



Diversity, Equity, Inclusion, Belonging, and Accessibility

Strategic Plan 2024-2029

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Background

According to the [National Science Board](#), the STEM field is dominated by White males whereas members from racial and ethnic minorities, women, LGBTQIA+, and disabled groups continue to be under-represented. For example, the STEM workforce is 89% white and 72% male. These disparities exist for numerous reasons including systemic and structural barriers like implicit and explicit bias, discrimination experienced by many under-represented groups, and a sense of not belonging plus a lack of inclusion in academia and workforce.

The National Task Force to Elevate African American Representation in Undergraduate Physics & Astronomy (TEAM-UP) report identified five factors contributing to the success of African American students: 1) Belonging, 2) Physics Identity, 3) Academic Support, 4) Personal Support, and 5) Leadership and Structures. It is plausible to think that these factors may have an impact on other under-represented groups' success obtaining a physical sciences degree and being successful in the workforce.

Creating change will require a major culture shift, investment in systemic change, and organizational support. AIP and its Member Societies are poised to take action and provide leadership in this space. Having a collective Diversity, Equity, Inclusion, Belonging, and Accessibility (DEIBA) strategic plan will support and guide those efforts.

Purpose

The purpose of this plan is to support AIP's mission to "advance, promote, and serve the physical sciences for the benefit of humanity" and to support the work of the Member Societies and the Federation at large to advance Diversity, Equity, Inclusion, Belonging, and Accessibility (DEIBA) in the physical sciences community (see definitions in the glossary). This strategic plan will build upon AIP's existing programmatic efforts to improve diversity, create a culture of inclusion and belonging, and increase the visibility of the Federation as a DEIBA leader. A few examples of current work include [TEAM-UP Together](#), [Statement of the AIP Board of Directors on Confronting Harassment, Bullying, Exclusion, and Inequity](#), [AIP Diversity Statement](#), and AIP's support of MS DEIBA activities with the 2020-2021 Diversity Action Fund and the 2023 Venture Fund Grants.

AIP formed a DEIBA Strategic Plan Workgroup consisting of representation from nine Member Societies. The purpose of this group was to create a strategic plan to guide and support the Federation's DEIBA initiatives and programs. Workgroup members were asked to provide input on the preliminary plan, prioritize strategies, and champion implementation efforts. The result is this plan which represents the collective thinking of the Federation/Member Societies, in particular the actions needed to be taken by AIP to support the Federation.

While this is a collective plan to support the entire Federation, the workgroup recognizes that each Member Society is in various stages of their DEIBA work (e.g. some already have DEIBA strategic plans). AIP welcomes the Member Societies to use relevant elements from the Federation's DEIBA strategic plan to guide, support and amplify their existing DEIBA journey. AIP will use this plan to guide efforts, allocate resources, and provide support to meet the needs of the entire Federation.

Part of advancing the physical sciences is diversifying the workforce to ensure equitable

representation of diverse groups including, but not limited to, racial and ethnic minorities, tribal persons, women, LGBTQIA+, and disabled persons. Doing so ensures the physical sciences community has a unifying voice of strength that stems from diversity. Diversity promotes scientific excellence because varying perspectives and experiences allows diverse teams to approach challenging problems from multiple perspectives, ask different questions, and create more innovative solutions.

AIP is committed (see [AIP Diversity Statement](#) from November 2019) to establishing a workforce that serves as a model for collaboration, respect, diversity, equity, inclusion, and belonging by ensuring that these values are embodied in our DEIBA practices for the physical sciences community. Some of the key areas identified in need of AIP support are training, developing a resource repository, providing DEIBA consulting, convening to promote collaboration and shared learning, volunteer recruitment and service, hiring, management, and retention, as well as supporting the Federation's DEIBA journey and helping each Member Society to meet their respective DEIBA goals. AIP established a Diversity, Equity, and Belonging Office to advance the DEIBA work of the Member Societies. With dedicated staff and support, this plan can be realized.

The plan is informed by stakeholders—both internal and external—to obtain advice, buy-in, and support of AIP's DEIBA programming. Information has been gleaned from internal meetings and the mass majority (9/10) of Member Societies have been engaged, internal staff closely aligned with DEIBA work have been engaged, and research has been conducted to understand the best practices for creating a forum to engage MS to promote sharing and collective action.

