

The AAPT Executive Board, augmented by other AAPT members, held a retreat June 22-25, 2006, at the Belmont Conference Center in Elkridge, Maryland, to discuss ways for AAPT to more fully achieve its mission: "To enhance the understanding and appreciation of physics through physics teaching." The following white papers were prepared to provide background information for the retreat participants. Karen Johnston served as the facilitator for the retreat and prepared the retreat summary which is the last document in this list.

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## AAPT and Community Leadership

Warren Hein, Mary Beth Monroe and John Roeder

For 75 years the AAPT has provided the most extensive and comprehensive forum for issues related to teaching physics and scholarship in physics education. While the AAPT Mission Statement does not explicitly describe a community leadership role for the AAPT in the public policy arena, the traditions and activities of our association's membership position us to be a leader in physics curriculum matters and science education policy for pre-college and undergraduate education. We have a long history in attending to the professional development with these communities of teachers. The question before us is how to enhance this role.

AAPT is a volunteer organization. While we are proud of this status, we at the leadership level all too often credit this characteristic as the reason why progress is not made on initiatives and policies affecting our members and the physics teaching community. We sometimes, and maybe too often, wait for potential leaders among our AAPT members to voluntarily step forward and assume responsibility to lead an initiative. At committee meetings and in the halls at our national meetings we frequently hear comments such as, "The AAPT should do this or that." While it is more comfortable to talk in generalities about what our Association should do, we need to remind ourselves and our members that AAPT is not an entity with the ability to perform tasks. "*AAPT is us.*" [Apologies to Pogo]

If the AAPT is to strengthen its leadership, nationally and locally, and become more visible as a leader in the physics/science education community, the members of the Executive Board and Executive Office must provide the inspiration and leadership to enable these changes to happen. Area committees, section representatives, past officers, former and current principal investigators of AAPT projects, and ad hoc committees constitute the active AAPT membership. However, we have failed to a great extent in using the area committees to provide input and advice on issues of importance to AAPT as the mission of their committees would suggest. Further, we have not been successful at utilizing the section representatives and past officers as AAPT's ambassadors to the greater physics community, including recruitment of new members.

The 2006 Organizational Directory lists 162 area committee members, 44 section representatives, and 14 Board members. These approximately 220 members represent the interests of our 10,000 association members and approximately 20% of the attendees at each of our national meetings. However, the active and contributing members of our organization should not be limited to this 2% of the membership. More thought needs to be given to how the Executive Board and

Executive Office can engage more of our membership, especially section members, in playing a significant role in carrying out the mission of our association.

### Our Discussion Agenda

What are the issues on which the AAPT should be exercising a regional and national leadership role in the physics and science education communities? Several issues continue to attract the attention and interest of our members and demand our attention and resolution.

1. Should the AAPT engage in an accreditation program for undergraduate physics degree programs? If so, what are the steps we need to take?
2. The AAPT is an established authority on high school physics curricular matters. For example, we have a policy statement on the Physics First initiative [ <http://www.aapt.org/Policy/> ; Physics First]. Should AAPT be more proactive in partnering with other science organizations in the preparation of teachers of physics as the first course in the high school science sequence? Should we be more proactive and visible by making recommendations on other high school physics programs such as Advanced Placement, International Baccalaureate, etc.? If so, what is of highest priority and how should we proceed?
3. The AAPT has developed policy statements on several critical science and science education issues, such as science standards and intelligent design [ <http://www.aapt.org/Policy/> ; Teaching of Evolution and cosmology]. Should we continue to do this? Are our efforts appropriate and sufficient? If we need to do more, how should we go about doing this?
4. We have a portfolio of efforts that support the continuing professional development of physics teachers at all levels. Do we have (or need) policy statements that articulate our role in professional development? For example, what is our role in the preparation and continuing professional development of pre-college physics and physical science teachers? [ <http://www.aapt.org/Policy/> ; Education of Future Teachers] What is our role in preparing graduate students in physics and astronomy and the next generation of faculty and nurturing their development of a professional identity?

