

Summary of Survey Results

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In 2008, chemical technicians, their supervisors, and their colleagues were surveyed in preparation for the Applied Chemical Technology Professionals summit. Respondents included 468 chemistry-based technicians, 106 supervisors, and 61 colleagues.* Of the supervisors and colleagues who responded, 60 had worked as technicians (the time frame ranged from 4 months to 40 years).

Networking

1. Do you network with any of the following groups?

Groups	Technicians	Supervisors & Colleagues
Technicians within your company	88 %	86 %
Supervisors and managers within your company	79 %	94 %
Technicians outside of your company	28 %	33 %
Professionals of any level outside of your company	44 %	80 %

Membership in Professional Organizations

2. Do you belong to a professional organization?

Technicians	
Yes	47 %
No	53 %
# Respondents	409

3. Please indicate which professional organizations you belong to and how long you have been a member.

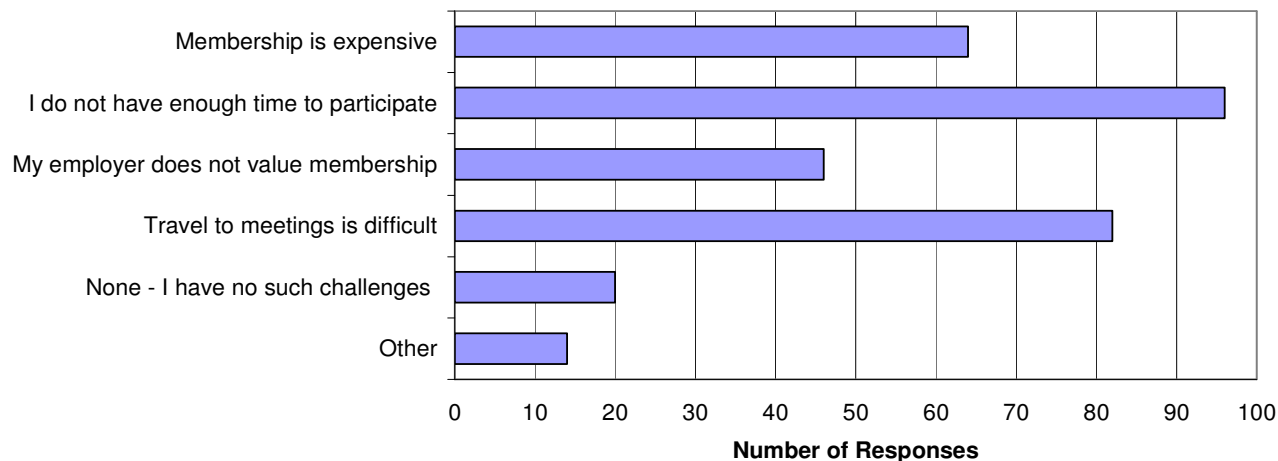
Technicians	
ACS	77 %
Organizations other than ACS	41 %
# Respondents	155

Among technicians who are ACS members, 56% have been members for five years or less.

Among technicians who are not ACS members, 31% are part of a company or regional technician organization and 11% are part of a Technician Affiliate Group.

4. What are your biggest challenges to participating in a professional organization?

Approximately 170 technicians responded.



* This data includes a few more respondents than that reviewed by the ACS Department of Member Research & Technology. Approximately 90 respondents identified their job title, but did not complete the survey.

5. How highly valued are each of the following benefits of membership in a professional organization?

	Technicians		Supervisors & Colleagues		Needed for support[†]
	<i>Necessary or valuable</i>	<i>Little or no value</i>	<i>Necessary or valuable</i>	<i>Little or no value</i>	
Networking opportunities	91%	10%	94%	6%	10
Presenting/attending presentations on advancements in field	83%	17%	76%	24%	6 / 8
Leadership opportunities	64%	36%	88%	12%	11
Volunteer opportunities	61%	40%	73%	27%	2
Continuing education	87%	13%	94%	6%	15
Career advice and counseling	87%	12%	87%	12%	8
Professional credibility/certification	76%	24%	72%	29%	not asked
Access to professional publications	81%	19%	78%	22%	not asked
Total # respondents	166		116		20

