Society Committee on Education (SOCED)
Agenda Book
Confidential and Proprietary

ACS 2021 Spring Meeting - Virtual

**Thursday | March 11, 2021**
1:00 pm – 3:00 pm (EST)

**Tuesday | March 16, 2021**
3:00 pm – 5:00 pm (EDT)
## Executive Session Agenda
### Spring 2021 ACS Meeting
1:00–3:00 pm EST, Thursday, March 11, 2021
3:00–5:00 pm EDT, Tuesday, March 16, 2021

<table>
<thead>
<tr>
<th>Time</th>
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<tr>
<td>1:00 pm</td>
<td>Welcome, Introductions, and Diversity, Equity, Inclusion, and Respect Moment</td>
<td>1, 2, 3</td>
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<tr>
<td>1:15 pm</td>
<td>SOCED Vice Chair nomination and vote Approval of Minutes from Fall 2020 Meeting</td>
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<tr>
<td>1:20 pm</td>
<td>Chair’s Report (Information and Action)</td>
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<td></td>
<td>SOCED Chair Carmen Gauthier will provide written or oral updates on:</td>
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<td>• SOCED Budget</td>
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<td>• Education Programs’ reauthorization</td>
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<td>• Special Projects</td>
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<td>• Chemistry Festival Report</td>
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<td>• ACS Fellows Nomination</td>
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<td>• Petition to Harmonize Committee Structures, Processes, and Terms</td>
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<td></td>
<td>• ACS Spring 2021 Meeting events</td>
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<tr>
<td>1:40 pm</td>
<td>Committee on Committees (Information and Action)</td>
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<td>Rodney Bennett, ConC liaison to SOCED, will discuss the Petition to Streamline Committee Structures, Processes, and Terms</td>
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<td>1:55 pm</td>
<td>Reports from Liaisons (Information)</td>
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<tr>
<td>2:00 pm</td>
<td>Break</td>
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<td>2:10 pm</td>
<td>SOCED Restructuring (Information and Action)</td>
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<td>SOCED Chair Carmen Gauthier will review the new committee structure. The draft charges for the subcommittees and proposed subgroups will be discussed.</td>
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<td>2:30 pm</td>
<td>SOCED Strategic Plan Implementation (Information and Action)</td>
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<td>SOCED Chair Carmen Gauthier will share updates. The next steps for the strategies that are still in progress will be discussed.</td>
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<td>2:50 pm</td>
<td>New Business</td>
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<td>3:00 pm</td>
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<tr>
<td>3:00 pm</td>
<td>Welcome</td>
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<td>3:10 pm</td>
<td>Subcommittee Meetings</td>
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<td>The new subcommittees will review and provide input on their draft charges.</td>
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<tr>
<td>4:10 pm</td>
<td>Subcommittee Reports (Information and Action)</td>
<td>7, 8, 9</td>
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<td>Tracy Halmi, Matt Mio, and Laura Pence, the chairs of the new SOCED subcommittees, will provide the full committee with a summary of their discussion on the following topics:</td>
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<td>• Draft charges</td>
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<td>• Other subcommittee discussions requiring full committee consideration</td>
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<td>4:25 pm</td>
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<td>4:30 pm</td>
<td>Committee Happy Half Hour</td>
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<tr>
<td>5:00 pm</td>
<td>Conclude Happy Half Hour</td>
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ACS Strategic Plan*

The American Chemical Society (ACS) is a congressionally chartered nonprofit 501(c)3 scientific society. The Society is committed to being a strong and sustainable organization, serving a diverse and global membership, maintaining adequate financial resources and adhering to financial stewardship principles that will ensure its ability to accomplish the ACS goals today and into the future.

☀️ Vision

Improving all people’s lives through the transforming power of chemistry

✈️ Mission

Advancing the broader chemistry enterprise and its practitioners for the benefit of Earth and all its people

.Atomic Core Values

In everything we do, we are committed to the following core values:

- **Passion for Chemistry and the Global Chemistry Enterprise**
  We harness the power of chemistry and the chemical enterprise to provide solutions to the world’s most pressing problems. We promote the health of the chemical enterprise by supporting investments in education, training, entrepreneurship, research, advocacy, and innovation.

- **Focus on Members**
  We develop and deliver programs, products, services, and experiences that make ACS indispensable to the success of all members worldwide regardless of race, religion, country or ethnic origin, citizenship, language, political opinion, sex, gender identity and expression, sexual orientation, disability, age, and economic class in academe, industry, government, and other places. The Society promotes an environment that is supportive of all diverse groups in the interest of advancing science. Celebrating and recognizing the achievements and contributions of ACS members is crucial to the Society’s member-value proposition.
• **Professionalism, Safety, and Ethics**
  We support and promote the safe, ethical, responsible, and sustainable practice of chemistry coupled with professional and inclusive behavior and technical competence. We recognize a responsibility to safeguard the health of the planet and the people who live on it, through chemical stewardship.

• **Diversity, Equity, Inclusion, and Respect (DEIR)**
  We embrace and promote diversity in all its forms, not only to create a more inclusive environment for the practice of chemistry, but also to provide fair and just outcomes for all to achieve their full potential. Inclusion of and respect for people of all backgrounds, perspectives, experiences, and ideas will lead to superior solutions to world challenges and advance chemistry as a global, multidisciplinary science.

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**Goals**

ACS will marshal its unique worldwide resources to:

**Goal 1: Provide Information Solutions**

Deliver indispensable chemistry-related information solutions to address global challenges and other issues facing the world’s scientific community.

ACS will be the most trusted source of chemistry-related information solutions. The Society will provide products and services including high-quality publications, curated databases, and scientific conferences that advance the practice of chemistry and related sciences. Through customer collaborations, transformative technologies, and industry best practices, ACS will leverage its information products and services to offer the most authoritative and indispensable knowledge-based solutions for chemical professionals addressing the world’s challenges.
Goal 2: Empower Members and Member Communities

Provide access to opportunities, resources, skills training, and networks to empower our global members and diverse member communities to thrive.

ACS will develop and provide resources to enable chemistry-related professionals to succeed in the global scientific enterprise. The Society will support members in their quest for technical competence, a strong ethics and safety culture, and professional advancement. ACS will also help members form and maintain inclusive communities worldwide — both traditional, established communities and limited-lifetime, self-organizing communities — as they work to collaboratively address the major chemistry-related problems and opportunities of our time.

Goal 3: Support Excellence in Education

Foster the development of innovative, relevant, and effective chemistry and chemistry-related education.

ACS will support reforms and initiatives that result in highly effective chemistry education, safer laboratory practices, and the preparation of technically competent, ethical, and competitive chemists ready to address global challenges. Through formal and informal educational resources, instruction, and mentorship, ACS and its members will encourage the incorporation of principles of safety and ethics throughout pre-college, undergraduate, graduate, and post-graduate education. The Society will promote the development and dissemination of evidence-based practices in chemistry education and professional development to foster a scientifically literate citizenry and ensure a highly qualified chemical workforce.

Goal 4: Communicate Chemistry’s Value

Communicate — to the public and to policymakers — the vital role of chemical professionals and chemistry in addressing the world’s challenges.

ACS will lead in communicating the value of chemistry. The Society will also encourage and support the active participation of members in public outreach efforts by providing training, connections, venues, and other assistance. In collaboration with other professional organizations ACS will advocate for support for science, engineering, innovation, and chemical stewardship. Through its advocacy efforts, the Society will encourage the creation and retention of chemistry-related jobs.
Goal 5: Embrace and Advance Inclusion in Chemistry

Promote diversity, equity, inclusion, and respect; identify and dismantle barriers to success; and create a welcoming and supportive environment so that all ACS members, employees, and volunteers can thrive.

ACS will exemplify diversity, equity, inclusion, and respect and highlight their importance to the profession at every level by embracing and celebrating our differences in our programs, products, services, and leadership. We recognize that the world has not been an equal nor equitable space for everyone, and science is no different. ACS will evaluate the impact of administrative and governance actions intended to enhance inclusion and will build sustainable processes for addressing inequities. The Society will speak out against injustice, establish professional standards, and provide training for creating an inclusive culture, both internally and externally. ACS will recruit, retain, develop, and recognize members, employees, and volunteers from all backgrounds by building an inclusive culture. ACS will support partnerships aimed at creating equal opportunities and a sense of belonging in science.

Terms Used Above

VISION
The Vision statement expresses the desired future state when the Society has achieved its mission. A vision is concise, inspiring, motivating, energizing, core values-oriented, and futuristic by tapping into what we wish the future would be.

MISSION
The Mission statement asserts the Society's and its subunits' purpose and reason for existing as the ACS in terms of who it is, what difference it will make, what it will do, and how it will do it. It is short, clear, easily understood, and believed in by the members.

CORE VALUES
Core Values are the underlying, fundamental, deeply ingrained beliefs of the Society that guide how all ACS staff and volunteers act and conduct their work to fulfill the ACS mission and vision. Core Values are the essence of the Society's identity, support the vision, define the ACS culture, and reflect what drives ACS work.
GOALS
Goals are broad, ambitious outcome statements or directional themes to be achieved to advance the ACS vision and mission. These outcome statements serve as guides for the choice of specific objectives and strategies for ACS staff and volunteers of the Society.

DIVERSITY**
Diversity is the representation of varied identities and differences (race, ethnicity, gender, disability, sexual orientation, gender identity, national origin, tribe, caste, socio-economic status, thinking and communication styles, etc.), collectively and as individuals. ACS seeks to proactively engage, understand, and draw on a variety of perspectives.

INCLUSION**
Inclusion builds a culture of belonging by actively inviting the contribution and participation of all people. Every person's voice adds value, and ACS strives to create balance in the face of power differences. In addition, no one person can or should be called upon to represent an entire community.

EQUITY**
Equity seeks to ensure fair treatment, equality of opportunity, and fairness in access to information and resources for all. We believe this is only possible in an environment built on respect and dignity. Equity requires the identification and elimination of barriers that have prevented the full participation of some groups.

RESPECT
Respect ensures that each person is treated with professionalism, integrity, and ethics underpinning all interpersonal interactions.

**Adapted from definitions from the Ford Foundation Center for Social Justice: https://www.fordfoundation.org/about/people/diversity-equity-and-inclusion
American Chemical Society
Statement on Diversity, Equity, Inclusion and Respect
(Approved 6/1/2017; amended 2/19/2021 to align with the ACS core value)

The American Chemical Society aspires to be a diverse, equitable, inclusive and respectful community of highly skilled chemical professionals.

We encourage inclusivity and oppose discrimination in scientific learning and practice based on - but not limited to - race, religion, country or ethnic origin, citizenship, language, political opinion, sex, gender identity and expression, sexual orientation, disability, age, and economic class in academic, industrial, and government workplaces. The Society believes that an enduring commitment to diversity enables excellence, innovation, and transformative action in current and future generations of chemical professionals.

As a global scientific society, we affirm the international principles that the responsible practice of science, free from discrimination in all of its forms, is fundamental to scientific advancement and human wellbeing, as outlined by the International Council for Science’s (ICSU) Statute 5\(^1\).

We also affirm our commitment to a scientific environment that facilitates the execution and communication of scientific work with integrity, fairness, and transparency at all organizational levels. This extends to our general scientific endeavors—including our professional interactions and engagement with other scientists, trainees, and the general public. We recognize that harm to our profession, our scientific credibility, individual wellbeing, and society at large is caused by not doing so.

To this end, the Society will implement the principles of diversity, inclusivity, and equity within ACS leadership and membership to build a community across the chemical enterprise. We are committed to quantifying and monitoring our diversity.

\(^1\)The International Council for Science (ICSU) Statute 5 is found at http://www.icsu.org/freedom-responsibility/cfrs/statue-5
Reimbursement Policy for 2021

Registration

If you are attending the ACS Spring 2021 Meeting & Expo, we will reimburse you for the registration fee. SOCED members, associates and consultants who register for the meeting will be asked to view the undergraduate research posters and provide feedback to the students. More details will be provided during the SOCED March 11th meeting.
Committees Covered by the Committee Travel Expense Reimbursement Policy: Non-Councilors (as of January 1, 2021)

The American Chemical Society endeavors to increase and broaden non-councilor attendance and service at Council related committee meetings held during the national meeting timeframe. To further this goal, the ACS provides financial support, under the conditions set forth below, for ordinary, necessary, and reasonable transportation, lodging, and meal expenses for non-councilor members, associates, and consultants who request such support associated with their committee attendance and service. This policy for non-councilors is to conform to the established Councilors Travel Reimbursement Program to provide equitable reimbursement of all committee members while keeping travel expenses for ACS governance at a moderate and reasonable level.

The following committees are covered under this policy:

Other Committees of Council
- Ethics (ETHX)
- Nomenclature, Terminology and Symbols (NTS)
- Project SEED (SEED)
- Technician Affairs (CTA)

Joint Board-Council Committees
- Chemical Safety (CCS)
- Chemistry and Public Affairs (CCPA)
- Community Activities (CCA)
- Environmental Improvement (CEI)
- International Activities (IAC)
- Minority Affairs (CMA)
- Patents and Related Matters (CPRM)
- Public Relations and Communication (CPRC)
- Publications (PUBS)
- Science (COMSCI)
- Senior Chemists (SCC)
- Women Chemists (WCC)
Volunteer/National Meeting Attendee Conduct Policy

One of the key strengths of the ACS has been the enduring and varied contributions made by its thousands of dedicated volunteers.

Another unassailable strength of the ACS is its outstanding national meetings program. ACS national meetings are among the most respected scientific meetings in the world. ACS national meetings offer scientific professionals a legitimate platform to present, publish, discuss, and exhibit the most exciting research discoveries and technologies in chemistry and its related disciplines. Furthermore, ACS national meetings facilitate networking opportunities, career development and placement, and provide organizations with opportunities to exhibit products and services to targeted audiences.

The Society’s Congressional Charter explicitly lists among its objectives “the improvement of the qualifications and usefulness of chemists through high standards of professional ethics, education and attainments...” The ACS expects its volunteers and national meeting attendees to display the highest qualities of personal and professional integrity in all aspects of their ACS-related activities. Indeed, every chemical professional has obligations to the public, to volunteer and staff colleagues, and to science.

Accordingly, and to foster a positive environment built upon a foundation of trust, respect, open communications, and ethical behavior, the ACS Board of Directors has issued this Conduct Policy. It applies to ACS Volunteers, i.e., it applies to individuals conducting the business and affairs of the ACS without compensation for that conduct. It also applies to attendees at ACS national meetings. Volunteers and national meeting attendees should at all times abide by this Conduct Policy.

Specifically:

1. Volunteers should understand and support ACS’s vision and mission.

2. Volunteers and national meeting attendees should contribute to a collegial, inclusive, positive, and respectful environment for their fellow volunteers and attendees, as well as for other stakeholders, including national meeting vendors and ACS staff.

3. Volunteers and national meeting attendees must avoid taking any inappropriate actions based on race, gender, age, religion, ethnicity, nationality, sexual orientation, gender expression, gender identity, marital status, political affiliation, presence of disabilities, or educational background. They should show consistent respect to colleagues, regardless of the level of their formal education and whether they are from industry, government or academia, or other scientific and engineering disciplines.

4. Volunteers and national meeting attendees should interact with others in a cooperative and respectful manner. Volunteers and national meeting attendees should refrain from using insulting, harassing, or otherwise offensive language in their ACS interactions. Disruptive, harassing, or inappropriate behavior toward other volunteers, stakeholders, or staff is unacceptable. Personal boundaries set by others must be observed. Harassment of any kind, including but not limited to unwelcome sexual advances, requests for sexual favors, and other verbal or physical harassment will not be tolerated.
5. Volunteers must obey all applicable laws and regulations of the relevant government authorities while acting on behalf of the ACS. Likewise, national meeting attendees must obey all applicable laws and regulations of the relevant government authorities while attending ACS national meetings. Volunteers and national meeting attendees alike should also ensure that they comply with all applicable safety guidelines relating to public chemistry demonstrations.

6. Volunteers and national meeting attendees should only use ACS’s trademarks, insignia, name, logos, and other intellectual property in compliance with ACS regulations and directives as may be issued from time to time.

7. Violations of this Conduct Policy should be reported promptly to the ACS Secretary and General Counsel or to the Chair of the ACS Board of Directors. In cases of alleged persistent and/or serious violations of this Conduct Policy, the Board shall review the evidence and shall take such actions as may be appropriate, including but not limited to requiring volunteers to leave their volunteer position(s); precluding volunteers from serving in Society volunteer roles in the future; requiring national meeting attendees to leave the meeting; and, precluding meeting attendees from attending future ACS national meetings. ACS, through its Board of Directors, reserves the right to pursue additional measures as it may determine are appropriate.

Adopted by the Board of Directors 12/6/13
TAB 2
STANDING RULE VIII

Duties of Committees

Sec. 4. SOCIETY Committees

b. Committee on Education

The duties of this committee shall include the following, *inter alia*:

(1) implement SOCIETY policies in chemical education;

(2) develop reports and recommendations to the Board and the Council on SOCIETY policies related to chemical education and SOCIETY programs for the improvement of chemical education;

(3) receive, review, and make recommendations to the Board and the Council on proposals for policies and programs in chemical education;

(4) act in an advisory capacity on matters relating to chemical education;

(5) recommend approval or disapproval of requests for the funding of new or unbudgeted items related to chemical education;

(6) establish all regulations for Student Chapters, such as criteria and procedures for formation, membership criteria, program activity standards, criteria for dissolution and reinstatement, and all other rights and privileges, with the approval of the Committee on Constitution and Bylaws; and

(7) act for the Council in chartering and dechartering Student Chapters.
Society Committee on Education
2019-2021 Strategic Plan
Approved 2018, Revised July 2020

Vision
The future of chemistry teaching and learning

Mission
Develop and implement policies and resources to advance chemistry education and to connect its diverse communities

Goal 1: Promote effective chemistry education
- Strategy 1 (revised): Contribute to a joint white paper on supportive educational environments for all graduate students and postdoctoral scholars.
- Strategy 3: Host a symposium, round table, or workshop to highlight the use of evidence-based instructional practices (EBIPs) by the Biennial Conference on Chemical Education 2020.
- Strategy 4: Identify and determine the strategies for how to disseminate effective chemistry education by Q4 2020.

Goal 2: Foster collaborative and sustainable environments for emerging and existing communities in chemistry education.
- Strategy 1: By Q4 2019, identify existing chemistry education communities, gaps in these communities and their needs and share with Goal 1 teams to help promote effective chemistry education.
- Strategy 2: Collaborate with ACS Education staff to develop a strategy for forming graduate student organizations by the end of 2019.
- Strategy 3: Work with the International Activities Committee to build a strategy to develop relevant student chapter programs, products, and services by the end of 2019.
- Strategy 4: Work with the Diversity and Inclusion Advisory board on issues related to equity in chemistry education by 2020.

Goal 3: Identify opportunities and approaches for communication and collaboration among education stakeholders.
- Strategy 1: Develop a robust and responsive liaison process.
- Strategy 2: Map out all current education initiatives, resources, and programs across ACS to inform articulation of SOCED roles and responsibilities by summer 2019.
- Strategy 3: Identify opportunities and approaches for collaboration among education stakeholders.
- Strategy 4: Determine possible structure of SOCED that aligns with roles and responsibilities by 2020.
ACS Goal 3: Support Excellence in Education

Foster the development of innovative, relevant, and effective chemistry and chemistry related education.

ACS will support reforms and initiatives that result in highly effective chemistry education, safer laboratory practices, and the preparation of technically competent, ethical, and competitive chemists ready to address global challenges. Through formal and informal educational resources, instruction, and mentorship, ACS and its members will encourage the incorporation of principles of safety and ethics throughout pre-college, undergraduate, graduate, and post-graduate education. The Society will promote the development and dissemination of evidence-based practices in chemistry education and professional development to foster a scientifically literate citizenry and ensure a highly qualified chemical workforce.

SOCED Vision, Mission, and Goals (2019-2021)

Vision: The future of chemistry teaching and learning

Mission: Develop and implement policies and resources to advance chemistry education and to connect its diverse communities

Goal 1: Promote effective chemistry education

Goal 2: Foster collaborative and sustainable environments for emerging and existing communities in chemistry education

Goal 3: Identify opportunities and approaches for communication and collaboration among education stakeholders

SOCED Charge per the ACS Governing Documents

1. Implement SOCIETY policies in chemical education;
2. Develop reports and recommendations to the Board and the Council on SOCIETY policies Related to chemical education and SOCIETY programs for the improvement of chemical education;
3. Receive, review, and make recommendations to the Board and the Council on proposals for policies and programs in chemical education;
4. Act in an advisory capacity on matters relating to chemical education;
5. Recommend approval or disapproval of requests for the funding of new or unbudgeted items related to chemical education;
6. Establish all regulations for Student Chapters, such as criteria and procedures for formation, membership criteria, program activity standards, criteria for dissolution and reinstatement, and all other rights and privileges, with the approval of the Committee on Constitution and Bylaws; and
7. Act for the Council in chartering and dechartering Student Chapters.
SOCED Committee Structure (effective January 1, 2021)

**Executive Committee Composition and Responsibilities:**

Chair, Vice-Chair and Subcommittee Chairs

Provides strategic direction and guidance for the committee’s operations. Meets 4-6 times a year to plan for SOCED meetings; manage interim actions; and, to ensure the effective operations of the Committee. Staff liaisons to SOCED attend all Executive Committee meetings. The chair of SOCED typically serves for three years unless the individual’s term ends prior to the end of three years. Similarly, subcommittee chairs are appointed annually for up to three years unless their term on the committee expires within the three year period.

**Full Committee Composition and Responsibilities:**

Members (17), Associates (14) and Consultants (1-2, based on need)

**SOCED’s General Responsibilities (in alignment with the SOCED charge)**

1. Advise the Education Division on its Operational Plan which primarily supports Goal 3 of the American Chemical Society’s strategic plan
2. Advise on programs, products and services that can aid in creating a diverse, equitable, inclusive and respectful environment within chemical education.
3. Provide strategic guidance for its subcommittees and acting on recommendations from the subcommittees.
4. Advise the Society/Education Division on trends and where there are gaps in programming, products or services
5. Respond to reports/requests from groups (not oversight): i.e., ChemClub Advisory Board; Hach Advisory Board; AACT Governing Board; Textbook Writing Teams; and, others as warranted.
6. Recommend and/or support new programs for funding
Subcommittees

PROMOTING EXCELLENCE IN EDUCATION SUBCOMMITTEE

Chaired by a member or associate of SOCED. Comprised of members, associates and consultants of SOCED. When feasible, the consultant from the Division of Chemical Education will serve on this subcommittee. Chairs of the subgroups associated with this subcommittee will also serve as members and serve as the representative for their subgroup.

- Provides strategic guidance to the ACS Education on trends, research and effective practices that support effective teaching and learning.
- Provides strategic guidance to the ACS Education on programs related to faculty and teacher professional development.
- Monitors trends within the academic ecosystem and provides recommendations on how the Society and ACS Education can enhance their programs, products and services to fill gaps or to meet changes in the landscape.
- Recommends and supports partnerships with ACS component units that also promote excellence in chemistry education (DivCHED, CCA, Project SEED, CMA, CCS, CWD, etc…)
- Oversees the three-year appointment process for subgroup members.

Learning and Teaching: K-12 Subgroup

Chaired by a member or associate of SOCED. Membership for this subgroup is by invitation only and may include individuals who are not members or associates of SOCED. The chair of the Promoting Excellence in Education subcommittee and the chair of SOCED must approve of the subgroup’s appointments. Subgroup members serve a three-year term.