How can the AAPT influence the addition of more physics content in its national and section meetings and conversely, how can the AAPT influence the addition of PER findings in APS section meetings?

5. How can the AAPT develop a more visible presence and active voice in supporting physics education in Congress? Should the national AAPT be more active in leading "grassroots efforts? If so, on what issues and how? Is this the right time to develop a policy statement on disciplined based research in learning and teaching in physics? [<http://www.aapt.org/Policy/> ; Research in Physics Education an APS Statement on Research in Physics Education]
6. Does the AAPT have the resources to play a larger role in outreach to the general public? Ideas: News media? Speakers Bureau? Demonstration Shows? After-school enrichment programs? Should this be a priority?

To fulfill its mission of "enhancing the understanding and appreciation of physics through teaching," the American Association of Physics Teachers has a dual role of community leadership -- in both the physics and the science education communities. One longtime member has mused that the Association has evolved from physicists interested in education to educators interested in physics. Others have rejoined that each of us must be an admixture of both. Indeed, one of the principles of learning in How People Learn (edited by John D. Bransford, Ann L. Brown, and Rodney R. Cocking, published by the National Academy Press, 2000) is that teachers must have both pedagogical and disciplinary content knowledge. Given that each of us is, and must be, a little bit of both physicist and educator, an important issue facing the AAPT is to resolve what some see as a dichotomy in assuming leadership roles in the physics and science education communities.

## AAPT Identity and Core Values

Ruth Chabay, Bernard Khoury, Richard Peterson, and Jan Tobochnik

“AAPT's mission is to enhance the understanding and appreciation of physics through teaching.” We do this through our journals, our annual meetings, our resource publications, our support for Section activities, a variety of activities for physics students (e.g. the Olympiad and High School Physics Photo Contest), occasional conferences for physics faculty members (e.g. Conference on Calculus-based Introductory Physics and our new effort in Topical Conferences), a long-term project with external funding for high school physics teachers (i.e. the Physics Teaching Resource Agent project), occasional collaborative, externally funded curriculum development or resource development projects such as Powerful Ideas in Physical Science or ComPADRE, and long-standing collaborations with our sister organizations on projects that engage physics departments (i.e. Department Chairs Conference). These examples are just a few from the AAPT Portfolio.

We promote disciplined research on how students learn and the development of tested methods of instruction. We have fostered the development of the PER community during the past 25 years. We promote curriculum development based on what is worth teaching using information from contemporary physics research, new experimental and computational tools, information on student interest and the economic environment, as well as what appears to have inherent interest. Our journals are well regarded, and they are one of the major reasons college/university physics faculty and high school physics teachers join our association. However, electronic publishing will no doubt change the nature of journal publishing and we need to be prepared for that.

There appear to be three strands to discussions about AAPT's identity, our core values, and how we can insure a strong and vital AAPT well into the future. One strand is to provide high quality services and resources to physics educators, focusing on the physics curriculum for teachers in high schools, two-year colleges, and four-year colleges and universities. This strand aligns most closely with our heritage and our mission. An important component of what we do is providing mechanisms for physics educators to meet each other and exchange ideas and to build a network of connections. Some particular issues include how to maintain the quality of our journals and meetings, how to meet the needs of members and our Sections, the costs/benefits of expanding services to those not in our primary audiences, physics teachers and their students.

A second strand centers on a desire expressed by many for the AAPT to act as a stronger voice of physics education in North America. NSTA promotes science education at the pre-college level and the AAAS promotes science in general. Those organizations that focus on physics are the AIP and its member societies,

particularly the APS. The main distinction of the AAPT is that physics education is our sole concern; while for the other organizations it is only a part of their missions. At present we are doing reasonably well with our collaborations with many other organizations, but the others seem to have a greater focus on public policy than we do. The question remains whether we should devote more resources toward being identified as the voice of physics educators. Do we need to find ways that distinguish our activities from the educational activities of the APS, the AIP and other organizations? Are there areas where we are particularly well positioned to speak for certain aspects of physics education? Are there audiences that are more closely aligned with the AAPT than any other organization?

