



Office of the Secretary

This is the second in a series of reports to the Board of Regents on the Smithsonian Institution's operations and the state of its organizational life. This report, covering the time frame of fiscal year 2000 – October 1999 through September 2000 – will bring you up to date on major accomplishments in achieving the goals that the Secretary set for the Institution in his vision statement, "The First Decade's Work."

"The First Decade's Work" defines two principal missions for the next ten years:

- Seeking to enlarge a shared understanding of the mosaic that is our national identity, the Smithsonian is committed to being the most extensive, nationwide provider of authoritative experiences that connect the American people to their history and to their scientific and cultural heritage.
- Seeking to extend the uniquely powerful contribution science has made to the development of the United States, the Smithsonian is committed to promoting scientific innovation and discovery by operating the country's premier centers for astrophysics, tropical research, and a select number of specialized fields in the life and earth sciences.

To realize these two missions, we must successfully execute a program that centers on the following four goals: (1) public impact; (2) financial strength; (3) management excellence; and (4) focused, first-class scientific research. This report will describe some of the Smithsonian's achievements toward these goals during fiscal year 2000.

Public Impact

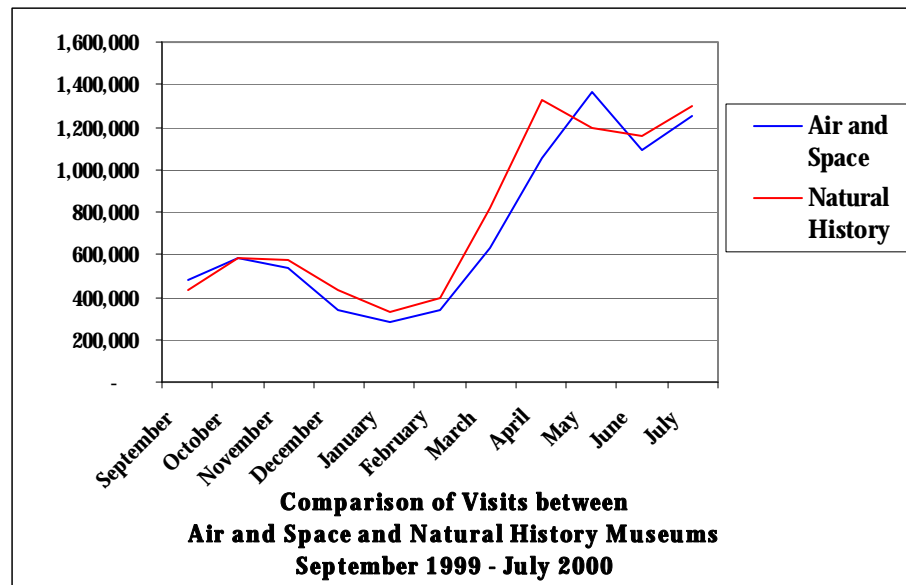
We are committed to building world-class exhibits, museums, and monumental experiences for Smithsonian visitors in the nation's capital, across the country, and through any way that we touch people's lives with Smithsonian collections and products.

Washington, D.C. Audiences

Visits to the Smithsonian's exhibitions jumped about ten percent during the past fiscal year. Total attendance for the 2000 calendar year to Smithsonian exhibitions will likely top 40 million, and that's with the doors of the National Portrait Gallery and National Museum of American Art closed since January 2000.

Big contributors to these increases include some standing-room-only exhibitions and critical applause. The Natural History Museum's Nordic blockbuster, "Vikings: The North Atlantic Saga," was on view April 29 through August 13. Already surfing on waves of popularity for its new Discovery Center and IMAX theater, the Natural History Museum received 70 percent more visitors in April 2000 than in April 1999, nearly 50 percent more in May, and over 32 percent more in July, compared to the same months in the previous year. The "Vikings" exhibition rated the cover story of *TIME* magazine's May 8 issue, as well as favorable national spotlights in *U.S. News and World Report*, *National Geographic* and *Newsweek*. The museum hosted royalty and presidents from Viking homelands at the exhibition's debut. Smithsonian Institution Press published the book to accompany the exhibition, whose initial print run of 43,000 volumes (hard cover retail price \$60, softbound \$34.95) sold out before the exhibition closed.

Large construction cranes have taken up near-permanent residence outside the National Air and Space Museum this year as part of the project to replace the building's aging glass panels. Although the museum's attendance is on pace to top 9 million in fiscal year 2000 (50 percent higher than museums such as the Metropolitan Museum of Art, the British Museum, the Louvre, and the National Gallery of Art), the state of construction has resulted in a dip in the numbers of visitors who pour through the doors in search of awesome, larger-than-life flying machines, as the graph below shows. The striking achievement in audience attraction this year is that the Natural History Museum has surpassed the Air and Space Museum as the most visited museum in the world, also shown in the bar graph on page 3.



The National Air and Space Museum's Udvar-Hazy Center at Dulles Airport has passed from dreams to reality: the Virginia Department of Transportation began clearing and grading the Center's site in July, building the entrance road from the main state route and completing the gravel portion of the parking lot. The official groundbreaking is scheduled for October 25, 2000.

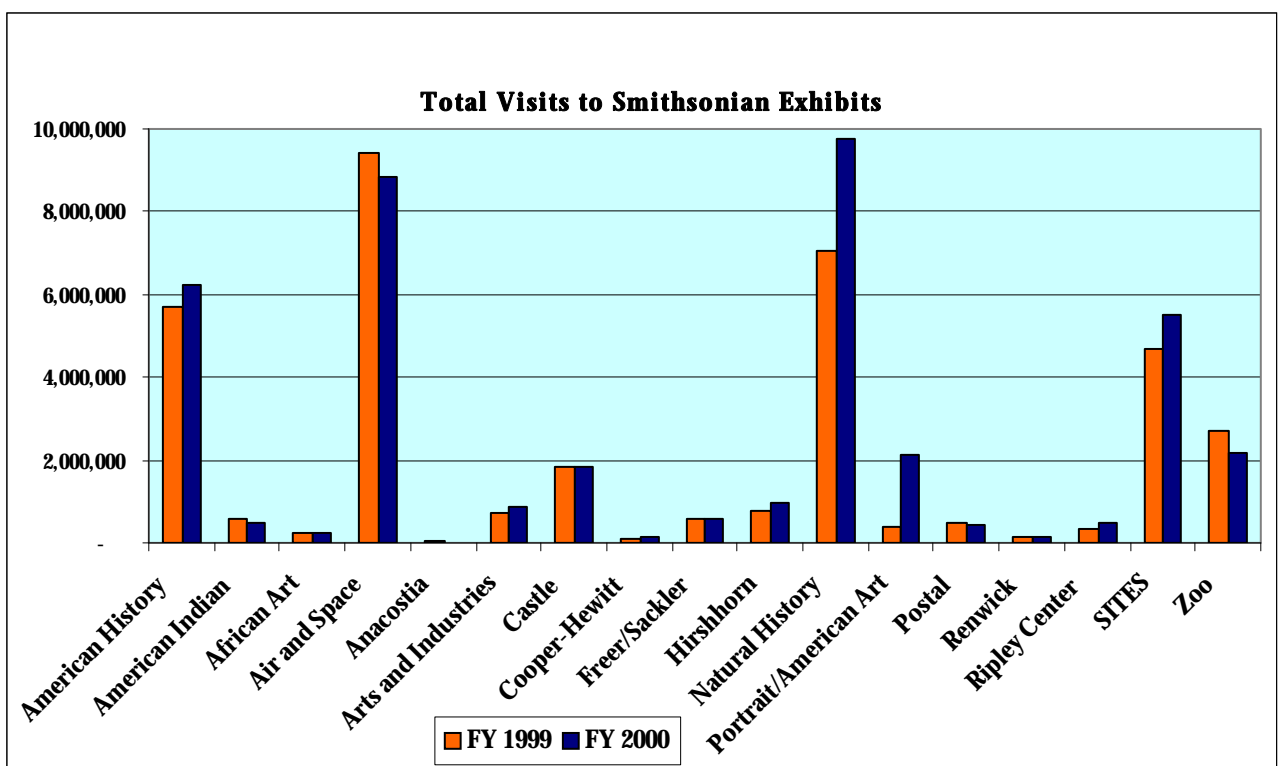
The Hirshhorn scored one of its highest attendance levels in its 25-year history with "Dali's Optical Illusions." From April 19 through June 18, 2000, more than 150,000 visitors streamed through the galleries of surreal art at the rate of 2,500 per day. To handle the crowds, the museum developed a first-come, first-served system of free, floor-to-floor immediate-use passes coordinated by a corps of 73 volunteer monitors. The Hirshhorn's visitor totals for May 2000 were almost double what they were in May 1999 (154,200 vs. 87,200).