6. Indicate the frequency with which you have participated in the following activities in the past five years.

	Technicians	Supervisors & Colleagues
Read any newsletter or other publications	sometimes/frequently	sometimes/frequently
Read peer-reviewed journals	sometimes	never/sometimes
Attended short course	never/sometimes	never/sometimes
Participated in a social event	never/sometimes	never/sometimes
Participated in an outreach event	never	never
Served on a local committee	never	never
Served on a national committee	never	never
Served as an elected official	never	never
# Respondents	163	112

7. In the past five years, have you been involved with awards from professional organizations?

	Technicians	Supervisors & Colleagues
Yes	18%	18%
No	82%	82%
# Respondents	170	115

[†] The number of responses from supervisors and colleagues indicating that the benefit, if made available to technicians, would encourage their organization to support technician participation

8. Please indicate why you are not a member of a professional organization.

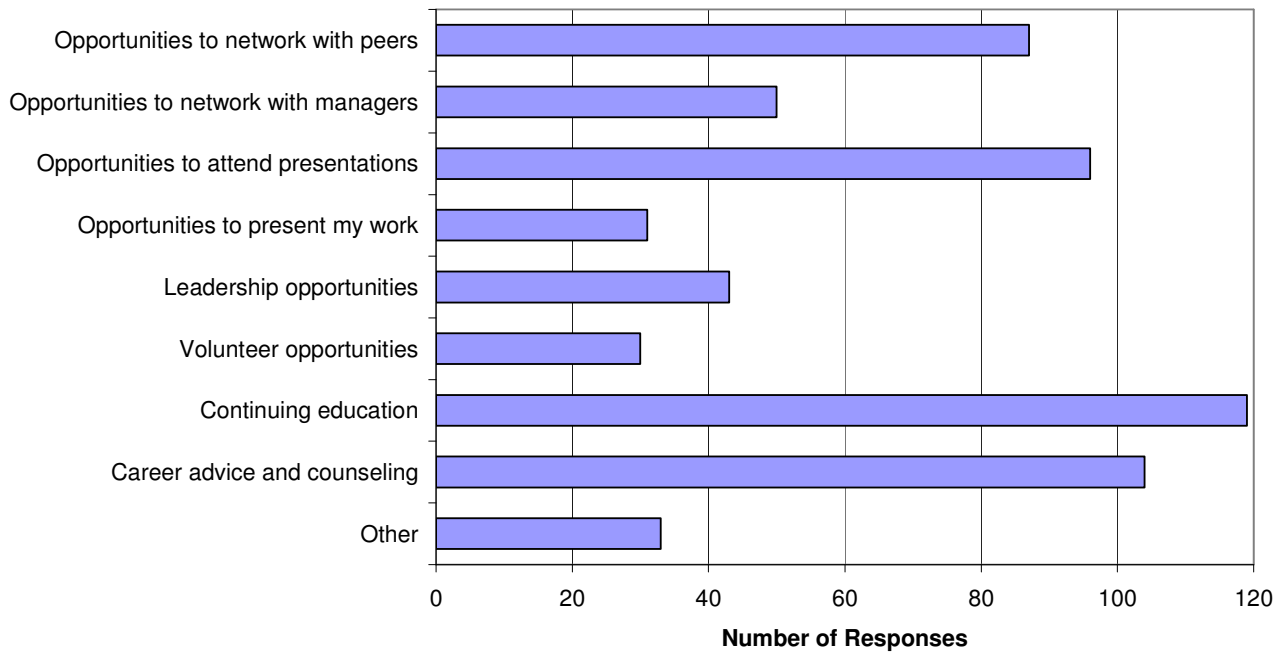
Technicians	
Lack of time	61%
Employer does not cover costs	33%
Have nothing to offer me	18%
Are too expensive	15%
Not qualified for membership	6%
Other	17%
# Respondents	205

Other explanations included:

- lack of interest
- lack of support
- no knowledge of such organizations
- lack of relevance to career

9. What would encourage you to join a professional organization?

Approximately 205 technicians responded.



