

# Findings

## Learning Inventory Survey

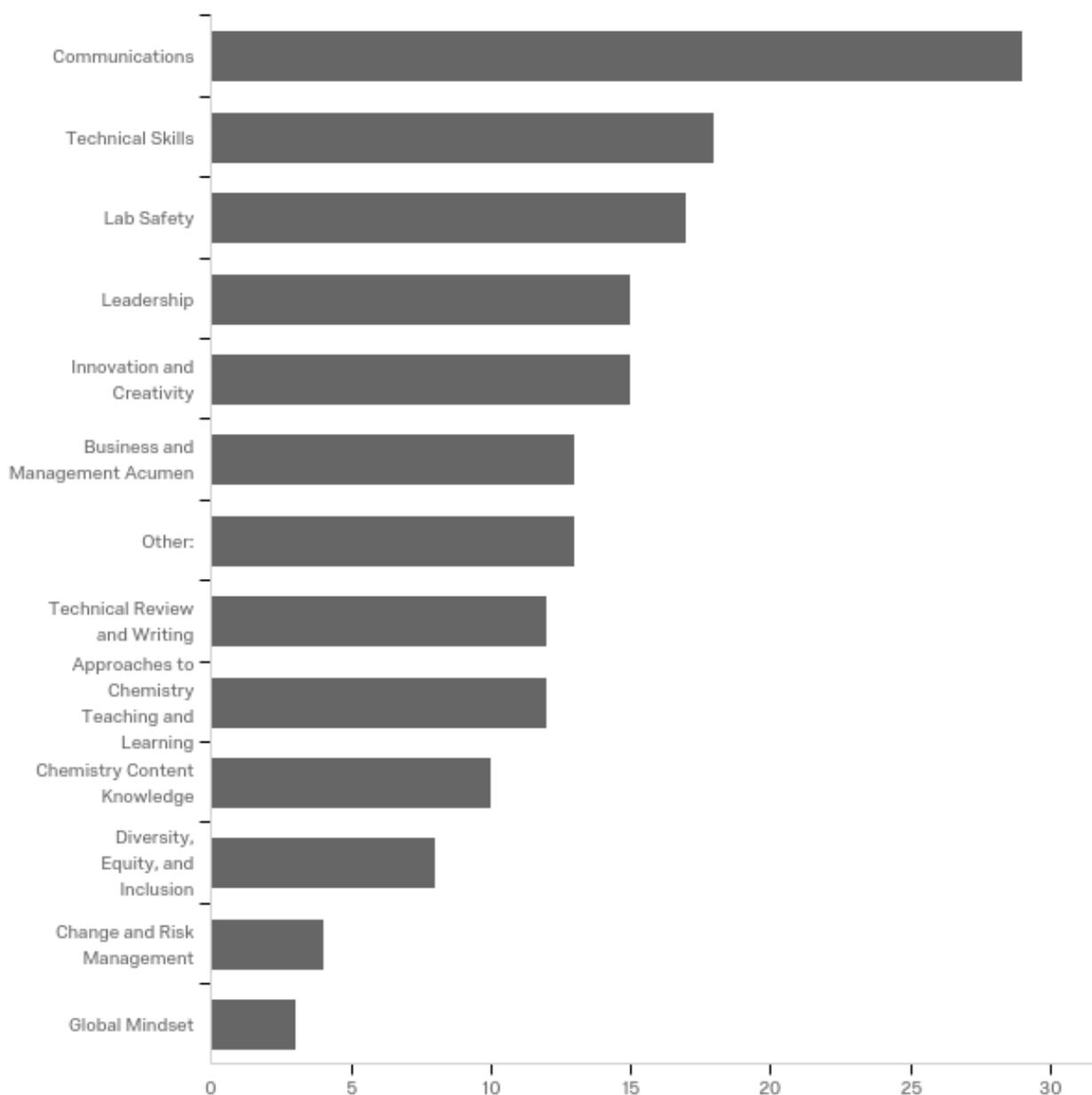
### General Information

Formal name of in-person or web-based learning/training opportunity:	What are the primary objectives for this learning/training opportunity?
AACT Webinars	AACT presents webinars on a variety of K-12 chemistry teaching topics during the school year. During the 2018 calendar year, we presented 22 webinars with a registration of 4588 and attendance of 1975.
AACT workshops	Presenting workshops on a variety of topics to help K-12 teachers of chemistry.
ACS Bridge Project	To broaden participation in graduate education
ACS Career Kickstarter	To provide career & professional development tools to graduate students and postdocs at a university
ACS Experts Training	Train a small, hand selected group of ACS members, who are experts in a specific area of chemistry, how to talk to the media.
ACS-Hach Mentoring Program	To provide mentoring support and professional development to early career high school chemistry teachers within the first 3 years of the profession.
ACS High School Day of Chemistry at NSTA Regional Meetings	The ACS High School Day of Chemistry at NSTA Regional Meeting is a series of four workshops on related topics that are presented consecutively. The theme for the past two years is relating structure and properties of ionic and covalent substances.
ACS LDS facilitated and e-learning courses & SPRs	The ACS Leadership Development System <sup>®</sup> courses concentrates on the development of four main areas of core leadership competency (personal capability, interpersonal skills, focusing on results and setting a clear direction) and the overarching character competency.
ACS Leadership Institute	The Leadership Institute is an annual invitation-only conference where ACS leaders come together to learn both management and leadership skills to enable them to be successful leaders within the American Chemical Society.
ACS Outreach Training Program	To satisfy the ACS Committee on Community Activities Vision, Mission, and Strategic Goal of providing training and guidance for volunteers to increase number of local sections running outreach activities/events and reporting results.
ACS Professional Education	ACS Professional Education offers a variety of courses designed to keep chemical scientists and technicians keep current in today's competitive marketplace.
ACS Reviewer Lab	This free online course focuses on helping researchers learn best practices for delivering thoughtful, high-quality peer review. It uses self-paced modules with video materials and quizzes to provide guidance on identifying the core criteria for evaluating manuscripts,

	writing a helpful review, and navigating difficult ethical situations. Users who pass a rigorous final assessment receive a badge on their ACS Paragon Plus profile to indicate this accomplishment.
ACS Scholars Crash Course	Educate ACS Scholars on expectations as an ACS Scholar, importance of mentoring, how to find, and how to foster strong relationships.