A third strand is to promote physics more generally. We have members who do not teach physics at all but enjoy reading our journals or coming to our meetings. Some of these members engage in outreach activities in their communities to promote physics. And many of our members participated in activities of the World Year of Physics. Our promotion of "Physics for All" expresses our core belief that physics is so fundamental that it should be studied by all.

The above three strands encapsulate who we are by what we do. One may ask does the work we do define who we are and thus give us our voice? Other questions that might help define the AAPT identity and core values include the following. What does membership in the AAPT mean? What are the principles on which we base the work we choose to do? How do we assess the value of our work? To what extent do we support members of the teaching profession? (Do we or should we do anything to argue for higher salaries and better working conditions? Do we do any other forms of advocacy?) To what extent is our mission focused on North America and to what extent are we international?

Another key question is whom do we serve both directly and indirectly? Presently there is a sense of a lack of interest in the AAPT from the major research universities. Is this a major problem? Will the AAPT change in character if we do not have a sizeable representation from faculty at these universities? Should we be reaching out to others in industry and government who are interested in physics education but do not directly teach themselves?

Some people join AAPT because they want certain benefits that the organization offers. Others join because they support the work that AAPT does, and probably most join for both reasons. Because virtually none of the services offered by the AAPT are available exclusively to our members (especially those at colleges and universities with campus-wide access to online versions of our journals), access to such services is likely not a strong inducement to join the organization. Instead, professional identification with the mission of the AAPT and a sense of community responsibility are likely to be the reasons that people join and maintain membership in AAPT. How can we position the AAPT so that anybody interested in physics education would feel a responsibility to join?

## Our Mission Statement

The AAPT's mission is to enhance the understanding and appreciation of physics through teaching.

When the organization was established in 1930, our goal was clear: "ensuring the dissemination of the knowledge of physics, particularly by way of teaching." As we move into our eighth decade, we remain committed to that core value, but with a new emphasis and meaning provided by our current mission statement.

Our vision is to be the leader in physics education. We are committed to providing the most current resources and up-to-date research needed to enhance a physics educator's professional development. The results are not only a deeper appreciation of the teaching profession, but most importantly, more enthusiastic involvement from their students.

Developed from the work of the 2000 AAPT Planning Retreat, our association has identified four critical issues that will guide our future activities:

1. Increase AAPT's outreach to and impact on physics teachers
2. Increase the diversity and numbers of physics teachers and students
3. Improve the pedagogical skills and physics knowledge of teachers at all levels
4. Increase our understanding of physics learning and of ways to improve teaching effectiveness

What other Associations claim they are:

The **American Association for the Advancement of Science**, "Triple A-S" (AAAS), is an international non-profit organization dedicated to advancing science around the world by serving as an educator, leader, spokesperson and professional association. In addition to organizing membership activities, AAAS publishes the journal *Science*, as well as many scientific newsletters, books and reports, and spearheads programs that raise the bar of understanding for science worldwide.

The **National Science Teachers Association** (NSTA), founded in 1944 and headquartered in Arlington, Virginia, is the largest organization in the world committed to promoting excellence and innovation in science teaching and learning for all. NSTA's current membership of more than 55,000 includes science teachers, science supervisors, administrators, scientists, business and

industry representatives, and others involved in and committed to science education.

### **The American Physical Society**

...**represents** actively its more than 40,000 members in the arena of national, international, and governmental affairs

...**publishes** the world's most prestigious and widely-read physics research journals

...**conducts** over 20 national, divisional and regional meetings every year

...**develops** and implements effective programs in physics education and outreach

...**fosters** the health of the profession through its career and development initiatives and its committees on women and minorities

...**informs** its members of the latest developments through APS News, Physical Review Focus, and articles in Physics Today

...**communicates** with the public and policymakers via the national media and a public web site, [www.physicscentral.com](http://www.physicscentral.com)

...**monitors** the human rights of scientists around the globe

...**recognizes** professional accomplishment with a spectrum of prizes, awards and the election of APS Fellows.