Other explanations included:

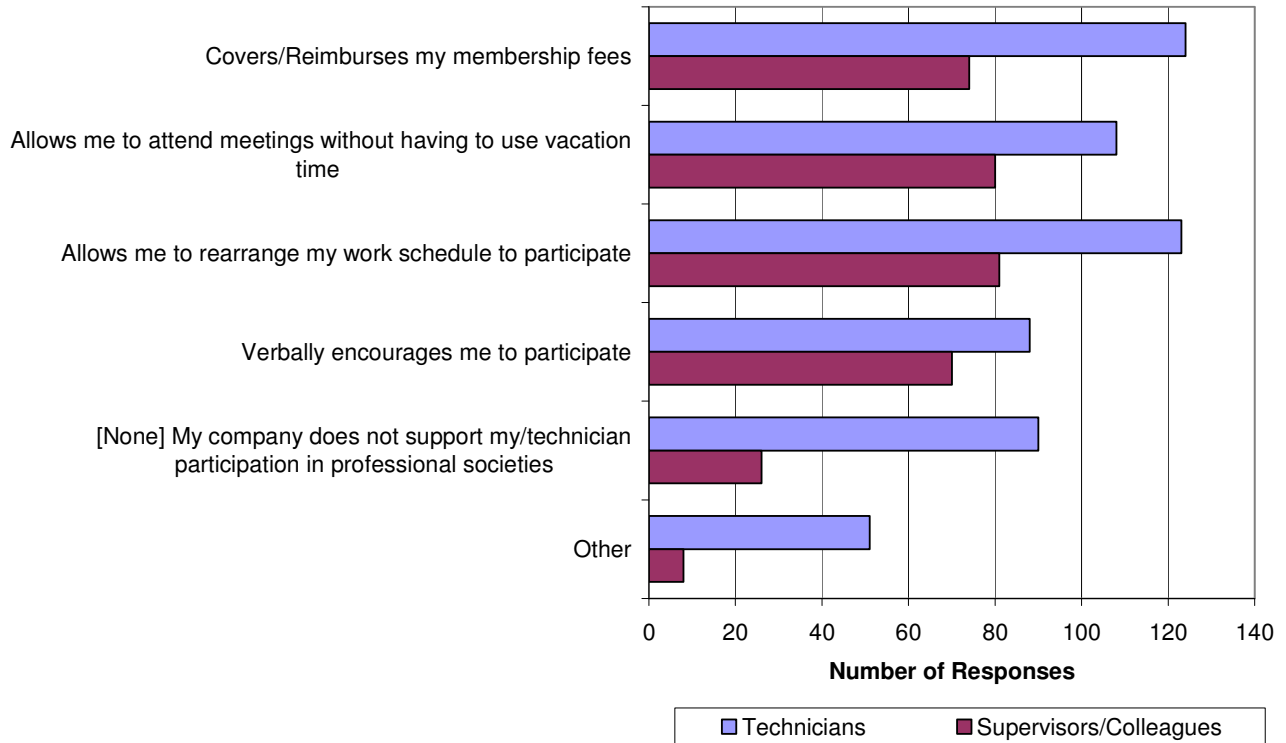
- greater interest
- networking opportunities
- potential jobs
- more time
- reduced prices for courses
- career advancement

10. Does your organization support technician membership in professional organizations?

Supervisors & Colleagues	
Yes	81%
No	19%
# Respondents	134

11. In what ways does your organization support technician membership in professional organizations?

Approximately 355 technicians and 105 supervisors and colleagues responded.