Advocacy Training	Teaching ACS members how to advocate for ACS Public Priority Positions and providing the means to do so.
Analyzing Hazards and Risks in High School Chemistry Labs	To explore examples and applications of the four principles of safety: Recognize the hazard; Analyze the risk of the hazard; Mitigate the risk; and Prepare for emergencies, as well as show examples on how to integrate RAMP into high school lab activities.
C&EN Webinars	C&EN webinars are revenue driven. Content is hosted by the sponsor, but encouraged to present case studies or best practices. Our webinars are almost always sponsored by instrumentation companies.
C&EN Webinars, C&EN White papers	Technical training on application of certain technologies or processes
Career Pathways Program	ACS Career Pathways™ workshops were designed to fit within the ACS learning ecosystem. Available at all national, regional, and local meetings. Available for online and international presentation.
Career-related advice (ChemJobber, Jen Heemstra) and presentations by C&EN staff at conferences and universities	Soft skills training/guidance. Training on how to write, career opportunities, use of social media, lab safety issues, etc...
Career Workshop: Essential Green Chemistry Tools and Techniques for Pharmaceutical Scientists	Green chemistry tools and techniques for pharmaceutical chemists
CAS Future Leaders	To deliver a mix of leadership training by policy-makers, professional science communicators and other recognized leaders in the private and public sectors and to share insights from science industry thought leaders, venture capitalists and entrepreneurs who have successfully transitioned from the bench to the boardroom.
ChemIDP: Planning For Your Career	1) Understand the components associated with the Individual Development Plan (IDP) process 2) Connect the components of the IDP process with 3) Assess what steps to take next 4) Identify strategies and resources for taking those next steps
Chemistry for Non Chemists	To learn chemistry for beginners
Division Track at Leadership Institute	To prepare ACS Technical Division Officers to be successful in the roles.
Festival Training Institute	The main goal of these international, regional events is to teach volunteers how to organize, execute, and obtain funding for hands-on science outreach events.
The Graduate School Experience: What to Expect	Learn the trajectory of different types of graduate programs and what is needed to get the most out of them.
Graduate School: The Ins & Outs of Getting In	Learn about types of graduate school programs, the application process, and whether grad school is right for your career goals.
Green Chemistry & Engineering Student Workshop	basic green chemistry & engineering information, networking skills, etc.
Inquiry in Action	Introduce teachers to the free standards-based lesson plans in inquiry in Action, and help teachers learn basic chemistry concepts appropriate for K-5th grade.

