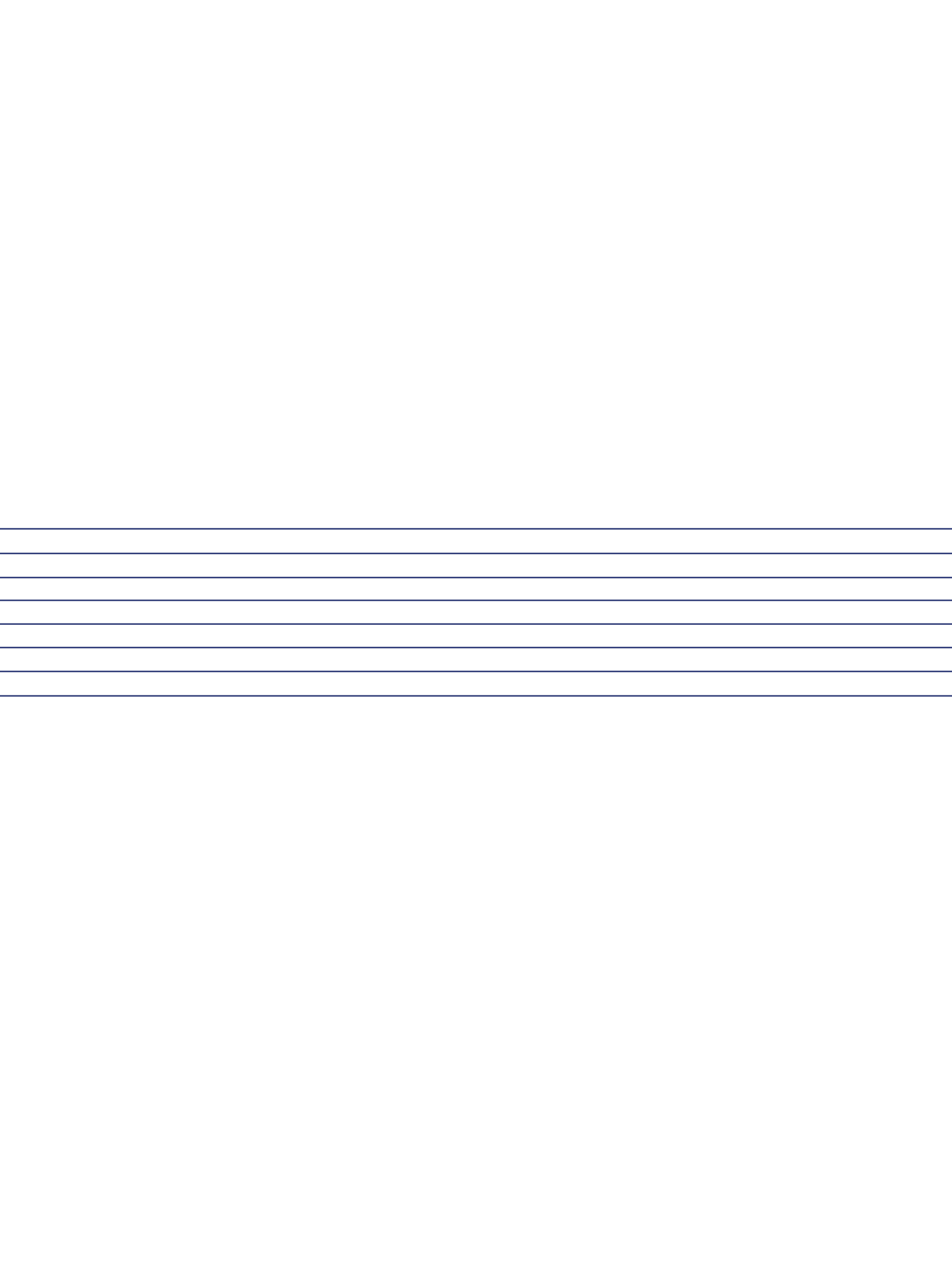


American Physical Society

Centennial Year Report



Years of preparation came together in the 1999 Centennial Celebration of the American Physical Society. The highlight was the Centennial Meeting in March during which more than 11,000 physicists from around the world gathered in Atlanta. The physics and history of physics presentations were superb, and the feelings of fellowship and excitement about the future of physics were palpable. The combination of paying homage to historic giants of physics and the presence of an unusually large number of young people, students of all ages, brought unprecedented energy and vitality to the meeting. Some of the highlights from the meeting are shown in pictures in this report. These included a gala reception at the Fernbank Museum; an International Banquet that highlighted the unity of physics around the world; a special lunch that brought together Nobel Laureates with outstanding high school teachers and students; an excellent collection of exhibits, many produced by APS units focused on special areas of physics; a birthday party for all the attendees; a Grand Reunion that involved friends and alumni from about 70 universities and a number of national laboratories; and a special student lunch that brought together thousands of students. The APS staff united as a team to make the Centennial Meeting a success and I want to personally thank them for their work on this.

Many other special projects were timed for the Centennial year. Here I list just a few. A magnificent "Time Line Wall Chart" of a century of physics in eleven, colorful posters was produced and made available to all colleges and high schools and also placed on the APS website so it would be accessible to the public at large. A coffee table book, *Physics in the 20th Century*, was published and available in bookstores across the country and internationally. APS Centennial Speakers gave special colloquia at many colleges and universities. The seven APS Geographical Sections had regional Centennial Celebrations. A special edition of the *Reviews of Modern Physics* celebrated a century of physics and was published as a book under the title of *More Things in Heaven and Earth: A Celebration of Physics at the Millennium*.

