatic agreement” that specifies mitigation actions. The final EIS (“Tier 2”) and Record of Decision were adopted by the National Capital Planning Commission (NCPC) at their November 2011 meeting. After a best-value solicitation for construction management-at-risk, Clark/ Smoot/ Russell, JV was selected and awarded pre-construction services in July 2011. Construction commenced in January 2012 and site utilities and excavation are significantly complete. In May 2012, a design assist contract was awarded for the exterior curtain wall. Concrete and vertical transportation contracts were awarded in September 2012, followed by the structural steel award in January 2013. The mechanical/electrical/plumbing contracts will be awarded in mid-FY 2013. The final build-out and site work contract will be awarded in late 2013. The exhibit design firm of Ralph Appelbaum Associates was awarded a contract in February 2011, and work progressed to the schematic design stage as of summer 2012.

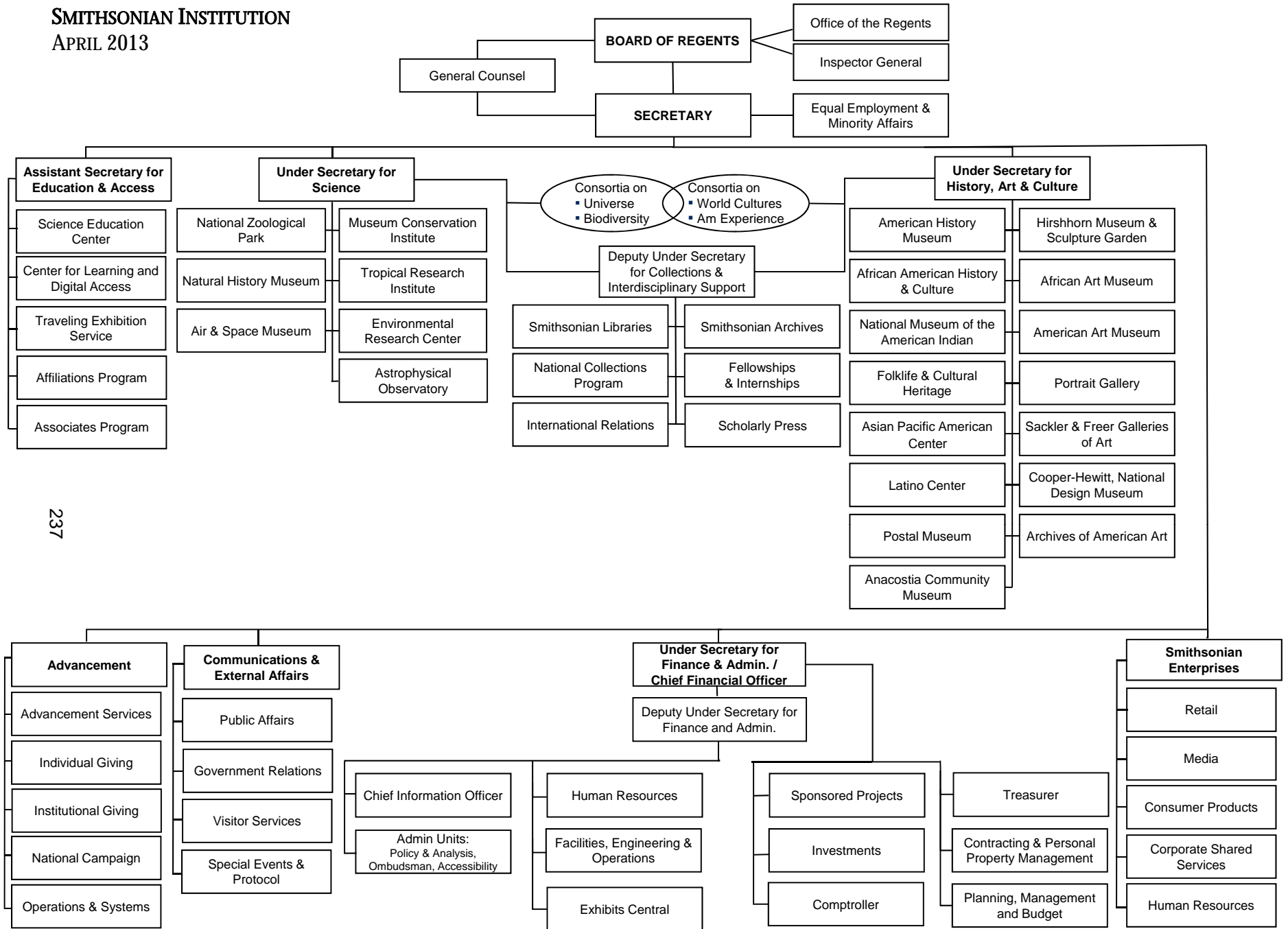
IMPACT OF DELAY:

The Museum is scheduled to open in late 2015 (FY 2016) to coincide with the 150th anniversary of the end of the Civil War; the 150th anniversary of the 13th Amendment, which ended slavery in America; and the 50th anniversary of the Voting Rights Act. A further delay in funding would impede construction and introduce schedule delays for both construction and exhibit installation. The delays would result in increases to the overall estimated project costs.





**SMITHSONIAN INSTITUTION**  
**APRIL 2013**



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**VISITS TO THE SMITHSONIAN  
FY 2008–FY 2012**

<b><u>MUSEUM</u></b>	<b><u>FY 2008</u></b>	<b><u>FY 2009</u></b>	<b><u>FY 2010</u></b>	<b><u>FY 2011</u></b>	<b><u>FY 2012</u></b>
<b>MALL</b>					
SI Castle	1,683,655	1,823,699	1,813,818	1,599,986	1,453,220
A&I Building <sup>1</sup>	0	0	0	0	0
Natural History	6,583,858	7,543,542	6,969,616	6,768,580	7,378,612
Air and Space/ Silver Hill	6,867,547	7,040,578	8,013,000	7,283,019	6,907,969
American Indian	1,479,338	1,412,202	1,365,915	1,326,457	1,605,547
Freer Gallery	606,486	624,219	516,164	542,792	567,183
Sackler Gallery	283,671	321,749	307,732	373,800	400,950
African Art	311,788	376,610	333,342	369,635	405,441
Ripley Center	415,601	444,536	365,580	447,224	519,878
American History <sup>2</sup>	0	4,178,295	4,237,760	4,588,853	4,764,131
Hirshhorn	670,330	685,016	612,460	617,751	722,008
<b>OFF MALL</b>					
DW Reynolds Center (AA/PG)	960,202	1,042,915	1,010,876	1,080,177	1,078,774
Renwick	129,124	166,198	145,555	161,765	175,183
Anacostia	38,963	29,691	52,552	50,785	37,952
Cooper-Hewitt <sup>3</sup>	165,468	164,098	180,852	233,732	328
American Indian <sup>4</sup> (Heye Center/CRC)	318,312	286,053	295,862	352,463	422,665
National Zoo	2,061,848	2,275,626	2,217,060	1,825,329	2,237,922
Postal	306,785	356,993	330,453	334,039	325,571
Udvar-Hazy Center	1,128,003	1,199,655	1,106,804	1,198,873	1,324,297
<b>TOTAL</b>	<b>24,010,979</b>	<b>29,971,675</b>	<b>29,875,401</b>	<b>29,155,260</b>	<b>30,327,631</b>

<sup>1</sup> The Arts and Industries (A&I) Building closed to the general public in January 2004.

<sup>2</sup> The National Museum of American History closed to the public in September 2006 and reopened in November 2008.

<sup>3</sup> The Cooper-Hewitt, National Design Museum closed to the public in October 2011 for phase two of the Carnegie Mansion renovation project.

<sup>4</sup> Includes the George Gustav Heye Center in New York City and the Cultural Resources Center in Suitland, Maryland.

## TRUST FUNDS

In addition to support provided by federal appropriations, the Smithsonian Institution receives and generates trust funds to expand and enrich its programs. Trust funds are used to leverage the Smithsonian’s research capacity through partnerships with federal agencies, universities, non-Governmental organizations, industry, and other private organizations, national and international. Trust funds will also be raised to meet the Institution’s funding commitment with Congress to build and open the new National Museum of African American History and Culture. In addition, trust funds will be used to renovate and modernize exhibits throughout the Institution. The following provides an overview of the current sources of trust funds.

The Institution’s trust funds include general trust funds with limited or no restrictions on their use, funds restricted by the donor or sponsor, and Government grants and contracts. Projections are subject to the uncertainty of the size of donations, grants, and contracts; to fluctuations in visitor attendance; and to the volatility of the economy, which together directly affect the return on the endowment, short-term interest income, and donor giving, as well as restaurant, magazine, catalogue, and museum shop revenues, memberships, and other business activities. The Institution’s gross operating revenue, less the expenses of the auxiliary activities, represents the net operating revenue available for programmatic and related purposes. The following table summarizes the sources of trust operating funds.