The purpose of this strategic plan is to drive change, dismantle barriers, and build equity capital in support of advancing the Member Societies' and AIP's DEIBA work. Ultimately, the initiatives supported by the DEIBA office will help diversify the physical sciences workforce by building a culture of inclusivity where diverse persons feel welcomed and supported from the beginning of their career as a student and beyond. We aspire to build trust and curate safe spaces that encourage and cultivate change, while holding space for AIP and stakeholders to be transparent and accountable for their actions in diversifying the physical sciences workforce.

Time Frame

This is a five-year plan that will be implemented from 2024-2029. The plan will be reassessed annually by the workgroup members to ensure relevance.

Vision

To position the Federation as a DEIBA champion and leader for its member societies, the physical sciences community, and beyond.

Goals

To advance the Federation's DEIBA initiatives, AIP will provide leadership and support to accomplish the following:

1. Foster environments to promote a sense of inclusion and belonging that aims to diversify the physical sciences.
2. Develop and adopt best practices¹ to promote and stimulate diversity in the physical sciences.
3. Create tools, resources, and programs to support DEIBA initiatives across Member Societies.

¹ Best practices is defined by *Merriam-Webster.com Dictionary* as "a procedure that has been shown by research and experience to produce optimal results and that is established or proposed as a standard suitable for widespread adoption."



Figure 1: Vision and Goals

These goals align with AIP’s FIRE 21-4 goal to “deliver an external DEIBA strategy.” In addition, they align with [AIP’s strategic plan](#) and FIRE: Federation, Institute, Reputation, Excellence which supports AIP’s mission to advance, promote, and serve the physical sciences for the benefit of humanity.



Figure 2: AIP & DEIBA Goals



A vibrant federation that advances the success of our Member Societies.



A center of excellence that advances the physical sciences enterprise through research and analysis aimed at improving the understanding of our heritage and promoting future progress.



A trusted and reliable source of information and analysis.



Recognized for cultivating an effective, talented, diverse, and engaged staff that delivers excellence to our stakeholders.

Figure 3: AIP's FIRE GOALS

Focal Areas

Diversify the physical sciences field:

Increase the number of physical science degree holders (undergraduate and graduate) representing under-represented groups.

Create an inclusive culture in the physical sciences:

Improve academic and work environments to promote inclusivity and belonging for under-represented groups.

Build a community of champions/change makers:

Engage and activate a community of stakeholders to support DEIBA change initiatives.

Model organizational change:

Support the Federation to model DEIBA principles and strategies outlined in this strategic plan.

Strategies

A variety of strategies will be employed to support and advance the DEIBA work. These strategies will be used to train, educate, and raise awareness about wide-ranging, cross-cutting DEIBA issues that are of interest to the physical sciences community. The identified strategies are intended to address the foundational challenges faced by implementing and sustaining DEIBA initiatives. This list is not all-inclusive and it is not suggested that each Member Society undertake all these strategies. Rather, the intent is to create a list of strategies that the Federation has collectively identified to be current best practices and provide a guiding path towards the unified vision of positioning the Federation as a DEIBA champion and leader for its Member Societies, the physical sciences community, and beyond. Each Member Society can select the strategies they wish to pursue based on organizational priorities and resources available. Existing programs and products produced by the Member Societies should be leveraged to support program development and to ensure that successful initiatives and resources are adopted, implemented, and/or embedded into institutions that are committed to DEIBA work.

DEIBA activities should be the foundation of the Member Societies' work, with buy-in and active support from leadership, and shared decision-making between staff, volunteers, and leadership. Based on the strategies deemed most important by the Member Society Work Group, AIP will invest in those strategies first to meet the needs of the MS's.

Table 1 lists the type of strategies (and some examples of end products) that can be used to inform DEIBA programming.