Progress in physics continued at an amazing pace, and APS continued to improve its online journals and increase its education and outreach activities. Increased efforts were made to inform the public about the many accomplishments of physics and its importance to people's daily lives. New educational programs were begun with an emphasis on helping universities produce more and better physics and science teachers. APS lobbying efforts helped convince both the President and key members of Congress that basic research is a major driving force of the growing U.S. economy and more support for the nation's core scientific programs is essential.

All of the APS information technology staff worked extremely hard preparing for the new millennium. As a result APS suffered no serious Y2K problems. APS ended the year as a very healthy scientific society with a growing membership and many exciting plans for its second millennium

Jerome I. Friedman

President, 1999

CENTENNIAL YEAR REPORT



The APS Centennial



CENTENNIAL CELEBRATION AND MEETING

To mark its Centennial year, the American Physical Society organized a Centennial Celebration and Meeting, held in the Georgia World Congress Center in Atlanta, Georgia, March 20-26, 1999. A combination of the annual APS March and April Meetings, the Centennial Meeting drew physicists from all fields and more than 60 countries to Atlanta to celebrate the last one hundred years of physics, review its remarkable achievements and look toward the future. A top-notch scientific program was featured, which drew the largest attendance ever at an APS meeting. Approximately 11,200 physicists from academia, government, and industry traveled to Atlanta to join in the festivities. An unusually high turnout of both our retired colleagues and students of all ages allowed attendees to enjoy the energy and enthusiasm of the future generations of physicists while honoring those who taught and nurtured their own generation.

CENTENNIAL PROGRAM

The occasion of the APS Centenary provided the opportunity to celebrate the many great discoveries in physics of the last one hundred years. Of equal importance was the opportunity to highlight current ground-breaking work that points toward the next century. The APS organized a series of special plenary sessions on a broad range of topics and invited a number of world-renowned scientists to share their views with the physics community. In addition, there was a panel discussion which included many of the past Presidential Science Advisors. Chaired by D. Allan Bromley, the panel explored the role of the Presidential Science Advisor in U.S. policy and reflected on what has been learned over the past 50 years.

APS Divisions, Topical Groups, and Forums developed Centennial symposia which showcased both the major accomplishments in each area of physics during the 20th century and the many challenges and opportunities in the next. Special invited sessions broadly illustrated the cultural, social, and political impact of physics, in addition to discussing the important scientific breakthroughs of the century. All of these sessions are available on-line at <http://www.apscenttalks.org>.

CENTENNIAL SPECIAL EVENTS

The Nobel Laureate Luncheon Program on Saturday, March 20, served to promote and highlight the importance of science education. This invited luncheon, sponsored by The Coca-Cola Company, honored an outstanding high school science teacher from each state and science teachers and students from Atlanta, Georgia and the surrounding area.





The luncheon included the participation of over 40 Nobel Prize recipients in physics and chemistry. Students and teachers had an opportunity to interact with the Nobel Laureates and discuss their interest in and excitement about physics. Speakers at the luncheon included 1999 APS President Jerome Friedman, Senior Vice President of The Coca-Cola Company, Anton Amon, and the President of the National Academy of Sciences, Bruce Alberts. The event drew a good selection of the science press.

All luncheon guests were invited to attend the public opening of the W.F. Meggers Gallery of Nobel Laureates which contains historic, autographed photographs of all physicists who have been awarded Nobel Prizes. In addition, the exhibit included a brief history of the Nobel Prize and its founder, Alfred Nobel. Of related interest, an exhibit *Physics Works! Exploring Nature, Saving Lives, Driving Technology* opened at the Georgia World Congress Center on Monday, March 22, 1999. The exhibit was designed to engage and inspire young people, get them excited about physics, and surprise them with the ways it impacts our daily lives. The exhibit then traveled to the Don Harrington Discovery Center in Amarillo, Texas last fall. Thereafter, *Physics Works!* will be housed at Fernbank Museum of Natural History in Atlanta, Georgia, to which the APS has donated the exhibit.

On Saturday evening, March 20, APS hosted an International Reception and Banquet honoring over 60 foreign physical society representatives among the approximately 1,300 guests. After-dinner speakers, APS President Jerome Friedman, Burton Richter, Director of SLAC and a past president of APS, and Jan Nilsson, President of IUPAP, highlighted the evening's theme: international cooperation in physics.

A gala buffet dinner celebrating the APS Centennial and the accomplishments of 20th century physics was held at Fernbank Museum of Natural History on Sunday, March 21. As a multimedia extravaganza entertained the guests, Centennial Meeting participants joined their colleagues in celebrating the Society's 100th anniversary. Guests included Nobel Laureates, foreign physical society presidents, and U.S. dignitaries. Local representatives from the State of Georgia and metropolitan Atlanta also joined the APS in this special celebration.

A public outreach program entitled "Mastering the Mysteries of the Universe" was developed by Brian Schwartz to engage the residents of Atlanta and highlight the APS presence in the community for its historic meeting. In celebration of physics of the 20th and 21st centuries, APS hosted an ongoing outreach physics festival in cooperation with cultural and educational institutions of Atlanta. In addition to events scheduled at the Georgia World Congress Center, festival events took place throughout the metropolitan Atlanta area including Olympic Centennial Park, school sites, theaters, museums and other public

spaces. The series included physics lectures on popular topics, university and college on-campus activities, physics-and-culture events in the arts, dance and theater, and popular physics demonstrations. A highlight was the talk given by Dr. Stephen Hawking at the Atlanta Civic Center on Wednesday evening, March 24.