(Dollars in Millions)	FY 2012 Actuals	FY 2013 Estimates
General Trust	74.9	77.5
Donor/Sponsor-Designated	252.2	249.2
Government Grants and Contracts	116.0	120.0
Total Available for Operations	\$443.1	\$446.7

**SOURCE AND APPLICATION OF TRUST FUNDS** — The following sections describe the sources of each category of trust funds as well as a general account of how they are used.

**General Trust Funds** — The sources of general trust funds are investment income; payout from unrestricted endowments; net proceeds from the museum shops, catalogues, and food service concessions; sales of Smithsonian books, records, and other products based on designs and objects in the collections; theater/planetarium operations at the National Air and Space Museum and the Samuel C. Johnson IMAX Theater in the National Museum of Natural History; licensing fees from the Smithsonian Channel and student travel programs; rental of exhibitions of the Smithsonian Institution Traveling Exhibition Service; membership programs (including subscriptions to *Smithsonian* and *Air and Space* magazines); the sale of posters, exhibition brochures, catalogues,

and other publications; and admission fees. Projected sources of FY 2013 general trust funds total \$77,500,000. These funds are used to support administrative programs such as central management, legal counsel, accounting, personnel, contracting, and budget, as well as fund raising, education, research and public programs, scholarly studies, and exhibitions.

**Donor/Sponsor-Designated Funds** — Designated trust funds include gifts, grants, and earnings on endowments from individuals, foundations, organizations, and corporations which specify the purpose of the funds. Designated funds in FY 2013 are projected to total \$249,200,000. Generally, these funds support a particular exhibition or program, or are used to manage the Smithsonian collections and/or support research projects in accordance with the Institution's mission.

**Government Grants and Contracts** — Various Government agencies and departments provide grants and contracts for specific projects that align with the Smithsonian's expertise in a particular area of science, history, art, or education. For FY 2013, Government grants and contracts are projected to total \$120,000,000. Of this amount, \$70,000,000 would be available for astrophysical research and development of programs carried out by the Smithsonian Astrophysical Observatory.

## APPROPRIATION LANGUAGE AND CITATIONS

The Act of August 10, 1846, codified within 20 U.S.C. §§ 41-70, established the Smithsonian Institution “for the increase and diffusion of knowledge,” and provided the organizational structure for the Institution’s administration. The mission of the Smithsonian Institution has remained unchanged throughout its 167-year history, although additional authority for many of the Institution’s programs and operations has been enacted over the years. Those statutes, along with the Smithsonian charter, and language from prior year appropriations acts are cited below as the authority for the Smithsonian Institution’s FY 2012 appropriation language, which by reference, is included as the FY 2013 appropriations language provided by the Further Continuing Appropriations Act, 2013.

### **Appropriation: Salaries and Expenses**

1. For necessary expenses of the Smithsonian Institution, as authorized by law, including research in the fields of art, science, and history;

20 U.S.C. § 50 provides that “...all objects of art and of foreign and curious research, and all objects of natural history, plants, and geological and mineralogical specimens...shall be so arranged and classified...as best to facilitate the examination and study of them...”

20 U.S.C. § 53a provides that “Appropriations are hereby authorized for...the making of solar observations at high altitudes...”

20 U.S.C. § 69 provides that “The Secretary of the Smithsonian Institution is hereby authorized...to continue independently or in cooperation anthropological researches among the American Indians and the natives of lands under the jurisdiction or protection of the United States...”

20 U.S.C. § 75b(b) provides that “The [National Portrait] Gallery shall function as a free public museum for the exhibition and study of portraiture and statuary depicting men and women who have made significant contributions to the history, development, and culture of the people of the United States and of the artists who created such portraiture and statuary.”

20 U.S.C. § 76bb(c) provides that “The Joseph H. Hirshhorn Museum and Sculpture Garden...shall be used for the storage, exhibition, and study of works of art...”

20 U.S.C. § 77a provides that “Said national air and space museum shall...provide educational material for the historical study of aviation and space flight.”

20 U.S.C. § 78 provides that “The Secretary of the Smithsonian Institution is hereby authorized to cooperate with any State, educational institution, or scientific organization in the United States, for continuing paleontological investigations...”