The National Museum of American History's attendance is up as well this year by nearly 20 percent. The Star Spangled Banner's conservation lab and exhibit are a popular destination within the museum, attracting nearly half of the museum's visitors. The parallel web site, launched in November 1999, receives more than 20,000 visits each month and has garnered several "site of the week" awards, from such judges as *Communication Arts Magazine*, HOW Interactive Design Competition, and the American Association of Museums. The museum's Office of Public Affairs received second place for the 2000 Silver Anvil Award from the Public Relations Society of America in recognition of well-orchestrated press coverage on the Star Spangled Banner.

Other achievements in creating powerful audience experiences this year at the American History

Museum include the Disability Rights Movement exhibit that opened in July. Commemorating the tenth anniversary of the Americans With Disabilities Act, the exhibit tells this community's story in the American civil rights struggle for the first time in a museum setting. "Fast Attacks and Boomers: Submarines and the Cold War" opened in April and brings to light the role that U.S. diesel and nuclear-powered submarines played in America's Cold War strategy from 1945 to 1991. Much of the exhibition shows previously classified information. Visits to the museum increased by nearly 40 percent in April and 18 percent in May compared to those months in 1999.

The National Museum of the American Indian is paving the way for making a bold public impact on the Mall when it opens in late 2003. A groundbreaking ceremony on the museum's future site, between the United States Capitol and the world-popular Air and Space Museum, took place last fiscal year, on September 28. The Commission of Fine Arts granted final approval to the museum's architectural plans on May 18, 2000, and the National Capital Planning Commission



followed suit on June 1. The site is almost ready for construction to begin: about eight feet of dirt were removed to take the ground level below where there would be any archeological findings, then ground water was pumped out this spring and summer. The large pit has been shored up with large metal sheets on the north side, with work slated next for the east, south, and west sides in that order. The construction contract should be awarded by January 2001.

These attendance figures reflect projections through the end of fiscal year 2000 (September 30, 2000). Zoo visits declined this year due to an uncommonly rainy summer in the nation's capital, the death of Hsing Hsing, and the shooting outside the Zoo in April. Attendance figures for the National Portrait Gallery and Museum of American Art include visitors who have seen the museums' traveling exhibitions that are circulating nationwide, while the museums are closed for renovation of the Patent Office Building.

In New York, the Cooper-Hewitt, National Design Museum inaugurated the National Design Triennial this spring with the highly acclaimed exhibition, "Design Culture Now." *TIME* magazine applauded the exhibition as the bellwether of a design revolution, in which the notion

of perspective is being eclipsed by computer-generated products: “the Triennial is one of the few design rodeos anywhere, but it is even rarer for addressing the impact computers are making across design fields.” (March 27, 2000) And as *Art in America* proclaimed, “The show succeeds in its mission to make viewers aware of the people behind gadgets, reveal the thought and technology that goes into their design, and generally draw attention to things, both grand and small, that we customarily overlook.” (July 2000) Attendance at the museum was up nearly 25 percent through the spring of this year.

The economics of scarcity can be psychologically advantageous for museum attendance, too, as the National Museum of American Art and the National Portrait Gallery discovered before closing their doors to the public on January 3, 2000 for renovation. The combined attendance at the historic Patent Office Building shot up 80 percent for the three-month period of October-December 1999, compared to the same three-month time frame in 1998. The building’s roof was completely replaced by June. The extensive renovation project is about to begin.

The Freer and Sackler Galleries continued to mount impressive exhibitions of Asian art in fiscal year 2000. At the Freer, “Brushing the Past: Later Chinese Calligraphy from the Gift of Robert Hatfield Ellsworth” showcased 20 selected works from one of the West’s most comprehensive collections of late Chinese calligraphy. This gift made the Freer one of the largest repositories of Chinese calligraphy in the United States with unparalleled depth in 19th and 20th century holdings. “The Idea of China in Japanese Art” showed how the arts of China influenced Japanese cultural life from the 8th to the 19th century. “Treasures from the Royal Tombs of Ur” attracted more than 3,000 visitors on its October 17, 1999 opening day, with a total audience of 140,000 during its three-month run at the Sackler.

In its fifth consecutive year, “Art Night on the Mall” invited visitors to wander the Mall-based art museums on Thursday evenings during the summer season. The Hirshhorn Museum, Freer and Sackler Galleries, and National Museum of African Art have forged a productive partnership in this open-door invitation to summertime Washington audiences. The resulting attendance this year was about the same as in 1999. The National Museum of African Art opened “Transatlantic Dialogue: Contemporary Art In and Out of Africa” for its summer attraction; the exhibit pairs eight African artists with eight African American artists to show a sampling of contemporary, bi-continental currents in African art.

“Reflections in Black: A History of Black Photographers” earned not only critical attention but produced record attendance and a MacArthur “genius” fellowship, too. Curator Deborah Willis let more than 300 photographs tell the story of the black American experience “better than it has ever been told before – or shown” according to *Newsweek* (April 24, 2000), and she received a MacArthur award on June 13 for her efforts. Another exhibition in the Arts and Industries Building this spring that provoked unanticipated pilgrimage was the Horticultural Services’ orchid show, extended for two additional months into May. Together these exhibitions helped increase this spring’s Arts and Industries attendance by about 35 percent.

Proving that great exhibitions can even make people go underground, “Piano 300” set new records for the Ripley Center. The exhibition tells the story of the instrument’s invention in Italy around 1700 and the world’s love affair with this instrument, as well as showcasing many prominent performers. Media coverage of the exhibition, related public television programming, and outreach programs have been extensive and enthusiastic. The exhibit’s subject and its interactive components have drawn a diverse audience – amateurs and specialists alike – from the

District, the nation, and international communities. Attendance surpassed 110,000 in the first five months.

The 2000 Smithsonian Folklife Festival heated up an uncommonly cool June and July on the National Mall with its featured cultures of El Rio, Tibetan refugees, and Washington, DC. The atypically clear weather, strong local interest (about 59 percent of attendance), and dynamic programming all helped increase the total visit tally to an estimated 1.24 million visits during the Festival's two-week course – that's an increase of 13 percent over 1999.

A review of the Smithsonian's role in Washington wouldn't be complete this year without mentioning the successful conclusion of an agreement with China in late May to bring two pandas to the National Zoo. Almost as soon as he took office, Secretary Small devoted himself to making panda conservation a top priority. At the close of fiscal year 2000, the required \$10 million for two pandas for ten years is fully pledged, thanks to the generosity of several individuals, foundations, and corporate partners. When Mei Xiang – the female panda, whose name means "beautiful fragrance" – and Tian Tian – the male, whose name means "more and more" – arrive next winter, they'll chew their bamboo in a renovated habitat, and ultimately will be housed in a pavilion with an interactive conservation center for visitors, thanks to the generosity of an approximately \$8 million gift from Fujifilm U.S.A., Inc.