The **Mathematical Association of America** is the largest professional society that focuses on mathematics accessible at the undergraduate level. Our members include university, college, and high school teachers; graduate and undergraduate students; pure and applied mathematicians; computer scientists; statisticians; and many others in academia, government, business, and industry. We welcome all who are interested in the mathematical sciences.

The mission of the MAA is "to advance the mathematical sciences, especially at the collegiate level."

This mission guides our core interests:

1. **Education:** We support learning in the mathematical sciences by encouraging effective curriculum, teaching, and assessment at all levels.
2. **Research:** We support research, scholarship, and its exposition at all appropriate levels and venues, including research by undergraduates.
3. **Professional Development:** We provide resources and activities that foster scholarship, professional growth, and cooperation among teachers, other professionals, and students.
4. **Public Policy:** We influence institutional and public policy through advocacy for the importance, uses, and needs of the mathematical sciences.

5. **Public Appreciation:** We promote the general understanding and appreciation of mathematics. We encourage students of all ages, particularly those from underrepresented groups, to pursue activities and careers in the mathematical sciences.

Founded in 1888 to further mathematical research and scholarship, the **American Mathematical Society** fulfills its mission through programs and services that promote mathematical research and its uses, strengthen mathematical education, and foster awareness and appreciation of mathematics and its connections to other disciplines and to everyday life.

## AAPT Membership

Dwain Desbien, Karl Mamola, and Randy Peterson

Hardly an Executive Board meeting goes by without a discussion on some of the following persistent concerns: (1) increasing membership, (2) solving the problem of the graying membership, (3) addressing concerns that our annual meetings are not attracting enough members or meeting the needs of those who do attend, (4) engaging more (and new) members in leadership roles, (5) improving services to members, (6) grappling with the effect that electronic publishing is and will have on our journals or (7) maintaining a value to association membership by not giving away many services on the web or otherwise to nonmembers.

We have conducted internal studies, hired external consultants for studies, solicited advice from our members and past leaders, etc. We need to do the kind of strategic planning, with appropriate benchmarks that we can measure, to allow us to make progress on these persistent concerns. We will not be able to address each of these in this retreat session, but we can address some.

### Membership Profile

While all of us would like to see membership growth in each constituent group (HS, TYC FYC/U), would we want to emphasize one group over another? If so, what should AAPT be doing to ensure that we don't alienate the other group(s) as we attempt to grow membership within one group or another? What is a reasonable expectation for growth within our different constituencies? [Please see <http://www.aapt.org/Retreat/>; Major Membership Categories Documents D and E.]

We have had several initiatives over the past few years to share some of the services of the AAPT as well as to attract people to our organization: complimentary memberships for students in SPS<sup>1</sup> and various half-price membership opportunities. Even some of our externally funded projects (PTRA, TYC 21) indirectly encourage participants to join AAPT. Currently we have a senior staff physicist working on several activities including improving the AAPT's visibility among graduate students. How will we maintain the momentum, what are the benchmarks of progress, and what do we need to put in place to monitor our progress over time for this and all other membership drives? Would a HS teacher, serving as a staff physicist and doing the same for HS's (and similarly a TYC instructor), be able to plan and execute initiatives to grow membership with their representative group? Many institutions have a full pay sabbatical available so such arrangements would not require the AAPT to pay a salary. Could we

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<sup>1</sup> <http://www.aapt.org/Retreat/> see Document F under Membership Profile and Benefits

encourage energetic members to spend their sabbatical at AAPT for this and other projects?

The question seems to boil down to how do we make the AAPT more visible and attractive to those we wish to serve? There is a huge turnover in those we wish to serve (through retirement and attrition), so how do we overcome this? [Information on Membership Gain/Loss Numbers are maintained by the Member and Subscriber Services Department at the Executive Office.]