Table 1: DEIBA Strategies

STRATEGY	PURPOSE/INTENT	ACTIVITIES (EXAMPLES)
Strategic Planning/ Organizational Change	Member Societies should model best practices for implementing and sustaining DEIBA programs, which would involve ensuring a welcoming and inclusive internal environment that is supportive of DEIBA programs.	<p>Conduct an organizational assessment to understand the current landscape of DEIBA efforts.</p> <p>Create an organizational implementation DEIBA plan that includes sections to address sustainability and accountability.</p> <p>Ensure leadership buy-in and support.</p>
Member Society Convening	To bring together MS staff, volunteers, and leadership (virtual and/or in person) to provide a safe space for learning, sharing, and collaborating.	Create workgroups (or similar structure) to allow regular convening among Member Societies to discuss current DEIBA issues and trends, share resources, and collaborate as desired.
Professional Development	To provide culturally responsive training and skill building opportunities for MS staff, volunteers, and leadership that would support effective DEIBA programming and create welcoming environments. Professional development can be offered in different ways to suit each MS' needs, such as asynchronous/synchronous, in-person or virtual, individual or group.	<p>Provide training (synchronous and asynchronous; online and in-person).</p> <p>Host forums to touch on current topics and possible actions.</p> <p>Host webinars, symposiums, conferences, or forums with sessions on specific DEIBA topics.</p> <p>Create a hub of resources for MS that could include information on how to create equitable meetings, DEI templates to guide programming, and a training library.</p> <p>Provide incentives for attendance and/or hosting professional development sessions.</p>

Table 1: DEIBA Strategies

STRATEGY	PURPOSE/INTENT	ACTIVITIES (EXAMPLES)
Community Building: Cultivate Meaningful Relationships and Partnerships	To build trust within the physical sciences community and provide safe, inclusive, and accessible spaces to connect and respectfully share experiences and ideas.	<p>Create communities of Practice to support people coming together to engage in DEI practices.</p> <p>Host affinity groups.</p> <p>Create opportunities to host active listening sessions—could be tailored for non-persons of color (POC) to gather and listen to concerns in a safe space.</p> <p>Host peer mentoring groups.</p> <p>Create connections between MS leadership and MS members (cross-cutting).</p> <p>Support networks for groups (e.g. students, early career, mid-career, technical groups).</p>
Advocacy	To support and provide advice on relevant DEIBA issues; internally and externally (as permitted) supporting MS champions to advocate for embedding DEI principles across the MS.	<p>Be a spokesperson to champion DEIBA (e.g.: present at conferences).</p> <p>Host Days of Understanding.</p> <p>Participate in local advocacy efforts.</p> <p>Engage with Capitol Hill advocacy days and combined signed letters to legislators.</p> <p>Engage decision makers/advocates in panel discussions or committees with DEI considerations.</p> <p>E.g.: Engineers and Scientists Acting Locally (ESAL) https://esal.us/</p>
Student Support	To provide comprehensive wrap around supports (e.g. professional, financial, and educational) for students to enter and persist in the physical sciences field.	<p>Provide STEM engagement and research experiences for students.</p> <p>Provide opportunities for mentoring, sponsorship, and networking.</p> <p>Connect students to resources like grants, scholarships, research programs, etc.</p> <p>Provide travel grants to conferences and meetings.</p> <p>Provide grants to support local STEM community outreach in K-12.</p> <p>Provide paid internships and research opportunities.</p> <p>Host student symposium connecting students from different MS after their REU programs.</p> <p>Provide professional development geared toward students (e.g. how to advocate for yourself, how to find a mentor or job, applying for fellowships, asking for letters of recommendation or other support, etc.)</p>

“This plan is critical in serving and supporting the Federation as each Member Society continues their DEIBA journeys. Providing a way for the community to discuss DEIBA issues in a “safe space” is necessary, and supporting professional development is much needed to bring in a new generation of more diverse members and leaders.” — AAPT