National Outreach

The Smithsonian pledges to share more of our collections, our exhibitions, and our special abilities with communities across the country. Fulfilling this part of the public impact goal, we turn to lives touched by our Affiliations Program, traveling exhibitions, educational programs, and the Institution's various web sites.

The Affiliations Program now boasts 55 partnerships in 22 states and the District of Columbia. Interest in this program has exploded across the country, as museums and municipalities have responded eagerly to the Smithsonian's invitation to borrow collections, expertise, and name recognition. We're negotiating with another 54 organizations to get to the first step of signing a memorandum of understanding (MOU). The following map shows how geographically diverse our reach has grown through these partnerships:

Current Affiliations and Organizations In Pre-Memorandum of Understanding Discussions

□ = Affiliates

□ = Pre-Memorandum Of Understanding discussions

What kinds of communities do we reach through our Affiliations Program? Partner museums range in size and annual visitation, from 20,000 to 410,000, but the average annual attendance per



Affiliate is 250,000. The Origins Museum in Arlington, Texas is hosting the Smithsonian exhibition "Sports and the Nation," made up of National Portrait Gallery and American History Museum artifacts, in its temporary galleries in the baseball stadium that's home to the Texas Rangers. The museum's overall attendance has increased 20 percent due to the Smithsonian's cachet. At the Miami Museum of Science, the exhibition "Smithsonian Expeditions" has helped increase the museum's audience by nearly 30,000 since November 1999, or an annualized attendance increase of 37 percent.

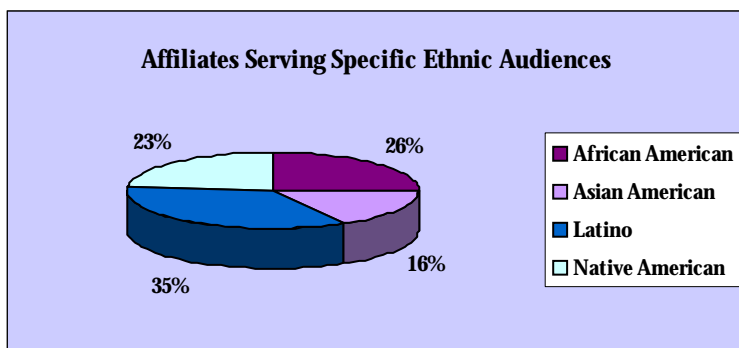
These museums draw from narrowly local or geographically broad areas. Some examples:

- Davenport Museum of Art attracts visitors from the entire Quad Cities region, the largest metropolitan area between Chicago, Illinois and Omaha, Nebraska
- Kansas Cosmosphere routinely draws visitors from throughout its state and also from Oklahoma, Nebraska, Texas, Colorado, Missouri, and Arkansas
- Chabot Space and Science Center's immediate audience is the community of Oakland, in which there is no single ethnic majority and where more than 120 different dialects are spoken
- Miami Museum of Science is in the heart of one of the nation's largest Latino populations

- Bisbee Mining and Historical Museum is in an economically depressed, rural community of Arizona that's characterized by an average household income of \$17,500, with 22 percent of its residents classified below the poverty line. Bisbee – a National Landmark site – depends on heritage tourism for its economic health. Out-of-towners make up 95 percent of the museum's visitors

Of the 55 affiliations with active MOUs, 29 percent, or 16, have been fully implemented, meaning the Smithsonian has loaned artifacts. In calendar year 2000, 484 artifacts left Smithsonian storage bins to go to Affiliates, and since the program's beginnings in 1997, 759 artifacts have been loaned.

Forty-seven Affiliates have their own web sites, and 14 link directly to the Smithsonian's home page. The majority (64 percent) of Affiliate museums call themselves history or cultural organizations, although some of the Affiliates have more than one area of thematic focus, and 43 target specific ethnic audiences with their exhibitions and programming.



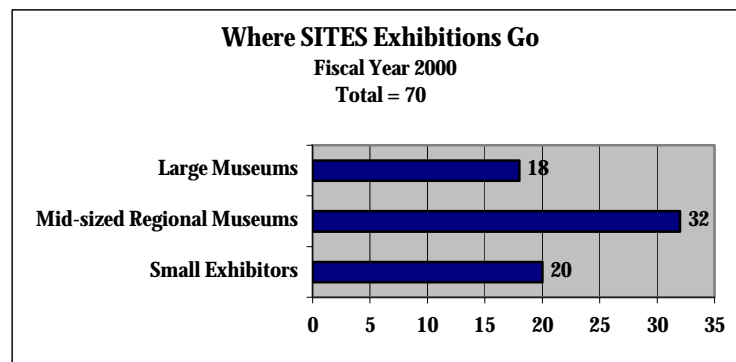
Carefully orchestrated Affiliate Events are growing in number and media power. Approximately 38 percent of the events so far in 2000 enjoyed congressional members as participants or guests. Events at Affiliate museums are orchestrated carefully with the Smithsonian's Offices of Government Relations and Public Affairs. The Secretary or a member of his management team represents the Institution at these events, with rare exception. The following events spotlight some high points of congressional and local public interest:

Smithsonian Affiliate	Congressional Attendees	Purpose of Event
Mount Vernon, Virginia June 26, 2000	Senator John Warner, Congressman Jim Moran	Implementation/press announcement/ Secretarial visit
Oklahoma Historical Society, Oklahoma City, Oklahoma June 21, 2000	Governor Keating, Senator Enoch Kelly Haney	MOU announcement/press conference
The Women's Museum: An Institute for the Future, Dallas, Texas May 16, 2000	Senator Kay Bailey Hutchison, Congresswoman Eddie Bernice Johnson, former Governor Ann Richards	Congressional breakfast/Secretarial visit
Centro Alameda, San Antonio, Texas May 3-5, 2000	Congressmen Henry Bonilla, Charles Gonzalez, Ciro Rodriguez; Mayor Howard Peak	Smithsonian Week in San Antonio; exhibit opening of SITES' "Americanos"/gala/ Secretarial visit
Heritage Harbor, Providence, Rhode Island April 24, 2000	Senator Lincoln Chafee, Senator Jack Reed, Congressman Bill Weygand, Governor Lincoln Almond	Fund raiser/Secretarial visit
Florida International Museum, Miami, Florida April 17, 2000	Congressman Bill Young	Implementation/press conference/Secretarial visit
Miami Museum of Science, Miami, Florida April 17, 2000	Congressman Clay Shaw	Implementation/press conference/Secretarial visit

Origins Museum, Arlington, Texas March 24, 2000	Congressman Martin Frost, Mayor Elzie Odom	Exhibition opening gala/press conference
North Carolina Museum of Natural Sciences, Raleigh, North Carolina March 24, 2000	Congressman Bob Etheridge	Museum opening gala/press conference

The Smithsonian Institution Traveling Exhibition Service (SITES) circulated 47 exhibitions to 163 communities during fiscal year 2000 with an approximate attendance of 5 million people. Cultural organizations in 44 states hosted core exhibitions – exhibitions that are full-scale, three-dimensional, artifact-based and/or interactive – with only Alaska, Arizona, Maine, Mississippi, Nebraska, and New Hampshire not participating. In 36 states, organizations rented more than one SITES exhibition. SITES distributed educational Discovery Trunks prepared for the highly popular “Earth 2U, Exploring Geography” exhibition to schools in all 50 states. Schoolteachers used these trunks thanks to each state’s Geography Teachers Alliance. SITES also partnered with Time Warner, Inc. to distribute 5,000 copies of the small-format version of “Americanos: Latino Life in the United States” to schools nationwide.

Seventy SITES exhibitions were in circulation, refurbishment, or production in fiscal year 2000.



Of these 70 exhibitions...