Laboratory Safety	Developing Graduate Student Leadership Skills in Laboratory Safety
Laboratory Safety	In this interactive session (the audience submits the written questions and panel of speakers responds) the following topics are explored: What safety skills transfer from the academic laboratory to chemistry work in other sectors? How does the institutional setting (national lab vs. research university vs. primarily undergraduate institution) impact the style and substance of a safety program? What are the key information resources that safety professionals rely upon to help chemists perform chemistry safely? How can chemists and other scientists find a career in chemical safety?
Middle School Chemistry Day at NSTA	Introduce teachers to ACS's free standards-based lesson plans for teaching middle school chemistry and help teachers better understand basic chemistry concepts appropriate for middle school.
New Faculty Workshops	The New Faculty Workshops focus on sharing and developing essential skills that faculty need to successfully navigate the early years of their research and teaching careers.
Periodic Report Tutorials	Short tutorials to help faculty in approved programs understand the nuances of the ACS Guidelines for Approved Bachelor's Degree Programs.
Postdoc to Faculty Workshop	To learn about positions and respective expectations in undergraduate and graduate departments in the chemical sciences
Project SEED Participant Webinar Series	A series of webinars to expose Project SEED participants to expectations for the summer research experience, careers in chemistry, how to make a presentation, and safety considerations while in the lab.
Project SEED Coordinator/Mentor Training - Webinar	Train new and current Project SEED coordinators on how to submit a successful SEED site application, host a site, and provide meaningful experiences for the SEED participants.
Recruiting and Promoting Your Division More Effectively	Orienting Division Leaders to the basic tenants of recruitment and engagement marketing by giving them easy to execute ideas they can employ in their Divisions.
Sexual harassment workshop/ Power Hour	Raising awareness of issues around sexual harassment. The workshop was a one off, which we are now for Orlando turning into an (at least) annual Power Hour where there will be presentations and an opportunity for attendees to discuss diversity and inclusion. Organized in collaboration with Gordon Research Conferences
Speaking Simply: Science Communications Training	Help scientists learn how to communicate with the public
Using Social Media for Your Local Section: Intermediate Track	Presenting and discussing best practices for social media and how it can benefit Local Section activities, including an overview of how metrics can be collected.
Using Social Media for Your Local Section: Beginner Track	Providing a basic overview and introduction to social media and how it can be a useful tool for local sections in promoting outreach activity and communication with members
Webinar: Everything You Want to Know About Periodic Reports	To help the community complete periodic reports. ACS approved programs are required to submit these every six years in order to maintain approval.
Writing a Competitive Research Grant	To provide advice and guidance on writing research grant proposals

## Skills and Topics Addressed



Other: - Text

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Networking

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ACS and member engagement

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ACS and member engagement

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Consulting on website development, graphics, social media best practices, etc as they relate to meeting and event planning

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Guide participants through a process of career exploration and preparation, Include interactive exercises and incorporate strategies that reflect knowledge of how people learn, Direct participants to additional resources and skills for career development

Mentoring

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Student strategies for success

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Careers in chemistry

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ACS Program process/management

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Teaching Methods and Resources for K-12 Teachers of Chemistry