Table 1: DEIBA Strategies

STRATEGY	PURPOSE/INTENT	ACTIVITIES (EXAMPLES)
Stakeholder Engagement	To identify the needs of stakeholders (see Figure 4) and create plans to respond to their needs to advocate for, inspire, and engage the physical sciences community.	<p>Engage through meetings, conferences, and symposiums.</p> <p>Host DEIBA-specific workshops.</p> <p>Encourage conferences/meetings to offer pre-conference events to attract MS participation.</p> <p>Create a repository of diverse speakers that can present at conferences and meetings.</p> <p>Explore alliances, deepen existing relationships, and intentionally build new relationships with allies and supporters.</p> <p>Create specific spaces for MS to engage on DEI issues (similar to this WG).</p>
Communications	To highlight relevant DEIBA information to stakeholder groups tailored to meet their specific needs.	<p>Disseminate and highlight DEI information and promote the work of diverse scientists through multimedia (e.g. podcasts, articles, manuscripts).</p> <p>Request contributions from each MS to share their work.</p> <p>Use social media to promote physics observance days, highlight diverse scientists, MS work, student achievements, DEI info, etc.</p> <p>Create an external DEIBA website:</p> <ul style="list-style-type: none"> • Intranet and/or SharePoint for Member Society resources. <ul style="list-style-type: none"> » Community of Practice for Member Societies. • DEI resource center/Repository of Content. • Create specific communication strategies and tailor messages for different audiences (e.g. general public, students, members, staff). • Promote existing resources for under-represented groups (e.g. scholarships, etc.)
Develop and Disseminate Resources and Tools	To create educational tools to educate, train, inform, and inspire action.	<p>Engage with professionals doing DEIBA work to develop resources.</p> <p>Act as a hub for Member Society DEIBA resources (this came up in other strategies, but belongs more here).</p> <p>Generate an inventory of what MS have already—avoid duplicating.</p> <p>Previous strategies in this list can be re-deployed as a resource.</p>

Table 1: DEIBA Strategies

STRATEGY	PURPOSE/INTENT	ACTIVITIES (EXAMPLES)
Leadership	To provide leadership to support DEIBA initiatives and programs.	<p>Establish Advisory Committees or Councils to coordinate efforts between MS.</p> <p>Create and enforce Statements (DEI statements, Code of Conduct, Ethics statement, etc.)</p> <p>Develop templates for MS to use for things like codes of conduct or roadmaps, and committee or governing body charters.</p> <p>Establish Diversity pillars to guide work.</p> <p>Member Societies create opportunities to assess their work and monitor progress.</p> <p>Ensure Leadership engagement and buy-in for DEI efforts.</p>
DEIBA Consulting (restricted primarily to Member Societies)	To provide consultation services for MS staff only. This can include AIP DEIBA staff providing guidance, support, and consultation, or providing access to external consultants (as available).	<p>Create Internal DEIBA guidance vs. External expertise that MS can utilize such as legal counsel/advice re: DEI issues or efforts.</p> <p>AIP can provide funding (when available) to engage consultants to support Member Society's specific needs (e.g. legal counsel, ethics).</p>
Policy (Academic, Government, Organizational)	To understand the political landscape that governs DEIBA work.	Assist MS in dealing with the "anti-diversity" laws coming up now.
Research, Program Evaluation, and Monitoring	To support data collection efforts that inform the literature on DEIBA best practices, programs, and initiatives. Can also include working towards unifying data collection strategies and promoting equitable data collection.	<p>Conduct Landscape Analysis of MS DEIBA activities to collate all DEIBA activities.</p> <p>Support Data Collecting and Reporting (ensure unbiased data collective, inclusive recruiting practices, etc.)</p>
Funding	To provide funds to support MS programs or initiatives. This can be for individual or group collaborative efforts. This can be done through grant funding or other mechanisms.	<p>Create scholarship programs to alleviate financial burden.</p> <p>Implement programs and workshops on DEIBA efforts.</p> <p>Incentivize scientific collaboration.</p>

"This plan for the Federation helps to amplify the Member Societies' collective actions towards implementing programs that promote inclusive practices and lift up diversity and equity. APS already has a number of activities in place for and with our members and with our staff that support the three primary focus areas of culture shift, systemic change, and organizational support; this plan directly aligns with our organizational mission. Building a future of equity and inclusion isn't just a plan, it's a commitment and we are fully committed to supporting this plan." — APS

Key Priority Areas

The work group completed a priority-setting activity to determine the collective priorities for the strategic plan. Based on those results, over the next 1-2 years, it is recommended to focus resources and efforts on the following areas, ranked in order of priority.

1. Community Building
2. Professional Development
3. Resource Development
4. Funding and Student Support (tied for 4th place)

Communities Impacted

Our work will focus on diversifying the physical sciences academia and workforce. Groups to focus on can include:

- Racial/Ethnic Minorities: African Americans, Asian Americans, American Indian/Alaska Native, Native Hawaiian and Other Pacific Islanders, Hispanic/Latino and/or Latinx
- Women
- People with disabilities (e.g. Impairments, Activity Limitations, and Participation Restrictions)
- First Generation college students
- Multi-national individuals
- LGBTQIA+ individuals
- Low Socioeconomic individuals
- Students (K-12, undergraduate, graduate, postdoctorate)
- Early Career Professionals (postdoctorate, early career)

Key Stakeholders

The DEIBA Strategy's success in building a diverse workforce and supporting diverse students to obtain their degrees and remain in the physical sciences for their careers is highly dependent on stakeholder support. At the core of AIP's work is its service towards Member Societies and the Federation at large. However, strong allies and supporters are required to push the needle forward in increasing the number of under-represented groups within the physical sciences community.