Twenty-six addressed targeted audiences:

- African Americans (14)
- Asian Pacific Americans (3)
- Latinos (4)
- American Indians (3)
- Women (4)
- The nation’s elderly (1)

and their themes were:

- History (34)
- Science (14)
- Art (20)

The Smithsonian’s two museums in New York City, the Cooper-Hewitt, National Design Museum and the National Museum of the American Indian’s George Gustav Heye Center, together drew close to 700,000 annual visitors, making the Smithsonian about the fifth most visited museum facility in the Big Apple.

Other Smithsonian museums sent forth their exhibitions to national audiences, too. The National Museum of American Art and the National Portrait Gallery have ambitious schedules for sharing parts of their collections while the Patent Office Building, their architectural home, undergoes renovation. The American Art Museum’s “Treasures to Go” program is made up of eight exhibitions that circulate more than 500 of the museum’s paintings and sculptures to 70-plus museums. Sixteen museums hosted these exhibitions in fiscal year 2000. The museum’s web site was completely redesigned, and the new home page promotes these eight exhibitions and their tours at <AmericanArt.si.edu>, along with “Ask Joan of Art,” an award-winning online art reference service. The museum has dispersed even more of its truly special artifacts on long-term

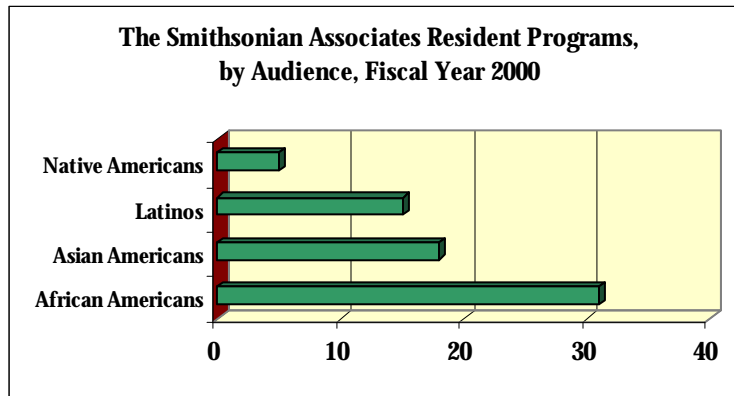
loans to 15 museums, from Memphis to Michigan. Among those loans are the “Throne of the Third Heaven of the Nation’s Millennium General Assembly” to the Abby Aldrich Rockefeller Folk Art Collection in Williamsburg, Virginia, and Alexander Calder’s “Nenuphar” to the Memphis Brooks Museum of Art in Memphis, Tennessee. The estimated audience reached through these exhibitions and loans exceeds one million people.

The National Portrait Gallery also toured eight exhibitions featuring personalities from George C. Marshall to Theodore Roosevelt to Ernest Hemingway. In this fiscal year, a dozen sites welcomed these exhibitions of memorable Americans and reached an audience of about 750,000. The Gallery developed 11 new web sites, including features on Presidential portraits, traveling exhibitions, and educational programs, that produced a doubling of visits over last year – more than two million per month – and received 13 awards from such laurel-givers as Links2Go, WebFeet, and Webavore Knowledge Systems. The Portrait Gallery is also cultivating its local audiences through newspaper features: *The Washington Times* publishes a series of columns entitled “Portraits of Character,” so successful that it’s about to be syndicated nationwide.

The Smithsonian’s electronic presence in cyberspace continues to grow like an expanding universe. The total number of electronic visitors to the Smithsonian’s many web sites has now surpassed 3 million per month – about the same number of monthly visitors to our exhibitions. In addition to the new Portrait Gallery and American Art web sites already mentioned, nearly all Smithsonian museums have multiplied their online offerings and redesigned their web sites for easier use by most browsers. The Museum of American History created six new sites, of which five are virtual exhibitions relating to major exhibitions in the museum. The popular web site for the virtual-version of the exhibition “Piano 300” has averaged 2,775 requests per day, or 116 per hour!

The Center for Education and Museum Studies launched a new site in September called “Field Trips and Learning Resources.” Intended for parents and educators, it serves as a gateway to the full range of Smithsonian educational resources. The Smithsonian Associates shared four Resident Associate programs on the web, making it possible for citizens anywhere to learn from audio-streaming technology. Presentations include Tim Berners-Lee discussing the invention of the Internet to James Burke on history and technology. The Smithsonian Center for Latino Initiatives created its own virtual gallery, a web site that mounts online exhibitions sponsored by the Center. The first online exhibition of Mexican photographer Manuel Carrillo’s photographs, “Revealing Personal Identity: The Indigenous Vision of Manuel Carrillo,” was praised by *The Washington Post* for its uniqueness as “photographs flow by on the computer screen at a pace that replicates the experience of walking through an exhibition.” (*The Washington Post*, August 10, 2000) In June and July, the virtual gallery received 150 online visits per day.

The Smithsonian Libraries published seven more rare books electronically in its online library, including a 1578 book on machines and a 19th century one on decorating techniques. The Libraries’ web site contains reference resources, specialized information about the 22 branch libraries, and two online exhibitions. Electronic visitors send the Libraries 1,200 questions by email each year, and about half of those come from abroad. Email inquiries from the general public to the Visitors Information Center are up 11 percent through June, or 12,826 electronic letters.



National audiences continue to reach the Smithsonian Institution in more conventional ways, too. *Smithsonian* Magazine estimates it reaches approximately 8 million readers per month. The Visitor Information Center handles approximately 275,000 phone inquiries per year, and reservations for Associate members' behind-the-scene tours of the Castle building on Sundays have risen 56 percent.

The Smithsonian Associates offer lifelong learning opportunities in the nation's capital and throughout the country. In fiscal year 2000, a total of 1,730 different courses, series, workshops, local study tours, performances, and children's programs opened up Smithsonian delights to jazz lovers, archeology buffs, kite flyers, Civil War historians, and many others in Washington. Through its Study Tours Program, The Smithsonian Associates had people packing their bags for 342 different educational travel adventures, to 34 states and 244 foreign itineraries. The roster of international destinations added Saudi Arabia and Ghana. Its Regional Events unit created programs in four cities this year, including the Smithsonian Scholars in the Schools programs in Houston, Texas, and Providence, Rhode Island, as well as a "mini-med" school in Boston in cooperation with the National Institutes of Health and the Boston University School of Medicine. In Washington, DC, the Regional Events unit runs the "Museum of Me" program for middle school youngsters to explore how museum collections connect with their lives; in fiscal year 2000, 121 different school groups came to the museums from 20 states, totaling 4,140 students.

Financial Strength

Fiscal Year 2000 Financial Position

The Smithsonian Institution is stronger today financially than it was two years ago because of the increased value of our investments, both in the endowment and in working capital (cash and short-term investments), and because fund raising has skyrocketed. In the past year alone, the endowment has increased nearly \$100 million, driven by investments that grew at a rate substantially in excess of our appreciation target. Likewise, outstanding pledges have jumped more than \$100 million over the last two years. These two trends have pushed the Smithsonian's net assets (its "capital" or "net worth") over the \$1.5 billion mark for the first time.

Smithsonian Institution Financial Position (\$ millions)	Fiscal Year 1998	Fiscal Year 1999	Fiscal Year 2000	Fiscal Year 2001
Federal Deposits	206	210	220	225
Endowment	580	657	755	795
Other Investments	66	82	132	119
Smithsonian Buildings and Equipment	560	600	738	802
Outstanding Pledges	34	102	142	240
Other	92	90	90	95
Total Assets	1,538	1,741	2,077	2,276
Liabilities	393	407	506	526
Net Assets	1,145	1,334	1,571	1,750
Total Liabilities and Net Assets	1,538	1,741	2,077	2,276

Federal Deposits

These are federal funds on deposit with the U.S. Treasury to be used primarily for capital improvement purposes and may be carried over from one year to another.