- Provides feedback to ACS K – 12 staff on ACS Education programs, products, and services.
- Serves as a voice for the K-12 community by discussing and providing guidance on K – 12 chemistry education topics based on trends, research and effective practices.
- Supports and assists with the review and revision of the Guidelines and Recommendations for Teaching Middle and High School Chemistry.
- Selects finalists for two ChemLuminary Awards: “Outstanding High School Student Program Award” and “Outstanding Kids & Chemistry Award”
- Works closely with the American Association of Chemistry Teachers to advance K-12 education
- On behalf of SOCED, receives/reviews reports from the ACS-Hach Advisory Board; ChemMatters Policy Board, the AACT Governing Board, and other groups who advance K-12 education.

Learning and Teaching: Higher Education Subgroup

Chaired by a member or associate of SOCED. Membership for this subgroup is by invitation only and may include individuals who are not members or associates of SOCED. The chair of the Promoting Excellence in Education subcommittee and the chair of SOCED must approve of the subgroup’s appointments. Subgroup members serve a three-year term.
Serves as a voice for the Higher Education community by discussing and providing guidance on undergraduate and graduate chemistry education topics based on trends, research, and effective practices.

Supports and assists with the review and revision of the Guideline for Chemistry in Two-Year College Programs.

Provides strategic guidance to staff who focus on higher education programs, products and services.

Advises and supports the formation of strategic partnerships that will promote excellence in education within the higher education community.

Collaborates with the Committee on Professional Training, USAB, and GSPSAB as appropriate to support excellence in education.

STUDENT COMMUNITIES SUBCOMMITTEE

Chaired by a member or associate of SOCED. Comprised of members, associates and consultants of SOCED. Chairs of the subgroups associated with this subcommittee will also serve as members and serve as the representative for their subgroup. A member of the subcommittee serves as the SOCED liaison to the Committee on Membership Affairs and the International Activities Committee ensuring that the best interest of students are considered in membership-related decisions and actions.

- Provides strategic guidance for undergraduate and graduate student as well as postdoctoral scholars programs, products and services to ensure that these communities see value in being a member of the American Chemical Society.
- Provides strategic guidance for the U.S. National Chemistry Olympiad Program.
- Provides strategic guidance for the formation and chartering of student chapters.
- Provides guidance on effective ways to connect student communities with ACS component groups (i.e., local sections and technical divisions) to help build a membership continuum.
- Oversees the student-based ChemLuminary process.
- Ensures that appropriate subgroups are formed to effectively advise the Education Division on matters related to student communities. Each subgroup should provide an oral report at least two times per year to keep the subcommittee informed of its work.
- Oversees the three-year appointment process for subgroup members.
- Works with the subgroups to ensure that ACS student programming is relevant, valuable and provides the opportunity for scientific and critical skills building as well the opportunity for students to build their networks.
- Discusses and brings forward recommendations from its subgroups to SOCED for consideration. This includes, but not limited to, procedural or process changes.
- Receives reports (oral or written), as needed, from groups such as the ChemClubs Advisory Board, and other groups who have a connection to student communities.

Undergraduate Student Advisory Board (USAB)

Chaired by a member or associate of SOCED. Membership for this subgroup is by invitation only and may include individuals who are not members or associates of SOCED. The subgroup may also invite students to join USAB as needed. The chair of the Student Subcommittee and the chair of SOCED must approve of the subgroup’s appointments. Subgroup members serve a three-year term.
Serves in a consultative role to SOCED on matters related to student chapters and student members.

- Oversees the student chapter report and awards process.
- Provides guidance for undergraduate student chapters globally.
- Provides strategic input for the successful development and execution of programs, products and services that supports the professional growth of and community building of undergraduate students working with staff from the Student Communities Office and the Student and Postdoctoral Scholars Office.
  - Including undergraduate student programming for ACS meetings working with staff from the Student Communities Office and the Student and Postdoctoral Scholars Office while ensuring that collaborative efforts are planned with GSPSAB.
- Provides guidance on partnerships that support a diverse, equitable, and inclusive community of undergraduate students within the Society.

Graduate Student and Postdoctoral Scholars Advisory Board (GSPSAB)

Chaired by a member or associate of SOCED. Membership for this subgroup is by invitation only and may include individuals who are not members or associates of SOCED. The subgroup may also invite students and postdoctoral scholars to join GSPSAB as needed. The chair of the Student Communities Subcommittee and the chair of SOCED and the Committee on Professional Training must approve of the subgroup’s appointments. Subgroup members serve a three-year term.

- Provides strategic input for the successful development and execution of programs, products and services for graduate students and postdoctoral scholars
  - Including graduate student and postdoctoral scholar programming for ACS meetings working with staff from the Student Communities Office and the Student and Postdoctoral Scholars Office while ensuring that collaborative efforts are planned with USAB.
- Advises on the development of graduate student and postdoctoral scholar programming for ACS meetings working with staff from the Student Communities Office and the Student and Postdoctoral Scholars Office while ensuring that collaborative efforts are planned with USAB.
- Provides guidance on partnerships and activities that support a diverse, equitable, and inclusive community of graduate student and postdoctoral scholars within the Society.
- Monitors and advises on effective practices in graduate student and postdoctoral scholar training.
- Provides guidance for the establishment and growth of Graduate Student Organizations.

U.S. National Chemistry Olympiad Subgroup

Chaired by a member or associate of SOCED. Membership for this subgroup is by invitation only and may include individuals who are not members or associates of SOCED. Four Task Forces assist this subcommittee with its work: Olympiad Exams Task Force; Olympiad Laboratory Practical Task Force; Mentor Selection Task Force; and the Exam Grading Task Force.

The chair of the Student Subcommittee and the chair of SOCED must approve of the subgroup’s appointments. Subgroup members serve a three-year term.
CONFIDENTIAL ACS SOCIETY COMMITTEE ON EDUCATION (SOCED) NEW STRUCTURE IMPLEMENTATION

- Sets goals for the U.S. National Chemistry Olympiad competition, establishing rules and guidelines for the program and implementing recommendations and procedures to maintain the operation of the program.
- Reviews the exam (local and national) questions.
- Reviews and selects finalists for the USNCO ChemLuminary award.
- Advises on effective practices for increasing the awareness of the program.

SCIENCE EDUCATION POLICY SUBCOMMITTEE

Chaired by a member or associate of SOCED. Comprised of members, associates and consultants of SOCED. Chairs of the subgroups associated with this subcommittee will also serve as members and serve as the representative for their subgroup. A member(s) of this subcommittee will serve as Science Policy writing team leads or contributors, on behalf of SOCED, as requested by the Committee on Public Affairs and Public Relations.

- Recommends public policy statement updates to SOCED in preparation for recommending to the ACS Board of Directors every third year on issues including science Education, federal funding for scientific research and education, and visas (related to education and scientific exchange).
- Identifies and develops new public policy statements related to science education in collaboration with the ACS Office of External Affairs and the Committee on Public Affairs and Public Relations.
- Ensures that appropriate subgroups and/or writing teams are formed to effectively advise the Education Division and Society on science and chemical education policy or other related matters. Each subgroup should provide an oral report at least two times per year to keep the subcommittee informed of its work.
**SOCED Strategic Plan**

**Vision:** The future of chemistry teaching and learning

**Mission:** Develop and implement policies and resources to advance chemistry education and to connect to its diverse communities

<table>
<thead>
<tr>
<th>Strategy (strategies that have been changed)</th>
<th>Team Lead</th>
<th>Members (teams in italics not convened)</th>
</tr>
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<tbody>
<tr>
<td><strong>Goal 1:</strong> Promote effective chemistry education</td>
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<tr>
<td><strong>Strategy 1:</strong> Establish a task force to investigate and define competencies for graduate education by Spring 2021. Approved 2020-08-05: Contribute to a joint white paper on supportive educational environments for all graduate students and postdoctoral scholars.</td>
<td>Jeremy Garritano</td>
<td>Task Force: Michelle Brooks, Philippe (Phil) Bühlman, Brian Coppola, Jaime Curtis-Fisk, Elizabeth Draganova, Lloyd Munjanja, Sam Pazicni; White Paper: Joerg Schlatterer, Judy Kim, Sam Pazicni</td>
</tr>
<tr>
<td><strong>Strategy 2:</strong> Establish an award for adoption of Evidence-Based Instructional Practices (EBIPs) by end of 2020. Approved 2020-08-05: Provide descriptions and encourage use of evidence-based instructional practices (EBIPs) by end of 2020.</td>
<td>LaTrese Garrison/Jodi Wesemann</td>
<td>Jesse Bernstein, Sam Pazicni, Heather Weck (AACT representative)</td>
</tr>
<tr>
<td><strong>Strategy 3:</strong> Postponed? Host a symposium, round table, or workshop to highlight the use of Evidence Based Instruction and Practice by BCCE 2020</td>
<td>MaryKay Orgill</td>
<td>Thomas Bussey, Kathy Carrigan (2YC3), Amiee Modic (AACT), Mary Roslonowski, Marilyne Stains, Clarissa Sornesone-Unruh (BCCE)</td>
</tr>
<tr>
<td><strong>Strategy 4:</strong> Identify audiences, strategies, and gaps therein, for dissemination of effective chemistry education</td>
<td>Sam Pazicni</td>
<td>Proposed: Simon Bott, Jeremy Garritano, Tracy Halmi, MaryKay Orgill, Susan Shih, Ellen Yezierski - also conferring with SOCED related advisory boards (GEAB, UPAB), CPT, Y2C3, AACT, DivCHED (CCER, YCES, computer group, ACS Exams, JCE)</td>
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<tr>
<td>Strategy</td>
<td>Team Lead</td>
<td>Members (teams in italics not convened)</td>
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<tr>
<td>Goal 2:</td>
<td>Foster...</td>
<td>David Allan (HS ChemClubs Advisory Board), Simon G. Bott, Zeus De los Santos (GEAB), Pamela Kerrigan, Irv Levy (CHED), Mary Roslonowski, Annemarie Ross (CWD)</td>
</tr>
<tr>
<td><strong>Strategy 1:</strong></td>
<td>By Q4 2019, identify existing chemistry education communities, gaps in these communities and their needs and share with Goal 1 teams to help promote effective chemistry education.</td>
<td>Sarah Preston</td>
</tr>
<tr>
<td></td>
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<td>David Allan (HS ChemClubs Advisory Board), Simon G. Bott, Zeus De los Santos (GEAB), Pamela Kerrigan, Irv Levy (CHED), Mary Roslonowski, Annemarie Ross (CWD)</td>
</tr>
<tr>
<td><strong>Strategy 2:</strong></td>
<td>Collaborate with ACS EDU Staff to develop a strategy for forming graduate student organizations (GSOs) by the end of 2019.</td>
<td>Milly Delgado</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mike Adams, Alyssa Adcock (GEAB), Nancy Bakowski, Michelle Boucher (UPAB Chair), Nicole Di Fabio, Matt Mio, Stephanie Santos-Diaz (YCC), Joerg Schlatterer</td>
</tr>
<tr>
<td><strong>Strategy 3:</strong></td>
<td>Work with the International Activities Committee to build a strategy to develop relevant student chapter programs, products, and services by the end of 2019.</td>
<td>Becky Miller</td>
</tr>
<tr>
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<td>Nancy Bakowski, Jens Breffke, Michelle Boucher (UPAB Chair), Lori Brown, Nicole Di Fabio, Carmen Gauthier, Stephanie Sonkin</td>
</tr>
<tr>
<td><strong>Strategy 4:</strong></td>
<td>Work with the Diversity and Inclusion Advisory board on issues related to equity in chemistry education by 2020.</td>
<td>Josh Pak</td>
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<tr>
<td></td>
<td></td>
<td>Proposed: Jesse Bernstein, Sandra Bonetti, Karl Booksh (Advisory Board Chair), Paula Christopher (Staff), Teri Quinn Gray (past chair), Jenny Bishoff (AACT) (Sarah Preston)</td>
</tr>
<tr>
<td>Strategy</td>
<td>Team Lead</td>
<td>Members <em>(teams in italics not convened)</em></td>
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<tr>
<td><strong>Goal 3:</strong> Identify opportunities and approaches for communication and collaboration among education stakeholders</td>
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<tr>
<td><strong>Strategy 1:</strong> Develop a robust and responsive liaison process.</td>
<td>Dana’e Quirk Dorr</td>
<td>Edgar Arriaga (CPT), Jenny Bishoff (AACT), Donna Friedman (is the new ConC liaison a member?), Matt Mio, MaryKay Orgill, Sam Pazicni; Other strategy collaborations with Tracy Halmi and Terri Chambers</td>
</tr>
<tr>
<td><strong>Strategy 2:</strong> Map out all current education initiatives, resources, and programs across ACS to inform articulation of SOCED roles and responsibilities by Spring 2019.</td>
<td>Terri Chambers</td>
<td>Karen Trimmer</td>
</tr>
<tr>
<td><strong>Strategy 3:</strong> Identify opportunities and approaches for collaboration among education stakeholders.</td>
<td>Tracy Halmi</td>
<td>Terri Chambers, Cheryl Frech, Daniel King, Amy Nicely, Dana’e Quik Dorr, Susan Shih, Kristine Smetana, Karen Trimmer; Additional contributors: Tim Herzog (Weber State), MaryKay Orgill (UNLV), Irv Levy (Gordon)</td>
</tr>
<tr>
<td><strong>Strategy 4:</strong> Determine possible structure of SOCED that aligns with roles and responsibilities by 2020.</td>
<td>Proposed: Jenny Bishoff, LaTrease Garrison, Carmen Gauthier, Teri Quinn Gray, Daniel King, Jodi Wesemann, Ellen Yezierski; SOCED 2020 Executive Committee: Carmen Gauthier, Tracy Halmi, Matt Mio, Joshua Pak</td>
<td></td>
</tr>
</tbody>
</table>
2021 Society Committee on Education (SOCED)
Roster

Carmen V. Gauthier, Chair (2020-2022)
Florida Southern College
111 Lake Hollingsworth Drive
Lakeland, FL 33801-5698
cgauthier@flsouthern.edu
(863) 680-4320

Michael R. Adams (2021-2023)
Xavier University of Louisiana
Department of Chemistry
1 Drexel Drive, Box 114
New Orleans, LA 70125
mradams@xula.edu
(504) 520-5300

Jesse D. Bernstein (2019-2021)
3530 Mystic Pointe Drive, Unit 3009
Aventura, FL 33180-4535
jbern0309@gmail.com
(305) 682-0283

Sandra J. Bonetti (2020-2022)
1320 N Nevada Ave
Colorado Springs, CO 80902
sandra.bonetti@csupueblo.edu or
sandrabanetti@me.com
(719) 432-8145 c
(719) 633-8465 h

Milagros Delgado (2021-2023)
Florida International University
21211 NE 24th Court
Miami, FL 33180
delgadom@fiu.edu
(305) 919-5966

Jeremy R. Garritano (2019-2021)
Marx Science and Social Science Library
Yale University
PO Box 208111
New Haven, CT 06520-8111
jeremy.garritano@yale.edu
(203) 432-3310

Meledath Govindan (2021-2023)
80 Settlers Path
Lancaster, PA 01523-2057
mgovindan@fitchburgstate.edu
(978) 660-8831

Tracy A. Halmi (2019-2021)
Penn State, Erie Behrend College
School of Science
P-1 Prischak Building
4502 College Drive
Erie, PA 16563-0203
tao104@psu.edu
(814) 898-6045

Pamela K. Kerrigan (2021-2023)
College of Mount Saint Vincent
Division of Natural Sciences
6301 Riverdale Avenue
Riverdale, NY 10471
Pamela.kerrigan@moundsaintvincent.edu
(718) 405-3402

Matthew J. Mio (2020-2022)
University of Detroit Mercy
Dept. of Chem. And Biochemistry
4001 West McNichols Road
Detroit, MI 48221-3038
miomj@udmercy.edu
(313) 993-1188
Mary Kay Orgill (2020-2022)
University of Nevada, Las Vegas
Dept. of Chemistry & Biochemistry
Mail Stop 4003
4505 South Maryland Parkway
Las Vegas, NV 89154-4003
marykay.orgill@unlv.edu
(702) 895-3580

Joshua J. Pak (2019-2021)
Idaho State University
Department of Chemistry
921 South 8th Avenue MS 8023
Pocatello, ID 83209-8023
pakjosh@isu.edu
(208) 282-2612

Sam Pazicni (2021-2023)
Department of Chemistry, rm. 9349
University of Wisconsin–Madison
1101 University Avenue
Madison, Wisconsin 53706
sam.pazicni@chem.wisc.edu
(608) 263-5801

Danae R. Quirk Dorr (2020-2022)
Minnesota State University
Department of Chemistry and Geology
Ford Hall 241
Mankato, MN 56001
danae.quirk-dorr@mnsu.edu
(507) 389-2141

Susan M. Shih (2019-2021)
240 North Linden Avenue
Westmont, IL 60559-1712
susanmshih@att.net
(630) 971-0449

Kristine S. Smetana (2021-2023)
Reynolds Community College
Department of Math, Science and Engineering
700 E. Jackson St.
Richmond, VA 23219
Kristine-chris@msn.com
(804) 316-1689

Ellen J. Yezierski (2020-2022)
Miami University
Dept. of Chem. & Biochemistry
701 East High Street
Oxford, OH 45056-1465
yeziere@miamioh.edu
(513) 529-2819

COMMITTEE ASSOCIATES

Roxie Allen (2021)
St. John's School, Upper School Science
2401 Claremont Ln
Houston, TX 77019
rallenchem@gmail.com
(713) 850-0222 ext. 202

Michelle A. Boucher (2021)
7245 Glass Factory Rd
Holland Patent, NY 13354
mboucher@utica.edu
(315) 792-3120

Dorian A. Canelas (2021)
8724 Springhouse Ln
Raleigh, NC 27617-4783
dorian.canelas@duke.edu
(919) 660-1528

Cheryl B. Frech (2021)
University of Central Oklahoma
Department of Chemistry
100 N University Drive
Edmond, OK 73034-5207
cfrech@uco.edu
(405) 974-5209

Kevin P. Gable (2021)
Oregon State Univ
139 Gilbert Hall
Corvallis, OR 97331-8546
kevin.gable@oregonstate.edu
(541) 737-6744
Teri Quinn-Gray (2021)  
ACS Board of Directors Representative  
1006 Tulip Tree Lane  
Newark, DE 19713-1128  
Teriquinn_gray@dupont.com  
(302) 999-6088

Margaret I. Kanipes-Spinks (2021)  
1803 Bearhollow Road  
Greensboro, NC 27410-3518  
mikanipe@ncat.edu  
(336) 285-2030

Judy E. Kim (2021)  
University of California San Diego  
Department of Chemistry & Biochem  
Urey Hall Addn 3040B  
San Diego, CA 92093  
judyk@ucsd.edu  
(858) 534-8080

Daniel B. King (2021)  
Drexel University, Dept. of Chemistry  
3141 Chestnut Street  
Philadelphia, PA 19104-2816  
Daniel.king@drexel.edu  
(215) 895-0571

Tyler Kinner (2021)  
3465 Duluth Hwy 120  
Apt 4205  
Duluth, GA 30096-3354  
tkinner@acsga.org  
(937) 467-9565

Pamela Leggett-Robinson (2021)  
1931 Sandy Trail Dr  
Hampton, GA 30228-5318  
pmlrob@mindspring.com  
(770) 274-5050

Irvin (Irv) J. Levy (2021)  
Simmons College  
Chemistry & Physics  
300 Fenway  
Boston, MA 02115-5820  
irv.levy@simmons.edu  
(617) 521-3876

Laura E. Pence (2021)  
University of Hartford  
Department of Chemistry  
200 Bloomfield Ave  
West Hartford, CT 06117-1545  
Pence@hartford.edu  
(860) 768-4356

Missy A. Postlewaite (2021)  
51 Thorn Ln Apt 8  
Newark, DE 19711  
mellisa.postlewaite@gmail.com  
(609) 313-3840

CONSULTANTS

Dawn Del Carlo (2021)  
University of Northern Iowa  
Dept Chemistry and Biochemistry  
McCollum Science Hall 243  
Cedar Falls, IA 50614-0423  
dawn.delcarlo@uni.edu  
Dawn.DelCarlo@uni.edu  
(319) 273-3296

Jennifer B. Nielson (2021)  
Brigham Young University  
Department of Chemistry and Biochemistry  
C412 BNSN  
Provo, UT 84602  
jnielson@chem.byu.edu  
(801) 422-4312

ACS STAFF

LaTrease Garrison, ACS Staff Liaison  
American Chemical Society  
1155 16th Street NW  
Washington, DC 20036  
l_garrison@acs.org  
(202) 872-6150

Jodi Wesemann, Associate Staff Liaison  
American Chemical Society  
1155 16th Street, NW  
Washington, DC 20036  
j_wesemann@acs.org  
(202) 872-4587
Liaisons from SOCED to Other Committees

Chemists with Disabilities (CWD)
Melissa A. Postlewaite
51 Thorn Ln Apt 8
Newark, DE 19711
melissapostlewaite@gmail.com
(609) 313-3840

Committee on Safety
Susan M. Shih
240 North Linden Avenue
Westmont, IL 60559-1712
susanmshih@att.net
(630) 971-0449

Membership Affairs (MAC)
Michael R. Adams
Xavier University of Louisiana
Department of Chemistry
1 Drexel Drive, Box 114 New Orleans, LA 70125
mradams@xula.edu
(504) 520-5300
Liaisons to SOCED from Other Committees

Committee on Committees
Rodney M. Bennett
Winding Trails, LLC.
3226 Ridgewood Road
Winston-Salem, NC 27107
(610) 805-3482
rodbennett@aol.com

Committee on Technician Affairs
N. Eric Huddleston
University of North Georgia
Department of Chemistry & Biochemistry
82 College Circle
Dahlonega, GA 30597
(678) 378-5039
eric.huddleston@ung.edu

Environmental Improvement
Keith Peterman
Physical Sciences Dept.
York College of Pennsylvania
York, PA 17403-3651
(717) 815-1334
peterman@ycp.edu

Professional Training
Kerry K. Karukstis
Department of Chemistry
HARVEY MUDD COLLEGE
301 Platt Boulevard
Claremont, CA  91711
Telephone:  (909) 607-3225
karukstis@g.hmc.edu

Project SEED
Bryan Boudouris
306 East Stadium Avenue
West Lafayette, IN 47906
(765) 496-6056
boudouris@purdue.edu
SOCED 2021 Subcommittee Assignments

Promoting Excellence in Education
Tracy Halmi, chair
Terri Chambers, staff liaison

- Roxie Allen (A)
- Sandra Bonetti (F)
- Dawn Del Carlo (C)
- Kevin Gable (A)
- Jeremy Garritano (F)
- Daniel King (A)
- Tyler Kinner (A)
- Sam Pazicni (F)
- Missy Postlewaite (A)
- Ellen Yezierski (F)

Science Policy
Laura Pence, chair
Lauren Posey, staff liaison

- Jesse Bernstein (F)
- Dorian Canalas (A)
- Cheryl Frech (A)
- Pamela Leggett-Robinson (A)
- Jennifer Nielson (C)
- MaryKay Orgill (F)
- Teri Quinn-Gray (A)
- Danaé Quirk Dorr (F)
- Susan Shih (F)

Student Communities
Matt Mio, chair
Nancy Bakowski, staff liaison

- Michael Adams (F)
- Michelle Boucher (A)
- Milly Delagdo (F)
- Meledath Govindan (F)
- Margaret Kanipes-Spinks (A)
- Pam Kerrigan (F)
- Judy Kim (A)
- Irv Levy (A)
- Kristine Smetana (F)