Our effort in the PhysTEC project has put us in touch with new high school physics teachers. How should we reach out to these new HS teachers, including teachers coming from industry, and other new teachers? In a similar vein, our New Faculty Workshop offers an opportunity for inviting new members into our association and monitoring our ability to retain these new members.

What role should the Executive Board play as the face of the AAPT in recruiting and communicating with members? Should Executive Board members be at as many section meetings as possible to help recruit new members and describe new programs? Would the sections see this as a positive or would be seen as imposing? Along these lines would it facilitate gathering of information about sections, in addition to the information gathered for this retreat [<http://www.aapt.org/Retreat/>; see Section Representatives and Officers Commentary] and what benefits do members in the sections see as “critical” to their membership (or lack of) in AAPT.

### Benefits/Value of AAPT Membership

Membership in the AAPT means different things to different people. The AAPT webpage advertises our benefits, but there is no way to get to this list from the front page of the AAPT website, and our benefit list is not differentiated in a way that might appeal to our various constituencies. The Appendix to this paper illustrates some of the benefits that are described in our website.

While the website broadly lists our benefits, it lacks the detail and nuance that would attract different types of potential AAPT members. Should there be links to benefits aimed at HS teachers? TYC instructors? 4YC/U? If so, what would be different for each of these constituent groups? Is a benefit/marketing plan for each group what is needed? Are the benefits of membership regarded differently by each of these groups? For example, do 4YC/U people see the national meetings as a greater benefit than HS teachers? If so, why and do we want to change that?

We have well-established processes for reviewing our premier service, the journals, but we are struggling with making our meetings the kind of meetings that attract a wide spectrum of our members [<http://www.aapt.org/Retreat/>; see Documents A, B, C under Membership Profile and Benefits]. Many members

who attend meetings are engaged in the work of our 17 Area Committees, but many feel, including members on these committees, that work of the area committees is not sufficiently engaging [<http://www.aapt.org/Retreat/> ; see Commentary from Area Committee Chairs]. A few have commented that committee members are frequently recycled from one committee to another. When we ask people to do important work for AAPT are we careful to provide the resources they need to not only plan the work, but also to carry out that work?

### Services to Non Members

What services should be made available to anyone who comes to the AAPT website? What do we do about individuals who utilize our Journals via on-line libraries? What services should be provided to induce nonmembers to become members?

## Appendix

### **1. Journals and Publications**

Members find that our journals, the *American Journal of Physics (AJP)* and *The Physics Teacher (TPT)*, are both practical and highly readable.

Print subscribers may choose to add online access to the either journal.

*Physics Today* provides timely science news, while the *Announcer* and [AAPT Email Updates](#) help members keep track of association events and opportunities.

### **2. Career Advancement**

Advance your career goals with AAPT's [Career Center](#), place a free situation wanted ad, and interview at the career fair held at our winter national meeting.

**3. Leadership/Networking** All members are encouraged to nominate themselves to Standing Committees and Advisory Boards. Further networking opportunities include topical listservs, the online member directory, and local section activities.

### **4. Save Money on Educational Products**

Enjoy a member discount on [books, videos, and CD's](#) hand-picked for the physics educator. Members are also eligible for discounts on publications from other [American Institute of Physics](#) member societies.

### **5. National Meetings**

National meetings present a unique opportunity to hear internationally known

physics speakers, present papers, and attend workshops at a substantial discount. Continuing Education Units (CEU's) are offered for most workshops. Each national meeting hosts a broad range of physics equipment suppliers and booksellers.

#### **6. Insurance**

Find insurance at competitive rates - including health, life and educators professional liability.

## AAPT Partnerships - Realities and Opportunities

Bernie Khoury and Alan Gibson

AAPT is involved in many partnerships. This is not surprising because of our attention both to physics and to education. We are natural allies with numerous physics organizations. We are also natural allies with many organizations with interests in science education. [<http://www.aapt.org/Retreat/> AAPT Partnerships and Collaborations]

Our partnerships are not only numerous but they are also quite diverse in their nature.