Endowment

As of June 30, 2000, the market value of the endowment was \$745.7 million. Over the first nine months of fiscal year 2000, the market value of the endowment has increased by \$88.4 million or 13.5%, or an annualized increase of 15%. During this nine-month period, the total return on the endowment was 15.92%, or an annualized rate of return of 18%, which is comfortably ahead of the return on the Smithsonian policy benchmark of 11.7%. Over this same period, the return on the S&P500 was 14.4% and the Lehman Aggregate bond index was 3.9%. As of June 30, 2000, the assets of the portfolio were invested in U.S. equities (49.4%), in foreign equities (20.4%) and in bonds and cash (30.2%). By the end of fiscal year 2000, we project the market value of the endowment to increase to \$755 million. Other investments are made up of short-term and other miscellaneous investments. Much of the increase in fiscal year 2000 in this category is because of cash received in gifts and from year-end operations.

Smithsonian Buildings and Equipment

This category's growth in fiscal year 2000 is mainly because of the purchase of the Victor Building. That building consolidates previously leased office space, houses the Archives of American Art, and accommodates the staffs of the National Museum of American Art and the National Portrait Gallery while the Patent Office Building is being renovated. Construction expenditures for the Udvar-Hazy Center at Dulles Airport and for the National Museum of the American Indian on

the Mall are the reasons for the increases in this category for fiscal year 2001.

Outstanding Pledges

Accelerated fund raising strategies have produced significant growth in pledge activity, forging new corporate partnerships and donor relations. Most of these pledges are earmarked for specific projects (i.e., restricted funds).

Other

This includes merchandise inventories, monies received from collection deaccessions, and prepaid expenses – and remains fairly constant over time.

Liabilities

The increase in liabilities for fiscal year 2000 is the direct result of the purchase of the Victor Building (\$110 million). This category also includes the Smithsonian's liabilities to spend federally appropriated funds (\$220 million) for authorized purposes, primarily capital projects. It also includes normal levels of accounts payable, long-term debt, and deferred income from Magazine subscriptions.

Fiscal Year 2000 Sources and Uses of Funds

The chart below reflects the past and projected sources and uses of funds for the four-year period of fiscal years 1998 through 2001. The Smithsonian's total **operating sources** of funds decreased somewhat in the current fiscal year, but by holding operating expenses across the board, we expect to finish the year with a slight operating surplus. The largest contributor, by far, to the Smithsonian net assets, however, has come from **non-operating sources**, particularly from endowment appreciation due to a robust stock market and large restricted gift pledges.

Non-Operating Sources: There are three major types of non-operating sources:

- endowment appreciation and reinvested income;
- Federal appropriations for capital improvements (repair and restoration); and
- restricted gifts that are used for capital purposes.

Fiscal year 2000 was a great year for investment appreciation – exceeding \$100 million – but to be conservative, we are anticipating that next fiscal year's gains for the endowment will be less robust. The Smithsonian receives an annual Federal appropriation of about \$50 million for capital improvements, which is also included in non-operating sources. However, a comprehensive internal study (to be reviewed and confirmed by an independent third party) has concluded that we need an additional \$100 million per year over the next five years to restore the buildings to a level deemed acceptable for national museums which receive 40 million visits a year. Management's heightened emphasis on fund raising leads us to project continued strength in non-operating sources of income from restricted gifts, but we are not budgeting at the extraordinary level attained due to the exceptional gifts that were pledged by donors in fiscal years 1999 and 2000.

Annual Operating Activity (\$ millions)	Fiscal Year 1998	Fiscal Year 1999	Fiscal Year 2000	Fiscal Year 2001
Total Operating Sources	512	555	543	564
Total Operating Expenses	505	536	534	543
Operating Surplus	7	19	9	21

Total Non-Operating Sources	27	170	228	158
Increase in Net Assets	34	189	237	179

Operating Sources: As the chart below shows, the Smithsonian's sources for its annual operations come from both the Federal and private sector arenas.

- Federal appropriations, which increase gradually from year to year, cover salaries and benefits and normal operating expenses.
- The government grants and contracts item is primarily annual grants from the National Aeronautics and Space Administration to the Smithsonian Astrophysical Observatory.
- Gifts and private grants fell somewhat in fiscal year 2000 because of the extraordinary Ralph Lauren grant of \$10 million in the preceding fiscal year for the Star Spangled Banner restoration. This category includes unrestricted gifts and gifts given for non-capital purposes.
- The endowment payout this year has increased because the endowment itself has grown significantly over the last few years, principally due to a strong stock market.
- Net business income declined due to issues presented in the "Smithsonian Business Ventures" section of this report.
- Other items include income from such additional business operations as the Smithsonian Press (\$7 million loss in fiscal year 1998) and The Smithsonian Associates.

Operating Sources (\$ millions)	Fiscal Year 1998	Fiscal Year 1999	Fiscal Year 2000	Fiscal Year 2001
Federal Appropriations	331	344	350	355
Government Grants and Contracts	57	67	64	68
Gifts and Private Grants	77	87	71	76
Endowment Payout and Investment Income	22	24	29	34
Net Business Income	30	29	24	25
Other	-5	4	5	6
Total Operating Sources	512	555	543	564

Operating expenses were kept fairly flat compared to fiscal year 1999 by continued austerity across the board, but the challenge of meeting the current and upcoming operating needs places great pressure on our discretionary resources (i.e., unrestricted funds). One longstanding problem is the pressing need to upgrade the Institution's infrastructure and systems, taking them to what would be state-of-the-art for a 21st-century institution. Additionally, compensation levels for a number of key positions, particularly in information technology and at the museum director level, are not competitive with those in the private sector. Training for supervisors is another area where more investment is required.

Operating Expenses (\$ millions)	Fiscal Year 1998	Fiscal Year 1999	Fiscal Year 2000	Fiscal Year 2001
Science			231	234
Art and History Museums			120	121
International Art Museums	N/A*	N/A*	24	24
Development			7	7
Administration and Other			152	157
Total Operating Expenses	505	536	534	543

*The current organizational structure was implemented in fiscal year 2000, so the operating expenses of previous years were not recorded similarly. Totals are given for comparison purposes.

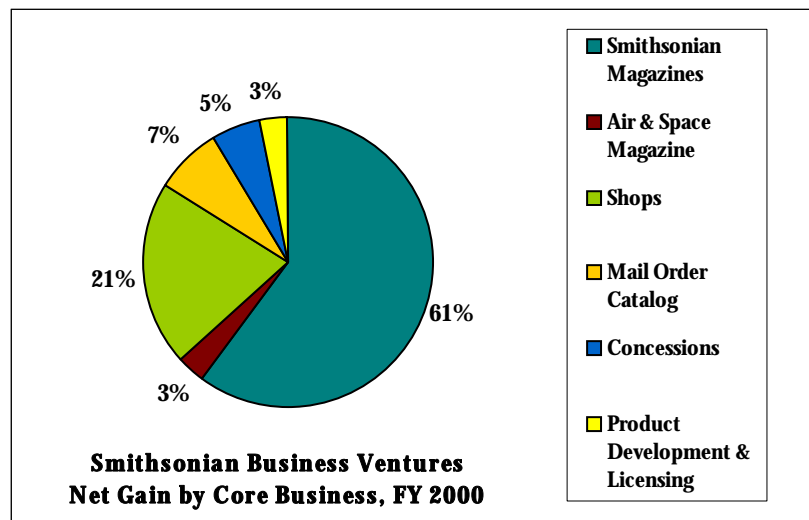
To sum up, because of strong investment performance and energized fund raising, the Smithsonian has begun to chart a much stronger financial position for itself. Challenges looming

in our immediate future are the foreseeable costs of maintaining the aging building stock, upgrading our exhibitions and our administrative and financial systems, and investing in our human resources.