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Science Outreach

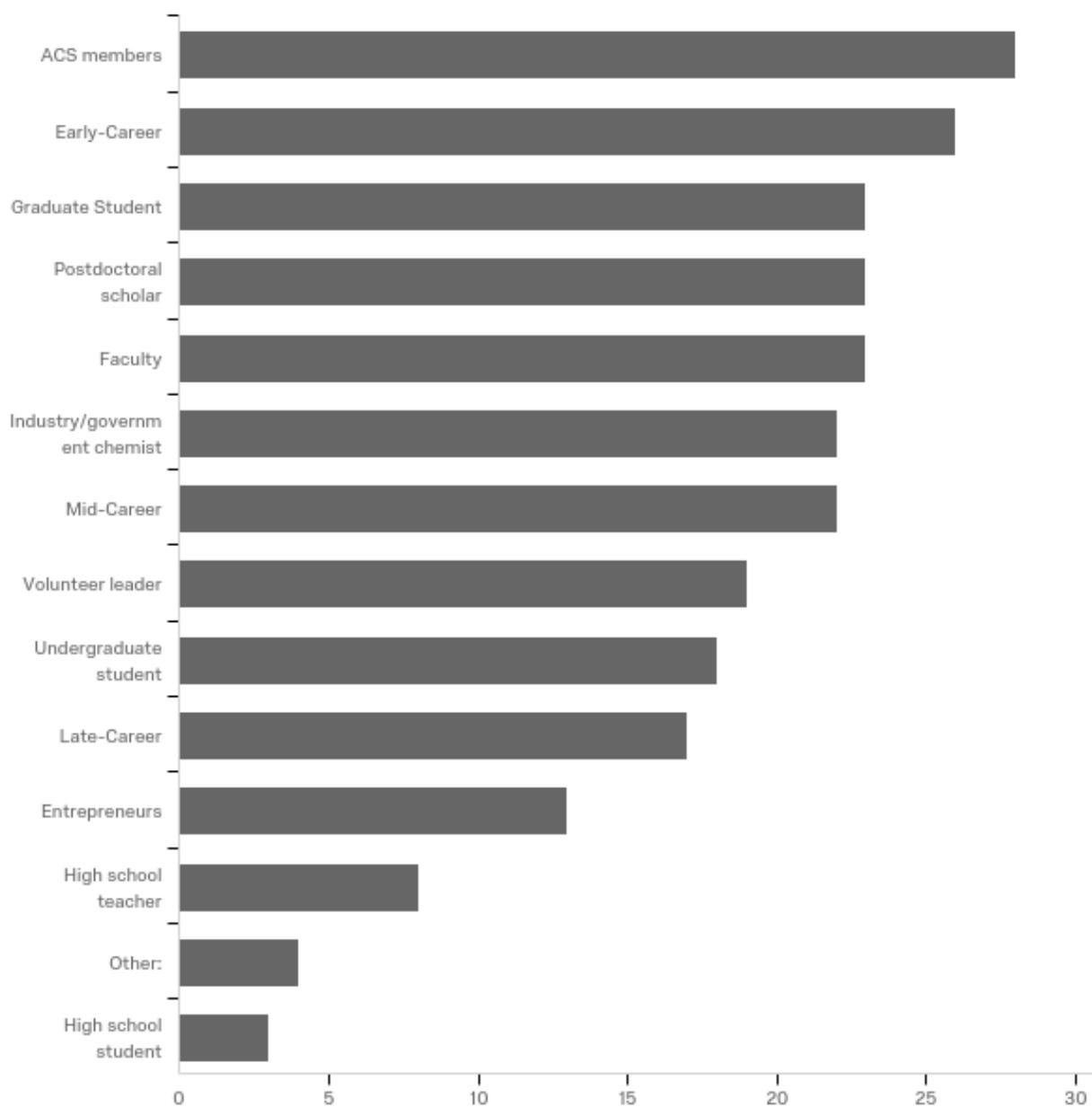
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Career/education planning