Key: Full Member (F) | Associate Member (A) | Consultant (C)
**SOCED Advisory Boards**
February 2021

**Boards associated with SOCED:**

American Association of Chemistry Teachers (AACT) Governing Board

ACS-Hach Advisory Board

ChemClub Advisory Board

*ChemMatters* Policy Board

Graduate Education Advisory Board (GEAB)

→ Graduate Student and Postdoctoral Scholar Advisory Board (GSPSAB)

New Faculty Workshop (NFW) Advisory Board

Undergraduate Programs Advisory Board (UPAB)

→ Undergraduate Student Advisory Board (USAB)
The Society Committee on Education (SOCED) held its executive sessions via Zoom on July 22, 2020, beginning at 11:00 a.m. EDT; on August 5, 2020, beginning at 3:30 p.m. EDT; and on October 1, 2020, beginning at 3:00 p.m. EDT. The following were present for all or part of the executive sessions:

**Members:** Jennifer Nielson (Chair), Carmen Gauthier (Vice Chair), Tracy Halmi (Subcommittee A Chair), Matt Mio (Subcommittee B Chair), Joshua Pak (Subcommittee C Chair), Jesse Bernstein, Sandra Bonetti, Milagros Delgado, Jeremy Garritano, Pamela Kerrigan, Samuel Pazicni, Sarah Preston, Dana’e Quirk Dorr, Susan Shih, Kristine Smetana, and Ellen Yezierski

**Associates:** Michael Adams, Cheryl Frech, Meledath Govindan, Teri Quinn Gray, Judy Kim, Daniel King, Tyler Kinner, Amy Nicely, MaryKay Orgill, Laura Pence, and Missy Postlewaite (Roxie Allen was unable to attend)

**Consultants:** Michelle Boucher, Irvin Levy, and Nobert Pienta

**Liaisons:** Rodney Bennett (CONC)

**Staff:** LaTrease Garrison (Staff Liaison), Jodi Wesemann (Associate Staff Liaison), Nancy Bakowski, Terri Chambers, Nicole Di Fabio, Joan Ogburn-Hyson, Lily Raines, and Joerg Schlatterer

**Summary of Action Items:**

**Action Item 20-H:** Complete questionnaire regarding Goal 1–Strategy 4 by June 30 – all

**Action Item 20-I:** Review the article “To learn inclusion skills, make it personal” by David Asai, *Nature*, 31 January 2019 – all

**Action Item 20-J:** Review the summary of responses regarding Goal 1-Strategy 4, providing additional input – all

**Action Item 20-K:** Prepare the 2021 SOCED nomination for ACS Fellows – MaryKay Orgill (lead), Jesse Bernstein, Michelle Boucher, Tyler Kinner, Irv Levy

**Action Item 20-L:** Visit and comment on Undergraduate Research Posters – those attending the ACS meeting – Mike Adams, Sandra Bonetti, Michelle Boucher, Carmen Gauthier, Tracy Halmi, Dan King, Amy Nicely, Missy Postlewaite, Ellen Yezierski

**Action Item 20-M:** Submit reimbursements for virtual meeting registration to Joan by August 31 --all

**Action Item 20-N:** Send feedback on future SOCED structures to LaTrease by August 18 – all

**Action Item 20-O:** Use SOCED input to revise options for SOCED structure – SOCED Executive Committee

**Action Item 20-P:** Send feedback on plans for an ACS Sustainable Development Initiative which has been developed by the ACS Scientific Advancement Division to LaTrease by August 17 – all
Welcome and Approval of Minutes
SOCED Chair Jennifer Nielson welcomed and thanked participants for taking time to meet virtually. After introductions, she highlighted the SOCED vision, mission and goals, along with the ACS core value of diversity, inclusion, and respect. Suggestions for a SOCED session on diversity, inclusion, and respect were requested. The items on the agenda were reviewed, along with plans to conduct votes. SOCED voting procedures were reviewed.

SOCED voted (20-10) to approve the minutes from the Spring 2020 meeting.

Science Education Policy
SOCED voted (20-11) to approve the revision of Fostering Scientific Progress: US Visas for Academic Study & Conference Attendance.

Laura Pence was thanked for leading the writing team on behalf of SOCED.

SOCED voted (20-12) to approve the revision of Science and Technology in the Budget.

Cheryl Frech was thanked for serving as the SOCED representative on the writing team.

Lauren Posey was thanked for her staff support and guidance regarding our ACS policy work.

SOCED Strategic Plan Implementation – Changes in Goal 1-Strategies 1 and 2
Noting the importance of having a living, dynamic strategic plan, Vice Chair Carmen Gauthier shared the process for updating strategies in the SOCED Strategic Plan, as determined by the Executive Committee. She then reviewed proposed changes to the first two strategies under Goal 1, both of which were approved by the Executive Committee and affirmed during a meeting of the team leads for strategies associated with Goal 1.

After an update on the preparation of the white paper, SOCED voted (20-13) to update the original Goal 1-Strategy 1, replacing “Establish a task force to investigate and define competencies for graduate education in chemistry by Spring 2021” with “Contribute to a joint white paper on supportive environments for all graduate students and postdoctoral scholars.”

SOCED voted (20-14) to update the original Goal 1-Strategy 2, replacing “Establish an award for adoption of evidence-based instructional practices by the end of 2020” with “Provide descriptions and encourage use of evidence-based instructional practices by end of 2020.”

SOCED Strategic Plan Implementation – Goal 1-Strategy 4
Sam Pazicni reviewed Goal 1-Strategy 4 (Identify and determine the strategies for how to disseminate effective chemistry education by Q4 2020), noting the need for focus as well as consideration of various mechanisms beyond the ACS policy statements.

As an example, Pazicni described a related effort. Based on a request from CPT to develop resources to inform fulfillment of pedagogical guidelines, representatives from CPT, SOCED, and
CHED have formed a working group. Initial work is focused on framing ideas and preparing annotated bibliographies.

SOCED had an initial discussion of key questions exploring audiences and strategies for disseminating effective chemistry education in targeted and meaningful ways. Connections to Goal 3-Strategy 3 (Identify opportunities and approaches for collaboration among stakeholders) were noted.

**Action Item 20-H:** Complete questionnaire regarding Goal 1–Strategy 4 by June 30 – all

The July 22 SOCED Executive Session adjourned at 11:55 a.m. EDT.

The August 5 SOCED Executive Session began with a moment of silence, recognizing the passing of Iona Black, who was a SOCED associate from 2007-2009 and member from 2010-2018.

**Diversity, Inclusion, and Respect Moment**
SOCED initiated a diversity, inclusion, and respect moment, as suggested during the July 22 Executive Session. Neilson shared the quote “Diversity without inclusion is an empty gesture” from David Asai, Howard Hughes Medical Institute.

**Action Item 20-I:** Review the article “To learn inclusion skills, make it personal” by David Asai, *Nature*, 31 January 2019 – all

**Subcommittee Meetings**
Neilson reminded the committee of the dates and times of subcommittee meetings, which will be held virtually. Reflections and additions to the responses from the Goal 1-Strategy 4 questionnaire were requested.

**Action Item 20-J:** Review the summary of responses regarding Goal 1-Strategy 4, providing additional input – all

**Chair’s Report**
Neilson thanked the Committee and ACS Education staff for supporting the chemistry community during the COVID-19 pandemic, providing an overview of the transitions from in-person events to activities delivered remotely, and additional efforts. She highlighted the informational items in the Chair’s report:
- Education Programs’ reauthorization
  - New Faculty Workshop series
- ACS Bridge Project
- Get the Facts Out
- Chemistry Festivals
Nielson announced the results of the International Chemistry Olympiad held virtually. The US team was awarded four gold medals and claimed the top overall score.

The 2020 ACS Fellows with SOCED connections were acknowledged. The SOCED 2020 ACS Fellows Nomination Working Group (Ellen Yezierski, Pam Kerrigan, and Simon Bott) was thanked. The process for preparing the 2021 SOCED nomination was reviewed.

**Action Item 20-K:** Prepare the 2021 SOCED nomination for ACS Fellows – MaryKay Orgill (lead), Jesse Bernstein, Michelle Boucher, Tyler Kinner, Irv Levy

Plans for the Undergraduate Research Poster Session at the Virtual Fall 2020 ACS National Meeting and Exposition were reviewed.

**Action Item 20-L:** Visit and comment on Undergraduate Research Posters – those attending the ACS meeting – Mike Adams, Sandra Bonetti, Michelle Boucher, Carmen Gauthier, Tracy Halmi, Dan King, Amy Nicely, Missy Postlewaite, Ellen Yezierski

**Action Item 20-M:** Submit reimbursements for virtual meeting registration to Joan by August 31 – all

**SOCED Strategic Plan Implementation – Goal 3-Strategy 4**

After reviewing the SOCED charge, Nielson returned to the SOCED Strategic Plan and Goal 3–Strategy 4: Determine possible structure of SOCED that aligns with roles and responsibilities by 2020. The SOCED Executive Committee has been considering potential changes in structure to improve:

1. The productivity and efficiency of the committee meetings
2. The alignment of all student activities that SOCED oversees
3. Collaborations with other groups within ACS
4. The efforts to diversify the committee

Two potential committee structures from the SOCED Executive Committee, including responsibilities as well as pros and cons, were discussed. Connections to the strategic plan, membership and charges of subcommittees, topical groups and advisory boards, meeting plans, and reporting structures and relations were among the aspects considered.

**Action Item 20-N:** Send feedback on future SOCED structures to LaTrease by August 18 – all

**Action Item 20-O:** Use SOCED input to revise options for SOCED structure – SOCED Executive Committee

**New Business**

A team led by the ACS Scientific Advancement Division has developed plans for an ACS Sustainable Development Initiative. SOCED is being asked to provide reactions and feedback, paying particular attention to the educational components.
**Action Item 20-P:** Send feedback on plans for an ACS Sustainable Development Initiative which has been developed by the ACS Scientific Advancement Division to LaTreas by August 17 – all

SOCED presented a resolution thanking Nielson for her service on SOCED and leadership as Chair. Nielson thanked everyone for their preparation and participation.

The August 5 executive session adjourned at 5:06 p.m. EDT.

**SOCED Strategic Plan Implementation – Goal 3-Strategy 4**

Nielson began the October 1 SOCED Executive Session acknowledging the input on Goal 3-Strategy 4 and options for the SOCED structure. Option A, one similar to the current organizational structure, and an alternate Option X, which had been modified based on feedback and suggestions were discussed. The committee considered roles and opportunities for SOCED members and those with additional expertise; processes for identifying and assigning people to subcommittees and groups; meeting times and locations; plans for coordinating and reporting; and alignment of the strategic plan with the selected structure.

In culmination of the strategic planning process started in Fall 2018 with regard to reorganization of SOCED, the committee voted **(20-14)** to adopt Option X as SOCED’s new operating structure.

The October 1 SOCED Executive Session adjourned at 3:30 p.m. EDT.
The Subcommittee on PreCollege Education (Subcommittee A) of the Society Committee on Education (SOCED) held its executive session on Tuesday, August 11, 2020 beginning at 2:00 p.m. ET via Zoom technology. The following were present for all or part of the meeting:

**Members:** Tracy Halmi (SOCED Subcommittee A Chair), Jesse Bernstein, Sandra Bonetti, Carmen Gauthier, Jennifer Nielson, Joshua Pak, Sarah Preston, Kristine Smetana, Ellen Yezierski  
**Associates:** Roxie Allen, Meledath Govidan, Amy Nicely, (Teri Quinn Gray, Tyler Kinner, and Missy Postlewaite were unable to attend)  
**Consultants:** Norbert Pienta  
**Liaisons:** Rodney Bennett (unable to attend)  
**Staff:** Terri Chambers (Subcommittee A Staff Liaison), Nancy Bakowski, Adam Boyd, LaTrease Garrison, Lily Raines, Jodi Wesemann

**Welcome and Introductions**  
SOCED Subcommittee A Chair Tracy Halmi welcomed and asked participants to make brief introductions.

The subcommittee discussed the report’s recommendations and identified potential opportunities or synergies with ACS programs, products, and services. Breakout groups were charged with discussing additional considerations specific to chemistry that should factor into discussions of teacher practice and opportunities for connection to ACS programs, products, services and policies. The subcommittee noted the absence of training in laboratory safety and the opportunity to further emphasize the importance of hands-on science in the report’s recommendations. The context in which K–12 chemistry teaching takes place was also identified as a key factor not addressed in the report’s recommendations. The Get the Facts Out (GFO) project was identified as an opportunity to address concerns relative to teacher recruitment and a lack of diversity within the K–12 STEM teacher workforce.

**Get the Facts Out: Year 2 Retrospective**  
The subcommittee received an update on GFO from Subcommittee A Staff Liaison Terri Chambers and GFO Chemistry Change Agent Ellen Yezierski. Subcommittee A members were charged with visiting the GFO web pages and providing their support for the project. Subcommittee B was also asked to provide support.

**Staff Reports**  
Staff provided brief updates and took questions on K–12 programs within the ACS Education Division.
ChemLuminary Awards
Finalists for the 2019 ChemLuminary Awards for Outstanding High School Student Program and Outstanding Engagement with K–8 students were announced. The awards ceremony date/time are still being finalized. The subcommittee did discuss whether there should be a limit on the number of times a given section can win an award in a given timeframe. A small working group will be assembled to consider this and make a motion for consideration by the full committee.

The meeting was adjourned at 3:00 p.m. ET.
The Subcommittee on Higher Education (Subcommittee B) of the Society Committee on Education (SOCED) held its session per a ZOOM call on Friday, August 14, 2020 beginning at 10:00 a.m. ET. The following individuals were present for all or part of the meeting:

**Members**
- Milly Delgado
- Jeremy Garritano
- Pamela Kerrigan
- Sam Pazcini
- Susan Shih
- Matt Mio (Chair)

**Associates**
- Mike Adams
- Cheryl Frech
- Dana’e Quirk Dorr
- Judy Kim
- Daniel King
- MaryKay Orgill
- Laura Pence

**Consultants**
- Michelle Boucher
- Irv Levy

**ACS staff**
- Emily Abbott
- Nancy Bakowski
- Michelle Brooks
- Nicole Di Fabio
- Ashley Donovan
- Joerg Schlatterer
- Jodi Wesemann

**Chair’s Report**
Matt Mio provided an update on SOCED B activities, including announcing Chemluminary finalists and an update on the student chapter awards. He asked that feedback on the SOCED Strategic Plan G1S4 be sent to Jodi Wesemann. Emily Abbott provided on update on the new edition of *Chemistry in Context*.

**Course and Instructor Evaluations: Review of Faculty Teaching in Higher Education**
The Subcommittee discussed issues around evaluating teaching in higher education, a possible role for SOCED in providing best practice guidance, and a framework for a discussion with the full committee.

**Summary of breakout discussions:**
- What can be done by SOCED to see some traction?
- Most questions on evaluation are focused on humanities, more science specific questions for students to answer. SOCED could provide guidelines on assessment of science courses. Give department chairs something to use to evaluate the courses.
- Small institutions might want more guidelines.
- Change should be institutionalized, go beyond the chairperson. Driven by provost, centers for teaching. Meet with presidents, provosts, chairs.
- Evaluations should come from a wide variety of assessments, including peer evaluation.
- How does ACS interact with centers from teaching and learning?
- Will ACS do this only for ACS approved institutions?
- Send a survey out to groups most impacted to ask what is needed for reform.
- Collect information from institutions that have found solutions to the problem.
- Ask students about what the evaluations are for, share with them on how they are used.
• Faculty might benefit from having research/a statement available (what are the metrics to consider, and how can faculty use this?)
• Possible discussion item for future Chair’s discussion?
• Is it possible for SOCED to have a similar statement to that of ASA? The document was laid out well and concise
• People use quantitative data from evaluations in ways that differ from the way that data would normally be evaluated.
• Could SOCED work with CPT on these items?
• Ensure that New Faculty Workshops arm new faculty with not only this research but tools to be politically savvy when negotiating this space.
• The laboratory science disciplines also have special needs in evaluating the teaching that occurs in labs, which is often a struggle

Opportunity for ACS to take a leading role for STEM societies
  o Compose a joint statement from other STEM disciplines
  o Statement could be used in tenure/promotion packages/portfolio (?)
  o Statement should include recommendations on what can replace student evaluations of teaching
  o Additional ‘chemistry’ challenge of laboratories (how to assess)
  o How to create a statement that can refer to joint challenges/opportunities but still be applicable to unique chemistry challenges
  o How do we avoid statements being ‘put on the (electronic) shelf?’
  o Possible collaboration/inclusion in ACS guidelines?

Actions:
Recommend that the full SOCED committee discuss
  • Make a direct recommendation that ACS becomes a signer on the ASA statement, but also bring in some additional professional societies.
  • Catalyze a discussion with other societies.
  • Should ACS prepare a statement specific to chemistry? Could we could add corollaries to the generalized ASA statements?

New Faculty Workshop
Ashley Donovan provided an update on the New Faculty Workshops, including the status of the New Program Reauthorization, the pivot to a virtual workshop, and plans for the program.

Virtual lab insights
The Subcommittee reviewed feedback regarding Virtual Lab Instruction from the New Faculty Workshop and ACS Chemistry Department Chairs meeting. NFW facilitators worked with participants to reflect on activities that must be done in the lab vs. those that must/can be done virtually. Feedback from Chemistry Department chairs was collected at a meeting held virtually on July 29, 2020. A summary of the discussions is in the process of being compiled and will be shared with SOCED and the broader community.
**GEAB Award Proposal**

Judy Kim, GEAB chair, provided an overview of a proposal to establish ACS awards to recognize the leadership of PhD students and postdocs in the chemical sciences. The Subcommittee was generally in favor of the award with some slight modification to the wording of the award for Leadership in Laboratory and Group Safety. A suggestion was made to consider an award for community engagement/outreach or science communications. Suggestions were made for further engaging awardees by publicizing a paragraph about each awardee or recognize them at a national meeting at the graduate student and post doc reception.

**Action:**
The Subcommittee recommends SOCED support the award with slight modification.

**New Business and Adjournment**
No new business was presented and the meeting was adjourned at 11:57 a.m. ET.
TAB 5
Society Committee on Education
2021 Spring Chair’s Written Report
March 11, 2021

SOCED Budget
The 2021 SOCED budget is included in Tab 5 of the agenda book. This budget covers all national meeting expenses for the committee.

Education Programs’ Reauthorization
The ACS Education New Faculty Workshop program was reauthorized in 2020. Input from SOCED informed the preparation of the reauthorization request.

Inclusive Science Education
In the ACS comment “Opportunities for inclusive science education” published in the November 16, 2020 issue of C&EN, the 2020 SOCED Chair Jennifer Nielson noted the importance of leveraging our experiences and learnings from 2020 when pursuing the goals in the ACS Science Education Policy statement. She highlighted two special issues of the Journal of Chemical Education. Insights Gained While Teaching Chemistry in the Time of COVID-19 was published in September 2020. Submissions for Diversity, Equity, Inclusion, and Respect in Chemistry Education, Research, and Practice are due April 12, 2021.

Special Projects
ACS is undertaking several special projects addressing key issues in education.

- The Lasting Encounters between Aspiring and Distinguished Scientists (LEAD) Conference, an initiative of ACS Immediate Past President Luis Echegoyen, will be an in-person 3-day event focused on preparing a diverse group of high-potential young professionals and students for successful and impactful careers that address global grand challenges.

- The ACS Bridge Project and development of the Inclusive Graduate Education Network is supported by the NSF Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering & Science (NSF INCLUDES) program, along with funding from industry partners. More information about the ACS Bridge Program and ACS Bridge Professional Development, a collection of activities designed to increase the number of underrepresented minority students who receive doctoral degrees in chemical sciences, is available at www.acs.org/bridge.

- Get the Facts Out is supported by the NSF Improving Undergraduate STEM Education initiative. More information about the toolkit and other activities designed to change perceptions about K-12 teaching and increase the number of chemistry majors who enroll in teacher certification programs is available at www.acs.org/GetTheFactsOut.

- Impact Indicators and Instruments for Individual Development Plans is supported by the NSF Innovations in Graduate Education program. More information is available at I3IDP.org.

ACS Fellows Nomination
MaryKay Orgill is chairing a working group to review the ACS Fellow qualifications and prepare the SOCED nomination packet for the 2022 awards cycle.
Petition
For Urgent ACTION:

**Petition to Harmonize Committee Structures, Processes, and Terms.**

This petition proposes to place all committees in one category: “Society Committees”, replacing outdated terms such as “Standing Committees”, “Council Committees”, “Other Committees” and “Joint Board-Council Committees”. The terms for all committee members would now be consistent and would match the present terms of the Elected Committees: three-year terms with a two-term maximum for members of the committee.

No longer would committees be required to consist of Councilors only, except for the three committees that are elected, allowing the President and the Chair of the Board of Directors, with input from the Committee on Committees (ConC), to appoint committee members based on skills and expertise needed rather than position held. ConC will continue to recommend Councilors for committee positions as appropriate.
This report updates the Council on SOCED’s progress in implementing the actions to which it agreed in Fall 2020, and highlights significant accomplishments of the Society’s education programs.

In a special Executive Session held on October 1, SOCED considered structures that better align with committee roles and responsibilities, voting to form three subcommittees: Science Education Policy, Promoting Excellence in Education, and Student Communities. A collection of advisory boards and working groups will engage a range of experts and stakeholders from across the education community, developing interactions and collaborations to fulfill Goal 3 of the ACS Strategic Plan to support excellence in education, as well as the SOCED vision, mission and goals.

**Vision:** The future of chemistry teaching and learning  
**Mission:** Develop and implement policies and resources to advance chemistry education and to connect its diverse communities  
**Goal 1:** Promote effective chemistry education  
**Goal 2:** Foster collaborative and sustainable environments for emerging and existing communities in chemistry education  
**Goal 3:** Identify opportunities and approaches for communication and collaboration among education stakeholders

Collaborative activities continue to enhance progress towards fulfilling the educational goals of ACS and SOCED. A partnership with the Younger Chemists Committee facilitated the involvement of 20 undergraduate students in the 2021 ACS Leadership Institute Experience, continuing through August. SOCED and the Division of Chemical Education coordinate efforts ranging from meeting programming to supporting the American Association of Chemistry Teachers (AACT).

The ACS Core Values of diversity, inclusion, and respect are key component of excellence in education. A SOCED session on building an inclusive chemical education culture was held on December 10. The ACS comment “Opportunities for inclusive science education” in the November 16, 2020 issue of C&EN highlighted two goals from the ACS Science Education Policy Statement and encouraged the chemistry community to build on our experiences in 2020. We have a unique opportunity to not just survive but thrive by becoming aware of the challenges of creating inclusive education and using new understanding and technologies to solve those challenges.

Several webinars and the AACT publication, *Chemistry Solutions*, featured the Get the Facts Out project supported by the National Science Foundation’s Improving Undergraduate STEM Education initiative. ACS invites all chemistry faculty to join to the project as Get the Facts Out champions, sharing the facts about the grades 7–12 teaching profession by using the materials and messages from the GFO project locally or nationally. More information and the tool kit are available at [www.acs.org/GetTheFactsOut](http://www.acs.org/GetTheFactsOut).