Smithsonian Business Ventures

Fiscal year 2000 is the first year that the six areas of the Smithsonian's business units have been reorganized within Smithsonian Business Ventures. The chief executive officer of Smithsonian Business Ventures has begun to manage the turnaround of flat and declining profitability in Smithsonian core businesses. A five-year strategic plan has been created which aims to double net gain through improved management and marketing. The linchpin for the growth strategy for Smithsonian businesses is to take advantage of the Institution's key assets – the millions of visitors to the National Mall, the two million magazine subscribers and eight million monthly readers, and the vast museum collections – and use them to exploit the untapped power of the Smithsonian brand.

The total net gain of the business activities in fiscal year 2000 was \$24.4 million. Although each of the business units operated in the black, this is a \$5 million decline from the previous year's performance. Causes for the decline include management problems and lower response rates in the mail order catalog; a drop in advertising sales for the Magazine after an extraordinarily high year in 1999; and start-up costs of implementing Smithsonian Business Ventures. Smithsonian Business Ventures management expects to achieve \$30 million in net gain and solid growth by fiscal year 2002 in core businesses, with improvements flowing from new streams of revenue outside of the core businesses.



Accomplishments in fiscal year 2000 include:

- **Smithsonian** Magazine implemented a price increase, while maintaining its circulation of two million, as part of a long-term plan to improve net revenue per subscription.
- A new Merchandise Director has begun revamping merchandising and presentation for the Smithsonian's 22 museum stores. Fiscal year 2000 gross margins have been dramatically improved -- rising to 56 percent, compared to last year's 54.3 percent. A new, 12,000-square-foot, state-of-the-art store at the National Air and Space Museum successfully opened in

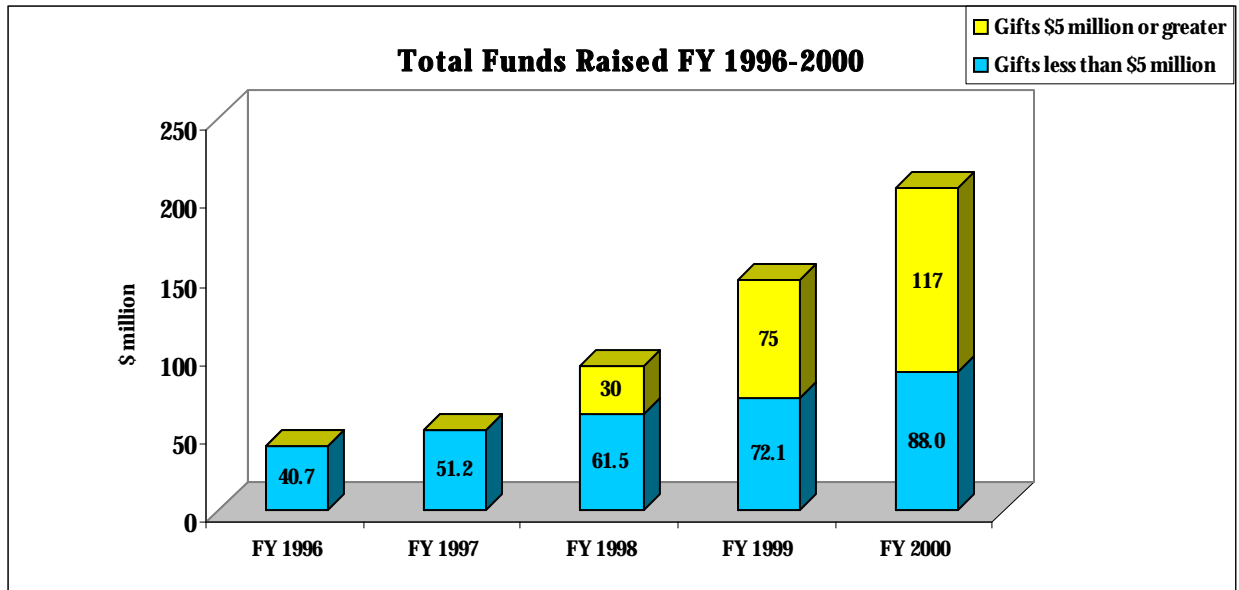
- January; sales at the new store have been running more than 16 percent above last year's store sales for that museum shop.
- Plans have been completed to launch a new Internet retail site – SmithsonianStore.com – in October, offering 1,000 new products in an e-retail experience. A joint venture/licensing agreement with The Museum Company has been negotiated in fiscal year 2000, which will power Smithsonian e-retail and could yield \$6 million in minimum guarantees over the next three fiscal years.

Accelerated Fund Raising

The Smithsonian must raise more than one billion incremental dollars during the next five years from public and private sources to meet many needs, from capital projects such as new construction (the new Air and Space Museum at Dulles Airport; the new Museum of the American Indian on the Mall) and refurbishment (the Old Patent Office Building; the Arts and Industries Building; the Castle), to vibrant and compelling exhibitions for the American public.

Senior management is dedicated and available to engage donors and funders of all interests – and given the array of Smithsonian collections and needs, there's surely a match for any donor's passions and curiosities. Museum and research center directors, too, will spend significantly more of their time attracting private capital for programs and facilities. The Development Office has shifted into high gear during the past fiscal year, developing focused presentations for senior management to use when soliciting prospects and putting together funding proposals. Target lists have been developed for legacy opportunities in the range of \$25 million to \$100 million per gift. Several gifts at these monumental levels are essential to recraft the Smithsonian into a shining, 21st-century museum complex.

The Development Office started using a new solicitation tracking system in late May – a critical way of keeping track of the status of leadership gift solicitations. The system monitors whether solicitations are written or oral, and whether they're under negotiation, pending, funded, or declined. With more than \$350 million in proposals in play, this system keeps the Development Office and the museums and research centers updated on all funding requests – not to mention avoiding collisions on the fund-raising highway.



By the close of this fiscal year, **approximately \$200 million** will have been raised in private support, compared to \$147 million in fiscal year 1999, a 36 percent increase. Major gifts in amounts of \$5 million or more figure increasingly in our fund-raising strategy. Importantly, many of the Smithsonian's key units received their highest single gift ever, including: the National Museum of American History, Archives of American Art, National Postal Museum, National Zoological Park, National Museum of American Art, Smithsonian Libraries, and National Portrait Gallery.

Some of the Smithsonian's fund-raising priorities in fiscal year 2000 have been:

- ◆ **Panda Conservation:** The total \$10 million required by the Chinese to bring two pre-reproductive age pandas, a male and a female, to the Zoo for ten years has been committed by individuals and corporations. Fujifilm U.S.A., Inc. is in final negotiations to pledge nearly \$8 million that will go toward creating new exhibit yards for the pandas and educational programs for visitors. Among the \$10 million in commitments is a \$5 million pledge by Discovery Communications' Animal Planet that is also in the final stages of negotiation and includes a multi-million dollar television programming commitment that will expand the educational reach of this project even further.
- ◆ **American Presidency Exhibition:** Another top fund-raising priority, now that financing for the pandas has been secured, is to bring to the American people a stunning exhibition at the American History Museum that will showcase the presidency and its historic role in shaping our country. As the nation elects its first president for the 21st century, the Smithsonian will create a permanent new show spanning three floors of the museum that explores the men, the office, and our democratic system. A version of the show will also travel around the country. Design is nearly final, and construction is under way. One key donor has committed \$4 million. There are another two gifts of \$1 million each from National Board members. The History Channel has provided a \$1.5 million gift and \$3 million in in-kind support, and Cisco Systems has provided \$750,000. Automatic Data Processing has contributed \$200,000, as has T. Rowe Price, and pledges are forecasted from Chevy Chase Bank, Sears, and KPMG. We expect to raise more than \$10 million for this initiative in fiscal year 2000 (of a total \$12 million for the exhibition).