Of particular interest were the special exhibits on display at the Centennial Meeting. "To Advance & Diffuse the Knowledge of Physics: 100 Years of the American Physical Society" dominated the entry hall of the Georgia World Congress Center and caught the attention of almost everyone. Much of this interesting history has been reproduced in issues of *APS News* throughout the year. Following the Centennial Meeting, the exhibit spent a month at APS headquarters in College Park, Maryland, and is scheduled to be on display for several months at the Graduate Center of City University in downtown New York.

The many meeting attendees who visited the Exhibit Hall were treated to a series of marvelous displays produced by the APS units, in addition to an unusually large range of commercial exhibits. Developed over a year's time, the highly successful unit displays traced the history and productivity of the many fields in physics and featured many hands-on activities including a giant soap bubble which shimmered with colors. The show drew very large crowds and many repeat visitors.

March meetings usually feature several university reunions, but for the Centennial this grew into the Grand Reunion. Approximately 65 universities organized simultaneous reunions for their friends and former students and post docs. Held in a giant hall, the reunion gave physicists, young and old, a chance to renew old acquaintances from each stage of their lives.

CENTENNIAL PROJECTS

An important component in developing a range of projects for the APS Centennial Celebration was the intention to extend and enhance the Celebration's impact beyond the meeting itself. To that end, educational and outreach projects were developed that will be of interest and educational value into the new millennium.

With the generous support of Lucent Technologies, the APS produced a timeline wall chart entitled "A Century of Physics." The wall chart, a compilation of photographs and text highlighting major developments and contributions of physics throughout the 20th century is displayed on eleven 40"x 26" panels. Each panel highlights one decade of 20th century physics. The timeline was unveiled by the Honorable Bill Richardson, U.S. Secretary of Energy, during the Keynote Session at the Centennial Celebration and Meeting. In addition to major support from Lucent for the wall chart, generous contributions were also received from the National Science Foundation, U.S. Department of Energy, United Parcel Service, and the Lounsbery Foundation. In honor of the APS Centennial Celebration, this educational timeline was distributed to high schools, junior colleges, and universities, with a teachers guide, as a gift from the APS. The chart was also distributed to science centers and libraries.

To complement the paper timeline wall chart, APS information technology staff developed a timeline web site, with the generous support of IBM. The website is designed as an electronic version of the literal text





Publications in 1999



and images of the wall chart, accessed through multimedia, interactive and external-link enhancements. It expands the amount of information available via the paper version, allowing more in-depth exploration of physics discoveries and their application to our world. The web version is available online at <http://timeline.aps.org>. The site was recognized as *Scientific American's* "Pick of the Web;" a designation which APS also achieved for the site detailing the Centennial Celebration itself.

APS, together with the American Institute of Physics (AIP), produced a beautiful, coffee-table book entitled *Physics in the Twentieth Century* published by Harry N. Abrams, Inc. The book, intended for the general public, has over 200 illustrations and a text written by the well-known *Washington Post* science writer Curt Suplee. The book, first available at the Centennial Meeting and now in its second printing, was chosen as a selection by the Book of the Month Club and the Quality Paperback Book Club and was picked by *Publishers Weekly* as the coffee-table book of the year. It has been translated into Japanese and a German edition is under consideration.

Another volume, *More Things in Heaven and Earth: A Celebration of Physics at the Millennium*, was published in 1999 in connection with a centennial issue of the *Reviews of Modern Physics*. To acknowledge and celebrate a century of unparalleled scientific and technological change, mostly fueled by physics discoveries, some preeminent physicists were asked to create a portrait of their subfields, highlighting achievements, current developments, and likely directions. Benjamin Bederson served as editor of the volume, which was published by Springer-Verlag New York, Inc. to coincide with the APS Centennial Meeting in Atlanta.

During 1998, APS prepared a Centennial Speakers Booklet which listed over 200 outstanding speakers. Each of these speakers was nominated by a group of his or her peers as someone who would give an exceptional talk of a more general nature than a usual physics department colloquium. Some of the talks emphasized the historical aspects of a field while others stressed the broader contributions of the field to society. The booklet was sent to all physics departments throughout the U.S. as a resource for planning their academic year colloquia and public lectures. Another educational tool, *Prominent Physicists of the 20th Century*, was initiated both to provide a pictorial history of distinguished physicists throughout the last century and to help illustrate talks given by speakers included in the Centennial Speakers booklet. The approximately 200 portraits of late physicists selected for the collection have been compiled on a CD-ROM.





RESEARCH PUBLICATIONS

The rapid developments and new products seen in APS publications in recent years continued at the same pace in 1999. One change was increased attention to the in-house processes and facilities, following on the 1998 expansion of the Editorial Office. The editorial operation is now in a position to raise its internal practices to a level of sophistication approaching that of the online offerings, thanks to a nearly complete analysis and documentation of its complex workflow. Changes and improvements in the workflow can now be proposed, studied for any impact at subsequent points, introduced and documented.

A particular goal of the evolution is to make the editorial process completely electronic, thus more efficient and also recoverable in the event of disaster. With this in mind, all APS offices are creating a business continuity plan, including procedures for staff and duplication of the editorial databases at the College Park office and the College Park databases at Ridge. Also in 1999, the editorial databases were migrated into the Oracle system, which promises full relational database capability without the heavy maintenance and programming burdens of the previous flat file system.

A joint project initiated with Beacon Graphics, producer of *Physical Review Letters*, allows authors to download their proofs from a server, rather than wait for hard copy to be faxed or mailed, thereby shaving days off the time to publish and reducing costs. AIP publishes the rest of the PR journals, and will have a similar server available for authors early in 2000. APS and AIP also cooperated this year on Physics News Select Articles, a website for journalists of notable articles in AIP and APS journals.