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Career/education planning

## Audience(s) Served



Other: - Text

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Elementary school teacher

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Middle school teachers

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K-8 teachers of chemistry

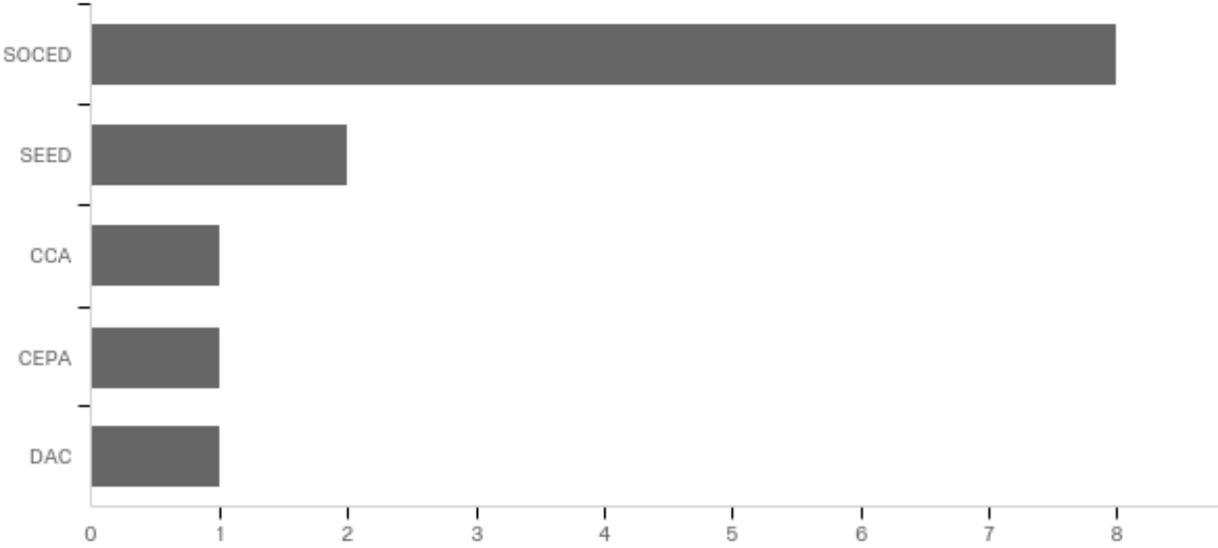
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K-8 teachers of chemistry

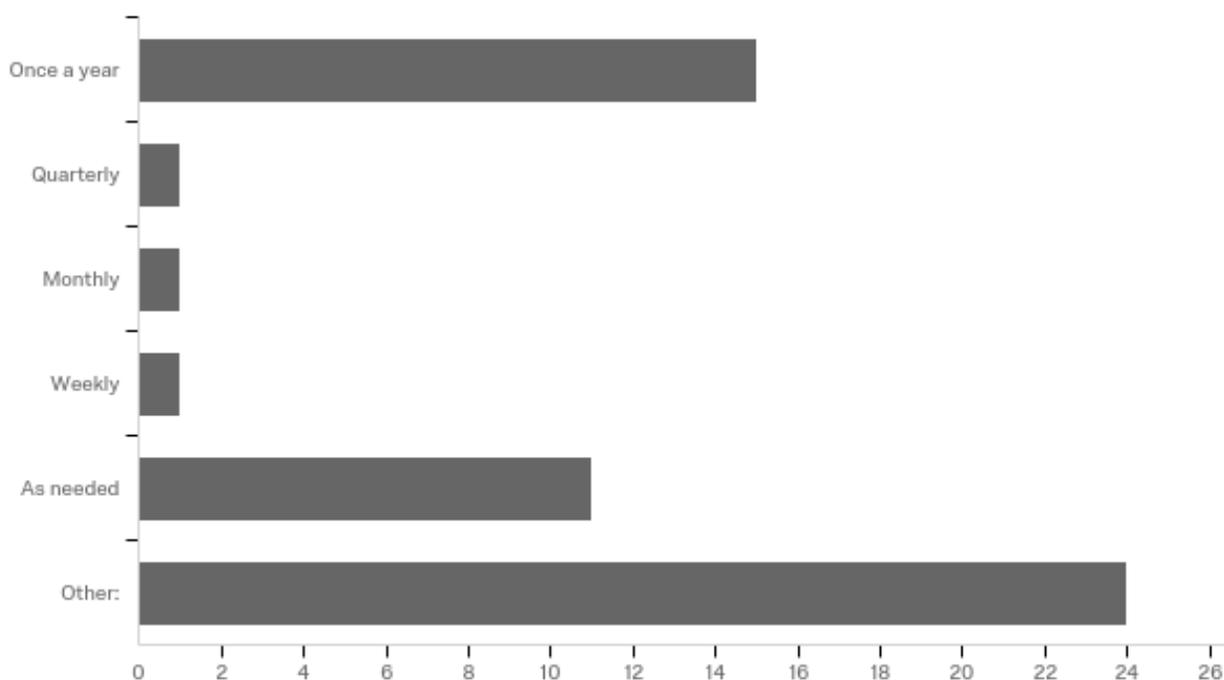
**ACS Governance Oversight**

#	Answer	%	Count
1	Yes	34%	18
2	No	66%	35
	Total	100%	53

### Name of Governance Committee



## Frequency of Program



Other: - Text

At the LI, National Meetings, Regional Meetings, On Demand

This has been taught in a variety of venues and is currently be revamped.