20 U.S.C. § 80a(a) provides that “...It shall be equipped with a study center for scholarly research into the meaning of war, its effect on civilization, and the role of the Armed Forces...”

20 U.S.C. § 80m(a)(3) provides that “...the Board may--...(3) conduct programs of research and education [in the Museum of African Art]...”

20 U.S.C. §§ 80q-1(b)(1),(3) provide that “The purposes of the National Museum [of the American Indian] are to-- (1) advance the study of Native Americans, including the study of language, literature, history, art, anthropology, and life...(3) provide for Native American research and study programs...”

2. development, preservation, and documentation of the National Collections;

20 U.S.C. § 50 provides that “...all objects of art and of foreign and curious research, and all objects of natural history, plants, and geological and mineralogical specimens...shall be delivered to such persons as may be authorized by the Board of Regents to receive them, and shall be so arranged and classified...as best to facilitate the examination and study of them...”

20 U.S.C. § 50a provides that “The Smithsonian Institution is . . . authorized to include in its estimates of appropriations such sums as may be needful for the preservation and maintenance of the [John Gellatly art] collection.”

20 U.S.C. § 59 provides that “All collections of rocks, minerals, soils, fossils, and objects of natural history, archaeology, and ethnology...when no longer needed for investigations in progress shall be deposited in the National Museum.”

20 U.S.C. § 69 provides that “The Secretary of the Smithsonian Institution is hereby authorized...to continue independently or in

cooperation...the excavation and preservation of archaeological remains.”

20 U.S.C. § 75e(1) provides that “...the Board may-- (1) purchase, accept, borrow, or otherwise acquire portraiture, statuary, and other items for preservation, exhibition, or study.”

20 U.S.C. § 76c(b) provides that “(b)...the Regents are hereby authorized...to acquire (by purchase or otherwise) and sell contemporary works of art or copies thereof...”

20 U.S.C. § 76cc(a) provides that “(a) There is established in the Smithsonian Institution a Board of Trustees...which shall have the sole authority (i) to purchase or otherwise acquire (whether by gift, exchange, or other means) works of art for the Joseph H. Hirshhorn Museum and Sculpture Garden...”

20 U.S.C. § 77a provides that “Said national air and space museum shall...collect, preserve, and display aeronautical and space flight equipment of historical interest and significance...”

20 U.S.C. § 80a(a) provides that “(a)...the Smithsonian Institution shall collect, preserve, and exhibit military objects of historical interest and significance.”

20 U.S.C. §§ 80m(a)(1),(2) provide that “...the Board may-- (1) purchase, accept, borrow or otherwise acquire additional works of art or any other real or personal property for the Museum [of African Art]; (2) preserve, maintain, restore...or otherwise hold any property of whatsoever nature acquired...”

20 U.S.C. § 80q-1(b)(2) provides that “(b) The purposes of the National Museum [of the American Indian] are to-- ...(2) collect, preserve, and exhibit Native American objects of artistic, historical, literary, anthropological, and scientific interest...”

20 U.S.C. § 81 provides that “The National Zoological Park is placed under the direction of the Regents of the Smithsonian Institution, who are authorized to transfer to it any living specimens, whether of animals or plants, in their charge, to accept gifts for the park...[and] to make exchanges of specimens...”



3. presentation of public exhibits and performances;

20 U.S.C. § 75b(b) provides that “(b)The [National Portrait] Gallery shall function as a free public museum for the exhibition and study of portraiture and statuary...”

20 U.S.C. § 76c(b) provides that “(b) In order to encourage the development of contemporary art and to effect the widest distribution and cultivation in matters of such art, the Regents are hereby authorized to...conduct exhibitions...”

20 U.S.C. § 76bb(c) provides that “(c) The Joseph H. Hirshhorn Museum and Sculpture Garden...shall be used for the storage, exhibition, and study of works of art...”

20 U.S.C. § 77a provides that “Said national air and space museum shall...collect, preserve, and display aeronautical and space flight equipment of historical interest and significance...”

20 U.S.C. § 80a(a) provides that “(a)...the Smithsonian Institution shall collect, preserve, and exhibit military objects of historical interest and significance.”

20 U.S.C. § 80m(a)(2) provides that “...the Board may--  
...(2)...display...any property of whatsoever nature acquired [for the Museum of African Art]...”

20 U.S.C. § 80q-1(b) provides that “(b) The purposes of the National Museum [of the American Indian] are to--...(2) collect, preserve, and exhibit Native American objects of artistic, historical, literary, anthropological, and scientific interest...”