Most of our partnerships are quite informal, meaning they are not accompanied by a formal, written contract of any kind.

AAPT, in a joint effort between the leadership of PTRA and the Executive Office, organizes a 'strand day' at some regular regional meetings of the NSTA. These are a full day of programs and workshops for registrants at the NSTA meeting. NSTA members benefit by getting top-notch physics content. AAPT benefits by our exposure to this community. No money is exchanged between the organizations. NSTA does not seek any reciprocal benefits. On the contrary, NSTA feels that the strand days benefit their own organization since they are able to advertise substantial physics content to their meeting attendees.

AAPT organizes jointly with APS a biannual series of conferences of chairs of physics departments. In alternate years, we have a session for chairs of 'top 25' departments. At both AAPT and APS annual meetings, co-sponsored sessions, often with the FED, related to education issues are frequently included in the meeting programs. Even further, several of the APS research divisions organize sessions at AAPT national meetings; the APS FED supports these sessions administratively and financially. Again no money is exchanged between APS and AAPT.

In one of our longest standing partnerships, AAPT organizes the US physics team for participation in the International Physics Olympiad. We work on behalf of the entire US physics community in administering this program. AIP and AAPT work together to raise money, and all of the AIP member societies make annual contributions. In carrying out the Olympiad program, AAPT absorbs the substantial staff costs and indirect costs of the program, while AIP raises funds that support fully the out-of-pocket costs incurred by AAPT.

In more formal collaborations, AAPT shares federal grant responsibilities with other groups. In ComPADRE, we work jointly with APS, AAS and AIP. In the New Faculty Workshops, we work with APS and AAS. In PhysTEC we work with AIP and APS.

In recent years we have organized a joint national meeting with AAS. Another such joint AAPT-AAS national meeting will take place next January. We are tentatively committed to hold a joint meeting with AAAS in February 2009. Plans are also underway for joint national meetings with APS, MAA (Math Association of America), and ASEE (American Society for Engineering Education)

Our most formal and legally oriented partnership is that involving the American Center for Physics. With very structured financial and legal arrangements, this partnership among AAPT, APS and AIP has succeeded remarkably in the past 13 years. AAPT's headquarters facility is a major financial and logistical commitment.

While the topic will likely be addressed in other papers for this retreat, any discussion of partnerships needs to address the relationships between the national AAPT and our 47 sections. The current relationship seems to focus on needing to maintain the autonomy and independence of the sections. This may be an appropriate long term relationship. On the other hand, if AAPT wants to advance our partnerships or to use them to further some other objectives, our sections will be important components of those efforts.

What are the issues or concerns that might be inferred from this list of partnerships? Why is the issue of AAPT partnerships of relevance to our agenda for a long term planning retreat?

Some people perhaps feel that AAPT does not get enough credit for our role in these partnerships? We are often seen as the 'weak partner.' Perhaps our participation is seen as a token involvement of educators in a joint project.

Another fact is that virtually all physics-based associations see education as a significant or a major role, although it may not be cited in a mission statement. Because of this perception that all physics based societies are seriously interested in education, their involvement in projects with AAPT are not seen by them as an equal partnership with AAPT but rather as an opportunity to emphasize their own interest in education.

By almost every measure, AAPT has many partnerships. The program content of these partnerships seems to be very successful. What seems to be problematic is our sense that, in some cases, we contribute more to the joint project than we derive from that project. Is that a prevalent perception? Is it justified? If so, how should AAPT try to remedy any such perception? Are we overlooking opportunities to derive more benefit from these partnerships for our members? If so, how can this be remedied?

While we all recognize that AAPT is not perceived by some as the dominant force in physics education in the United States, some may feel that we should move in that direction. This is a matter of balancing resources with priorities. Any such realignment of our objectives would require that we look carefully at how we would position the association to be such a force.

Here are some issues and questions that arise in a consideration of AAPT's seeking more recognition and visibility as the dominant force in physics education.