- ◆ **\$5 Million+ Gift Appeals:** Much work is going into generating “mega-gifts”. The Development Office targets prospects that have the capacity to give \$5 million to \$100 million. Since coming aboard, the Secretary met with more than 50 top donors and future prospects who could be persuaded to take a much stronger role in supporting the Smithsonian. Most recently, a previous donor has stepped forward with a pledge to give tremendously generous, multi-year assistance to the National Museum of American History. We are in possession of signed documents for this commitment and will present the transaction to the Regents for their consideration at the upcoming meeting. The Secretary and Mrs. Small continue to host small groups of donors at their private tribal art gallery, with four dinners held to date. The Development Office began a series of personalized, special events for major donors and prospects twice per quarter. These behind-the-scenes peeks at Smithsonian collections and work let donors become more deeply involved in the life of the Institution and explore areas of personal interest with curators, in a hands-on way.

Major commitments that have been made or are forecasted to be booked during fiscal year 2000 include:

- ◆ \$80 million from a previous Smithsonian donor for the National Museum of American History, with \$4 million dedicated to the “American Presidency” exhibition
- ◆ \$12 million from The Brown Foundation for the Archives of American Art, to buy and outfit space in the Victor Building for the Archives and for public study, research, and education
- ◆ Approximately \$11 million from the Lemelson Foundation, with \$9 million directed toward the endowment and operation support of the Jerome and Dorothy Lemelson Center for the Study of Invention and Innovation at the National Museum of American History, plus an additional \$2 million for a future exhibition on the Nobel Prize
- ◆ \$10 million from former Postmaster General Winton M. Blount to establish an endowment for a center for postal studies at the National Postal Museum
- ◆ \$10 million from Ms. Nan T. McEvoy toward an auditorium in the renovated Patent Office Building and for the National Museum of American Art
- ◆ Approximately \$8 million from Fujifilm U.S.A., Inc. for the Panda Conservation Plan (for panda habitat and related conservation programs) is in the final stages of negotiation
- ◆ A \$5 million marketing sponsorship and multi-million dollar television programming commitment from Discovery Communications’ Animal Planet, to support the panda acquisition and the Panda Conservation Plan, is in final negotiation
- ◆ \$5 million from Mrs. Adrienne Bevis Mars toward the Udvar-Hazy Center at Dulles
- ◆ \$3 million from Royal Dutch/Shell Group to support scientific research that increases our understanding of biodiversity and how ecosystems function
- ◆ \$2 million from Paul Peck to the National Portrait Gallery for new and expanded programs on the presidency, its role in American history, and its impact on society and culture
- ◆ \$2 million from Joseph F. Cullman, III to the Smithsonian Institution Libraries and its Natural History Rare Book Library
- ◆ 14 other gifts of at least \$1 million for “American Presidency,” pandas, American History, Air and Space, American Art, Tropical Research Institute, and other programs

Management Excellence

We intend to evaluate and modernize management systems to raise them to a level of quality and sophistication that is appropriate to a 21st-century organization that’s the size and complexity of the Smithsonian Institution.

Senior Personnel

The transition from Secretary Heyman to Secretary Small took place smoothly, starting on January 24, 2000. On February 11, the Secretary announced a reorganization plan after holding more than 80 meetings with staff throughout the Smithsonian community, as well as with members of Congress, academia, the philanthropic world, and the press. The reorganization plan and its implementation have been well received both internally and externally.

The Secretary continued to build his senior management team and fill critical leadership positions at museums and research centers. By mid-June the three Under Secretaries, the director of the international art museums division, the chief executive officer of Smithsonian Business Ventures, the director of policy and analysis, and the director of development were all on board. The Secretary has been holding weekly staff meetings and hosted an off-site retreat on July 26 to foster team building.

On June 19, Lucy H. Spelman was named the director of the National Zoological Park, formerly serving as its chief veterinarian. Dr. Anthony Coates was appointed director of scientific research programs on May 31. Dr. Coates held the deputy director position at the Smithsonian Tropical Research Institute for ten years and began his new job on September 1. Nell Payne was named director of government relations on August 1; Ms. Payne brings expertise in legislative issues under the jurisdiction of the Congressional Budget and Appropriations Committees, as well as legislative procedure, intellectual property, and communications law. The Hirshhorn Museum announced its new chief curator on July 14, Kerry Brougher, who leaves the directorship of the Museum of Modern Art in Oxford, England.

Oliver T. Carr and Donald Brown, both prominent real estate developers and respected business leaders residing in the nation's capital, have agreed to become advisors to the Secretary on the Air and Space Museum's Udvar-Hazy Center and the National Museum of the American Indian, respectively. The Smithsonian is grateful to add their expertise in capital construction and development to these projects, just as Robert Kogod is lending his to the renovation of the Patent Office Building.

There are four major executive searches under way to fill the positions of chief financial officer, chief technology officer, director of the Cooper-Hewitt, National Design Museum, and director of diversity initiatives. The search for the Cooper-Hewitt director is expected to conclude soon. The other three searches are expected to wrap up in the coming two months. The chief technology officer might come on board before the end of September.

Organization and Management

The Office of Policy and Analysis completed a number of issue papers, including a review of the Smithsonian library system. The Smithsonian Libraries include 19 branch libraries in various museums and buildings, plus three independent libraries, one in the Patent Office Building for the National Portrait Gallery and National Museum of American Art, one in the Freer and Sackler Galleries, and the third in the Hirshhorn Museum. The study concluded that the libraries should be consolidated into one, unified library system, and those recommendations are now being implemented. The office is also studying the organization and management of the units previously occupying the Patent Office Building – the National Museum of American Art, the National Portrait Gallery, and the Archives of American Art – as well as a major research project on characteristics of successful new exhibits at various museums and zoos around the United States.

Human Relations

Employee Perception Survey: Hewitt Associates reported its findings in early July on the Smithsonian's first employee attitude survey, to which 4,100 people responded out of a total staff of approximately 6,500. The results were not surprising: people at the Smithsonian identify with the mission of the Institution and feel a strong attachment to it, but they feel that management could be improved, administrative systems updated, and opportunities for upward mobility opened up. Grass-roots level task forces will be appointed to identify key issues and recommend workable action programs.

Secretary's Breakfasts: The Secretary greeted 119 staff members from all levels of the Institution at 15 breakfasts in fiscal year 2000 and intends to continue this practice of welcoming eight people one morning a week into his office for candid conversation. Staff may contact the Office of Special Events by phone, email or fax, and express their desire to participate; they are then booked on a first-come, first-served basis. The Secretary has found this a rewarding way to meet staff from all units and disciplines, learn about their concerns and perceptions, share information, and encourage feedback. The breakfasts have been extremely popular among staff; their feedback confirms widespread appreciation for the opportunity to meet the Smithsonian's leader. They've proven just as enjoyable and valuable to the Secretary, who has encouraged the other members of senior management to start this weekly practice.

Diversity in Smithsonian Staff: The following table reflects the lack of change in percentages of Smithsonian staff by racial group. From the top down, we are addressing this serious concern to improve opportunities for all applicants and staff at the Institution. To place more emphasis on this area, the Secretary has created the Office of Diversity Initiatives with a director reporting to him. An executive search is currently under way to fill that position.

Smithsonian Employment	September 1998	September 1999	June 2000
African American - Male	17%	17%	17%
African American - Female	15%	16%	16%
Latino – Male	3%	3%	2%
Latina – Female	2%	2%	1%
Asian American - Male	2%	2%	2%
Asian American - Female	2%	2%	2%
Native American - Male	0%	0%	1%

Native American - Female	1%	1%	1%
White – Male	30%	31%	31%
White – Female	27%	26%	27%
Total Smithsonian Employment	100%	100%	100%

Physical Plant and Facilities

The Secretary has been building the case to Congress and the public for additional funds to renovate Smithsonian buildings and exhibitions. An article in *The Washington Post* on April 1 included photographs showing bubbled plaster window frames in the Castle and the debris-depositing ceiling in the Arts and Industries Building. The story was picked up and widely distributed through CNN, the Associated Press, and Bloomberg News Service. On June 26, *The Washington Post* published an opinion-page article by the Secretary on the same theme. The backlog of renovation needs in 12 museum buildings totals 5.7 million square feet of space, space that's nearly all public. The Smithsonian's director of facilities services just conducted a major study of these maintenance and restoration needs. Once a third party consultant authenticates that study, we look forward to working with Congress and the administration on building bi-partisan support to authorize an additional \$500 million over the next five years to restore these areas.