4. collection, preparation, dissemination, and exchange of information and publications;

20 U.S.C. § 53a provides that “Appropriations are hereby authorized for...preparation of manuscripts, drawings, and illustrations for publications.”

5. conduct of education, training, and museum assistance programs;

20 U.S.C. §§ 65a(a)(1),(3),(4) provide that “The Director of the National Museum under the direction of the Secretary of the Smithsonian Institution shall-- (1) cooperate with museums and their professional organizations in a continuing study of museum problems and opportunities, both in the United States and

abroad;... (3) prepare and distribute significant museum publications; (4) perform research on, and otherwise contribute to, the [development of] museum techniques....”

20 U.S.C. § 77a provides that “Said national air and space museum shall...provide educational material for the historical study of aviation and space flight.”

20 U.S.C. § 79a provides that “The purpose of setting aside such an area [Barro Colorado Island] is to preserve and conserve its natural features...thus providing a place where duly qualified students can make observations and scientific investigations for increase of knowledge, under such conditions and regulations as may be prescribed by the [Smithsonian Institution].”

20 U.S.C. § 79e provides that “There are authorized to be appropriated annually...such sums as are necessary for the administration of [the Canal Zone Biological Area] ... and for the maintenance of laboratory or other facilities...”

20 U.S.C. § 80m(a) provides that “(a)...the Board [of Regents] may -- ... (3) conduct programs of research and education [in the Museum of African Art]....”

6. maintenance, alteration, operation, lease agreements of no more than 30 years, and protection of buildings, facilities, and approaches;

20 U.S.C. § 53a provides that “Appropriations are hereby authorized for the maintenance of the Astrophysical Observatory and...for repairs and alterations of buildings and grounds occupied by the Smithsonian Institution in the District of Columbia and elsewhere...”

20 U.S.C. § 76g provides that “There are hereby authorized to be appropriated annually such sums as may be necessary to maintain and administer the [National Portrait] Gallery...”

20 U.S.C. § 76ee provides that “There is authorized to be appropriated...such additional sums as may be necessary for the maintenance and operation of such...[Hirshhorn] museum and sculpture garden.”

20 U.S.C. § 79b(c) provides that “The ...[Smithsonian Institution] shall...(c) be responsible for the construction and maintenance of laboratory and other facilities on the area provided for the use of

students authorized to carry on studies within the confines of the area...”

20 U.S.C. § 80m(a)(2) provides that “...the Board may--...(2) preserve, maintain...any property of whatsoever nature acquired [for the Museum of African Art]...”

20 U.S.C. § 81 provides that “The National Zoological Park is placed under the direction of the Regents of the Smithsonian Institution, who are authorized...to administer and improve the said Zoological Park for the advancement of science and the instruction and recreation of the people.” Public Law 101-512 making appropriations for the Department of the Interior and Related Agencies for the fiscal year 1991 extended the maximum term for federal leases from ten years to thirty.

7. not to exceed \$\_\_\_\_\_for services as authorized by 5 U.S.C. 3109;

5 U.S.C. § 3109(b) provides that “(b) When authorized by an appropriation or other statute, the head of an agency may procure by contract the temporary (not in excess of 1 year) or intermittent services of experts or consultants or an organization thereof, including stenographic reporting services.”

8. and purchase, rental, repair, and cleaning of uniforms for employees,

5 U.S.C. §§ 5901(a)(1),(2) provide that “(a) There is authorized to be appropriated annually to each agency of the Government of the United States...on a showing of necessity or desirability, such sums as may be necessary to carry out this subchapter.

40 U.S.C. § 6306(c) provides that “(c) The employees designated as special police under subsection (a) [covering the Smithsonian Institution] may be provided, without charge, with uniforms and other equipment as may be necessary for the proper performance of their duties...”

9. \$\_\_\_\_\_, to remain available until September 30, 2014, except as otherwise provided herein;

Wording added by the Congress in Public Law 111-88 making appropriations for the Department of the Interior and Related Agencies for fiscal year 2010 to extend the availability for the Salaries and Expenses account from one year to two years unless otherwise provided.