AAPT might be able to move toward a more visible leadership role in science education by working more openly with government bodies and organizations that fund physics education, as well as working with those organizations that are concerned about physics and physics teaching. AAPT might seek to become one of the organizations that determine what is to be taught at the various levels represented by our members.

AAPT might decide to invest resources in lobbying. That option is now being explored. The AAPT Board recently allocated funds for us to purchase software to enable our members, who attend our national meetings, to write letters to their own Congressmen.

Standards in physics education are an issue in many states and school districts. These influence 'tests' that can be a major impediment to making major changes in curricula. Should AAPT expend more effort on making ourselves visible at NSF and in the US Department of Education? If so, how do we position ourselves to do this and who will do this?

AAPT can develop talking points for our members to use with their elected representatives both on the national and local levels. Perhaps we can use something like the AIP physics newsletters to send information to our members and to government bodies.

The idea of playing more of an advocacy role would be a major change for AAPT. Without a major reallocation of resources, this is a 'pipe dream.' Many of our AAPT members and leaders seem to think that, since we are deeply committed to quality physics education, it might be relatively easy to convert this commitment to effective public advocacy. Doing the 'right thing' is only one small step on the road to effective lobbying. More than anything it requires lots of time and dedication and expertise .... all of which translate to money. Does AAPT want to elevate 'lobbying' to a significant activity?

APS has a very effective lobbying effort, with a primary focus on research funding at major federal agencies. APS also devotes some lobbying effort to education issues. AAPT might elect to join actively with APS in their lobbying on behalf of physics education, but even that would require a reallocation of resources by the staff or by our volunteers. Of course, any partnering with APS on this lobbying effort presents the 'second cousin' issue associated with most of our partnership efforts with APS.

We can work with the other organization that promote of physics education and those that are more concerned with physics as an academic discipline. The question becomes how we work with other organizations so that we are cooperating but at the same time receive respect for our unique position in the physics education community. We need to

ask ourselves what strengths AAPT would bring to such partnerships and collaborations and what issues we need to advance. An additional question we need to address is how we help the sections of AAPT develop the same relationships with organizations within their zones of influence.

While the above several paragraphs quickly cascade through a set of activities we might initiate, a major issue is to place these activities within the context of our other priorities. In particular, to move aggressively and successfully in these new directions, AAPT will need to abandon some activities and will need to add resources, especially people resources.

When AAPT relocated to the College Park area and again when we relocated to the American Center for Physics, the proximity of policy leadership in Washington DC was an important issue. On a very regular basis, perhaps two or three times per week, a meeting or conference or hearing is held in DC that is of interest to AAPT in establishing a more visible and viable public presence. If AAPT wants to take advantage of such opportunities, we will need to identify new staff positions or we will need to impose further on our elected officers and other volunteers.

The fundamental issue here is to ask ourselves whether our many partnerships have enabled AAPT to gain visibility and recognition for our desired leadership status. If so, should they be continued and expanded in number? If not, how else can we use our knowledge and expertise to assure that we are perceived as the leaders in physics education?

Is the role of partnerships primarily to assure that we use such networks to improve physics education in diverse ways? Or is the role of such partnerships to try to move AAPT into more prominence as a leader? Which of these two purposes, improve education or improve AAPT prominence, has been the hallmark of our current partnerships?

## 2006 AAPT Planning Retreat

The AAPT Executive Board, augmented by other AAPT members, held a retreat June 22-25, 2006 at the Belmont Conference Center in Elkridge, MD to discuss ways for AAPT to more fully achieve its mission: "To enhance the understanding and appreciation of physics through physics teaching." The retreat was guided by the overarching question:

*How can the AAPT strengthen its role as a leader in physics education?*

Prior to the retreat, facilitator Karen Johnston solicited information from Section Representatives, Area Committee Chairs, and various other AAPT groups and members, and obtained statistical data from the AAPT Executive Office. The following topics were highlighted at the retreat:

- AAPT's identity and core values
- AAPT's membership size and profile
- Relationships between AAPT and its sections
- AAPT's partnerships with scientific societies and others
- AAPT's leadership

The goal was to identify the issues facing the AAPT in the next decade and begin a discussion of how to address them. Outcomes of the retreat are contained in the Action Vision and list of AAPT Issues below. The Action Vision and AAPT Issues will be reviewed by Area Chairs, Section Representatives, Executive Board, and AAPT staff. The whole AAPT community will be invited to comment on them. The Executive Officer, assisted by a small group appointed by the President, will develop an Action Plan to address the identified AAPT Issues and consider other related issues if desirable, within the framework of the Action Vision.

### **Action Vision**

*The AAPT Executive Board will establish bold measurable goals that embrace, strengthen, and extend AAPT's constituency groups and their linkages. The AAPT will become a more agile and active society, while continuing to be a grass-roots organization run largely by volunteers.*

## **AAPT Issues to be Considered**

### **General Issues**

- Improve the funding base for ongoing AAPT programs.
- Address the challenges of electronic publishing and the potential demise of print journals.
- Increase the fraction of the populace who understand physics in high school, college, and the teaching profession.
- Improve service to the national and international physics-teaching communities.

### **External Issues**

- Improve AAPT's visibility as a major voice of physics education in the USA and abroad.
- Increase the membership of constituencies currently underrepresented in the AAPT, including research physicists and faculty from minority-serving institutions.
- Build stronger relations with *all* physics teachers in high schools, 2-year colleges, 4-year colleges and universities; and with physicists in industrial and government research laboratories.
- Increase involvement of AAPT in the education of undergraduate and graduate students, especially graduate teaching assistants.
- Issue position statements on societal issues that entail physics and are relevant to physics teachers.
- Play a more effective role in the preparation and professional development of physics teachers at all levels, including graduate teaching assistants.
- Increase involvement with national and state governments on issues related to physics education.
- Continue and expand useful partnerships with other scientific and education societies whose activities complement AAPT's.

### **Internal Issues**

- Strengthen relationships with sections.
- Strengthen the role of area committees.
- Better serve and link AAPT's diverse constituencies.
- Organize opportunities for retired members to contribute to the mission of AAPT.
- Strengthen participation in physics curriculum development and improvement at the high school and/or college-university levels.

### **Action Planning Group**

At the retreat, it was decided that the AAPT President Ken Heller will appoint a group to assist AAPT's new Executive Officer, Toufic Hakim, formulate an Action Plan to guide AAPT's activities in the short term and throughout the coming decade. This Action Planning Group consists of

Ruth Chabay (At large member, FYC/U)      Alan Gibson (Section Representative)  
Dwain Desbien (At large member, TYC)      Dick Peterson (Past President and former Secretary)

The Action Planning Group's charge is as follows:

*The Action Planning Group (APG) will work with AAPT's new Executive Officer to develop a set of short-term (1 year), medium-term (2-5 year), and long-term (5-10 year) plans for AAPT. The Action Vision above and the issues identified at the retreat define the initial framework in which planning will proceed. Throughout the process, the APG will consult with the Executive Board, Section Representatives, Area Committees, and general AAPT membership for their ideas and advice. Based on the retreat issues, member and staff feedback, and outcomes of planning sessions with the APG, the Executive Officer will present a strategic plan to the Executive Board for discussion and action. It is anticipated that the Executive Board will be able to share the proposed Action Plan with AAPT members at or before the Summer 2007 AAPT Executive Board meeting.*

**Attention AAPT Members!**

Do you have opinions on the Action Vision and Issues identified above? Are any areas that are important to YOU missing? What do YOU want the AAPT of the future to be?

We invite you to email your ideas to

**[future@aapt.org](mailto:future@aapt.org)**

before September 1, 2006. Thank you.

*Lila Adair  
Vice-President, AAPT*

*Ken Heller  
President, AAPT*

*Harvey Leff  
President-Elect, AAPT*