The Physical Review On Line Archive (PROLA) blossomed this past year. An electronic archive of the APS research publications from 1985 to 1996, PROLA is searchable and fully linked internally. Available by subscription starting in January 1999, PROLA's success grew as researchers accessed it and realized the extraordinary new power it offered. By mid year, an RFP was sent out to vendors for the completion of PROLA back to 1893, and for rescanning and rekeying some of the present content to a higher standard. A vendor has been identified, and PROLA is on schedule for upgrading and completion by the end of 2,000. The value of PROLA and the business continuity goals have led to negotiations with several partner organizations, including the Library of Congress, to establish duplicates of the archive.

In 1999, plans were set for two Virtual Journals, one of Biological Physics Research and the other for Nanoscale Science and Technology to be produced jointly with the American Institute of Physics. Not

journals in the traditional sense, the Virtual Journals will each consist of a monthly table of contents of articles selected by an editor from papers appearing in APS and AIP journals, and in journals mounted on-line by AIP for other publishers. One step up from an alerting service but not quite a niche journal, the Virtual Journal table of contents will be distributed at no charge; access to the articles may be offered as a separate subscription at some point in the future. Happily, starting in 2000 biological physics articles in APS journals will also be listed in MedLine, the extensive online database used by researchers in the biological and medical sciences.

In November, APS announced, in cooperation with Brookhaven National Laboratory, the first electronic mirror in the United States for the Los Alamos e-Print Archive. APS initiated and organized the project, obtained the required equipment and will participate in further software development; the Laboratory is providing space and internet connectivity. Eventually, the APS/BNL mirror could move beyond a passive imaging of the XXX Archive to become a second site for submission of articles and vetting for suitability and size.

SCIENTIFIC MEETINGS

The Centennial Meeting combined the traditional March and April Meetings into one very large meeting, attracting 11,200 physicists. Of the total attendance, 1,830 were international attendees representing 62 countries and nearly 4,000 were students.

While the special centennial events attracted the most attention, an exceptionally strong scientific program was offered, which covered almost all fields of physics. Such an inclusive physics meeting had not been held in the U.S. for many years. The total number of oral and poster presentations was approximately 9,000, necessitating printing the *Bulletin* containing the abstracts, in two volumes. Throughout the week, as many as 60 simultaneous sessions were taking place, making use of all the meeting space in the huge Georgia World Congress Center.

An expanded exhibit show was presented that included, in addition to a large number of commercial exhibits, 25 APS unit exhibits, and federal agency and national laboratory exhibits. The Grand Reunion hosted more than 70 alumni receptions of universities and national laboratories. An APS birthday party reception was held for the more than 11,000 participants and the student lunch attracted over 2,000 very enthusiastic students.

In addition to the Centennial Meeting, APS units held 16 additional meetings throughout the year. The APS Meetings Department managed the Division of Plasma Physics meeting, and processed the abstracts and produced program *Bulletins* for eight APS unit meetings.

MEMBERSHIP OPERATIONS

The Centennial Celebration was a great success for the staff of the APS Membership Department, all of whom were present and working at the Atlanta meeting. They enjoyed getting to meet APS members in person. Over 900 new members joined the Society during the registration process.

The APS Membership continued to grow in 1999, yielding an official count on December 31, 1999 of 42,662, up by over eight hundred from the previous year. This growth was in part attributed to the Centennial





Education & Public Affairs



Celebration, but also due to increased retention efforts, and recruitment of student members. A program begun in 1998 with the American Institute of Physics, offers free membership in one of the ten AIP member societies to all undergraduate members of the Society of Physics Students (SPS). With over 1,000 SPS members choosing APS in 1999, future goals will focus on keeping these students involved in the Society and retaining them as members.

Annual membership dues, which had not increased since FY96, were increased by \$5 on July 1, 1999, raising regular dues to \$95. Also, in honor of APS' 100th anniversary, members were given the option of a \$100 discount on a new Life membership. The promotion produced triple the usual number of new Life members for 1999.

A new member service on our web site this year was the implementation of member-selected user names and passwords for access to member-only services, such as the online directory. This makes using services more convenient than requiring a lengthy member identification number.

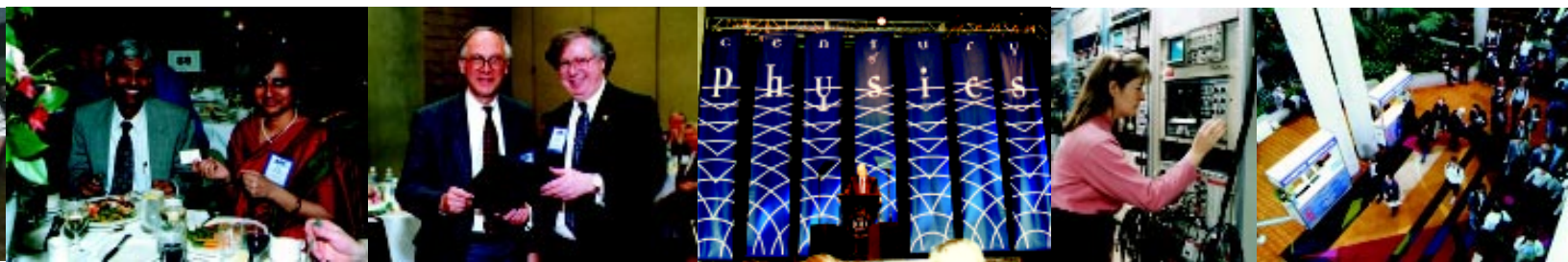
EDUCATION AND OUTREACH

During 1999, APS continued to work intensively on existing education and outreach programs and took steps to start a major new program. Here we can mention just a few of the APS programs.