3-4 workshops per year

This is a new program, so we anticipate publishing 2/year

Regional and National Meetings

At least eight times a year

50-60 webinars per year

At national meetings

Power Hour is starting in Orlando and it'll be an at-least-once-per-year occurrence

Regularly. Weekly for columns in C&EN. Ad hoc for talks/presentations

Ongoing

4 times

4 times

12 times a year

Multiple various times--not on any set frequency

During 2018 we attended six local, regional, or national conferences. In total, we presented 28 workshops that were attended by a total of 830 people.

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We attend the three regional conferences in the fall and present four one hour presentations.

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Two to three webinars per month during the school year.

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Twice a year at the National Meetings

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there were four lab safety webinar in 2018

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At regional meetings and digitally

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Three times a year at the NSTA regional conferences.

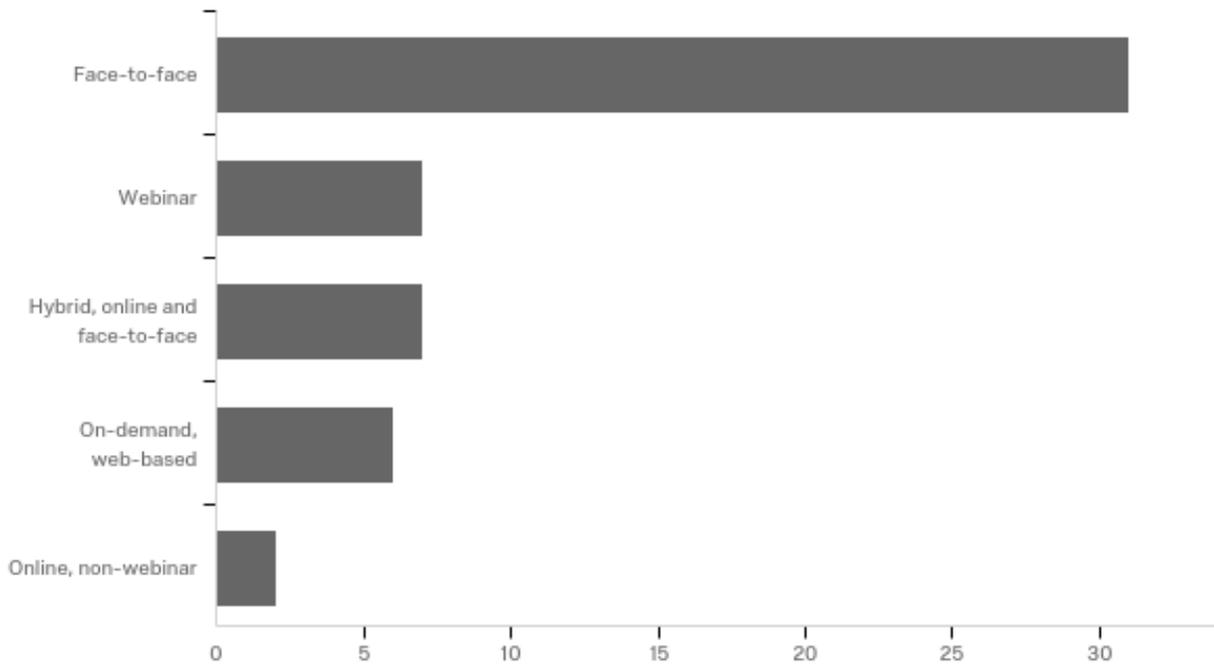
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2x year (each national meeting)