**Primary and secondary education**

AACT ended 2020 with 8,045 members, a 20% growth since 2019. A total of 36 webinars were held in 2019, with an average rating of 4.6 on a 5.0 scale, including the AACT Summer Symposium Series. The online resource library reached 901 items, and the *ChemMatters* digital archive was launched. For the 2020-2021 school year, over 259 partnerships were initiated through the Science Coaches program. The ChemClub program is now being supported by AACT staff.
Post-secondary education

SOCED continues to work with its Undergraduate Programs Advisory Board on engaging student communities. At the end of December 2020, there were 16,954 student members, compared to 18,985 at the end of December 2019. Reports for 2019-2020 activities were received from 311 domestic and 47 international student chapters, reporting on over 8000 and over 620 activities, respectively. SOCED used these reports to select 2019-2020 Student Chapter Award winners. There are now 87 international student chapters in 28 countries, exceeding the 2020 goal of 70 chapters.

There are now 4 ACS Graduate Student Organizations in the ACS-GSO program, launched in 2020. Graduate students and existing graduate student organizations are invited to charter an ACS-GSO or affiliate with ACS.

The online career planning tool ChemIDP.org had 1,770 new users in 2020. The Impact Indicator and Instruments for Individual Development Plans project, supported by the NSF Innovations in Graduate Education, has launched its website (I3IDP.org).

ACS Spring 2021 Meeting Highlights

Councilors and national meeting attendees are encouraged to attend the ACS Undergraduate Student Chapter Awards ceremony being held prior to the ACS Spring 2021 Meeting on Friday, March 26, as well as the Undergraduate Research Poster Sessions, the Graduate and Postdoctoral Reception, and other sessions being scheduled for undergraduate and graduate students.

Questions and suggestions regarding SOCED activities, current and potential, can be sent to education@acs.org.

Jennifer Nielson, 2020 Chair
Carmen Gauthier, 2021 Chair
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### Changes in Unrestricted Net Assets

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COMMENT

Opportunities for inclusive science education

JENNIFER B. NIELSON, CHAIR, ACS SOCIETY COMMITTEE ON EDUCATION

This past March, educators and students were thrust into a world of remote teaching and learning. Meanwhile, people across the US began having deeper conversations about racism, equity, and belonging. In 2021, the chemistry community has a unique opportunity to not just survive but thrive by becoming aware of the challenges of creating inclusive education and using new understanding and technologies to solve those challenges.

How will we, as educators, better use technology to teach, even when we are able to fully return to our classrooms? How will we make that technology accessible? What structures in teaching and assessment best support a learner who is dealing with anxiety, discrimination, adverse economic conditions, poor academic performance, or anything else that makes learning more difficult? What institutional and cultural shifts need to happen for all students to have access to science education and reach their highest potential in their chosen field?

In short, what would our society look like if we had inclusive science education?

Last year, the Society Committee on Education (SOCED) reviewed the American Chemical Society’s “Science Education Policy” statement and recommended updates (bit.ly/366RXtk). The following excerpt emphasizes several essential aspects of the science education policy:

“Preparing current and future students with the skills necessary to address rapidly evolving challenges requires investment at all levels of STEM (science, technology, engineering, and mathematics) education. It is vital that every student attains an appropriate level of science understanding to be prepared for current and future challenges and opportunities.”

The statement includes several goals for achieving this. Two that stand out for 2020 are the following:

► Promoting lifelong, rigorous scientific education to improve understanding of science and its role in society
► Encouraging “students of all backgrounds, particularly those from underrepresented groups, in the pursuit of education and careers in STEM fields”

We have the opportunity to build on our experiences from 2020. We often focus on the less-than-exemplary aspects of the emergency transition to remote instruction as well as their stresses and challenges.

But there were many praiseworthy aspects of the transition from individuals, departments, and disciplinary communities. Examples can be found across the chemistry community.

The September special issue of the Journal of Chemical Education, “Insights Gained While Teaching Chemistry in the Time of COVID-19,” takes a closer look at what so many of you have done and learned. To help the chemistry education community, ACS launched a website titled ACS Efforts and Resources on COVID-19.

There are many ways in which ACS has been responsive to the call for diversity, equity, inclusion, and respect in the chemical enterprise. You can learn about some of these efforts from the website Advancing ACS’ Core Value of Diversity, Inclusion, and Respect. The Journal of Chemical Education put out a call for papers for a special issue on diversity, equity, inclusion, and respect in chemistry education, research, and practice. The ACS Bridge Program is designed to increase the number of underrepresented students of color obtaining PhDs in the chemical sciences, as part of the Inclusive Graduate Education Network. In addition, many ACS committees and divisions have organized workshops and seminars to specifically address topics of diversity, equity, inclusion, and respect and incorporate these topics into their strategic plans. SOCED will hold a diversity session in December to explore the role that SOCED and ACS have in promoting inclusive education for all students.

Developing skills and science understanding and preparing students at all levels for science coursework require that each of us plays a part. We need to keep working together, consider how we use technology to engage students and assess learning outcomes, and determine what role labs should play in education.

What are we learning from our successes and failures in remote instruction, career support, mental health, and other issues brought on by the pandemic? Will inform further efforts to support students, instructors, teaching aids and learning assistants, administrators, and others in chemistry education.

This year has been filled with questions and concerns about remote education. It has also been a year filled with creativity, community building, and learning. How can we sustain our commitment to education using our insights from the transition to remote teaching? How can we maintain our renewed diversity and inclusion efforts in chemistry?

The inspiration to continue improving science education comes from our desire to answer the call: What would our society look like if we had inclusive science education?

We need to hear from you. What have you learned from your successes and failures in chemistry education in 2020? Share your insights and experiences with me at education@acs.org.

Views expressed are those of the author and not necessarily those of C&EN or ACS.
April 9, 2021

- Eminent Scientist Lecture: Naomi Halas, Rice University
- Creativity: the little-known industry career skill
- Influencing public opinion through #scicomm
- Student chapters making an impact
- A Day in My Life

April 10, 2021

- The graduate school experience: What to expect
- Diversity panel [Title TBD]
- Student social activity [TBD]

Other meeting activities

- Undergraduate Research Poster Session
- ACS Student Chapter Awards Ceremony—scheduling is TBD
- ACS Virtual Chem Demo Exchange—outside of Spring meeting
- Grad School Fair—outside of Spring meeting
INTERESTED IN GRAD SCHOOL
ACS CAN HELP!

The ACS Bridge Program (ACS-BP) seeks to increase the number of students from underrepresented groups obtaining a PhD in the chemical sciences. In this program, ACS-BP students can take advantage of invaluable research experiences, advanced coursework, and mentoring and coaching to guide them through the graduate school application process.

Students who have not applied to graduate school, or who have applied but were not accepted will have access to

- A free common application that will highlight your personal and academic achievements to participating Bridge Departments
- Resources to help construct and revise competitive applications
- Professional connections to faculty, mentors, and career coaches
- Networking opportunities with other Bridge Students

Learn more and apply at www.acs.org/bridgeprogram

The ACS Bridge Project (Bridge Program and Bridge Travel Awards) has support from the National Science Foundation (NSF) through grant NSF-1834545, the Genentech Foundation, and the American Chemical Society. The ACS Bridge Project is a part of the NSF INCLUDES Alliance: Inclusive Graduate Education Network (IGEN). For more information, about IGEN, visit IGENetwork.org. Any opinions, findings, conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.
ACS-BP has 23 participating departments in 21 locations. For additional department updates, visit our website at www.acs.org/Bridge

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* Chemistry  
** Chemical Engineering
GET THE FACTS OUT (GFO)

Get the Facts Out is an NSF funded partnership between the Colorado School of Mines and four national societies: American Physical Society, American Chemical Society, American Association of Physics Teachers, and the Association of Mathematics Teacher Educators. GFO is a unique project that is designed to reach STEM majors in a large fraction of all U.S. mathematics, chemistry and physics departments and has the potential to significantly address teacher shortages in these high-need STEM disciplines. GFO is an NSF-funded project designed to provide chemistry and other STEM faculty with the tools to explain and correct misperceptions with data on salary, benefits, and career satisfaction of STEM secondary school teachers.

A Call to Action

As the world’s largest scientific society, ACS and its members have a unique opportunity to promote use of GFO resources so that students interested in becoming 7-12 STEM teachers have the facts necessary to guide their career decisions. Join the GFO project as a champion to advance the work of the Get the Facts Out project. Your participation is key to the chemistry community’s ability to recruit the next generation high school chemistry teachers. Here are some ways to become a GFO champion:

1) Just register as a champion (this is a quick one and helps to get chemistry on the map!);
2) Ask to receive local teacher salary and retirement data;
3) Share information (the website, brochures, posters) about GFO with students and faculty (advisors are a great place to start) on your campus;
4) Give a GFO presentation to students or faculty members on your campus.

GFO Project Level Highlights June 2020 – March 2021
- Revamped www.getthefactsout.org web presence and updated toolkit materials
- Bimonthly GFO newsletters
- Qualitative and quantitative research efforts continue
- Virtual annual meeting
- Champion engagement strategy

ACS Highlights June 2020 – March 2021
ACS’s GFO efforts over the five year funding period include (1) supporting a team of chemistry change agents, (2) hosting and participating in live and virtual workshops and presentations, (3) creating and sustaining a web presence for chemistry-related GFO activities at www.acs.org/getthefactsout, and (4) broadly disseminating information about GFO to chemistry faculty members. These efforts are all designed to lead to sustainability beyond the funding period.

Areas of emphasis between June 2020 and February 2021 included supporting a team of chemistry change agents; hosting live and virtual GFO workshops and presentations; and disseminating information about GFO broadly.
Supporting a team of chemistry change agents:
The chemistry change agents represent a diverse set of experiences and institution-types but share a passion and interest around the recruitment, preparation, and retention of well-qualified chemistry teachers. Chemistry change agents are:

- Etta Gravely, North Carolina A&T State University
- William Hunter, Illinois State University
- Jennifer Nielson, Brigham Young University
- Ellen Yezierski, Miami University in Ohio

Virtual workshops and presentations:
Chemistry change agents and project team members are charged with conducting workshops and presentations to raise awareness about the GFO project and to actually “get the facts out about STEM teaching” to students and faculty members. Given the shift to online delivery of content, the ACS team participated in a number of virtual engagements on GFO to faculty. These included connections with colleagues on their local campuses and with regional and national audiences. A selection of these virtual workshops and presentations are included below:

- AAAS Arise Webinar (October 2020)
- Presentation at the International Learning Assistants Conference (November 2020)
- ACS-Hach Land Grant University Webinar (November 2020)
- YCES Advisory Board Webinar (November 2020)
- Presentation at the Noyce Midwest Regional Conference (February 2021)
- Webinar for 2YC3 (upcoming, March 2021)

Dissemination of information about Get the Facts Out to chemistry faculty members
Use of the resources associated with the GFO IUSE project will be a function of two elements – first, faculty knowledge and second, participation. A number of mechanisms were employed to reach the chemistry community-at-large about the GFO project. These included communications via email, newsletters, and publications. Of note was an article published in Chemistry Solutions, the AACT publication, highlighting the important role that high school chemistry teachers play in supporting students with an interest in 7 – 12 STEM teaching.
Summary
The Chemistry Festival grant program began as usual in 2020. Some changes were made in response to the COVID-19 pandemic. These changes included: suggesting all events be postponed until July 2020; requiring a safety letter before funds were transferred; and encouraging winners to convert events to virtual engagements. While some groups were able to host events safely in person, and some were able to convert to virtual events, this was not possible for all awardees. Concerns about internet access for the target audiences of Festivals prevented many groups from switching to a virtual format.

A table summarizing progress of funded applications follows this text. A summary of participant survey results will be provided when more Festivals are completed.

The first round of Chemistry Festival grants for 2021 closes on February 1 of this year, and the application has been updated to explicitly support virtual events. The next round will close on June 14, 2021.

The 2020 Festival Training Institute was scheduled to be held in Kingston, Jamaica but was converted to a digital format. Weekly, one-hour discussions were hosted after webinars highlighting the material common between the Outreach Training Program and Festival Training Institute curricula. Webinars are freely available to anyone who signs up to view them through the ACS Learning Center.

Festival Training Institute 2021 is tentatively being planned for student chapters based in India, which will include additional student-specific programming. This event will be held virtually if an in-person event is not possible. FTI 2022 will be hosted by ACS Nigeria in Ghana in February if travel is possible at this time.

By the Numbers – 2020
- Grants Awarded: 45
- Countries Represented in Awards: 30
- Value of Awards: 107,390 USD

<table>
<thead>
<tr>
<th>Grant Winner</th>
<th>Location</th>
<th>Month, Year</th>
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<tbody>
<tr>
<td>ACS Malaysia</td>
<td>Multiple Sites</td>
<td>Sept - Dec 2020</td>
</tr>
<tr>
<td>ACS SC - National Open University of Nigeria, Ibadan Study Center</td>
<td>Ibadan, Nigeria</td>
<td>Nov 2020</td>
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<tr>
<td>ACS Nigeria (award for 2020)</td>
<td>Ilorin, Nigeria</td>
<td>Nov 2020</td>
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<tr>
<td>ACS SC - Ladoke Akintola University of Technology</td>
<td>Ogbomoso, Nigeria</td>
<td>Nov 2020</td>
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<tr>
<td>ACS SC - University of Uyo</td>
<td>Essien Udim, Nigeria</td>
<td>Nov 2020</td>
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<tr>
<td>ACS SC - Universiti Kebangsaan Malaysia</td>
<td>Selangor, Malaysia</td>
<td>Nov 2020</td>
</tr>
<tr>
<td>Ruby Hanson</td>
<td>Winneba, Ghana</td>
<td>Nov 2020</td>
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<tr>
<td>ACS Southwestern China</td>
<td>Chongqing, China</td>
<td>Dec 2020</td>
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<tr>
<td>ACS SC - Sokoto State University</td>
<td>Sokoto, Nigeria</td>
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<tr>
<td>ACS SC - University of Calabar</td>
<td>Akamkpa, Nigeria</td>
<td>Dec 2020</td>
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<tr>
<th>Held, shifted to virtual</th>
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<tr>
<td>Grant Winner</td>
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<tr>
<td>ACS Peru</td>
</tr>
<tr>
<td>ACS Colombia</td>
</tr>
<tr>
<td>Mexican Chemical Society</td>
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<tr>
<td>Grant Winner</td>
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<tr>
<td>----------------------------------------------------------</td>
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<tr>
<td>Hans Hagemann</td>
</tr>
<tr>
<td>Cesar A. Urbina Blanco</td>
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<tr>
<td>Venezuelan Association of Chemistry Olympiads</td>
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<tr>
<td><strong>Cancelled</strong></td>
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<tr>
<td>ACS Taiwan (2020 award)</td>
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<tr>
<td>Ipe Mavunkal</td>
</tr>
<tr>
<td>ACS SC - Universidad de San Carlos de Guatemala</td>
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<tr>
<td>Kizzy-Anne Boatswain-Carbon</td>
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<tr>
<td>ACS Thailand</td>
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<tr>
<td>ACS SC - Sam Higginbottom IATS (2020 award)</td>
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<tr>
<td>Samantha Joseph</td>
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<tr>
<td>Tanzania Chemical Society</td>
</tr>
<tr>
<td>ACS SC - Dr. Ambedkar College, Deekshabhoomi</td>
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<td>ACS Romania</td>
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<td>ACS SC - University of the West Indies</td>
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<td>ACS Iraq</td>
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<tr>
<td>ACS SC - University of Costa Rica</td>
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<tr>
<td>ACS SC - University of Malaya</td>
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<tr>
<td>ACS SC - Qatar University (2020 award)</td>
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<td>ACS Nigeria (award for 2021)</td>
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<td>ACS SC - University of Dhaka (2020 award)</td>
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<td>ACS SC - Sam Higginbottom IATS (2021 award)</td>
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<td>ACS SC - Quaid-E-Awam University</td>
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<td>ACS SC - Uttaranchal University</td>
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<td>Science Buskers</td>
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<td>ACS Pakistan</td>
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<td>ACS SC - Sichuan University of Science and Engineering</td>
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<td>ACS SC - Qatar University (2021 award)</td>
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<td>ACS Hungary</td>
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<td>ACS Taiwan (2021 award)</td>
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<tr>
<td>ACS Georgia</td>
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<tr>
<td>ACS SC - Nazarbayev University</td>
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FOR FUNCTION COMMITTEE ACTION

Petition to Amend the Duties of the Committee on Local Section Activities
(AMENDMENTS TO THE STANDING RULES)

Standing Rule VII, Sec. 1, b

Petition

We, the undersigned, voting members of the American Chemical Society Committee on Local Section Activities, hereby petition the Committee on Committees to amend the SOCIETY Standing Rules as follows (additions underlined; deletions struck through):

STANDING RULE VII

Units (Local Sections, Divisions, International Chapters) Function

Section 1.

Local Sections Function

a. The Committee on Local Section Activities shall be responsible for the Local Sections Function.

b. The duties of the Committee on Local Section Activities shall include the following, inter alia:

(1) study and make recommendations to the Council concerning SOCIETY policy affecting the interests of Local Sections;
(2) assist Local Sections in coordinating their efforts with SOCIETY and Division activities;
(3) promote both formal and informal cooperation and communication of Local Sections with Divisions and other Local Sections;
(4) explore possibilities of assisting Local Sections in enriching their program of activities;
(5) receive reports on and rate the effectiveness of Local Section activities;
(6) receive, consider, and make recommendations to the Council concerning petitions for chartering new Local Sections and for changes in territory or name;
(7) take such actions as necessary if any Local Section has an inactive Executive Committee such as to appoint an interim Executive Committee or facilitate the Local Section’s elections;
(8) make recommendations to the Council concerning combining or dissolving Local Sections;
(9) study the needs for financial support of local activities in relation to the SOCIETY’s program and make recommendations to the Council concerning proper allotments for this purpose;
(10) determine the formula for distribution of dues funds allocated to Local Sections as provided elsewhere in these Standing Rules and conveying that formula for approval by the Council;
(11) act for the Council in resolving any member’s appeal from adverse action on a request for assignment to a Local Section in accordance with the provisions of these Standing Rules; and
(12) act for the Council, in collaboration with the Committee on Constitution and Bylaws, to approve the affiliation of Local Sections with other technical organizations.
**Explanation**

The Committee on Local Section Activities (LSAC) seeks to amend the committee’s duties that are in the Standing Rules.

On occasion, Local Sections experience challenges when their elected governing body experiences a lapse in leadership. This situation can occur due to resignations, ineffective succession planning, or failure to conduct elections, among other reasons. When this occurs, a Local Section may be without a duly elected Executive Committee and unable to fulfill certain responsibilities outlined in their bylaws. This petition seeks to provide LSAC with the authority to support Local Sections by taking action on their behalf, including appointing an interim executive committee and/or facilitating a Local Section’s election if necessary.
Petition to Harmonize Committee Structures, Processes, and Terms

(AMENDMENTS TO THE STANDING RULES)

Standing Rule I, Sec. 1
Standing Rule II, Sec. 1, 2, 3
Standing Rule III, Sec. 1, 2, 3
Standing Rule IV, Sec. 1
Standing Rule V, Sec. 2
Standing Rule VIII, Sec. 1, 2, 3, 4, 5
Standing Rule IX, Sec. 4

Petition

We, the undersigned voting members of the American Chemical Society’s Committee on Committees, hereby petition to amend the SOCIETY’s Standing Rules as follows (additions underlined; deletions struck through):

STANDING RULE I
Membership Function

Section 1.

...  
c. The Committee on Membership Affairs is a Society Committee of the Council, as described elsewhere in these Standing Rules.

STANDING RULE II
Council Executive Function

Section 1.

...  
h. The Chair of the Committee on Nominations and Elections, the Chair of the Committee on Committees, the Chair of each Standing Committee of the Council, and the Chairs of the following each Society Committees shall have all the privileges of membership on the Council Policy Committee except that of voting: Budget and Finance, Committees, Constitution and Bylaws, Divisional Activities, Economic and Professional Affairs, Education, Local Section Activities, Meetings and Expositions, Membership Affairs, and Nominations and Elections.

Sec. 2.
Composition of Council

a. The President and the Secretary of the SOCIETY shall be the President and the Secretary, respectively, of the Council, and the President shall serve as the presiding officer of the Council. There shall be Society Committees as provided elsewhere in these Standing Rules, to aid both the Council and the Board of Directors, in the performance of their functions. Society Committees shall report to the Council...
or the Council and the Board of Directors. Society Committees shall be composed of voting Councilors, including Directors, and may, when deemed appropriate, include other members of the SOCIETY, as provided elsewhere in these Standing Rules.

Sec. 34
Meetings of the Council

Sec. 4.
Society Committees of the Council

The Council—SOCIETY—shall have the following committees (hereinafter referred to as “Society Committees”) with the duties as described below and elsewhere in these Standing Rules:

a. Society Committees Reporting Only to the Council

(1) Committee on Analytical Reagents
(2) Committee on Committees (elected)
(3) Committee on Constitution and Bylaws
(4) Committee on Divisional Activities
(5) Committee on Economic and Professional Affairs
(6) Committee on Ethics
(7) Committee on Local Section Activities
(8) Committee on Meetings and Expositions
(9) Committee on Membership Affairs
(10) Committee on Nomenclature, Terminology, and Symbols
(11) Committee on Nominations and Elections (elected)
(12) Council Policy Committee (elected)
(13) Committee on Project SEED
(14) Committee on Technician Affairs

b. Society Committees Reporting to the Council and the Board of Directors

(1) Budget and Finance
(2) Chemical Safety
(3) Chemistry and Public Affairs
(4) Chemists with Disabilities
(5) Community Activities
(6) Education
(7) Environmental Improvement
(8) International Activities
(9) Minority Affairs
(10) Patents and Related Matters
(11) Professional Training
(12) Public Relations and Communications
(13) Publications
(14) Science
(15) Senior Chemists
(16) Women Chemists
(17) Younger Chemists

a–c. Elected Society Committees of the Council that are elected
(1) The Council shall elect the following committees as described below and elsewhere in these Standing Rules:
   (a) Council Policy Committee
   (b) Committee on Nominations and Elections
   (c) Committee on Committees.

(2)
   (a) For the Council Policy Committee, The President shall serve as Chair of the Council Policy Committee and the Secretary of the SOCIETY shall serve as Secretary ex officio.

   (b) The Committee on Nominations and Elections shall elect its Chair and Secretary from its own membership.

   (c) The Committee on Committees shall elect its Chair and Secretary from among its own membership. The President-Elect shall serve as a member ex officio.

b. Standing Committees of the Council

(1)
   (a) Committee on Membership Affairs
   (b) Committee on Meetings and Expositions
   (c) Committee on Divisional Activities
   (d) Committee on Local Section Activities
   (e) Committee on Economic and Professional Affairs
   (f) Committee on Constitution and Bylaws

(2)
   (a) The Council shall provide for such Standing Committees, composed wholly of voting Councilors, as it deems necessary to explore all matters in which the Council has an interest.

   (b) Each Standing Committee of the Council shall be responsible to the Council, shall report to the Council Policy Committee and the Council at each meeting of such bodies, and shall submit a comprehensive summary or full report of its activities to be made a part of the official record.

   (c) The Chair of each Standing Committee shall be appointed by the President, with the advice of the Committee on Committees, for one calendar year, each individual being limited to three successive one-year terms as Chair of the same Committee.

   (d) Each Standing Committee annually shall elect one of its members to serve as Secretary.

   (e) A member of a Standing Committee shall serve two calendar years and shall be permitted only three successive two-year terms on the same committee.

   (f) The President, with the advice of the Committee on Committees, shall appoint voting Councilors to the various Standing Committees and fill vacancies in such a manner as to produce rotation.

   (g) Each Standing Committee shall consist of not fewer than twelve and not more than twenty members, except on special authorization of the Council.