Efforts to bring hands-on, inquiry-based science into elementary and middle school classrooms continues to be an APS focus. The program, entitled the Teacher-Scientist Alliance Program (TSA), and funded from APS' major fund drive, the Campaign for Physics, held a number of activities around the country. In January, TSA held its fifth APS Lead-Scientist Institute in Washington, DC, for 50 scientists, engineers, and key educators, representing communities in 12 states. In March in Atlanta, just before the Centennial Celebration, TSA held its fourth APS Regional Leadership Institute for Science Education. Finally in May, TSA held its fifth Regional Leadership Institute, in Austin, Texas. This institute attracted 15 teams from all over Texas and included 13 statewide leaders in science education. These leaders are now committed to conducting similar institutes throughout Texas in the coming years.

During the year, TSA also conducted a number of one-day workshops to recruit local scientists to support reform efforts in school districts around the country and conducted half-day community information workshops to build support for such efforts. As TSA enters its final year of dedicated funding, an evaluation of the entire program by the Institute for Learning Innovation is now underway.





Education was a major focus at the APS Centennial Meeting. Outstanding teachers from across the country were honored for their achievements and invited to attend the meeting and have lunch with Nobel Laureates. Selecting the teachers and arranging for their visits took a great deal of staff time and, the help of the American Association for Physics Teachers (AAPT) is gratefully acknowledged. To make their trips to Atlanta more worthwhile, the teachers were invited to submit activity ideas for teaching 20th century physics to high-school students, and teachers shared their ideas with each other during two special teacher workshops. Some of the more promising ideas presented in Atlanta are being refined, after which they will be tested in classrooms by the teachers and ultimately made available electronically to physics teachers everywhere.

Beginning September 13, 1999, Fredrick Stein, a chemical physicist, joined the APS staff as Director of Education and Outreach. He brought with him a special interest and expertise in the preparation of pre-college teachers. Working with staff from the American Institute of Physics and the American Association of Physics Teachers, he developed a plan for a joint-society program in this area entitled "Physics Teacher Education Collaborative (PhysTEC)" and submitted a grant proposal to the National Science Foundation. PhysTEC will attempt to provide physics departments nationwide with the support and technical assistance they need to dramatically improve science teacher preparation. The program depends on active collaboration between physics departments and the schools of education and direct involvement of the local school community.

Throughout the year, APS continued its effort to attract and retain more women and minorities in physics. The Committee on the Status in Women in Physics and the Committee on Minorities created excellent displays for the Centennial Meeting and the poster "Celebrate Women in Physics" that was designed for the Centennial has been widely circulated.

PUBLIC AFFAIRS ACTIVITIES

By all measures, the Office of Public Affairs had a blockbuster year. It saw legislative successes on Federal appropriations for science; Senate passage of *The Federal Research Investment Act, S.296*, also known as the Frist-Rockefeller Doubling Bill; enactment of the long-term R&E tax credit; and incorporation of language in the Defense Reauthorization Act that keeps the DOE weapons laboratories available for outside users. The Public Affairs Office also saw its activities of the last three years yield dividends in actions by the President: in his FY 2000 budget request and in the State of the Union address. And on September 1, White House Chief of Staff John Podesta held a widely-televised news

conference to hammer home the Administration's intent to make science a top priority in budget negotiations with congressional leaders.

Success does not come without considerable effort. Last year was no exception. Members of the APS grass-roots program weighed in heavily on these issues by communicating with their senators and representatives in response to Public Affairs alerts and by making congressional home visits during the month of August, assisted by the Washington Office. Two Hill receptions, one dramatizing the APS Centennial in April and one focusing on nuclear and particle physics in May, helped to reinforce the grass-roots message. The Office of Public Affairs also continued its work on op-eds, assisting APS members in drafting and placing pieces in the *Tampa Tribune*, *Science* and *The Washington Post*.

Throughout the year, the Office maintained its cooperative efforts with other society representatives in Washington to deliver the science message. The APS participated in a joint Congressional Visits Day program in March and in joint House testimony on the National Science Foundation and NASA appropriations in April. And until Congress adjourned in October, the APS worked closely with other science and engineering societies to promote the Frist-Rockefeller bill in both the House and Senate.

Climate change served as another unifying effort. To help develop a policy strategy, the APS, the American Chemical Society, the American Geological Institute, the American Geophysical Union and the American Meteorological Society contracted with the international communications firm Fleischman-Hillard to conduct a series of focus groups involving Capitol Hill staff. Joint climate-change activities in 2000 will closely follow the recommendations of the report prepared by Fleischman-Hillard.

Only on the Comprehensive Test Ban Treaty did the Washington Office see its advocacy fall short. We succeeded in holding a press conference with the President of the United States that included eight physics Nobel Laureates and which received extensive print and broadcast media coverage. But the goal of ratification advocated by the APS Council resolution did not materialize, when the treaty became captive to partisan politics at both ends of Pennsylvania Avenue.

PUBLIC INFORMATION ACTIVITIES

As part of the planning for the APS Centennial, increased efforts were made to communicate to our members, the media, and the public, about the importance of physics to the economy, the quality of life, and the intellectual future of the country. Several new activities were initiated and several experiments were attempted.

One experiment, the hiring of a public relations firm to help us publicize the importance of physics, had only limited success and has been discontinued. Another, a project called the Public Face for Physics, was designed to put a human face on physics. Approximately 20 physicists were identified on the basis of their communication skills and given professional media training; this training was appreciated by all who were able to take part. Attempts were then made to "pitch" their stories to the media. Since this program has had only limited success, a decision needs to be made whether APS should redesign or terminate it.

