Sustainability of Scientific Society Business Models: What is the outlook for the future?

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My Society’s Vision

• Staff and volunteers will work together to keep My Society membership essential.
• Programs will respond to the complex and changing environment.
• My Society’s members will be recognized as world leaders in scientific research, teaching, and outreach.

Thriving Relevant
Growing Vibrant
AIP Scope

As a federation of physical science societies, AIP offers programs, products and services that:

• Advance and distribute the knowledge of the physical sciences and its applications;

• Enhance and cultivate the physical sciences disciplines;

• Enable and foster collaborative efforts among stakeholders in the physical sciences; and

• Promote the physical sciences to the public, leaders, government officials, agencies, and the media.
AIP: An umbrella organization of physical science societies

AIP supports and promotes the physical sciences and their value to humanity.

10 Member Societies
(~119,500 combined membership)

- AMS  American Meteorological Society (14,000)
- ASA  Acoustical Society of America (7,600)
- APS  American Physical Society (50,000)
- AVS  Materials, Interfaces, and Processing (4,200)
- OSA  The Optical Society (17,500)
- SOR  Society of Rheology (900)

- AAPT  American Assoc. of Physics Teachers (8,300)
- AAPM  American Assoc. of Physicists in Medicine (8,200)
- AAS  American Astronomical Society (6,800)
- ACA  American Crystallographic Assoc. (2,100)

Numbers rounded to the nearest 100
AIP fosters the scientific enterprise

Our Stakeholders:

- Scientists
- Educators
- Students
- Researchers
- Affiliated Societies
- Member Societies
- Universities
- Government Agencies
- Physicists
- Librarians
- Industry
- Engineers
- Donors
- Colleges
- Public Media
Member Society Membership Trends 2004 - 2014

Membership numbers as reported to AIP
AIP Member Society Characteristics

Members outside the US: 12 to 43%

Student members: 10 to 30%

About half the societies offer an early career membership

Operating expenses: $500K to $55M

Revenue from publications: $0 to $40M (0 to 81%)

Employees: 0 to 260

Volunteers: 50 to 5,000
MEMBER SOCIETY OPERATING REVENUE

- **Other Revenue**
- **Publishing**
- **Meetings & Education**
- **Membership Dues**
Primary Society Revenue

• Journals
• Meetings
• Dues – supports governance, advisory committees, and awards
• Reserves/endowments (donors)
• Grants/contracts
Additional Society Program Areas

- Education (cert., workshops, inclusion)
- Student services (career services, job boards)
- History programs
- Media promotion for meetings/journals
- Public outreach (news, events)
- Magazines/newsletters
- Government Relations/public policy
- Industrial outreach
More PhD physicists accepting potentially permanent positions; fewer taking postdocs

- Fewer than 50% of new physics PhDs accepted postdocs in 2013 & 2014
- Lowest level in over a decade
- Number of physics PhDs granted in 2014 (1,803) was an all-time high

In 1991, the survey questionnaire was changed to measure "other temporary" employment as a separate category. Data are limited to PhDs who earned their degrees from a US university and remained in the US.

[www.aip.org/statistics](http://www.aip.org/statistics)
African Americans earning physical science degrees

• The number of physics bachelor’s degrees earned by African Americans has been stagnant at ~150 since 2003.

• Fewer than 40 African Americans earned in bachelor’s degrees in astronomy, atmospheric sciences, or oceanography in 2013.
- Reporter travel awards
- Local outreach
- Career resources

- Future Faces of Science
- Community Colleges

- Create student clubs
- Society communication with Universities

- Research opportunities
- Mentoring
- Provide networking

Promotion
Inclusiveness
Recognition
Retention
Career Pathways

- Toolbox for Students
- Fact Sheet for Career Services Office
- Report for Faculty

Status of Physics Bachelor’s in the US One Year After Degree, 1995 through 2012

http://www.aip.org/statistics
- 10 Things To Do Before Graduating to Get a Job
- Identifying and Seizing Value from Conference Participation
- Transitioning Your Career Beyond Academia
Rejoin AAPT...

in time for the Summer Meeting in Sacramento, CA

Please accept this complimentary issue of *Physics Today* as an invitation to reengage with the American Association of Physics Teachers (AAPT). Whether you consider yourself to be a specialist in middle school, high school, undergraduate, or graduate physics education, with AAPT membership you will find the resources you need to change young lives, and the peers who are eager and able to support you.

*Rejoin AAPT now and save $200+ on your Summer Meeting registration!*

**As a member you’ll receive:**

- Online subscriptions to *The Physics Teacher* and the *American Journal of Physics*
- Opportunities to network with educators in physics and astronomy
- Access to the jobs board at [http://jobs.aapt.org](http://jobs.aapt.org)
- Print subscription to *Physics Today*
- Mentoring and advice from other dedicated educators

**Rejoin online:**

[www.aapt.org](http://www.aapt.org)/Membership/joining.cfm

Summer Meeting 2016
[www.aapt.org](http://www.aapt.org)/Conferences/sm2016

Questions? Call 301-209-3333
or email membership@aapt.org
Media Services: Promoting and disseminating science

Society Technical Meeting Promotion
• Press releases
  • Onsite and virtual press rooms
• Photo and video galleries
  • Webcasts

Journal Promotion
• Raise the profile of journals and increase web traffic.
• Increase the number of stories in the media from journals.
• Report major research developments.
• Raise awareness and appreciation of the physical sciences among the general public.
• Provide service to journal authors.
Federal Research Funding by Discipline as a Share of GDP, 1978-2015

Source: National Science Foundation, Federal Funds for Research and Development series. FY 2014 and 2015 are preliminary. GDP figures are from OMB. © 2015 AAAS
Science Funding Advocacy

Political Climate

Fiscal Climate

- Reducing the deficit is a top priority for both Rs and Ds
- Increasing tax revenues is not endorsed by Rs
- *International competitiveness in scientific fields is important to both parties*
Society Program Funding

- Completely volunteer
- Meeting breaks even
- Low expenses and overhead – covered by dues

- Publishing wall – no revenue used to support other activities

- Sale of directories or indexes

- Local chapters or sections (some collect dues) Student programs

- Surplus meetings/pubs revenue provides GR and media activities

- CEO and large paid staff
  - Publishing revenue subsidizes other activities
Sustaining My Society

- Know your membership
- Make membership relevant to students
- Create campaigns with partners to rejoin
- Promote content to the media
- Seek sponsors for products and events
- Make the case to donors
- Advocate for federal funding for research