   (h) The Chair and other members of each Standing Committee must be qualified voting Councilors when appointed. If any member of a Standing Committee becomes disqualified, that member shall be dropped and a vacancy declared, except that the President may postpone until the end of the calendar year dropping from the Committee a Councilor so disqualified and the simultaneous declaration of a vacancy if such postponement will significantly benefit the operations of the Committee.

c. Other Committees of the Council

(1)
   (a) Committee on Analytical Reagents
   (b) Committee on Ethics
   (c) Committee on Nomenclature, Terminology, and Symbols
   (d) Committee on Project SEED
   (e) Committee on Technician Affairs
Petition to Harmonize Committee Structures, Processes, and Terms

(2) The Council may provide for Other Committees, **members of which need not be Councilors**, to consider and report upon SOCIETY matters within the Council’s jurisdiction. Other Committees of the Council, responsible to that body, may be established by the Council or the Council Policy Committee. These committees may serve any purposes that the Council or the Council Policy Committee determine to be appropriate. The Committee on Committees shall review each committee not less often than every five years and shall advise the Council whether it should be continued.

(b) Each Other Committee shall report to the Council Policy Committee and to the Council at least once a year. A written report of each Other Committee’s activities shall be made a part of the official record.

c) The Chair of each Other Committee shall be appointed by the President, with the advice of the Committee on Committees, for one calendar year, each individual being limited to three successive one-year terms as Chair of a given Committee. However, the President may waive this three-term limit in specific instances. A Chair shall continue to serve until a successor has been appointed.

d) Other Committees may have any composition of membership and size that the Council or the Council Policy Committee determines would be most effective in accomplishing the desired results. Appointments to Other Committees shall be for three-year terms, arranged so as to provide rotation. The President, with the advice of the Committee on Committees, shall appoint the members of each Other Committee.

e) A Committee member shall be permitted only three consecutive three-year terms on a given Other Committee. However, the President may waive this rule in specific instances.

d. Society Committees

(1)

(a) Committee on Budget and Finance

(b) Committee on Education

(2)

(a) There shall be Society Committees as provided elsewhere in these Standing Rules to aid both the Council and the Board of Directors in the performance of their functions. Society Committees shall be composed of voting Councilors, including Directors, and may, when deemed appropriate, include other members of the Society, as provided in the Bylaws.

(b) Each Society Committee shall be responsible to the Board of Directors on all matters relating to fiscal affairs, and to both the Board and the Council on all other matters. Each Society Committee shall report to the Council Policy Committee, to the Council, and to the Board of Directors at each meeting of such bodies. In addition, each Society Committee shall report upon request to the Executive Committee of the Board of Directors when the Executive Committee wishes to act for the Board between Board meetings. A written report of each Society Committee’s activities shall be made a part of the printed record.

c) The Chair of each Society Committee shall be appointed jointly by the President and the Chair of the Board, with the advice of the Committee on Committees, for one calendar year, each individual being limited to three successive one-year terms as Chair of the same Committee. However, a Chair shall continue to serve until a successor has been appointed.

d) Each Society Committee annually shall elect one of its members to serve as Vice-Chair.

e) A member of a Society Committee shall serve a term of three calendar years, and shall be permitted only three successive three-year terms on the same Society Committee. A member of a Society Committee may also be a member of another committee with related responsibilities.

(f) Appointment to Society Committees shall be arranged so as to provide rotation. With the advice of the Committee on Committees, each year one member shall be appointed by the President, one member shall be appointed by the Chair of the Board of Directors, and any other vacancies shall be filled by joint appointments.

g) Each Society Committee shall consist of not fewer than twelve and not more than twenty members.
(h) Appointees shall be selected such that a majority of the members are qualified voting Councilors.

e. Joint Board-Council Committees

These committees and their duties are listed elsewhere in these Standing Rules.

(1) Other Joint Board-Council Committees, responsible to both bodies, may be established by joint resolution of the Council and the Board of Directors. These committees may serve any purposes that the establishing bodies determine to be appropriate; the responsibilities and lifetime of each shall be stipulated in the founding resolution. The Committee on Committees shall review each of these committees not less often than every five years and shall advise the Council and the Board of Directors whether it should be continued.

(2) Each Other Joint Board-Council Committee shall be responsible to the Board of Directors on all matters relating to fiscal and legal affairs and property rights, and to both the Board and the Council on all other matters. Each Other Joint Board-Council Committee shall report to the Council Policy Committee, to the Council, and to the Board of Directors at least once a year. In addition, each Other Joint Board-Council Committee shall report upon request to the Executive Committee of the Board of Directors when the Executive Committee wishes to act for the Board between Board meetings. A written report of each Other Joint Board-Council Committee’s activities shall be made a part of the official record.

(3) The Chair of each Other Joint Board-Council Committee shall be appointed jointly by the President and the Chair of the Board, with the advice of the Committee on Committees, for one calendar year, each individual being limited to three successive one-year terms as Chair of a given Committee. However, a Chair shall continue to serve until a successor has been appointed.

(4) Other Joint Board-Council Committees may have any composition of membership and size that the establishing bodies determine would be most effective in accomplishing the desired results. Except when membership is specified owing to simultaneous service on certain Council- or Board-related SOCIETY bodies, appointments to Other Joint Board-Council Committees shall be for three-year terms, arranged so as to provide rotation. The President, with the advice of the Committee on Committees, shall appoint one member and the Chair of the Board of Directors shall appoint one member each year; any other vacancies shall be filled by joint appointments. If in any year a single vacancy occurs, it shall be filled by joint appointment.

(5) A Committee member shall be permitted only three consecutive three-year terms on a given Other Joint Board-Council Committee.

f. All Committees shall report in the manner provided in these Standing Rules.

Sec. 25.
Committee Appointments, Terms, and Composition

a. The President, with the advice of the Committee on Committees, shall appoint the members and the Chair of each Society Committee that reports only to the Council and is not a committee that is elected. The President shall fill any vacancies in these committees by appointment. The President and the Chair of the Board of Directors, with the advice of the Committee on Committees, jointly shall appoint the members and the Chair of each Society Committee that reports to both the Council and the Board of Directors. The President and the Chair of the Board of Directors jointly shall fill any vacancies by appointment.

b. Members of Society Committees shall be members of the SOCIETY, unless the appointing officer(s) decide to make an exception. In making appointments, the President will ensure that Councilors are well represented among the members of Society Committees. Society Committees that are elected shall consist of only Councilors.

c. The terms for a member of a Society Committee shall be three calendar years. A member of a Society Committee shall be eligible to serve two successive three-year terms on the same committee. Service for at least 18 months shall constitute a full term for the purpose of this term limit. The term
of the Chair of a Society Committee shall be one calendar year. The Chair shall be limited to three successive one-year terms on the same committee. If the Chair is initially appointed for a partial term of more than six months, the Chair is eligible thereafter to serve only two successive one-year terms.

d. Associates and consultants may be appointed for one-year terms on Society Committees in the same manner as members are appointed. They may be reappointed.

e. At any time the President, or jointly the President and the Chair of the Board of Directors for committees that report to both, may remove a Society Committee chair, member, associate, or consultant for cause.

f. Appointments shall be made so that each Society Committee consists of not fewer than twelve and not more than twenty members, unless the appointing officer(s) decide to make an exception on recommendation from the Committee on Committees.

g. A Society Committee shall both provide a written report for the Council agenda and give an oral report to Council at least once per year; however, Society Committees that are elected shall provide both a written and oral report at each meeting of the Council.

h. The Committee on Committees shall review each Society Committee, except for those that are elected, not less often than every five years and shall advise the Council and the Board of Directors on its continuance.

Sec. 6. Society Committee Meetings

a. Meetings of Society Committees, with the approval of the committee chair, may be held by means of electronic communications technology that permits those in attendance to hear or read the proceedings substantially concurrently with their occurrence, and for members to vote as needed. Society Committee associates and consultants are not eligible to vote.

b. Meetings of Society Committees and Standing Committees of the Council

Each Society Committee and each Standing Committee shall encourage the expression of member opinion on SOCIETY matters within its field of duties, and whenever possible shall allow reasonable time for members to make their views known before appropriate action is taken. To accomplish this, each Society Committee shall hold at least two open and two executive meetings during each national meeting of the SOCIETY at which the Council meets, each year, and well before the date of these meetings shall publicize the meeting date and time and major topics to be discussed and the time and place of the open meeting. Except for routine matters or those requiring immediate action, no Society Committee recommendation shall be presented for Council action until the topic has been discussed at one of the committee’s previous open meetings, national meeting of the SOCIETY at which Council met. At other national meetings of the SOCIETY, those members of each Committee who may be in attendance are urged to be available for informal discussions at a time and place publicized in advance.

c. A quorum for a Society Committee meeting is a majority of its voting members.

h. Eligibility

Except as otherwise provided in these Standing Rules, no Councilor shall be a voting member of more than one committee of the group comprising the Society Committees, the elected Committees of the Council, and the Standing Committees of the Council, provided, however, that the Council may waive this rule in specific instances if reasons convincing to the Council are supplied.

i. Size of Council-Related SOCIETY Bodies
Petition to Harmonize Committee Structures, Processes, and Terms

The Council shall set the size of the Council-related SOCIETY bodies within limits set elsewhere in these Standing Rules, upon advice of the Committee on Committees, and with the concurrence of the Board on the size of those which are also Board-related.

j. Vacancies on Council-Related SOCIETY Bodies

Except as provided elsewhere in these Standing Rules, vacancies on Council-related SOCIETY bodies shall be construed as occurring when an incumbent’s term is completed or when the Committee on Committees learns that the incumbent is unable to complete the current term and when the appointing authorities have been so notified.

Sec. 75.
Dues
...
Sec. 86.
Student Chapters
...

STANDING RULE III
Committees Function

Section 1.
...
  b. The duties of the Committee on Committees…
...
(5) appoint members to fill vacancies that have existed longer than sixty days on the Council-related SOCIETY bodies whose members or chairs are normally appointed by the President; and
...

Sec. 2.
The Committee on Committees is an Elected a Society Committee of the Council, whose members are elected by Council as follows; as described elsewhere in these Standing Rules.

Sec. 3.
a. The Committee on Committees shall be composed of the President-Elect, as provided elsewhere in these Standing rules, and fifteen elected members who must qualify as voting Councilors.
  b. Sec. 4. Election of Councilors to the Committee on Committees shall be arranged so as to provide rotation. Each year the Committee on Nominations and Elections shall propose the names of not fewer than twice as many voting Councilors for membership on the Committee on Committees as there are members whose terms are expiring. Not later than October 1 the Council shall elect from a list of nominees a number of members corresponding to the number of vacancies on the Committee on Committees for a term of three years beginning with the first day of January following. Nominations for membership on the Committee on Committees may also be made by petition of 25 Councilors.

Sec. 53.
No elected Councilor shall serve more than two successive terms of three years each on the Committee on Committees.

Sec. 6.
Each year the Committee on Committees shall elect a Chair and a Secretary from its membership.

Sec. 74.
If a member or member-elect of the Committee on Committees fails at any time to qualify as a voting Councilor, that member shall thereafter remain a member of the Committee and a voting Councilor for one additional year or to the end of that member’s term on the Committee, whichever is shorter.

Sec. 85.
Any vacancy on the Committee on Committees shall be filled by the Council.

Sec. 9.

The Council shall elect the Committee on Committees, on which the President-Elect shall serve as a member ex officio. The Committee shall elect its Chair from among its own membership.

STANDING RULE IV

Elections Function

Sec. 1.

...

Sec. 2.

Note: the text in Sec. 2 was moved from Sec. 1 and renumbered.

ea. The Committee on Nominations and Elections is an Elected Society Committee of the Council, whose members are elected by Council as follows; described elsewhere in these Standing Rules.

b. The Committee on Nominations and Elections shall be composed of fifteen voting Councilors.

Sec. 3. (2) No Councilor shall serve more than two successive terms of three years each on the Committee on Nominations and Elections.

(3) Each year the Committee on Nominations and Elections shall elect a Chair and a Secretary from its membership.

...

Note: subsequent sections remain and are renumbered

STANDING RULE V

Governing Documents Function

...

Sec. 2.

The Committee on Constitution and Bylaws is a Standing Society Committee of the Council, as described elsewhere in these Standing Rules.

...

STANDING RULE VIII

Duties of Society Committees

Sec. 1.

a. Duties of Committees that Report Only to the Council (some duties are listed elsewhere in the Standing Rules as noted below)

(1) Committee on Analytical Reagents

This committee is involved with setting standards for, and establishing approved analytical procedures for determining the purity of, chemical reagents sold by commercial companies. The committee
meets in Washington, D.C. twice annually and discusses modifications to procedures and additions to the list of reagents considered. The committee creates and revises analytical procedures and the reagents list. The committee’s work leads to periodic revision of the publication, Reagent Chemicals: Specifications and Procedures. The present committee may includes representatives of commercial chemical manufacturers, standards organizations, and users of chemical reagents.

(2) Committee on Committees (duties are listed elsewhere)
(3) Committee on Constitution and Bylaws (duties are listed elsewhere)
(4) Committee on Divisional Activities (duties are listed elsewhere)
(5) Committee on Economic and Professional Affairs
    ...
(6) Committee on Ethics
    ...
(7) Committee on Local Section Activities (duties are listed elsewhere)
(8) Committee on Meetings and Expositions (duties are listed elsewhere)
(9) Committee on Membership Affair (duties are listed elsewhere)

(10) Committee on Nomenclature, Terminology, and Symbols
    ...
(11) Committee on Nominations and Elections (duties are listed elsewhere)
(12) Council Policy Committee (elected) (duties are listed elsewhere)
(13) Committee on Project SEED
    ...
(14) Committee on Technician Affairs
    ...

b. Duties of Committees that Report to both the Council and the Board of Directors

(1) Budget and Finance
    ...

Note: there are no changes to the duties of the committees that report to both the Council and the Board of Directors; see the list in Standing Rule II.

Section 1.
Elected Committees of the Council (the duties are listed elsewhere)
a. Council Policy Committee
b. Committee on Nominations and Elections
e. Committee on Committees
Sec. 2.
Standing Committees of the Council (except as noted below, the duties are listed elsewhere)
a. Committee on Membership Affairs
b. Committee on Meetings and Expositions
c. Committee on Divisional Activities
d. Committee on Local Section Activities
e. Committee on Constitution and Bylaws
f. Committee on Economic and Professional Affairs
Sec. 3.
Other Committees of the Council
a. Committee on Analytical Reagents
b. Committee on Ethics
c. Committee on Nomenclature, Terminology, and Symbols
d. Committee on Project SEED
e. Committee on Technician Affairs

Sec. 4.
SOCIETY Committees
a. Committee on Budget and Finance
b. Committee on Education

Sec. 5.
Joint Board-Council Committees
a. (1) Chemical Safety
(2) Chemistry and Public Affairs
(3) Chemists with Disabilities
(4) Community Activities
(5) Environmental Improvement
(6) International Activities
(7) Minority Affairs
(8) Patents and Related Matters
(9) Professional Training
(10) Public Relations and Communications
(11) Publications
(12) Science
(13) Senior Chemists
(14) Women Chemists
(15) Younger Chemists

STANDING RULE IX
Other Rules

Sec. 4.
The Council, along with the Board of Directors as necessary for those committees that report to the Council and the Board of Directors Joint Board Council Committees, is authorized to may create committees and assign their duties in accordance with the Bylaws and these Standing Rules.

Explanation
There is a myriad of differences in the ACS governing documents describing the ACS committees, including length of terms, maximum terms, who can and who cannot be a member of certain committees, etc. This may have been a design that served the Society in the past, but the world today seeks simplicity and easy to understand guidelines.
In Standing Rule II, the old committee structure is shown as deleted (crossed out) and the new committee structure has been added, including the list of committees. All committees are now referred to as Society Committees, for which some are noted that their members are elected. The duties of committees remain in Standing Rule VIII, except for the function committees, for which their duties remain in their respective Standing Rules.

Many members who would like to serve on a national committee are confused as to where, how long, and under what conditions they could do so. Some requirements have the practical result of serving as systematic barriers preventing or limiting engagement opportunities and may unintentionally exclude members and some demographic groups (especially those underrepresented in Council).

This petition places all committees in one category: “Society Committees”, replacing outdated terms such as “Standing Committees”, “Council Committees”, “Other Committees” and “Joint Board-Council Committees”. The terms for all committee members would now be consistent and would match the present terms of the Elected Committees: three-year terms with a two-term maximum for members of the committee.

No longer would committees be required to consist of Councilors only, except for the three committees that are elected, allowing the President and the Chair of the Board of Directors, with input from ConC, to appoint committee members based on skills and expertise needed rather than position held. ConC will continue to recommend Councilors for committee positions as appropriate.

By this petition, ACS would have a national committee system that is easy to understand and consistent in design.

- Defines a “meeting”
- Defines a quorum for committee meetings
- Formalizes committee action between national meetings
- Formalizes committee associates and consultants for the first time
- Standardize the number of members allowed on committees.

**Proviso**

The Petition to Harmonize Committee Structures, Processes, and Terms will be effective immediately upon approval by the Council and the Board of Directors, however, existing committee assignments will be implemented beginning January 1, 2022 in the following manner.

For committees with **two-year terms** (Constitution & Bylaws, Divisional Activities, Economic and Professional Affairs, Local Section Activities, Meetings and Expositions, and Membership Affairs):

- A Member serving in their first term would complete their first term as scheduled, and would be eligible for re-appointment to a second three-year term.
- A Member serving in their second term would complete their second term as scheduled, and would then be allowed to serve a final three-year term on the Committee.
- A Member serving in their third and final term as scheduled, would complete their term and then be ineligible for reappointment to the Committee.

For committees with **three-year terms**, (Analytical Reagents; Budget and Finance; Chemical Safety; Chemistry and Public Affairs; Chemists with Disabilities; Community Activities; Education; Environmental Improvement; Ethics; International Activities; Minority Affairs; Nomenclature,
Technology, and Symbols; Patents and Related Matters; Professional Training; Project SEED; Public Relations and Communications; Publications; Science; Senior Chemists; Technician Affairs; Women Chemists; and Younger Chemists):

- A Member serving in their first term would complete their first term as scheduled, and would be eligible for re-appointment to a second three-year term.
- A Member serving in their second term would complete their second term as scheduled, and would then not be eligible for re-appointment to a third term on the Committee.
- A Member serving in their third and final term as scheduled, would complete their term and then be ineligible for reappointment to the Committee.
I. DUES AND BENEFITS PROCESS

1. The American Chemical Society strives to meet the challenge of continued and sustainable growth in membership through regular assessment of dues categories and benefits. To make membership in the Society a valued experience for its members, dues categories and benefits packages will be established based on the professional and personal benefits they provide to members at different stages in their careers and as their roles in the global chemistry enterprise evolve.

2. The Committee on Membership Affairs (MAC) shall assess member benefits annually, propose dues commensurate with those benefit packages, and submit its recommendations to the Committee on Budget and Finance, (B&F). B&F which shall conduct an analysis of the proposed dues and benefits packages to determine the financial impact on the Society. The recommendation for dues and membership benefits, and a statement of financial impact by the Committee on Budget and Finance B&F, shall be submitted by the Committee on Membership Affairs MAC to Council for action at its spring meeting.

3. Dues for each category will be based on the fair-market value of each benefits package as outlined below in Section II. The base rate for dues shall be calculated by multiplying the previous year’s base rate by a factor that is the ratio of the revised Consumer Price Index for Urban Wage Earners and Clerical Workers (Service Category) for the second year previous to the dues year to the value of the index for the third year previous to the dues year, as published by the United States Department of Labor, with fractional dollar amounts rounded to the nearest whole dollar. Annual base dues changes as recommended to Council may not exceed $10 or 10 percent, whichever amount is greater.

4. Should the Council not act to replace the proposed dues and benefits packages as submitted, the dues and benefits of membership shall default to the last approved version.

II. BASE DUES

The 2022 2021 base dues rate will be US $160 as recommended by the Committee on Budget and Finance and approved by Council action.

III. DUES CATEGORIES

1. Regular Member
   a. Regular Members are entitled to the full range of privileges and benefits as offered by the SOCIETY to its members.
   b. The dues for Regular Members shall be the full dues rate.
   c. Regular Members are eligible for those discounts as outlined in Section IV of this document.

2. Regular Member – Contributing
   a. Regular Members – Contributing are entitled to a subset of the privileges and benefits offered by the SOCIETY as described below.
   b. The dues for Regular Members – Contributing shall be one-half (1/2) of the full base dues rate.
   c. Regular Members – Contributing shall be excluded from the following benefits:
      i. They may not receive publications benefits.
      ii. They may not receive Chemical Abstracts Service benefits including but not limited to complimentary search activities.
      iii. They may not receive discounted registration rates for ACS meetings, workshops, and continuing education courses.
      iv. They may not receive access to the ACS webinar recording library.
   d. Regular Members – Contributing shall receive digital access to the official organ of the SOCIETY. They are not entitled to receive the print edition.
   e. Regular Members – Contributing shall have a vote for elective offices of the SOCIETY and shall be eligible for elective office in the SOCIETY.
   f. Except as described above, Regular Members – Contributing shall have access to all other benefits as offered by the SOCIETY to its members.
   g. Regular Member – Contributing are eligible for those discounts as outlined in Section IV of this document.

3. Regular Member – Graduate Student
a. Regular Members - Graduate Students are entitled to the full range of privileges and benefits as offered by the SOCIETY to its members.

b. A member who is a graduate student majoring in a chemical science or in a related field of natural science, engineering, technology, or science education at an appropriately accredited educational institution, shall be entitled to a discount rate of eleven thirty-seconds (11/32) one half of the membership dues so long as the student is doing full-time graduate work. The dues so determined shall be rounded to the nearest whole dollar amount. “Full-time” is to represent any combination of course work, research work, and teaching that the institution considers a full-time load.

c. Regular Members – Graduate Student shall receive digital access to the official organ of the SOCIETY. They are not entitled to receive the print edition.

d. Regular Members – Graduate Student are eligible for those discounts as outlined in Section IV of this document.

43. Student Member

a. STUDENT MEMBERS are members of the SOCIETY and, in accordance with the ACS Governing Documents Standing Rules, shall be entitled to all privileges of membership except that of holding an elective position of the SOCIETY, its Local Sections, or its Divisions, and the privilege of serving as a Temporary Substitute Councilor; however, if the bylaws of the Local Section or Division so permit, a STUDENT MEMBER may hold an elective position of the Local Section or Division, other than Councilor or Alternate Councilor.

b. A STUDENT MEMBER, upon affirmation to the Chief Executive Officer of qualification for such status, shall be entitled to a discount rate of five thirty-seconds (5/32) five-sixths of the membership dues. The dues so determined shall be rounded to the nearest whole dollar amount.

c. A STUDENT MEMBER shall receive electronic digital access to the official organ of the SOCIETY. A STUDENT MEMBER shall not receive print access to the official organ of the SOCIETY. A STUDENT MEMBER wishing to receive a printed copy of the official organ shall pay an additional sum equal to one half of the calculated per member amount of the allocation to the official organ described elsewhere in this Schedule of Membership, rounded to the nearest whole dollar amount.

d. STUDENT MEMBERS are eligible for those discounts as outlined in Section IV of this document.

54. Society Affiliate Affiliates

a. A Society Affiliate, who is not eligible to be a member of the SOCIETY, in accordance with the ACS Governing Documents Standing Rules, shall retain affiliate status only so long as payment is made of Society Affiliate dues, which shall be equal to the full membership dues. A Society Affiliate shall not be eligible for any of the special dues categories specified elsewhere in this Schedule of Membership. Society Affiliates shall have the following privileges described in the ACS Governing Documents and the following benefits:

   (1) Society Affiliates shall receive the official organ of the SOCIETY and may subscribe to SOCIETY publications at the same rates as members.