One restoration that was completed in fiscal year 2000 was the Renwick Gallery's Grand Salon. Even jaundiced critics who admittedly deplore the salon-style of displaying "an assortment of dreadful paintings suspended atop each other as if at a Saturday art sale in a hotel ballroom" (*Washington Post*, June 3, 2000) were won over by the Renwick's new look. "Altogether it is an enchanting, surprisingly intimate tour of vintage American art," the *Post* reviewer concluded.

The Smithsonian completed the purchase of the Victor Building on May 23, 2000. This downtown 330,000-square-foot office building will consolidate the many administrative offices that have leased space for years at the L'Enfant Plaza complex, and it will be the new headquarters for the Archives of American Art. The staffs of the National Museum of American Art and National Portrait Gallery will make the Victor Building their home for the coming two years, until the Patent Office Building is restored and those museums reopen. To finance this capital purchase and building fit-out, the Smithsonian issued bonds at both fixed and variable rates in late June. Standard and Poor's gave the Smithsonian the highest possible rating of AAA/A-1+, while Moody's granted an equally top-flight rating of Aaa/VMIG-1 for both portions of the financing. S&P and Moody's reaffirmed the AAA rating of the Smithsonian's existing debt. This prime stamp of approval takes into account that the Institution may issue up to \$50 million in debt financing for the Udvar-Hazy Center at Dulles, with no effect on the rating.

Congressional and Government Relations

We are developing a focused strategy to coordinate our funding requests to Congress, partnerships across America through the Affiliations Program, and all parts of our national outreach with national, state, and local government representatives. In fiscal year 2000, the Secretary initiated 29 meetings with members of Congress, including Senate Majority Leader Trent Lott, House Speaker Dennis Hastert, and eleven members of the House Interior Appropriations Subcommittee. He testified before the House Interior Appropriations Subcommittee in March and the Senate Rules Committee in June, and addressed the Congressional Hispanic Caucus at a luncheon meeting in June.

The Smithsonian's fiscal year 2001 appropriation awaits conference action. The House version of the Department of the Interior and Related Agencies appropriations bill contains \$423 million for the Smithsonian, which is 3.4 percent below the fiscal year 2000 funding level of \$438 million. The Senate bill provides \$450 million, or 6.4 percent more than the House bill, a sum that's still \$13 million less than our request to Congress. A conference committee consisting of members of the House and Senate Appropriations Subcommittees on Interior will meet in September to resolve the differences between the two bills.

The National Postal Museum will host the newly formed Congressional Philatelic Caucus for monthly meetings. Representative Joseph R. Pitts (R-PA), a guest curator for two philatelic exhibits with the museum, identified 27 other House members who are also philatelists, polled them about creating a Philatelic Caucus, and got nearly unanimous endorsement. The group will use the museum as its base for meetings and will take advantage of the nearby national collections to nurture their hobby.

Focused, First-Class Scientific Research

The Smithsonian's most publicized scientific contributions continue to radiate from the Smithsonian Astrophysical Observatory. The National Academy of Sciences published its once-a-decade study listing the twelve most significant contributions to astronomy during the 1990s. Smithsonian Astrophysical Observatory scientists figured in no less than nine, or three-quarters, of those discoveries.

The multiple mirror telescope on top of Mount Hopkins in Arizona has been reconfigured. On May 17, its 6.5-meter span took its first light reading. The resolution of this telescope is somewhat like a person in New York being able to distinguish two separate headlights of a car that's slightly farther away than Washington, DC.

Other outstanding accomplishments by Smithsonian Astrophysical Observatory scientists in fiscal year 2000 include:

- Observations suggesting that the universe is "flat" and that its expansion is accelerating due to the presence of "dark energy"
- Successful management of the science and flight operations of the x-ray-detecting satellite Chandra
- X-ray readings from a "brown dwarf" star, or a star that's too small to have nuclear reactions and produces little light
- First observations of an x-ray shadow cast by a small galaxy that's being cannibalized by a larger galaxy
- Discovery in late July of Jupiter's 17th moon, the smallest in the solar system at a mere three miles across, and the first new moon of Jupiter discovered in more than two decades

Revisiting the question about where we came from also occupied Smithsonian scientists on the human level. Scientists at the Natural History Museum worked with colleagues in China to study 800,000-year-old stone artifacts, the oldest known large cutting tools in East Asia. Dating techniques enabled the scientists to conclude that *Homo Erectus* in Asia was making equally sophisticated tools as their African counterparts – defying the notion that early humans in Asia were less intelligent than humans in Africa. The results of an archeological dig in Virginia led the chairman of the anthropology department at the Natural History Museum to postulate that the first Americans arrived 20,000 years ago, not by land bridge from Asia, but by boat from Spain after a stopover in Ireland.

Natural History Museum scientists have also jumped into the debate about whether birds evolved

from dinosaurs. Rejecting that notion, a Smithsonian scientist participated in an international scientific discussion about this evolutionary track record in the June 23 issue of *Science*

The Smithsonian Environmental Research Center on the Chesapeake Bay created the National Ballast Water Information Clearinghouse this year. It's the most accurate and complete database of information on the transfer of water from ships' ballast when they arrive in the Bay. This is important to understand how non-native, invasive species change ecosystems. The Environmental Research Center has led the way in studying this problem, coordinating with similar studies in San Francisco Bay and Prince Albert Bay in Alaska. This research center has also continued to build a comprehensive database on the impact of elevated CO₂ levels on plants in Maryland and Florida.

At the Smithsonian Tropical Research Institute in Panama, a scientist completed a project this year demonstrating geographical and biological consequences of the rise of the Isthmus of Panama years ago. For example, one of the effects was the development of the Atlantic Gulf Stream that in turn influences weather patterns throughout the Eastern United States and Europe. The National Air and Space Museum runs the Center for Earth and Planetary Studies whose research continued to produce peer-reviewed journal articles and general-interest materials. Highlights in fiscal year 2000 included a field project to remote volcanoes in Peru, research of ancient floods in Australia and Namibia, analyses of new data from the Mars Global Surveyor mission, and a book about volcanoes throughout the solar system. The Center received new research funding from the National Aeronautics and Space Administration. Honda supported part of the Center's program to develop educational materials related to remote satellite sensing, teacher workshops, and a dedicated web site.

The Freer and Sackler Department of Conservation and Scientific Research enjoys a sterling reputation in the area of conservation and materials research. It's the only conservation laboratory outside of Asia that conducts full-time research on Asian art, and the only place in the West that researches the pigments and microstructures of East Asian painting. In fiscal year 2000, a team began work with Johns Hopkins University counterparts on whether the "eddy-current" technique – a means of examining metals widely used in the automotive and aerospace industries – could be used in artifact conservation. The study could produce useful results for research on ancient metalworking and for authenticating works of art.

The Star Spangled Banner conservation team completed a major phase of their monumental conservation project: by July 4th they clipped and removed 1.7 million stitches that attached a linen backing to the flag. This groundbreaking textile conservation research is pioneering new techniques that have revealed unexpected discoveries, such as previously unseen patches of the original flag and more vibrant colors in the fabric. The team now estimates that, because of the strides they're making in techniques and research, the 187-year-old flag's life span might be expanded as much as 500 years.