Stakeholders are organizations and people who can support and benefit from the DEIBA work and should also inform, support, and implement DEIBA activities. Relationships will vary in depth, breadth, and range from formal relationships (e.g. established memorandum of understanding, co-sponsoring programs) to informal relationships (e.g. communicating on issues ad hoc or cross-promoting resources). These stakeholders include students, Member Societies, government, academia (to include HBCU's and MSI's—both departments and students), funders/donors, physical sciences/professional organizations (workforce, student), non-profits, and community-based organizations.



Figure 4: Stakeholder Groups

Next Steps

Upon adoption of this plan, the next steps will be to develop an implementation plan to guide the work for the duration of the plan. The implementation plan will outline specific strategies and actions to achieve the plan’s vision, as well as desired outcomes for each strategy, clear measures of accountability, and opportunities for collaboration and engagement. It will be an iterative, comprehensive, ongoing effort that actively involves the Member Societies and other stakeholders as needed.

Additionally, each Member Society will sign an endorsement letter that indicates their stated commitment to promote and support collaboration and best-practice-sharing by the federated members. As implementation efforts move forward, we are committed to the acknowledgment and recognition of efforts by federated members in supporting and championing DEIBA.

We will continue to socialize the plan with the broader community through a combination of in-person and virtual meetings for buy-in, support, and continued engagement.

Appendix I: Glossary/Definitions

Below are the definitions of key terms for the DEIBA+ strategic framework. They do not denote the preference of one term over another. Definitions are adapted from AIP's internal DEIBA+ strategy.

DIVERSITY: Individual differences (e.g., personality, learning styles, and life experiences) and group/social differences. It includes, but is not limited to, differences of race, ethnicity, religion (or none), sexual orientation, gender identity or expression, age, nationality immigration status, family or marital status, socio-economic status, physical or mental ability, political affiliation, educational attainment/history, and veteran status. It includes diversity of thought, background, and experience that are unique to an individual.

EQUITY: The guarantee of fair treatment, access, opportunity, and advancement for all, while striving to identify and eliminate barriers that have prevented the full participation of all groups. This includes the deliberate and intentional crafting of approaches and solutions that center the voices and meet the needs of different groups based on their histories and access to resources that will lead to the outcome of fairness.

INCLUSION: The active, intentional, and continuous process to address inequities in power and privilege and build a respectful and diverse community that ensures welcoming spaces and opportunities for all to flourish. It also refers to the ways that diverse participants are valued as respected members of an organization and/or community. Inclusion focuses on developing environments which ensure that diverse backgrounds, perspectives, thoughts, and ideas are heard and welcomed.

BELONGING: The feeling of psychological safety in which staff and participants can feel that they are part of something bigger than themselves and know that they can fully be their authentic selves at work and share their perspectives without fear. This will result in developing an environment which provides support, trust, and a sense of belonging, which in turn fosters a strong sense of inclusion and connection for all. It will also encourage genuine curiosity, openness, engagement, and diverse viewpoints that enable the respectful exchange of ideas, debate and learning.

ACCESSIBILITY: Giving equitable access to everyone along the continuum of human ability and experience. Accessibility encompasses the broader meanings of compliance and refers to how organizations make space for the characteristics that each person brings. It means that enough resources, structures, and processes are in place to allow for the full participation of the broadest group of individuals, regardless of ability, in the work and programs of AIP.

ANTI-RACISM: Firm opposition to the idea of one racial group's supremacy over another, including the recognition of racist structures, institutions, and policies in society and an active commitment to combating and dismantling them in the pursuit of a more just and equal society.

Endorsements

The AIP Federation of Member Societies are committed to advancing the physical sciences and STEM equity by championing and implementing elements of the AIP Federation DEIBA Strategic Plan (2024).



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