   (2) Society Affiliates shall be allowed to register and attend meetings (including regional meetings) of the SOCIETY at the same rates as members, and they shall be allowed to use all educational services of the SOCIETY at the same rates as members.

   (1) Society Affiliates shall be assigned to an appropriate Local Section in the same manner as members as provided in the Bylaws, Standing Rules, and this Schedule of Membership. Society Affiliates may be assessed Local Section dues in the amount specified for Society Affiliates by the bylaws of that Section. In Local Sections, Society Affiliates may be appointed as Committee Chairs, if allowed by the Local Section bylaws, but may not hold an elective position of the Local Section, vote on Articles of Incorporation and bylaws of the Local Section, or serve as a voting member of its Executive Committee or equivalent policymaking body. In their bylaws, Local Sections may either provide or withhold the privilege of voting by Society Affiliates for an elective position (other than Councilor or Alternate Councilor) of the Local Section.

   (2) Society Affiliates may become Society Affiliates of any Division unless specifically prohibited by the bylaws of the Division and shall be subject to such dues as are specified by the bylaws of that Division for Society Affiliates. In Divisions, Society Affiliates may be appointed as Committee Chairs, if allowed by the bylaws of the Division, but may not hold an elective position of the Division, vote on Articles of
Incorporation and bylaws of the Division, or serve as a voting member of its Executive Committee or equivalent policymaking body. In their bylaws, Divisions may either provide or withhold the privilege of voting by Society Affiliates for an elective position (other than Councilor or Alternate Councilor) of the Division.

c. Society Affiliates shall have no vote in the national affairs of the SOCIETY and shall not be eligible for any elective office in the SOCIETY. Society Affiliates shall be entitled to those privileges of the SOCIETY which are herein specified.

d. Except as described above, Society Affiliates shall have access to all other benefits as offered by the SOCIETY to its members.

e. Society Affiliates are eligible for those discounts as outlined in Section IV of this document.

6. Community Associate

a. Community Associates are not required to pay annual dues to maintain status with the SOCIETY. The length of the Community Associate term is 12-months.

b. Community Associates may not concurrently benefit from any of the other Dues Categories defined elsewhere in this document.

c. Community Associates shall not be eligible for any of the discounts and/or waivers specified in the ACS Governing Documents or elsewhere in this document.

d. Community Associate shall have only the following privileges:
   i. Community Associates are entitled to receive SOCIETY newsletters as offered by the SOCIETY.
   ii. Community Associates are entitled to receive a weekly, abbreviated digest of the official organ of the SOCIETY, with links to stories of interest.
   iii. Community Associates are entitled to five additional downloadable articles from the official organ of the SOCIETY, beyond the number permitted for non-members of the SOCIETY.
   iv. Community Associates shall not be eligible to affiliate with a Division and shall not be eligible for any of the privileges specified in the Division’s bylaws for members and/or affiliates. A Community Associate may attend and participate in a Division’s open meetings and events.
   v. Community Associates shall not be assigned to a Local Section. A Community Associate may not affiliate with a Local Section and shall not be eligible for any of the privileges that are specified in a Local Section’s bylaws for members and/or affiliates. A Community Associate may attend and participate in a Local Section’s open meetings and events.

e. Community Associates shall have no vote in the national affairs of the SOCIETY or in the affairs of any Local Section or Division. Community Associates shall not be eligible for any elective office in the SOCIETY or any of its Local Sections or Divisions.

f. Unless specified above, Community Associates shall not have access to other benefits as offered by the SOCIETY to its members and/or affiliates.

75. Retired Member

a. Retired Members are entitled to the full range of privileges and benefits as offered by the SOCIETY to its members.

b. A member who has accumulated at least thirty years of paid membership and is retired from full-time professional employment shall, upon request to the Chief Executive Officer and affirmation of such status, be entitled to a discount of one-half (1/2) of the membership dues for each year beginning on the member’s anniversary date, and shall receive the official organ of the SOCIETY upon annual request.

c. All members who, prior to January 1, 1986, had accumulated at least twenty-five years of paid membership shall be entitled to this privilege upon retirement from full-time professional employment.

86. Emeritus Member

a. Emeritus Members are entitled to the full range of privileges and benefits as offered by the SOCIETY to its members.

b. A member of the SOCIETY who has accumulated at least thirty-five years of paid membership, who is retired from full-time professional employment, and is over seventy years of age, is eligible for emeritus status and upon request shall be given such status upon certification by the Chief Executive Officer. Such a member shall pay no membership dues, may receive upon annual request the official organ of the SOCIETY, and shall have all the privileges of membership that were held at the time of certification to emeritus status.
IV. MEMBERSHIP DISCOUNTS AND VARIATIONS

1. **Multi-year Membership.** Regular Members, Regular Members – Contributing, Society Affiliates, Retired Members, Regular Members – Graduate Student, and STUDENT MEMBERS may elect a dues period of one year, two years, or three years. The dues rate for two-year or three-year periods shall be two times or three times, respectively, the full annual dues rate established for the first year of the period. **Membership Discounts.**

2. **Disabled waiver.** A Regular Member, Regular Member – Contributing, Retired Member, STUDENT MEMBER, Regular Member – Graduate Student, or Society Affiliate member who becomes totally disabled may be granted a dues waiver. To be eligible for a waiver, the member must have paid dues for at least ten years, have been disabled for at least one year, and furnish proof of the disability. The request for a waiver shall be made to the Chief Executive Officer annually upon receipt of the dues statement. The Committee on Membership Affairs, acting for the Council, shall resolve any member’s appeal from adverse action on such a request.

3. **New Graduate Discount.** A person graduating with an associate degree, bachelor’s degree, master’s degree, or doctoral degree in a chemical science or in a related field of natural science, engineering, technology, or science education from an appropriately accredited educational institution, or one acceptable to the Committee on Membership Affairs, may apply for Regular MEMBER or Regular Member – Contributing status, by reclassification from STUDENT MEMBER or Regular Member – Graduate Student, and receive a half-year waiver of membership dues to begin at any time up to one year from the date of graduation.

4. **National Service Discount.** A Regular Member, Regular Member – Contributing, Retired Member, STUDENT MEMBER, Regular Member – Graduate Student, or Society Affiliate member who is serving actively in the Armed Forces of the United States of America or in another area of national service on temporary full-time duty of not less than one year nor more than four years may, upon request to the Chief Executive Officer with affirmation of such status, be entitled to a discount of one-half (1/2) of the membership dues for each year of such service beginning on the member’s anniversary date.

5. **Spouse Discount.** Upon request from a Regular Member member who is the spouse of a Regular Member member, one of the two, with affirmation of their status to the Chief Executive Officer, shall be entitled to a reduction in membership dues equal to the prior year’s per member allocation from dues revenue for the official organ of the SOCIETY in lieu of one subscription.

6. **Unemployed Waiver.** After at least one year of paid membership, a Regular Member, Regular Member – Contributing, or Society Affiliate member who is unemployed and is seeking full-time professional employment, upon request to the Chief Executive Officer and affirmation of such status, shall be entitled to an annual waiver of membership dues from the member or affiliate category they held at the time of the request. Such annual waiver shall commence on the member’s anniversary date and may be renewed each year for a total not to exceed three years so long as this status is reaffirmed each year. This provision may be invoked again only after a period of full-time professional employment.

7. **Family Care Provider Discount.** After at least one year of paid membership, a Regular Member, Regular Member – Contributing, Retired Member, STUDENT MEMBER, Regular Member – Graduate Student, or Society Affiliate member who has elected to discontinue full-time professional employment because of long-term obligations as a family-care provider, upon request to the Chief Executive Officer and affirmation of such status, shall be entitled to a discount of one-half (1/2) of the membership dues rate for the member or affiliate category they had at the time of the request. Such discount shall commence on the member’s anniversary date and may be continued for up to an additional two years so long as this status is affirmed annually. This provision may be invoked again only after a period of full-time professional employment.

V. AMENDMENTS TO THE SCHEDULE OF MEMBERSHIP

1. Except for dues that are set by Council, in accordance with the Constitution, Bylaws, and Standing Rules of the SOCIETY, ten (10) members or five voting Councilors may submit proposed amendment(s) to this Schedule of Membership to the Committee on Membership Affairs by written petition, at least five weeks prior to the committee’s next official meeting. The Committee on Membership Affairs shall consider the proposed amendment(s) at an official meeting and may approve the amendment(s) by a majority affirmative vote, with concurrence by the Committee on Budget and Finance. After the meeting, the committee shall include the amendment(s) in the next release of the Schedule of Membership.

2. If the proposed amendment(s) are not approved by the Committee on Membership Affairs, the decision may be appealed to the Council Policy Committee by written petition of 25 voting Councilors at least eight weeks prior to the next Council meeting. The Council Policy Committee shall consider the proposed amendment(s) at an official meeting and may approve by a majority affirmative vote. If approved, after the meeting, the Council Policy Committee will mandate that the Committee on Membership Affairs include the amendment(s) in the next release of the Schedule of Membership.
3. If the Council Policy Committee does not approve the proposed amendment(s), an appeal may be brought to the Council floor for action if at least three-tenths (3/10) of voting Councilors agree to its consideration. The Council shall consider the proposed amendment(s) at an official meeting and may approve by a majority affirmative vote. If approved, after the meeting the Council will mandate that the Committee on Membership Affairs include the amendment(s) in the next release of the Schedule of Membership.
### Presidential Symposiums
These symposia, endorsed by the ACS President and the organizers, deliver scientific content of greatest interest to ACS meeting attendees.

<table>
<thead>
<tr>
<th>Symposium Title</th>
<th>Organizing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainability: Advances and Applications</td>
<td>ACS Division of Agricultural &amp; Food Chemistry</td>
</tr>
<tr>
<td>Ideas from Mind to Market: International Collaborations for Health, Wellness and Sustainability</td>
<td>ACS Division of Small Chemical Businesses</td>
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<tr>
<td>Chemistry and the Future of Plastics</td>
<td>ACS Committee on Science</td>
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<tr>
<td>Plastics and the Oceans: Chemistry for the Journey Ahead</td>
<td>ACS Committee on Environmental Improvement</td>
</tr>
<tr>
<td>Industrial-Academic Dialogue</td>
<td>ACS Division of Colloid &amp; Surface Chemistry</td>
</tr>
<tr>
<td>Advancing International Chemical Business Innovation and Entrepreneurship: Launch, Leverage, Lead</td>
<td>ACS Division of Small Chemical Businesses</td>
</tr>
<tr>
<td>Macromolecular Science at the Dawn of its Second Century</td>
<td>Multidisciplinary Program Planning Group</td>
</tr>
</tbody>
</table>

### Presidential Recommended Symposia
The ACS President has identified these symposia as ones that would interest ACS meeting attendees, and recommends that registrants make an effort to seek out and attend these high-interest technical sessions.

<table>
<thead>
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<th>Symposium Title</th>
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<tr>
<td>Advances in Renewable Energy and Fuels</td>
<td>ACS Division of Energy &amp; Fuels</td>
</tr>
<tr>
<td>COVID: Lessons Learned</td>
<td>ACS Division of Professional Relations</td>
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<tr>
<td>Lessons Learned from Starting a Chemical-Related Business</td>
<td>ACS Division of Industrial &amp; Engineering Chemistry</td>
</tr>
<tr>
<td>Excellence in Graduate Polymer Research</td>
<td>ACS Division of Polymer Chemistry</td>
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</table>

[https://www.acs.org/content/acs/en/meetings/acs-meetings/agenda/presidential-symposia.html](https://www.acs.org/content/acs/en/meetings/acs-meetings/agenda/presidential-symposia.html) (Accessed 2021-02-20)
TOWN HALL MEETING

2022 NOMINEES for

ACS PRESIDENT-ELECT

GERARD BAILLELY  ANNE M. GAFFNEY  JUDITH C. GIORDAN  JOHN C. WARNER

Tuesday, March 23, 2021
1:00 - 2:00 PM ET
Virtual Town Hall

Register Now: https://register.gotowebinar.com/register/4156665638246880014

Nominee bios and statements appear in the Council agenda. Questions may be submitted in advance to nomelect@acs.org with subject line, PE Questions.

The use of any device to capture images or sound or to stream, upload or rebroadcast speakers at this Town Hall Meeting is strictly prohibited without express written consent from the ACS. The use of assistive devices for special needs is permitted.

Sponsored by the COMMITTEE ON NOMINATIONS AND ELECTIONS
Committee on Project SEED  
Spring 2021 ACS Virtual Meeting

The Committee on Project SEED has been busy since the last SOCED update in Spring 2020. Shortly after the end of the Spring 2020 committee meetings, the Committee on Project SEED decided to cancel in-person research, and instead, launched the first Virtual Summer Camp. This 4-week virtual experience offered webinars, panels, independent assignments, and small-group discussions centered on three core objective areas. These were:

- College readiness and professional development
- Careers in chemistry
- Lab readiness (safety and ethics)

A total of 291 students participated for the summer, with 62 undergraduate and graduate students hired to serve as camp counselors. These counselors managed the day-to-day student engagement and graded student work, providing feedback on written assignments such as personal statements and resumes. Students received $1,000 stipends for completing a sufficient percentage of camp activities, and camp counselors were paid $1,500. Another 23 ACS volunteers (usually serving as Project SEED coordinators or mentors) served as camp managers, overseeing groups of students and cabin leaders. Lastly, over 50 volunteers were recruited to serve as webinar speakers and panelists. For more details on the camp activities, we recommend viewing the Project SEED 2020 annual program summary.

In 2020, 38 students were awarded first-year, nonrenewable scholarships for the 2020-2021 academic year. In addition, three students were awarded three-year college scholarships for the 2020-2022 academic years.

For 2021, the Committee on Project SEED has decided to cancel in-person research with plans to move forward with two virtual offerings. The Virtual Summer Camp will be offered to ~450 students this year, for 6 weeks (the stipend will be increased to $1,500 and cabin leader payment will be increased to $2,000). Volunteer opportunities will also increase this summer, with camp manager and webinar speaker roles, and an option to “adopt a cabin” to share your science with a small group of students over the course of the program. Lastly, Project SEED will pilot all-virtual research programs with a small number of mentors and students. Needless to say, 2021 will be quite an ambitious year. Find more information on the 2021 activities on the Project SEED website.

Respectfully Submitted by,

Bryan W. Boudouris  
Committee Chair

Kimberly Agnew-Heard  
Carolyn A. Burnley  
John Hartman  
Douglas S. Masterson  
Barbara Sitzman

Elsa Alvaro  
Omar E. Christian  
T. Angele Kwimi  
Michelle L. Rivard  
Chuanbing Tang

Peggy Sue Biser  
Zachary S. Davis  
Susanne M. Lewis  
Judith F. Rubinson

Maria Bohorquez  
Steven A. Fleming  
Ajay Mallia  
Jeffery W. Seyler  
Don L. Warner

William M. Ames  
Kimberly Jackson  
Michael Tung Hai Cheng  
Jason Lawrence McAfee  
Emily Smith

Miriam Gulotta  
Bryant C. Nelson  
Aime’e L. Tomlinson  
Javoris Hollingsworth  
Kevin Pate

Page 81
TAB 7
## SOCED Promoting Excellence in Education Subcommittee
### Spring 2021 ACS Meeting
#### Tuesday, March 16, 2021

### Members
- Tracy Halmi (chair)
- Sandra Bonetti
- Jeremy Garritano
- Sam Pazicni (Higher Ed Subgroup chair)
- Ellen Yezierski

### Associates
- Roxie Allen
- Kevin Gable
- Daniel King
- Tyler Kinner (K-12 subgroup chair)
- Missy Postlewaite

### Consultants
- Dawn Del Carlo

### ACS Staff
- Terri Chambers (staff liaison)
- Lisette Gallegos (K-12 Subgroup staff liaison)
- Ashley Donovan (Higher Ed Subgroup staff liaison)

### Time Table

<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>3:10 pm</td>
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<td></td>
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<td>Subcommittee charge (Information/Discussion/Action)</td>
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</tr>
<tr>
<td></td>
<td>The subcommittee will review its draft charge and recommend a final version.</td>
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<td>3:35 pm</td>
<td>Related subgroups and collaborators (Information/Discussion/Action)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>The subcommittee will discuss related subgroups, collaborators, and appointments, making appropriate recommendations.</td>
<td></td>
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<tr>
<td>3:45 pm</td>
<td>Next steps (Information/Discussion/Action)</td>
<td></td>
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<tr>
<td></td>
<td>Plans for future meetings and activities will be discussed.</td>
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<tr>
<td>3:55 pm</td>
<td>New Business</td>
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<tr>
<td>4:00 pm</td>
<td>Adjourn</td>
<td></td>
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<tr>
<td>4:10 pm</td>
<td>Return to SOCED Executive Session</td>
<td></td>
</tr>
</tbody>
</table>
SOCED Student Communities Subcommittee
Spring 2021 ACS Meeting
Tuesday, March 16, 2021

Members
Matthew Mio (chair)
Michael Adams (liaison to MAC)
Milagros Delagdo
Meledath Govindan
Pamela Kerrigan
Joshua Pak (USNCO chair)
Kristine Smetana

Associates
Michelle Boucher (UPAB chair)
Margaret Kanipes-Spinks
Irvin Levy
Judy Kim (GEAB chair)

ACS Staff
Nancy Bakowski (staff liaison)
Nicole Di Fabio (UPAB staff liaison)
Lily Raines (USNCO staff liaison)
Joerg Schlatterer (GEAB staff liaison)

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<td>Related reports (Information)</td>
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Update for SOCED – 2021 USNCO
18 February 2021

Summary
The 2021 cycle of the USNCO will be almost entirely virtual given the continuing COVID-19 pandemic. Notable shifts in the program include the use of the ACS Learning Center to host the local section exams (as an option for local sections/international chapters) and Part 1 of the national exam, and an increase in initiatives to broaden participation in the program. Successful virtual interventions from 2020 will be continued in 2021.

New Preparatory Initiatives
$5,000 worth of recruitment grants were made available to local section and international chapter coordinators. The goal of these grants was to increase the reach of the USNCO to additional schools, students, and regions that may not have participated previously. Preference was given to grants that targeted students who are female, African-American, Hispanic, Native American, or Pacific Islanders. Maximum awards were $500 and could be used for various purposes aside from direct financial awards for student performance. 22 applications were received and 14 were awarded.

Student volunteers have written annotated solutions to past exams. These have been reviewed by a volunteer high school teacher for their accuracy and shared online with the past exams.

Coaching sessions have been offered for five months for roughly 90 students. The format of coaching sessions has settled on a 30 minute topic tutorial followed by 1.5 hours of small group work. Groups are divided among coaches (who are all high school teachers compensated for their time) based on their comfort with the session’s topic. Participation was limited to high school seniors this year due to overwhelming student interest. Feedback to all of these initiatives has been positive so far and will be analyzed more thoroughly after exams are complete.

First Selection Round, Local Section Exams
Local sections and international chapters have full discretion in how they select students to sit for the national exam. The 2021 Local Section Exam is being provided to coordinators as a PDF file so that it can be printed and administered in person (following local health and safety laws); administered digitally through the ACS Learning Center on March 27/28; or administered digitally some other way. Demographic data are being requested from all participating students that will inform future efforts to broaden program participation.

National Exams
Part 1 of the national exam will be hosted in the ACS Learning Center for roughly 1,000 student nominees. The top 200 performers will be invited to take Part 2 of the exam. The top 150 students earn a designation of honors, the top 50 of high honors, and the top 20 will be invited to study camp.

Study Camp, International Chemistry Olympiad (IChO)
The University of Maryland will be unable to host a physical study camp this year, and so the event will be held virtually again. While IChO organizers are confident the event will be held, a decision about format and exact dates in July will be available in early March.
Student Communities Subcommittee

Undergraduate Student Advisory Board

Program updates, 2020 & 2021

Screen shot from the Social Distancing Social held on May 8, 2020 (taken with verbal consent).

Social Distancing Socials (SDS) (12): Weekly, 30 minute virtual socials with a mocktail recipe provided upon registration. Weekly attendance of ~65 +/- undergraduate and grad students, with some faculty advisors in attendance. Students are randomly assigned to breakout rooms and can discuss anything they’d like. One SDS was hosted by a student chapter, and in another, a live llama tour was featured. Feedback = 100% would recommend to a friend. Model was then used by the Women’s Chemist Committee and Local Sections who inquired.
Journal Club (4): Bimonthly journal article review with ACS journal editors. Editors choose a journal article for students to read in advance of discussion with the editor. Undergraduate and grad students in attendance. ~50 +/- students in attendance. Journal Club has featured Stuart Conway, Christy Haynes, Angie Hunter, and Brandi Cossairt. Collaboration with ACS Publications and ACS on Campus.

“Coping with Chaos” Table Talks (2): Two part program for students. Dr. Lindsay Bira presented ways to help cope with stress and anxiety during COVID and also as an outlet after the killing of George Floyd. Part 1 was a presentation addressing stress and anxiety of isolation, fear of loved ones getting sick, and Black Lives Matter. Part 2 was an interactive session where students were put in breakout groups to discuss stress and solutions. Collaboration with C&EN.

Fall Virtual Meeting (2020): First virtual meeting program included “On the Same Page: Writing Killer Résumés, Essays, and More” which was a first-time workshop run by Steven Emory; “Don’t Panic! Getting into Graduate School” presented by Sam Pazicni; “Standing Out and Succeeding: Our Experiences as Diverse Chemists” run in collaboration with the Committee on Minority Affairs; and undergraduate research poster session. Archived at https://www.acs.org/content/acs/en/education/students/college.html. Attendance ranging from 80-150. These events were successful enough to have led to future programming throughout the year (Grad School Workshops, below, On the Same Page scheduled moving forward).

Grad School workshops (6): A stand-alone module based on programming from the fall was developed and completed with ACS on Campus: “Pursuing a Graduate Degree in Chemistry”, “Graduate School Reality Check” was modified and presented in January as part of the Graduate School Boot Camp for the ACS Bridge Program. A suite of programming is being developed and is in progress following student questions/needs throughout the academic year as they apply to graduate school: June “Ins & Outs of Getting Into Graduate School” and November “Yea or Nay deciding where (or whether) to go to graduate school” had a panel of faculty from graduate programs, and February “I applied to grad school now what?” had a panel of faculty and graduate students, all three with Sam Pazicni presenting and Michelle Boucher moderating. February “Tips for applying to graduate school in chemistry” was presented by Brian Gibney. Webinars with interactive Q&A in chat and in Q&A windows. Typical attendance around 150 participants. Archived online. Another workshop in this set is planned for April, as well as an upcoming international graduate school workshop.

Careers in the Chemical Sciences: College to Career will be assuming its new name, along with helpful updates to the career resource for students. Changes will include aesthetic, career profile, salary, and sort/filtering enhancements, with a tentative launch period of Summer 2021.
Spring Virtual Meeting (2021): Eminent Scientist Lecture by Naomi Halas, Rice University; rescheduled (Spring 2020) Eminent Scientist Rigoberto Hernandez feature talk; diversity panel; student chapter symposium; undergraduate posters, chem demo via youtube; awards ceremony, and social. A variety of technologies will be used for these events, including the game “Among Us” as a social event post-ceremony.

Programming Grant: ACS student chapter grant available for virtual activities, funding activities that will help students deal with the challenges of a virtual world as they build their chemical communities, enrich their professional development, and support their outreach efforts. Examples of projects that have been funded with this grant are "Social Distanced Student Chapter Lab Coat Tie-dyeing" and “La Química de las Cosas,” an initiative that seeks to explore the chemistry behind daily life things and processes.