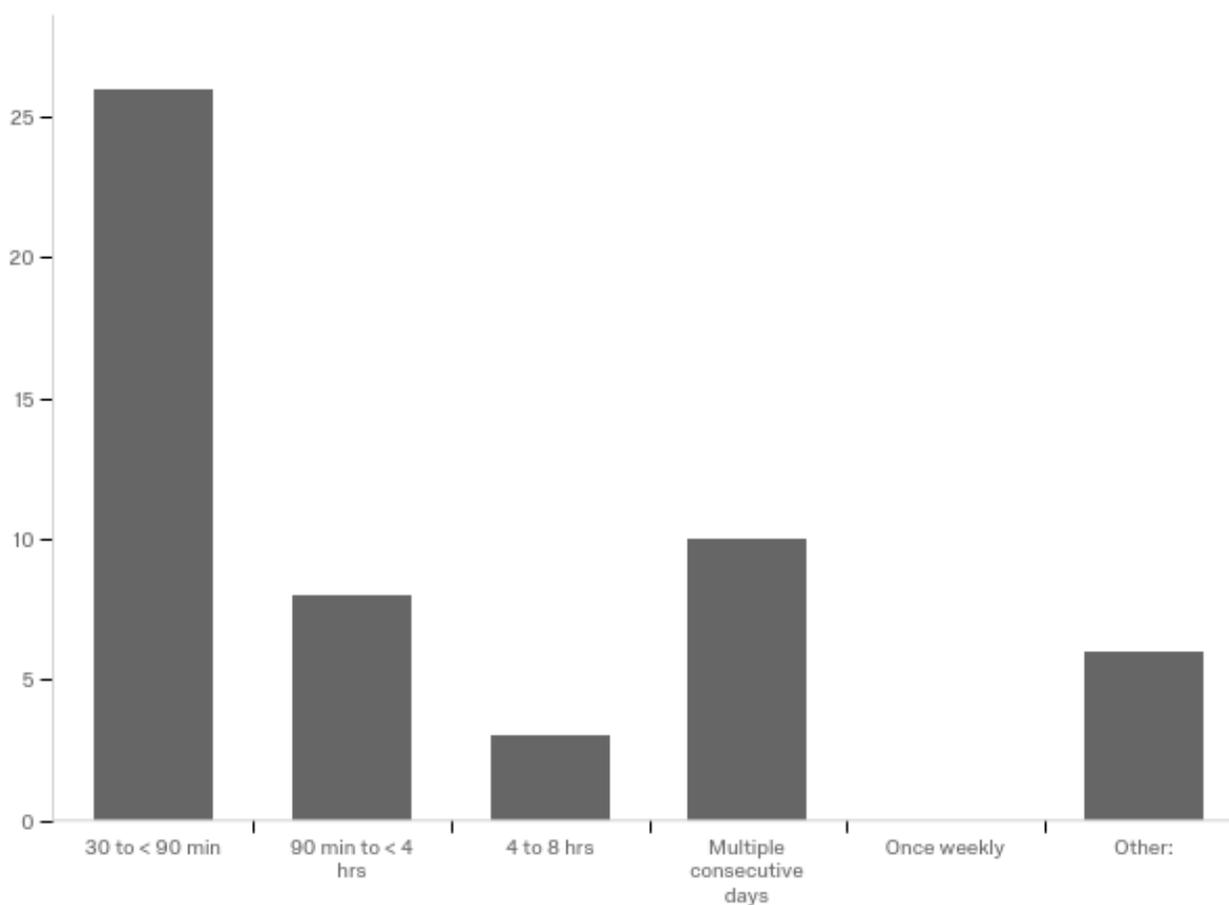
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2x a year (at each national meeting)

### Format of Program



## Length of Program Instance



Other: - Text

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Length depends on venue...can be 1 hour or 4-5 hours.

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5 minutes or less

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As needed throughout the academic year

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at ACS NM and in chemistry departments

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60 minutes

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In person will be half day workshops, online will be hour long webinars

## Follow Up Activities

#	Answer	%	Count
1	Yes	30%	16
2	No	70%	37
	Total	100%	53

## Types and Frequencies of Follow-up Activities

What are the types and frequencies of follow-up activities (e.g. 1 webinar six months post-program)?

Attendance at ACS National Meeting & Exposition

Component units work to deploy implementation plans.

approximately monthly webinars; in-person gatherings when possible at ACS meetings

A mixture of face-to-face meetings and emails.

The webinar is available on our website for ad hoc viewing.