10. of which not to exceed \$\_\_\_\_\_ for the instrumentation program, collections acquisition, exhibition reinstallation, the National Museum of African American History and Culture, and the repatriation of skeletal remains program shall remain available until expended;

Wording added by the Congress in Public Law 100-446 making appropriations for the Department of the Interior and Related Agencies for fiscal year 1989 to permit the Institution to establish no-year funding within the Salaries and Expenses account for the development of major scientific instrumentation. Public Law 101-512, making appropriations for the Department of the Interior and Related Agencies for fiscal year 1991, allowed no-year funding to be used for the instrumentation program as well as purchases for museum collections; the move to the Museum Support Center; the reinstallation of museum exhibitions; and the National Museum of the American Indian and the repatriation of skeletal remains. Public Law 108-447 making appropriations for the Department of the Interior and Related Agencies for fiscal year 2005 allowed no-year funding for the instrumentation program; collections acquisition; exhibition reinstallation; the repatriation of skeletal remains; and the National Museum of African American History and Culture.

31 U.S.C. § 1301(c)(2) provides that “(c) An appropriation in a regular, annual appropriation law may be construed to be permanent or available continuously only if the appropriation--... (2) expressly provides that it is available after the fiscal year covered by the law in which it appears.”

11. and including such funds as may be necessary to support American overseas research centers:

Wording added by the Congress in Public Law 99-190 making appropriations for Other Related Agencies for fiscal year 1986.

12. *Provided*, That funds appropriated herein are available for advance payments to independent contractors performing research services or participating in official Smithsonian presentations.

31 U.S.C. § 3324(b)(1) provides that (b) “An advance of public money may be made only if it is authorized by-- (1) a specific appropriation or other law...”

#### **Appropriation: Facilities Capital**

1. For necessary expenses of repair, revitalization, and alteration of facilities owned or occupied by the Smithsonian Institution, by contract or

otherwise, as authorized by section 2 of the Act of August 22, 1949 (63 Stat. 623),

20 U.S.C. § 53a provides that “Appropriations are hereby authorized...for repairs and alterations of buildings and grounds occupied by the Smithsonian Institution in the District of Columbia and elsewhere...”

20 U.S.C. § 81 provides that “The National Zoological Park is placed under the direction of the Regents of the Smithsonian Institution, who are authorized...to administer and improve the said Zoological Park for the advancement of science and the instruction and recreation of the people.”

Public Law 108-108, making appropriations for the Department of the Interior and Related Agencies for fiscal year 2004, established the Facilities Capital appropriation. The appropriation includes activities formerly financed through the Repair, Restoration and Alteration of Facilities appropriation and the Construction appropriation.

2. and for construction,

20 U.S.C. § 53a provides that “Appropriations are hereby authorized...for repairs and alterations of buildings and grounds occupied by the Smithsonian Institution in the District of Columbia and elsewhere...”

3. including necessary personnel,

Wording added by Congress for clarification in Public Law 108-7 making appropriations for the Department of Interior and Related Agencies for fiscal year 2003.

4. \$ \_\_\_\_\_ to remain available until expended,

31 U.S.C. § 1301(c)(2) provides that “(c) An appropriation in a regular, annual appropriation law may be construed to be permanent or available continuously only if the appropriation--... (2) expressly provides that it is available after the fiscal year covered by the law in which it appears.”

5. of which not to exceed \$ \_\_\_\_\_ is for services as authorized by 5 U.S.C. 3109,

5 U.S.C. § 3109(b) provides that “(b) When authorized by an appropriation or other statute, the head of an agency may procure

by contract the temporary (not in excess of 1 year) or intermittent services of experts or consultants or an organization thereof, including stenographic reporting services.”

6. and of which \$\_\_\_\_\_ shall be to complete design and begin construction of the National Museum of African American History and Culture:

20 U.S.C. § 80-r-6(a)(2) provides that “The Board of Regents, in consultation with the [National Museum of African American History and Culture] Council, may plan, design, and construct a building for the Museum...”

7. *Provided*, That during fiscal year 2012 and any succeeding fiscal year, a single procurement for construction of the National Museum of African American History and Culture, as authorized under section 8 of the National Museum of African American History and Culture Act (20 U.S.C. 80r-6), may be issued that includes the full scope of the project: *Provided further*, That the solicitation and contract shall contain the clause “availability of funds” found at CFR 52.232.18.

Wording added by Congress to Public Law 112-74 (Consolidated Appropriations Act, 2012) to permit the Smithsonian, as provided, to solicit and award a contract for the construction of the National Museum of African American History and Culture on the National Mall prior to receiving full funding to complete the project.