Having learned from these experiments the importance of "pitching" physics stories to the media, in June APS hired a Media Relations Coordinator, Randy Atkins. His role includes making key contacts with people in all forms of popular media and helping them cover physics stories. He is





Public & International Affairs



also working closely with the American Institute of Physics' Public Information staff in a new effort called Inside Science News Service (ISNS). The "ISNS" team aims to become the primary resource for journalists covering science stories or science behind the news. In addition to building a database of experts, the team regularly sends science news and ideas to the media through outlets such as the Associated Press Express wire. The year's accomplishments included convincing ABC World News Tonight with Peter Jennings to produce and air a lengthy report about a University of Nebraska professor who brings noisy crowds to hushed attention with "physics of football" segments on the big stadium screen during home football games.

Throughout the year, the Washington, DC Office of Public Information continued to interact regularly with the media, with a special emphasis on consumer issues. These offer an ideal arena in which to demonstrate the role of physics in matters that directly affect the lives of everyone. Moreover, the popularity of product fraud and safety stories with the public guarantees good media coverage. Here are a few of the highlights in 1999.

In November of 1998, *USA Today* had carried a full-page ad for "Vitamin O," which was nothing but a solution of salt water. The scam was first exposed in *What's New*. That led to an interview by Constance Holden at *Science* magazine, and subsequently to an interview on National Public Radio (NPR) by Rebecca Perl in January of 1999. It was an opportunity to talk about oxygen solubility and oxygen requirements as a measure of calories burned. Public pressure from the NPR story resulted in action by the Federal Trade Commission (FTC), which in March charged the supplier, Rose Creek Health Products, with fraud and ultimately closed the company down. The case was featured in a speech by the Commissioner as an example of how the FTC deals with false advertising.

1999 was the year that magnetic therapy sales topped \$2B. On February 7, Director of Public Information, Bob Park, demonstrated on NBC's McLaughlin One-On-One that commercial therapy magnets are made with alternating North and South poles, effectively limiting the range of the field to the order of one millimeter, which is hardly enough to penetrate the skin. He was subsequently invited to give similar demonstrations on the Art and Entertainment Channel and on a new Fox Family Network program called "Exploring." Then in September, Market Place, a popular prime-time program of the Canadian Broadcasting Company, did an in-depth program on magnet therapy featuring a lengthy segment filmed in the superconductivity lab at the University of Maryland. Finally, Park was given a full page in the *Washington Post* to explain the problems, and to describe simple tests that the readers could do themselves to show that therapy magnets affect only the pocket book.

In September of 1999, *USA Today* carried a full-page by Better World Technologies (BWT) announcing a 45-city tour to demonstrate a technol-





ogy that would supply free electricity. Two years earlier, Park had appeared on CNBC exposing this scam. This time he was contacted by ABC Good Morning America consumer affairs editor, Janice Lieberman. After attending a BWT demonstration in Columbus, he was interviewed on GMA by Lieberman. It was a great opportunity to tell the public about the conservation of energy. In January 2000, Park was given a full page in the *Washington Post* to write about the many perpetual motion scams.

INTERNATIONAL AFFAIRS

During 1999, the International Affairs staff pursued the APS initiative to increase physics collaboration with colleagues in Latin America in cooperation with the U.S. Liaison Committee to the International Union of Pure and Applied Physics (IUPAP). Core outreach activities such as the APS' Matching Member and Library Outreach programs have continued with an increasing number of Reciprocal Membership Agreements signed with sister societies in Europe, Latin America and the Asia-Pacific region.

As a result of commitments made at a conference of U.S., Canadian, Spanish, and Latin American physical societies in Cuernavaca, Mexico in 1998, a follow-on meeting was held in Atlanta in March to discuss plans for possible proposals to inaugurate physics collaborations throughout the hemisphere. An Inter-American-Iberian Physics Working Group is being formed to help promote physics education and the sharing of scientific information, as well as a program to promote public and governmental support for physical science research. Membership in the Working Group will be open to representatives of Latin American, North American, and Iberian physical societies. A Charter for this working group is currently being drafted by the Committee on International Scientific Affairs (CISA) and the Federation of Latin American Physical Societies. In addition, CISA is working to compile a directory for our Latin American colleagues of Spanish-speaking U.S. physicists who have volunteered to participate in lecture programs, educational activities and collaborations in Latin America.

After the Indian and Pakistani nuclear tests conducted in May 1998, a consensus developed at the APS to contact the physics communities in South Asia in a long-term effort to promote discussion of enhanced communication to reduce regional tensions and promote arms control. Currently, the APS is collaborating with the Abdus Salam International Center for Theoretical Physics (ICTP) to organize a scientific workshop in the region with a view to institutionalizing discussions and fora on regional security matters.

The Director of International Affairs, Irving Lerch, played a major role in organizing the 23rd International Union of Pure and Applied Physics (IUPAP) General Assembly that was held this past March in Atlanta in conjunction with the APS Centennial Meeting. Approximately 61 nations

(43 of which are IUPAP members) were represented. This was the largest representation at a General Assembly in IUPAP's history.

APS continues to assist members with inquiries concerning State Department visa denials and issuance delays. Often, the Office can provide information or make inquiries that can help visa applicants who are facing difficulties. The free circulation of all *bona fide* scientists planning to do research or attend conferences, workshops and graduate school in the U.S. is of paramount importance to the APS. The Committee on the International Freedom of Scientists (CIFS) continued to apprise the APS leadership of human rights problems encountered by scientists.