Student Chapter Awards: Report template was modified to reflect the challenges of Spring 2020. Many chapters showed evidence of activity and engagement with the spring virtual programming. 72 Outstanding, 99 Commendable, 120 Honorable Mention, 22 Green (International and Domestic Chapters both).

inChemistry: Many articles have focused on responding to the challenges of the pandemic, virtual learning, and virtual experiences, and USAB serves as a resource to the publication. USAB membership provides article ideas, article authorship, and advice for these articles.

Graduate Student Organizations (GSOs): A new GSO program was launched in January 2020. Due to COVID, interest and growth was slow through the year, but interest picked up toward the end of 2020, with four new GSOs chartered with ACS. This new program creates a pipeline for undergraduate students to move on from their student chapters and start or join an ACS GSO in graduate school. Similar to the student chapter program, GSOs provide the opportunity for financial support through grants, access to professional/career development, and a global community/engagement with chemistry graduate student peers. The first four chapters chartered are: Georgetown University, University of Michigan - Ann Arbor, University of Connecticut, and University of Iowa.
Social media engagement: Steady engagement with undergraduate and graduate groups. Start of TikTok ([@acsundergrad](https://www.tiktok.com/@acsundergrad)) account for short video content. [@acsundergrad](https://www.tiktok.com/@acsundergrad) continues to have presences on Instagram, Twitter, and Facebook.

Respectfully submitted:
Michelle Boucher, Chair USAB
Nicole Di Fabio, Staff Liaison
2020 ACS Graduate Education Advisory Board (GEAB) Fall Meeting

Online – Friday August 7, 2020

Members: Judy Kim (Chair), Sam Pazicni (Vice-Chair), Edgar Arriaga (ex-officio), Annabelle Lolimco, Brian Mitchell, Zeus de los Santos, Pushpa Murthy, Elizabeth Draganova

GSSPC: Nicole (Nikki) Kaufman (coordinator), Duy-Khoi Dang (UMich), Tepora Su'a (Wayne State), Emily Eikey (U.Pitt), Miguel Gayika (FSU), Ashley Arcidiacono (FSU), Azza Ben Akacha (FSU), Carl Conti (FSU), Neda Arabzadeh (FSU), Sandugash Yergeshbayeva (FSU) and Raul Ortega (FSU)

Liaisons: Mary Anderson (MAC), Penny Beuning (CEPA), Cora MacBeth (CPT), Susan Olesik (DAC), Jessica Martin (CHS), Jennifer Nielson (SOCED)

Consultant: Steven Corcelli (GEAB Chair 2015-2017)

Guest: Stephanie Santos-Diaz

Staff: Joerg Schlatterer (Liaison), Corrie Kuniyoshi, Natalia Martin, Christian Schiavone, Deborah Olumuyiwa, Ruth Tessema, Justin Yu, Leslie Reynoso, and Terri (Taylor) Chambers

Meeting Summary

Chairs Report: The minutes from the 2020 Spring GEAB meeting were approved. GEAB members recognized the invaluable service of outgoing GEAB members, CPT Chair Edgar Arriaga, SOCED Chair Jennifer Nielsen, and Member-at-Large Brian Mitchell.

Student and Postdoctoral Scholars Office (SPO) updates: See GEAB meeting agenda book for detailed updates. In addition, Stephanie Santos-Diaz has joined the research group of Dr. Sam Pazicni to support the ACS Bridge Project through research on equity in graduate education with a focus on assessing SPO programs.

Community Updates:

Membership Affairs Committee (MAC): A revised schedule of member dues will be implemented.

Younger Chemist Committee (YCC): The national Younger Chemists Committee will be hosting two hour-long networking sessions, back-to-back on Wednesday, August 19th at the Virtual Meeting on “Learn to Lead: ACS opportunities for younger chemists at the regional and national levels” and “Decisions, Decisions, Decisions: Picking the right department and mentor for your needs”.

University of Michigan (UM) GSSPC: The Symposium from Spring 2020 was cancelled. The UM GSSPC and the Pitt-CMU GSSPC are collaborating to co-host the Spring 2021 symposium.

University of Pittsburgh (Pitt) - Carnegie Mellon University (CMU) GSSPC: Fundraising for the Spring 2021 symposium has been challenging due to uncertainty and budget cuts. Two speakers have been confirmed from the UM GSSPC previous list and the complete speaker list is being finalized. Travel funds for the spring symposium will be announced soon. The announcement to recruit the Spring 2022 GSSPC will be advertised in the Graduate & Postdoctoral Chemist Magazine.

Wayne State University (WSU) GSSPC: the Fall 2020 symposium was postponed to 2021 and a hybrid symposium (online and in-person) is being planned. The groups are looking into adding interactivity to their online platform.

Florida State University (FSU) GSSPC: Major difficulties for fundraising are being experienced by the group. Funding sources, including their host institution, are not willing to commit given the uncertainty and budget cuts.

Discussion:

The article “The Problem With the “Pipeline” was discussed. The term “pipeline” is commonly used in STEM to describe “a traditional” career path or trajectory. The article supports transitioning to the term “ecosystem” instead as it better encompasses the diverse, interconnected opportunities within STEM for degree holders of all levels.
Discussion Questions:

a) If the Society were to adopt an “ecosystem” metaphor for the scientific training-to career progression, what would this look like? How could this help us think about scientific training more inclusively? What factors would be important for allowing this ecosystem to flourish?

b) How do the factors that contribute to a flourishing ecosystem change in a virtual environment?

Discussion Notes:

GEAB meeting participants agreed that there are many considerations and reasons for ACS to omit the term “pipeline” from the society vocabulary. For example, the “pipeline” metaphor in education perpetuates a narrow definition of success in the sciences in which the PhD degree is expected to lead to a career in the professoriate. Those who do not achieve this career are equated to a “leak”. It was noted that NSF has embraced the word “pathways”. “Pathways” is a better term, but might not be sufficiently broad. The “ecosystem metaphor” captures the various ways in which STEM education provides a strong background and how those dimensions are interconnected. In contrast to “pipeline”, which implies a linear and unidirectional path, an “ecosystem” is diverse, complex, and accounts for the different contributions from each part for the betterment of the ecosystem. The ecosystem metaphor also suggests that there are conditions that prevent the growth and/or flourishment of the ecosystem. The breakout group discussions concluded that it is essential to expose individuals to career choices/options as early as possible (e.g. at the high school level). It was noted that today’s virtual environment could help the ecosystem flourish by allowing for more connections of individuals with a broader and more diverse group of professionals and role models.

A survey was conducted among GEAB members and 90% of the meeting attendees agreed that ACS should embrace the term “ecosystem”, 0% favored “pipeline”, while 10% suggested the use of “other terms”.

Miscellaneous:

Outgoing GEAB members highlighted the following issues as critical to be addressed in the next 5 years: increase representation of all voices, especially international, in ACS projects; implement actions to help all people be their very best (inclusive science education) and really address the issue of DEIR in higher education.

Action items:

- SPO will provide a 1-slide PowerPoint presentation on mentoring for GEAB members to add to their presentations. Additionally, SPO will provide a signature template for GEAB members to highlight free SPO offerings (ChemIDP, Graduate & Postdoctoral Chemist, etc.)

Recommendations:

- GEAB recommends that the term “pipeline” be replaced by the term “ecosystem” when referring to career paths of individuals with a degree in the chemical sciences.
TAB 9
## SOCED Science Policy Subcommittee
### Spring 2021 ACS Meeting
#### Tuesday, March 16, 2021

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<th>Members</th>
<th>Associates</th>
<th>Consultants</th>
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<tr>
<td>Jesse Bernstein</td>
<td>Laura Pence (chair)</td>
<td>Jennifer Nielson</td>
<td>Lauren Posey</td>
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<td>MaryKay Orgill</td>
<td>Dorian Canelas</td>
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<td>(staff liaison)</td>
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<td>Danaé Quirk Dorr</td>
<td>Cheryl Frech</td>
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<tr>
<td>Susan Shih</td>
<td>Pamela Leggett-Robinson</td>
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<td>Teri Quinn-Gray</td>
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Science Education Policies (2020-22)

EAC Staff Meets with OSTP, NSF, NASA and Dept of Education Transition Teams

On December 10, EAC staff met with leads from key federal agencies to discuss STEM education and workforce priorities for the Biden Administration. The meeting included Dr. Mahlet Mesfin, NSF Agency Review Team (ART) lead, Dr. Kei Koizumi, OSTP ART lead, Dr. Jedalah Isler, NASA ART lead, and Donna Harris-Aikins, ART lead for the Department of Education. The meeting focused on staffing recommendations for STEM teams at these agencies, program coordination, stakeholder input for the federal STEM Strategic Plan, Diversity and Inclusion proposals, climate science education and research security. EAC has connected with several members of the transition team as they settle into their role within the administration.

- **ACS Day One Actions-Transition Team Memo**
  
  EAC staff highlights four Executive Actions by Former President Donald Trump that have negative impacts to the global chemistry community, to help identify “day one” repeal actions for the incoming Biden Administration.

- **STEM Education Coalition Policy Priorities Transition Team Memo**
  
  ACS and STEM Education Coalition board members draft detailed legislative agenda outlining priorities for the STEM education community.

ACS Introduces Society’s 2021 Public Policy Agenda

EAC drafted a press release in January outlining four key priority areas for the 117th Congress and the incoming Biden Administration. The agenda prioritizes federal agency funding for scientific research, a STEM education system that emphasizes equity of access for K-12 students, teacher professional development and STEM workforce training, and strengthening the global scientific community. ACS is continuing to prioritize sustainability across the chemistry enterprise and ensuring scientific integrity in regulatory decision-making. The agenda was released to media outlets, through social media and ACS member publications, and C&EN. Additionally, the agenda was sent to over 1,300 congressional and agency staff, and the White House.

- **STEM Education Coalition sends memo to Capitol Hill and Administration outlining STEM Education Priorities.**

EAC Staff Works with House Science Committee on Key STEM Legislative Proposals

The House Science, Space and Technology majority committee staff have connected with ACS on several legislative topics, requesting endorsements, legislative text comments and help recruiting broad support. The ACS has endorsed a slate of bills from the 116th Congress that are top priority bills for Chairwoman Eddie Bernice Johnson in the 117th Congress. The first priority bill is the STEM Opportunities Act, the Combating Sexual Harassment in STEM Act, The Minority Serving Institutions (MSI) STEM Achievement Act, and the Supporting Early Career Researchers Act.
ACS Endorses the Innovation Centers Acceleration Act in the 117th Congress

The ACS endorsed the Innovation Centers Acceleration Act of 2021, a bicameral bill that would support research and development, an R&D tax credit, small business support, workforce development and STEM apprenticeships across the country. In 2020, ACS endorsed the Senate version of the bill lead by Senator Chris Coons (D-DE) and Senator Dick Durbin (D-IL). House leads, Rep Joe Morelle (D-NY-25) and Terri Sewell (D-AL-7) sought ACS’s endorsement and a quote for joint press releases. Congressional leadership has indicated they anticipate this legislation will be included in a COVID-19 relief package.

ACS Opposes Student Visa Duration of Status Rule Change at Dept. of Homeland Security

On October 23, ACS submitted comments to the U.S. Department of Homeland Security, stating opposition to a proposed rule change affecting international student visas and limiting duration of status. ACS sent an action alert to the advocacy member network, Act4Chemistry, to flag the agency’s request for information and highlighted the ACS comments on social media to create awareness and increase feedback from the chemistry community.

ACS and AACT Submit Comments to NSF/OSTP re. Co-STEM 5 Year Strategic Plan

On Oct 19, ACS submitted a formal response to a request for information (RFI) from the National Science Foundation (NSF), and coordinators of the Co-STEM interagency taskforce. The comments co-authored by ACS and AACT represented feedback from both organizations. The 26 question RFI sought to gauge input from the STEM education community on challenges and best practices identified throughout the pandemic in regards to teaching and learning in STEM. The RFI also sought feedback on the Administration’s 5 year STEM strategic plan, of which ACS has been a stakeholder advisor since the proposal’s inception in 2017. EAC alerted ACS membership of this request for information through its Act4Chemistry quarterly newsletter, ACS matters and ACS social media accounts.

ACS Endorsed the Bipartisan STEM RESTART Act

In late September, ACS endorsed S.4677, the STEM Restoring Employment Skills through Targeted Assistance, Re-entry, and Training (RESTART) Act, a bipartisan bill co-sponsored by Senators Cindy Hyde-Smith (R-MS) and Jacky Rosen (D-NV). The bill would authorize $50 million in grants to companies seeking to attract and retain a diverse workforce. The grants incentivize “returnships” or mentorships to support women, underrepresented and rural job seekers in their STEM career reentry, broadening participation in STEM.

The House Passes, ACS Endorsed, Bipartisan Rural STEM Education Act

In September, H.R. 4979, the Rural STEM Education Act, passed the House of Representatives. The bipartisan bill calls for supporting pre K-12 STEM education initiatives in rural school districts across the country. ACS endorsed the bill in 2019 and has worked with both House and Senate offices to advance the bill. In light of the COVID-19 pandemic, ACS leveraged congressional contacts to advocate for a rural infrastructure and access to broadband as virtual learning increased rapidly across the country.

ACS Condemns ICE International Student Restrictions

In July, ACS coordinated a letter co-signed by nearly 100 scientific and educational organizations in opposition to proposed modifications from US Immigration and Customs Enforcement (ICE) to
temporary exemptions for the Student and Exchange Visitor Program. ACS activated the Act4Chemistry network to write their members of Congress and President Trump in favor of the temporary exemptions that allow international students to take online courses and remain in the United States while COVID-19 continues to affect our country, which resulted in over 1,800 letters from ACS members. The community letter was part of a series of press statements, social media alerts and congressional outreach aimed at combating harmful visa and immigration related Executive Orders released over the summer.

**STEM Education Congressional Briefings**

*ACS Co-Hosts STEM 101 Congressional Briefing*

ACS co-hosted a STEM Policy 101 congressional briefing on Feb 2nd. The briefing was designed to give congressional staff insight into STEM education and workforce policy. The panel was representative of a broad coalition of STEM stakeholders, including the Council of State Science Supervisors, Michigan State University, Raytheon Technologies, BP and the Arkansas Afterschool Network. The discussion covered K-12 education, higher education, career and technical education, informal and afterschool programming, diversity and equity in the STEM pipeline and the legislative vehicles the community is focused on. The Zoom webinar drew 70 congressional attendees and the live YouTube feed drew over 150 viewers.

*ACS Co-Sponsors STEM Technician COVID-19 Impacts Congressional Briefing*

On Oct 29, ACS co-hosted a virtual congressional briefing titled, Current Trends in STEM Technician Education in the Age of COVID-19. ACS member Dr. David Baker, Professor of Chemistry at Delta College in Michigan joined the panel alongside representatives from Microsoft, Universal Technical Institute and Southern Illinois University to offer perspectives on the impacts the pandemic as had on the STEM technical field, both for students and on the workforce as a whole. The Zoom Webinar briefing drew 45 congressional and agency staff with an additional audience of 65 viewers of the YouTube duel cast.

*ACS Co-Hosts Virtual Congressional Panel on STEM Employment Trends during COVID-19*

In September, ACS and fellow board members of the STEM Education Coalition hosted a virtual briefing for congressional and agency staff to highlight impacts the pandemic has had on the STEM workforce. The panel consisted of representatives from Microsoft, Texas Instruments, Aerospace tech and Ivy Tech Community College. The virtual panel drew over 40 congressional and agency staff.
TEACHING OF EVOLUTION: FACT AND THEORY

The American Chemical Society (ACS) strongly supports the inclusion of evolution in K–12 science curricula at an age-appropriate level because this theory is central to our modern understanding of science. The theory of evolution is not a hypothesis, but the scientifically accepted explanation of the incontrovertible fact that life and its many forms has changed over the years. Built upon hundreds of years of scientific observation and experimentation and tens of thousands of peer-reviewed scientific publications, evolution provides scientists and students with a unifying concept that explains the incredibly rich diversity of living things and their capacity to change and evolve over time. Evolution is an active field of research in which new discoveries continue to increase our knowledge and understanding of the specific processes and paths that biological organisms have followed over the billions of years that life has existed on earth. A central component of biology and biotechnology, modern evolutionary theory is also based on evidence derived from chemistry, physics, geology, and other disciplines. Because of the overwhelming evidence supporting evolution, it is recognized and endorsed as a key principle of science, on par with the atomic theory of matter, and as a central theme of science education by all major scientific societies.

Science and religion are two different human activities that seek to understand our world. Science rigorously applies the observation of natural phenomena and systems plus studies of modifications to these natural systems, to develop models that explain the order and function of the universe. As a key principle of science, evolutionary theory cannot be dismissed or diminished by characterizing it as mere conjecture or speculation. Furthermore, because it has developed out of scientific investigations, evolution cannot be equated with socially or religiously derived beliefs. Evolutionary theory, like all scientific descriptions of the workings of nature, is subject to continuing modification to reflect new knowledge gained through observation and experimentation.

The U.S. education system has witnessed repeated efforts to incorporate religious beliefs into scientific curricula as a counterpoint to evolutionary theory. Most recently these efforts have focused on intelligent design, which has been mischaracterized as a scientific theory by its principal proponents. Because intelligent design is not built upon a scientifically testable hypothesis, is not derived from a base of valid experimental studies, cannot point to any scientifically validated body of literature, and makes no testable predictions, it cannot be described as a scientific theory. The inclusion of non-scientific explanations in science curricula misrepresents the nature and processes of science. It also compromises a central purpose of public education—the preparation of a scientifically literate citizenry and workforce. Portraying non-scientific content as science in curriculum at any educational level poses a threat to the future scientific, technological, and economic competitiveness of the nation.

The American Chemical Society recognizes the critical importance of the scientific principles embodied in evolutionary theory and urges

- ACS members to educate themselves about challenges to the validity of scientific knowledge and actively join in efforts to expose misrepresentations of scientific fact, including efforts aimed at equating non-scientific creation beliefs with scientific knowledge.
- State and local education authorities to support high-quality science standards and curricula that affirm evolution as the only scientifically accepted explanation for the origin and diversity of species.
- School administrators and curriculum supervisors to ensure that evolution is taught in their classrooms, accurately represented in science textbooks, and appropriately assessed through local and state science tests.
IMPORTANCE OF HANDS-ON LABORATORY SCIENCE

Hands-on laboratory science experiences are critical to the learning process across all areas of study, beginning with kindergarten and continuing through post-secondary education. Research has shown that students who engage in well-designed laboratory experiences develop problem-solving and critical-thinking skills, as well as gain exposure to reactions, materials, and equipment in a lab setting. Sustained investments in hands-on experiences help inspire students to further their education and prepare them for high-technology careers by fostering skills sought by potential employers.

Hands-on experiences significantly advance learning at all levels of science education when appropriately designed and guided by qualified educators. During hands-on chemistry activities, students directly and safely investigate chemical properties and reactions, utilizing laboratory apparatus and instruments. These activities are essential for learning chemistry and improving science literacy. Web-based and computer-simulated activities may help increase student exposure to chemistry, reduce costs, and eliminate hazardous waste and safety concerns; however, these tools cannot be considered as equivalent replacements for hands-on laboratory experiences.

The Society believes that there is no equivalent substitute for hands-on activities where materials and equipment are used safely and student experiences are guided. The Society supports sustained investments to provide the facilities, equipment, curricula, and professional development needed for effective hands-on laboratory science experiences from kindergarten through post-secondary education.
SCIENCE AND TECHNOLOGY IN THE BUDGET

Fundamental and applied research and development (R&D) enable the innovation needed to support the American economy and maintain the well-being of the nation. Innovation is critical to national security, leads to the development of new products and industries, provides the knowledge needed for decision making, and supports a robust economy. Both federal support and contributions from private industry are required. Fundamental research emphasizes discovery, applied research brings discoveries to the point of use, and development leads to products and processes for widespread use. The entire R&D process is needed for innovation, exemplified by the contributions of all areas of basic chemistry and biomedical research to the identification of new drugs, vaccines, and treatments for diseases. Broad, sustained support of R&D, including associated educational programs, provides benefits in the form of a well-trained workforce, new materials, and new processes for national security, energy storage and supply, sustainability, agriculture, food, medicine, epidemiology, environmental impact, and the development of fundamental methods as platforms for multiple applications.

Government funding of fundamental and applied research leads to discoveries that have historically spawned new industries. The initial development often relies on government funding since the time frame from inception to return on investment routinely extends beyond that which is reasonable for industry to bear. Unfortunately, data in the National Science Board's *Science and Engineering Indicators* show that federal research support of basic and applied R&D as a percentage of gross domestic product (GDP) has fallen in recent decades, such that total U.S. R&D funding will soon fall behind that in the East Asia region. The *Indicators* also document that federal support of research and particularly the critical development phase has steadily decreased. Taken together, these point to a significant threat to American scientific leadership, competitiveness, and innovation.

Sustained and predictable federal funding can exert an especially strong impact on productivity in several areas. Federally-funded fundamental and applied research initiates and fosters new discoveries and their translation towards useful products. Additional federal support can respond to development shortfalls, even when the development work lacks a short-term payoff. Federal funding of shared facilities, including government laboratories, enables world-class research with the state-of-the art tools, methods, and equipment essential for our scientific leadership. Federal funding of regulatory agencies is key to ensuring that new products and processes are safe to both human health and the environment. Federal funding also needs to be informed by strong peer review and wider discussions, such as from the United Nations Sustainable Development Goals and the deliberations of the National Science Board, the National Research Council, and the National Academies.

Creative ideas emerge when scientists from multiple backgrounds collaborate on interdisciplinary teams. A diverse, STEM-educated workforce provides a crucial foundation for the science and technology enterprise. Research and education funding, including at the state and local level, incentivizes U.S. students to pursue STEM fields and enables the specialized training and retention of scientists and engineers in the U.S. who go on to create and catalyze advances and train future generations of innovators. Federal programs that ensure that the opportunities and gains from education are distributed equitably across society in our nation also support diverse learners and the
wider public. Support that encourages collaboration, including with international partners, is also important to ensure that R&D draws on the widest possible knowledge base.

ACS advocates that the federal science and technology budget increases federal funding of R&D to a level that places the U.S. at the global forefront. The funding should include provisions for:

- Fundamental and discovery-based research;
- Applied research programs to bridge discovery and development;
- Development and technology-transfer programs;
- Shared facilities including those that provide access to advanced, novel instrumentation and testing, and where methods and standards are developed;
- The incorporation of safety and environmental sustainability factors into research and technology development programs; and
- Dissemination of results and assessments about the benefits of the federal investment in science and technology to multiple stakeholders.

ACS advocates that the federal budget process:

- Uses multi-year appropriations with rolling, long-term investments to enable increased predictability and stability;
- Supports nimble, short-term efforts directed at emerging areas of concern as well as longer-term efforts to tackle large-scale societal challenges;
- Ensures coordination and complementarity in STEM investments among federal agencies, including multi-agency grants in cases of mission synergy;
- Encourages establishment of long-term, collaborative teams of interdisciplinary researchers to address complex, evolving national challenges;
- Requires the consideration of ethical, safety, economic, legal, regulatory, and economic factors in all aspects of R&D and in student training; and
- Supports an excellent, diverse, dynamic, STEM workforce at the national, state, and local level with attention to:
  - Groups that are historically under-represented in STEM;
  - Strengthening of programs such as the National Science Foundation's (NSF) Established Program to Stimulate Competitive Research (EPSCoR) and various National Institutes of Health (NIH) Bridge programs; and
  - Training scientists and engineers with a depth of knowledge and interdisciplinary and collaborative, skills; and
  - Providing continuing education and retraining to ensure the STEM workforce meets rapidly evolving needs and opportunities.