Webinars

A follow up email or virtual meeting

Additional webinars with various other topics. May be facilitated by corporate partner (i.e. careers in pharmaceutical chemistry)

Webinar series (one a week for about 4 weeks)

Webinar is broken up into parts. Note that 2018-9 is the first year this is done, but the plan is to host 2 webinars for coordinators/mentors

a webinar

Online communication up to 30 days post program

only online and on a case-by-case basis

We do the program in both webinar and face to face

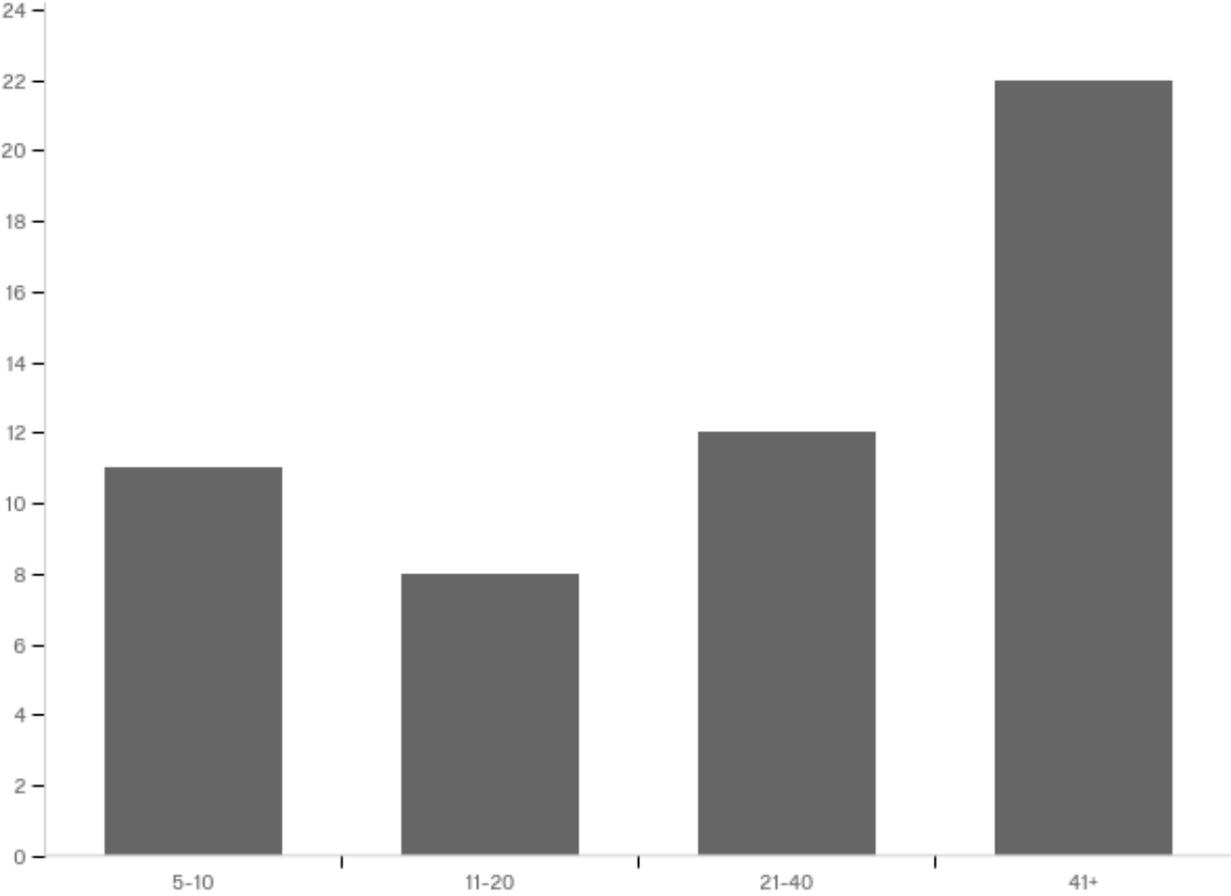
## Assessment

#	Answer	%	Count
1	Yes	23%	12
2	No	77%	41
	Total	100%	53

## Evaluation

#	Is there any type of evaluation (Evaluation: a participant measurement of the quality and effectiveness of the training) as part of the learning/training opportunity?	Percentage
1	Yes	63%
2	No	37%
	Total	52

### Number of Participants per Instance



### Cost