DEVELOPMENT EFFORTS

1999 brought with it intense fund raising and public relations efforts to benefit educational outreach programs of the APS Centennial. This included seeking corporate and governmental agency sponsorship of key projects launched at the time of the Centennial in March. A total of \$1,052,000 was raised including:

\$300,000 from Lucent Technologies to fund the printing of *A Century of Physics*, a dramatic story of 20th Century physics told on 11 color posters forming a 22' mural

\$150,000 each from the National Science Foundation and Department of Energy to fund the distribution of *A Century of Physics* free of charge to high schools, universities, museums, libraries, research, and corporate offices

\$75,000 from the Richard Lounsbery Foundation to fund the development of a teacher's guide for *A Century of Physics*

\$70,000 from United Parcel Service to fund the development of packaging for *A Century of Physics*

\$125,000 from IBM Corporation to develop *A Century of Physics* website

\$40,000 from The Coca-Cola Company to fund a Nobel luncheon program including the participation of 42 Nobel Laureates, 52 outstanding national high school teachers, 95 outstanding Georgia high school physics students and 47 outstanding Georgia high school physics teachers

\$47,000 from APS vendors in support of the Fernbank Gala

\$40,000 each from the National Science Foundation and Department of Energy to fund travel grants to encourage participation of physics undergraduates and first-year graduate students in the Centennial Meeting

\$15,000 in travel from Delta Air Lines for Stephen Hawking and staff in making possible his talk "The Universe in a Nutshell" at the Centennial Meeting

During the second half of 1999, efforts focused on helping define the future of legacy projects of the Centennial and working on plans to seek funding for and launch a new education initiative to improve the preparation of future teachers. In addition, the Development Office has attempted to increase the giving of annual contributors to APS, developed new means for identifying and recognizing donors, cultivated planned gifts to benefit programs of the Society, and assumed financial responsibility for the APS Prizes and Awards program.





FINANCES (FISCAL YEAR JULY 1, 1998 - JUNE 30, 1999)

At the end of fiscal year 1999, the total assets of the American Physical Society were \$82.4M, up from \$80.7M a year before [See Statements of Financial Position below]. The Society's liabilities were \$18.5M and net assets were \$63.9M.

The Net Assets include; \$5.6M in restricted net assets - the monies intended for prizes and awards and for programs of the Campaign for Physics and \$58.3M in unrestricted net assets - assets which may be used for any of the operations of the Society. This latter quantity constitutes our Reserve Fund and includes \$4.7M in land, buildings and equipment plus \$1.6M in accounts and pledges receivable.

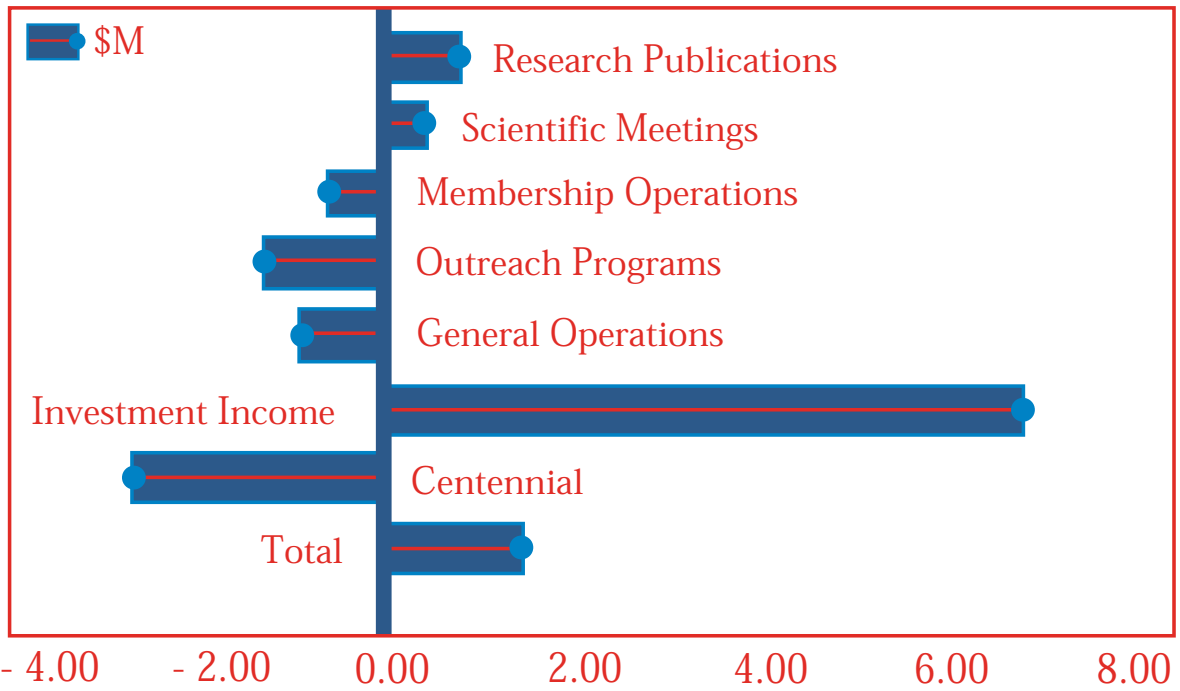
The growth in Net Assets was due to another very favorable performance of our investment portfolio. Part of the return from investments was used to cover operating expenses. This policy of using a portion of the return from investments to support Society programs continues in the budget for FY00. A portion of the return is also used to allow our Reserves to grow with inflation. Finally Reserve funds were used in FY99 to support the Centennial year celebration in Atlanta and to enlarge the publishing facility at Ridge, NY.