REFERENCE: https://ncses.nsf.gov/pubs/nsb20201/global-r-d
VISAS FOR SCIENTIFIC COLLABORATION AND ACADEMIC STUDY

It is in the national interest of U.S. economic development and global competitiveness for international scientists and students to have the ability to travel freely and easily to the United States, particularly if they have been approved for visas. The American Chemical Society (ACS) supports visa policies that welcome foreign scholars, students, scientists, and engineers to the U.S. and facilitate scientific education and exchange.

International scientists and engineers are essential to the research enterprise and prosperity of the United States. Half of all physical sciences and engineering graduate students come from other nations; international students comprise 53% of chemical engineering and 40% of chemistry graduate students at U.S. universities. Similarly, international scientists and engineers are critical contributors to research and manufacturing sites in the U.S. Their technological achievements contribute immensely to our nation’s economy, national security, public health, higher education, and scientific enterprises.

The ACS recognizes concerns regarding the security of research funded by the U.S. government, but emphasizes the importance of involving the scientific community in the development of policies to address this issue. Security concerns can be more effectively resolved through improved and transparent guidelines from granting agencies rather than by restricting visa access, which could have a potentially disastrous impact on innovation and the competitiveness of the U.S. research enterprise.

A robust national strategy for granting scientific visas must promote and facilitate the entry of the brightest and most qualified international students, scholars, scientists, and engineers to participate fully in the U.S. higher education and research enterprises. Otherwise, these scientists will seek opportunities in countries where access is obtainable with fewer barriers. ACS strongly supports non-discrimination in the visa process. Diversity strengthens the scientific enterprise, and the inclusion of diverse people, experiences, and ideas leads to superior solutions to global challenges.

ACS recommends the following improvements to the U.S. visa system:

- Ensure predictability, transparency and reduced time for processing visa applications. Students, conference attendees, and other scientific visitors rely on timely visa decisions to make arrangements for travel to the United States.
- Assess reasonable visa processing fees that do not create unnecessary burdens for applicants.
- Release information from the Department of State on the status of visa applications to applicants openly and promptly.
- Give applicants whose visas are denied a timely opportunity to appeal the decision and correct any deficiencies in their application. Visa denials should be issued with an explanation of the reason for the denial and information on options, next steps and implications for future travel to the U.S.
● Develop mechanisms to facilitate routine re-entry by foreign students and scientists who travel outside of the United States. The ACS supports multiple entry visas for visiting scientists and student visa holders valid for the length of their program. When this is not possible, mechanisms should be created for travelers to apply for and receive a timely decision concerning re-entry before traveling from the United States.

● Afford special attention and additional consular resources to the processing of visa applications of third-country nationals. Scientists are a highly globalized workforce; it is common to receive education in multiple different countries in the course of study.

● Create consistency and equity in the visa system and facilitate the entry of the best and brightest scientists by allocating sufficient resources in terms of software, funding, and personnel to the system. Government officials at consulates and the ports of entry involved in the process of granting visas should also have access to technical expertise and resources to facilitate the responsible and informed evaluation of applications from scientists.
ACS Education Highlights
July 2020 – January 2021

Key points of contact:
Executive Vice President’s Office – LaTrease Garrison (l_garrison@acs.org)
Collaborations and Communications – Jodi Wesemann (j_wesemann@acs.org)
Learning & Career Development – Terri Chambers (t_chambers@acs.org)
Communities & Educational Experiences – Nancy Bakowski (n_bakowski@acs.org)
Science Outreach – Lily Raines (l_raines@acs.org)
Educational Web Support – Lorinda Bullock (l_bullock@acs.org)

ACS Education activities continue to be guided by the following vision, mission, and objectives, supporting the ACS Strategic Plan. In 2021, the ACS Strategic Plan was updated to reflect the Society’s commitment to creating a more diverse and inclusive enterprise. An updated set of change drivers will also be informing ACS Education activities.

Vision
To provide premier global chemistry education and professional development resources and experiences

Mission
To serve learners and educators by building communities and supporting innovative, relevant, and effective chemistry education and professional development

Objectives
1. Build a global chemistry education and professional development portfolio
2. Provide relevant, effective, and customer-focused resources and professional training opportunities
3. Advance science education through building communities
4. Leverage informal science education and outreach
5. Assist in the growth and retention of ACS membership
6. Streamline and continuously improve operations

A brief description and highlights for objectives 1—4 are on the following pages.

New activities and adjustments made to ACS Education activities in response to COVID-19 are noted with an asterisk. The web page ACS Efforts and Resources on COVID-19 highlight many of these and other responses.
Objective 1. Build a global chemistry education and professional development portfolio

Expand the global reach and impact of existing educational, outreach, and professional development resources, identifying the additional resources, expertise, communications, and partners needed for a more comprehensive portfolio that is respectful of differences in cultures and reflective of differences in needs.

- **Leverage the ACS core value of diversity, equity, inclusion, and respect for the benefit of educators and learners**
  ACS Education co-produced two ACS Webinars to enhance inclusion and the sense of belonging in chemistry education, partnering with the editorial team of an upcoming Journal of Chemical Education special issue for the February event.
  
  - *Using the Science of Mentorship for Mentorship in Science* was held January 27, 2021
  - *Creating an Inclusive and Resilient Future in Chemistry Education* was held February 10, 2021

- **Increase the reach of ACS International Student Chapters**
  At the end of 2020, ACS had 87 international student chapters in 28 countries. Of these, 47 submitted chapter reports and 43 chapters received performance awards for 2019-2020 activities.

- **Extend the reach and impact of Chemistry Festivals by...**
  
  - **offering Festival Training Institutes***
    Participants of Festival Training Institutes are prepared to host successful outreach events in their home countries. A virtual 2021 Festival Training Institute is being planned for student chapters in India. Travel permitting, ACS Nigeria plans to host the 2022 Festival Training Institute in Ghana.

  - **providing Chemistry Festival grants***
    In 2020, a total of 45 grants were awarded for Chemistry Festivals in 30 countries. Some events were able to be held safely in-person, some were held virtually, and others were postponed. The first round of 2021 grant applications are being reviewed. June 14, 2021 is the next deadline for applications.

- **Offer remote versions of programs to global audiences**
  In addition to numerous virtual events that reached global audiences in 2020, a series of Career Pathways workshops were held in India during the Fall of 2020. More workshops are planned for India in 2021, to include some customized content desired by that audience. Collaborations with ACS on Campus will also continue to provide career and professional development around the world.

Objective 2. Provide relevant, effective, and customer-focused resources and professional training opportunities

Provide a comprehensive, cohesive portfolio of relevant, effective, and customer-focused resources and professional training opportunities that enable learning and career development for students and professionals across all sectors of the chemical sciences.

- **Develop leadership skills by...**
  
  - **hosting the 2021 Leadership Institute Experience***
    This annual event for ACS volunteer leaders was transformed into 9-month engagement, starting with a kick-off held virtually on January 9-10 and ACS Leadership Development courses the
following week. Participants will continue taking courses and attending refresher events virtually through July. A planned, in person event is scheduled for the ACS Fall 2021 meeting in Atlanta.

- **expanding online access to leadership courses**
  The facilitated ACS Leadership Development System courses have joined the self-paced e-learning courses online. They are now being offered virtually in conjunction with ACS meetings.

- **providing academic leadership training**
  A Virtual Academic Leadership Training Workshop was held by ACS and the Cottrell Scholars Collaborative on February 22, 2021. The objective of the Academic Leadership Training Workshop is to train the next generation of academic leaders by providing them with tools, connections and skills to be successful in advancing the teacher-scholar model among their faculties and colleagues.

- **Facilitate access to Professional Education courses online and across the country**
  ACS Professional Education offerings have been adjusted in response to COVID-19. Online Live courses provide high-quality instruction on a range of topics without requiring travel. Prices of On Demand courses have been reduced. Courses offered in conjunction with the 2021 Spring ACS meeting will also be delivered virtually with a discount.

- **Foster transitions into faculty careers**
  The New Faculty Workshops will again be held in a virtual format in 2021. Dates have not been announced but will be posted on the NFW webpage. The 2021 Postdoc to Faculty Workshop will be held July 30-August 1. Applications are due April 4. A new booklet *Tips for Securing a Faculty Position* shares advice from workshop facilitators.

- **Expand the reach and increasing the relevance of learning resources by...**
  - **bundling educational resources by topic**
    Chemistry at Home puts a spotlight on the connections between chemistry and everyday life. Resources focused on five topics – the Earth, Water, Food, Health & Your Body, and the Periodic Table – have been bundled to aid parents and teachers in student enrichment.
  - **providing remote lessons for grades 5-8**
    Fifth grade Inquiry in Action lessons and Middle School Chemistry lessons are available in editable Google forms.
  - **expanding digital access to *ChemMatters***
    Subscribers to the high school magazine are being provided free digital access to *ChemMatters* issues for the 2020-2021 academic year. A full digital archive of the magazine dating back to its inaugural issue in February 1983 was made available for the first time as an AACT member benefit.
  - **offering professional development for *ChemMatters* and *Chemistry in the Community* users**
    Presentations during American Association of Chemistry Teachers and National Science Teachers Association virtual events highlighted ACS education programs, products, and services including *ChemMatters* and *Chemistry in the Community*.
  - **supporting users of the 10th edition of *Chemistry in Context***
    Print and ebook formats are available for the new edition of this issues-based undergraduate curriculum for non-science majors, released in 2020. Digital components and lab opportunities are integrated into the text. A webinar series and virtual networking opportunities are available to support adopters of the new edition.
• **Expand the resources of the American Association of Chemistry Teachers (AACT) by...**
  o **developing online resources**
    At the end of 2020, AACT had published 901 items in its online resource library. The *ChemMatters* digital archive, launched in 2020, is also available.
  o **offering webinars and virtual summer symposium**
    In 2020, AACT hosted 36 webinars and virtual symposia, including the AACT Summer Symposium Series scheduled in response to the cancellation of the 2020 Biennial Conference on Chemical Education and changes in the National Science Teaching Association STEM Forum.
  o **incorporating virtual meetings into the Science Coaches program**
    This joint AACT and ACS initiative established 259 partnerships between teachers and coaches for the 2020-2021 academic year. The requirement to meet six times, normally fulfilled face-to-face, will be able to be met via virtual interactions.

• **Get the facts out about middle and high school teaching**
Supported by the National Science Foundation Improving Undergraduate STEM Education grant, ACS is joining the Colorado School of Mines, Association of Mathematics Teacher Educators, the American Association of Physics Teachers, the American Physical Society, and the Mathematical Association of America in an information campaign. Information about the Get the Facts Out project and tool kit was disseminated to the chemistry community via the website www.acs.org/getthefactsout, workshops and presentations, and ACS Publications. The project is supported by the National Science Foundation Improving Undergraduate STEM Education Initiative (NSF-1821710 and 1821462).

• **Enhance career preparation**
ACS Career Pathways courses continued transitioning face-to-face learning to online delivery. ACS Career Kickstarter was also offered virtually. The online career planning tool ChemIDP.org had 1,770 new users in 2020, who were directed to College to Career and ACS Virtual Classrooms for career exploration and development. The online *ACS Graduate & Postdoctoral Chemist* and *inChemistry* magazines include career sections.

• **Incorporate a holistic approach into the LEADS Conference**
On November 4-6, 2021, the American Chemical Society is planning to host the Lasting Encounters between Aspiring and Distinguished Scientists (LEADS) Conference, an in-person 3-day event in Washington DC focused on preparing high-potential young professionals and students for successful and impactful careers that address global grand challenges. Hosted by ACS Immediate Past President Luis Echegoyen, this event will bring together highly esteemed chemists, scientists, chemical professionals and Nobel Laureates for networking, self-reflection, career exploration, mentoring, and technical discussions.

• **Broaden participation in graduate education by...**
The ACS Bridge Project is supported by a five-year $2.3 million alliance grant from the NSF Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering & Science (NSF INCLUDES) program (NSF-1834545), along with funding from the Genentech Foundation and PPG.
  o **expanding the ACS Bridge Program**
    There are now six ACS Bridge Sites and nine Partnership Departments. A total of 30 ACS Bridge Fellows are part of the program, and they were among the 50 graduate students and postdoctoral scholars attending a virtual version of ACS Career Kickstarter in 2020.
o offering ACS Bridge Career/Professional Development Awards*
   A cohort of 25 undergraduate students from underrepresented racial/ethnic groups received support to engage in career and professional development programming.

Objective 3. Advance science education through building communities
 Increase participation in and engagement with communities of educators and learners, building on the strengths of each program and partnerships to promote continued engagement with ACS throughout an individual’s career.

- Build diversity through partnerships
  ACS is one of five scientific societies establishing the Inclusive Graduate Education Network to increase the participation of women and underrepresented minorities in graduate studies in the physical sciences. In summer 2021, the IGEN National Meeting will be held virtually, bringing together professional scientists, graduate students from underrepresented groups, and scholars of equity and inclusion in graduate education.

- Enhance networking and mentoring for ACS Scholars
  In 2020, the ACS Scholars Program celebrated 25 years of providing renewable scholarships to over 3,300 underrepresented students majoring in chemistry-related disciplines. To date, over 445 alumni have received a PhD, MD/PhD, or PharmD, with many more receiving a variety of advanced degrees. The anniversary campaigns included a C&EN profile series where current ACS Scholars interview ACS Scholar Alumni. A new online platform, ACS Connects, now helps current ACS Scholars meet and network with each other and potential mentors.

- Expand the reach and impact of Project SEED
  Since many in-person research experiences could not be offered, 291 Project SEED (Summer Experiences for the Economically Disadvantaged) students participated in a four-week virtual summer camp in 2020. Students learned about careers in chemistry, lab basics, and college preparation via webinars, independent assignments, and small-group discussions. Stipends supported the students as well as camp managers and volunteers. The virtual summer camp will be offered again in 2021.

- Recognize student chapters globally
  The ACS Student Chapter reports submitted for the 2019-2020 academic year from 311 domestic and 47 international chapters were reviewed. Chapters receiving 120 honorable mention, 99 commendable, and 72 outstanding and 22 green chemistry awards will be recognized at the ACS Student Chapter Awards Ceremony held March 26, 2021.

- Connect and support students and postdocs virtually
  In place of the many activities disrupted as a result of COVID-19, new activities are being held, including Social Distancing Socials, ACS Journal Clubs, and virtual meeting programming. Various communication channels, social media campaigns, and the online ACS Graduate & Postdoctoral Chemist and inChemistry magazines are maximizing virtual engagement.
- **Develop student leadership**
  Through a collaboration with the Younger Chemists Committee, 20 undergraduate students were part of a track for younger chemists/students at the 2021 ACS Leadership Institute.

- **Expand the ACS Graduate Student Organization (GSO) program**
  Communities of graduate students who are interested in networking, career preparation and professional development can participate in the ACS-GSO program. Four ACS-GSOs have been chartered. Starter grants are available to support the chartering of new ACS-GSOs. Programming grants are also available.

- **Increase membership of the American Association of Chemistry Teachers (AACT)**
  AACT membership increased to 8,045 in 2020, a 20% growth since 2019. Social media channels are being utilized to increase renewals and other join campaigns are underway. Calling campaigns and data collection are improving member retention. A joint AACT/ACS membership option, launched in August 2018, continues to be offered to AACT members.

- **Transition to the new ACS Approval application and review platform**
  The process by which bachelor’s degree chemistry programs seek ACS Approval continued to transition to a new platform. All applications and reports are now being collected and reviewed in the Chemistry Program Approval and Review System.

- **Support chairs of chemistry departments**
  Important issues in higher education are the foci for virtual discussions hosted quarterly by ACS Education for chairs of chemistry departments. Teaching laboratory courses in the time of COVID-19 was the topic for the first two discussions held in July and October 2020. The impact of COVID-19 on budgets was the topic for the January 2021 discussion. Academic dishonesty will be the topic of the April discussion, and the remediation of hands-on lab skills will be the focus of the July discussion.

**Objective 4. Leverage informal science education and outreach**

*Leverage existing and develop new informal science education and outreach resources, tools, training, and partnerships to ensure that diverse communities have access to high-quality materials.*

- **Enhance informal science education by...**
  - **expanding virtual training**
    The on-demand courses from the Outreach Training Program were incorporated into the 2020 Festival Training Institute held virtually. Development is ongoing to further expand upon activity facilitation and selection guidance given findings from the ChemAttitudes project.
  - **incorporating effective practices**
    The Outreach Training Program materials are being updated to incorporate practices learned in the ChemAttitudes project and pilots of the Let’s Do Chemistry Train-the-Trainer online workshops, along with input from the Joint Task Force on safety in outreach settings.
TAB 11
ACS Acronyms and Abbreviations

**ACS DIVISIONS**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGFD</td>
<td>Agricultural &amp; Food</td>
</tr>
<tr>
<td>AGRO</td>
<td>Agrochemicals</td>
</tr>
<tr>
<td>ANYL</td>
<td>Analytical Chemistry</td>
</tr>
<tr>
<td>BIOL</td>
<td>Biological Chemistry</td>
</tr>
<tr>
<td>BIOT</td>
<td>Biochemical Technology</td>
</tr>
<tr>
<td>BGMT</td>
<td>Business Development &amp; Management</td>
</tr>
<tr>
<td>CARB</td>
<td>Carbohydrate Chemistry</td>
</tr>
<tr>
<td>CATL</td>
<td>Catalysis Science and Technology</td>
</tr>
<tr>
<td>CELL</td>
<td>Cellulose and Renewable Materials</td>
</tr>
<tr>
<td>CHED</td>
<td>Chemical Education</td>
</tr>
<tr>
<td>CHAS</td>
<td>Chemical Health &amp; Safety</td>
</tr>
<tr>
<td>CINF</td>
<td>Chemical Information</td>
</tr>
<tr>
<td>TOXI</td>
<td>Chemical Toxicology</td>
</tr>
<tr>
<td>CHAL</td>
<td>Chemistry &amp; the Law</td>
</tr>
<tr>
<td>COLL</td>
<td>Colloid &amp; Surface Chemistry</td>
</tr>
<tr>
<td>COMP</td>
<td>Computers in Chemistry</td>
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<tr>
<td>ENVR</td>
<td>Environmental Chemistry</td>
</tr>
<tr>
<td>ENFL</td>
<td>Energy and Fuel</td>
</tr>
<tr>
<td>FLUO</td>
<td>Fluorine Chemistry</td>
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<tr>
<td>GEOC</td>
<td>Geochemistry</td>
</tr>
<tr>
<td>HIST</td>
<td>History of Chemistry</td>
</tr>
<tr>
<td>I&amp;EC</td>
<td>Industrial &amp; Engineering Chemistry</td>
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<tr>
<td>INOR</td>
<td>Inorganic Chemistry</td>
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<tr>
<td>MEDI</td>
<td>Medicinal Chemistry</td>
</tr>
<tr>
<td>NUCL</td>
<td>Nuclear Chemistry &amp; Technology</td>
</tr>
<tr>
<td>ORGN</td>
<td>Organic Chemistry</td>
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<tr>
<td>PHYS</td>
<td>Physical Chemistry</td>
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<tr>
<td>POLY</td>
<td>Polymer Chemistry</td>
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<tr>
<td>PMSE</td>
<td>Polymeric Materials: Science &amp; Engineering</td>
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<tr>
<td>PROF</td>
<td>Professional Relations</td>
</tr>
<tr>
<td>RUBB</td>
<td>Rubber</td>
</tr>
<tr>
<td>SCHB</td>
<td>Small Chemical Businesses</td>
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### ACS COMMITTEES

<table>
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<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>B&amp;F</td>
<td>Society Committee on Budget and Finance</td>
</tr>
<tr>
<td>BOT</td>
<td>Board of Trustees, Group Insurance Plans</td>
</tr>
<tr>
<td>C&amp;B</td>
<td>Constitution and Bylaws</td>
</tr>
<tr>
<td>CA</td>
<td>Corporation Associates</td>
</tr>
<tr>
<td>CCA</td>
<td>Community Activities</td>
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<tr>
<td>CCAS</td>
<td>Chemical Abstracts Service</td>
</tr>
<tr>
<td>CCPA</td>
<td>Chemistry and Public Affairs</td>
</tr>
<tr>
<td>CCS</td>
<td>Chemical Safety</td>
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<tr>
<td>CEI</td>
<td>Environmental Improvement</td>
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<tr>
<td>CEPA</td>
<td>Economic and Professional Affairs</td>
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<tr>
<td>CMA</td>
<td>Minority Affairs</td>
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<tr>
<td>COMSCI</td>
<td>Science</td>
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<tr>
<td>CONC</td>
<td>Committee on Committees</td>
</tr>
<tr>
<td>CP&amp;RM</td>
<td>Patents and Related Matters</td>
</tr>
<tr>
<td>CPC</td>
<td>Council Policy</td>
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<tr>
<td>CPRC</td>
<td>Public Relations and Communications</td>
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<tr>
<td>CPT</td>
<td>Professional Training</td>
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<tr>
<td>CTA</td>
<td>Technician Affairs</td>
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<td>CWD</td>
<td>Chemists with Disabilities</td>
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<td>DAC</td>
<td>Divisional Activities</td>
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<td>ETHX</td>
<td>Ethics</td>
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<tr>
<td>IAC</td>
<td>International Activities</td>
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<tr>
<td>LSAC</td>
<td>Local Section Activities</td>
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<tr>
<td>M&amp;E</td>
<td>Meetings and Expositions</td>
</tr>
<tr>
<td>MAC</td>
<td>Membership Affairs</td>
</tr>
<tr>
<td>N&amp;E</td>
<td>Nominations and Elections</td>
</tr>
<tr>
<td>NTS</td>
<td>Nomenclature, Terminology and Symbols</td>
</tr>
<tr>
<td>P&amp;I</td>
<td>Pensions and Investments</td>
</tr>
<tr>
<td>P&amp;MR</td>
<td>Professional and Member Relations</td>
</tr>
<tr>
<td>PA&amp;PR</td>
<td>Public Affairs and Public Relations</td>
</tr>
<tr>
<td>PUBS</td>
<td>Publications</td>
</tr>
<tr>
<td>SCC</td>
<td>Senior Chemists</td>
</tr>
<tr>
<td>SEED</td>
<td>Project SEED</td>
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<tr>
<td>SOCED</td>
<td>Society Committee on Education</td>
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<tr>
<td>WCC</td>
<td>Women Chemists</td>
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<tr>
<td>YCC</td>
<td>Younger Chemists</td>
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<tr>
<td>Abbreviation</td>
<td>Description</td>
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<tr>
<td>2YC3</td>
<td>Two-Year College Chemistry Consortium</td>
</tr>
<tr>
<td>AACT</td>
<td>American Association of Chemistry Teachers</td>
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<tr>
<td>BCCE</td>
<td>Biennial Conference on Chemical Education</td>
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<tr>
<td>GCI</td>
<td>ACS Green Chemistry Institute®</td>
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<tr>
<td>GEAB</td>
<td>Graduate Education Advisory Board (to become GSPSAB)</td>
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<tr>
<td>GSPSAB</td>
<td>Graduate Student and Postdoctoral Scholars Advisory Board</td>
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<tr>
<td>NFW</td>
<td>New Faculty Workshop</td>
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<tr>
<td>PRF</td>
<td>ACS Petroleum Research Fund</td>
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<tr>
<td>UPAB</td>
<td>Undergraduate Programs Advisory Board (to become USAB)</td>
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<tr>
<td>USAB</td>
<td>Undergraduate Student Advisory Board</td>
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<tr>
<td>USNCO</td>
<td>US National Chemistry Olympiad</td>
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