In the future we must anticipate a moderation of the extraordinary returns on investment funds. Furthermore, the Society is pricing its journals to cover expenses, including the extensive expenses associated with providing a first rank electronic journal product, with minimal excess revenue. There are several projects being carried out in the publications area which involve significant investments. Foremost is the extension of the Physical Review Online Archive, PROLA, to cover early years of publication. These expenses are being covered by the operating budget of the publications department. As mentioned before, the expenses for the Society's broad range of outreach programs are covered by the available return from the Reserve Fund, after growth for inflation. This provides a substantial, but limited, amount of resources for the many activities which members wish the Society to perform. Proposals have been submitted to fund some of these programs using external grants. Continued discipline and efficiency in all operations of the Society are the key to being able to continue the high level of public responsibility and service which has been the hallmark of the APS in recent years. We are confident that we will be able to perform this service within the constraints of disciplined financial responsibility.

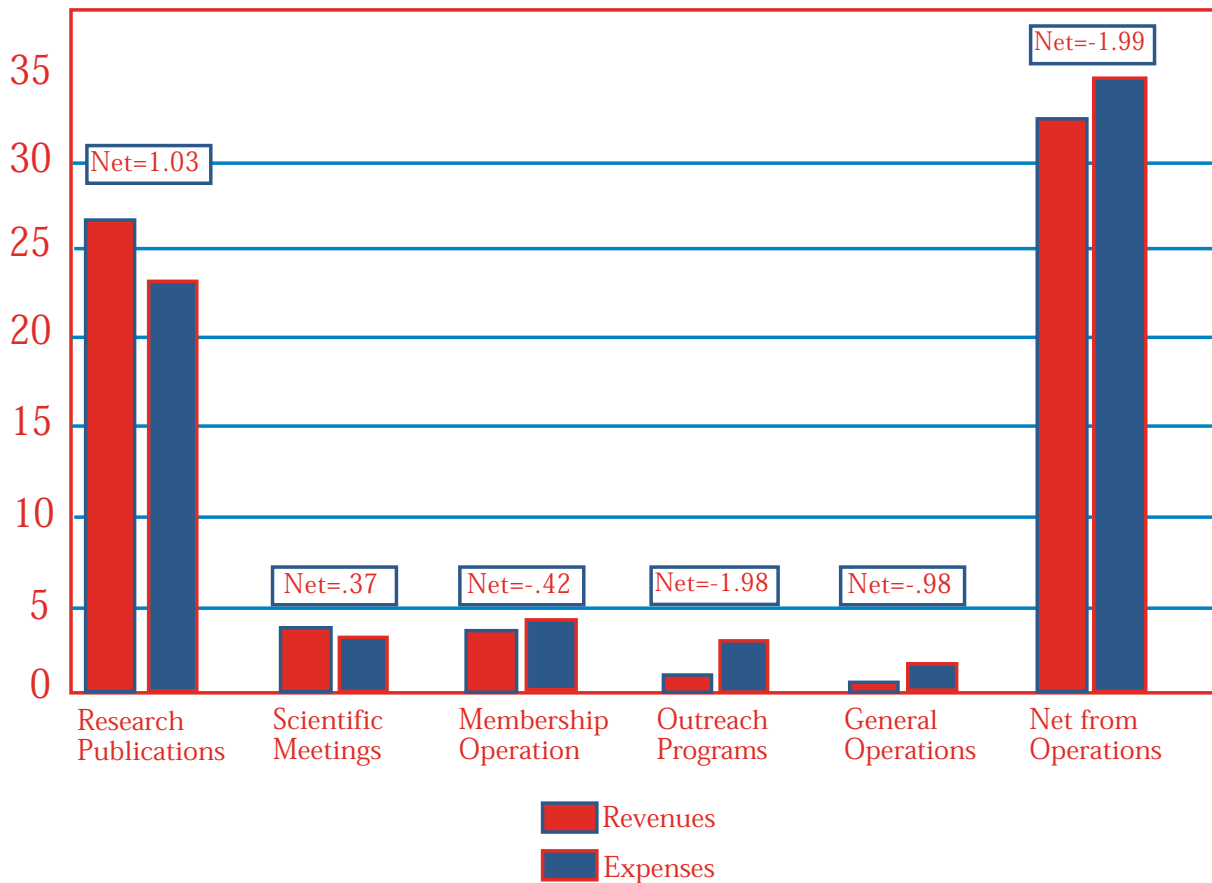
AMERICAN PHYSICAL SOCIETY STATEMENTS OF FINANCIAL POSITION As of June 30, 1999 and 1998

Assets	1999	1998
Cash and cash equivalents	\$ 7,005,118	\$10,190,512
Investments at fair value	68,400,613	65,078,212
Accounts receivable, net of allowance for doubtful accounts of \$215,000 and \$244,000	1,152,582	733,095
Pledges receivable, net	507,671	514,763
Prepaid expenses and other assets	258,225	334,001
Land, building and equipment, net	4,718,156	3,433,253
Beneficial interest in perpetual trust	368,224	368,224
Total assets	\$82,410,589	\$80,652,060
Liabilities and Net Assets		
Liabilities		
Accounts payable:		
American Institute of Physics	\$ 618,981	\$ 631,624
Other	1,377,426	1,182,690
Deferred revenues:		
Publications	11,564,932	11,671,197
Membership dues	2,237,440	2,189,874
Other	63,776	2,220
Liability for post-retirement medical benefits	2,634,951	2,194,814
Total liabilities	<u>18,497,506</u>	<u>17,872,419</u>
Net Assets		
Unrestricted	58,293,391	56,844,319
Temporarily restricted	5,209,971	5,528,316
Permanently restricted	409,721	407,006
Total net assets	<u>63,913,083</u>	<u>62,779,641</u>
Total liabilities and net assets	\$82,410,589	\$80,652,060

Net Revenues (Expenses) Fiscal Year 1999



Net Revenues (Expenses) of Operations Fiscal Year 1999



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AMERICAN PHYSICAL SOCIETY

**One Physics Ellipse
College Park, MD 20740**