Other explanations from technicians included:

- lunch meetings
- networks within a company
- budget restraints
- allow me to rearrange my work schedule to participate

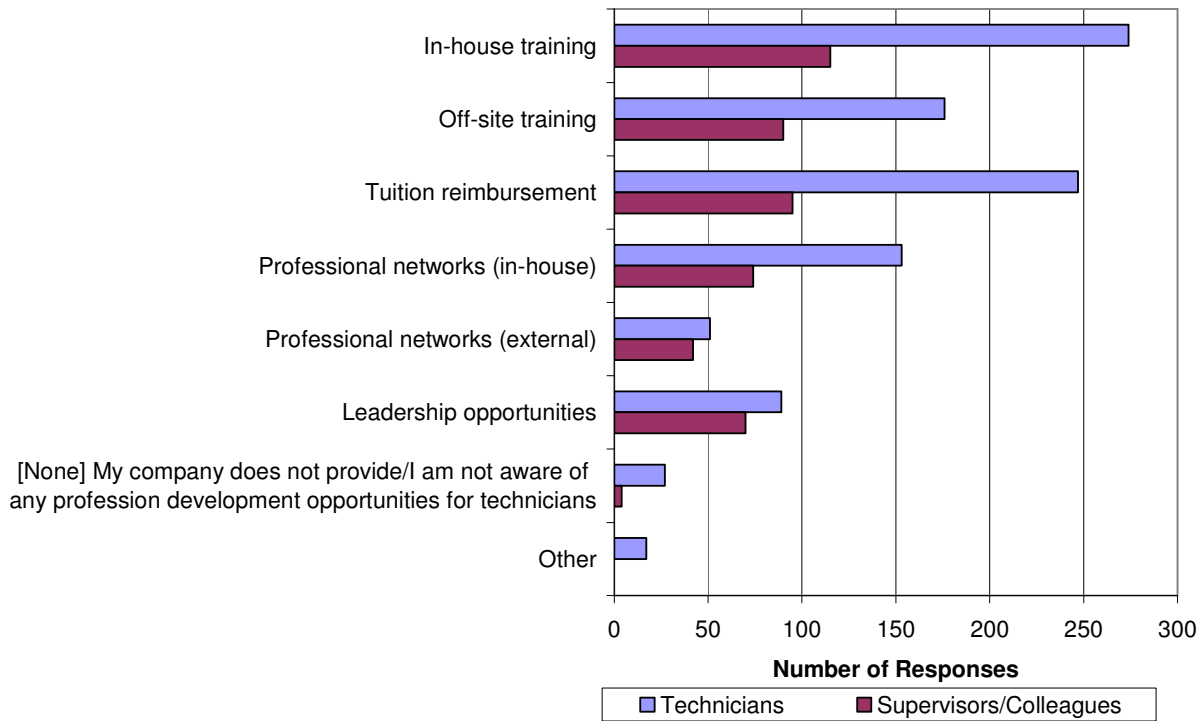
Other explanations from supervisors/colleagues included:

- education
- internal classes
- leadership groups
- local chapter
- sponsors Technician Group

Professional Development

12. Does your organization provide technicians with any of the following professional development opportunities?

Approximately 355 technicians and 120 supervisors and colleagues responded.



Meeting Attendance

13. Have you attended any professional organization meetings in the past five years?

	Technicians	Supervisors & Colleagues [‡]
Yes	39%	69%
No	61%	31%
# Respondents	362	124

14. In what capacity have you attended professional organization meetings?

	Technicians	Supervisors & Colleagues [§]
Attendee	94%	86%
Presenter	22%	50%
Job-seeker	6%	6%
Committee member	14%	33%
Officer	5%	20%
Symposium organizer	5%	12%
Other	3%	1%
# Respondents	140	84

[‡] Supervisors and colleagues were asked the following question: "To the best of your knowledge, have any of your technicians attended a professional organization meeting in the past five years?"

[§] Supervisors and colleagues were asked the following question: "If known, in what capacity have your technicians attended meetings?"

Technicians also attended meetings for workshops, short courses, award acceptance, TAG duties, and curiosity.

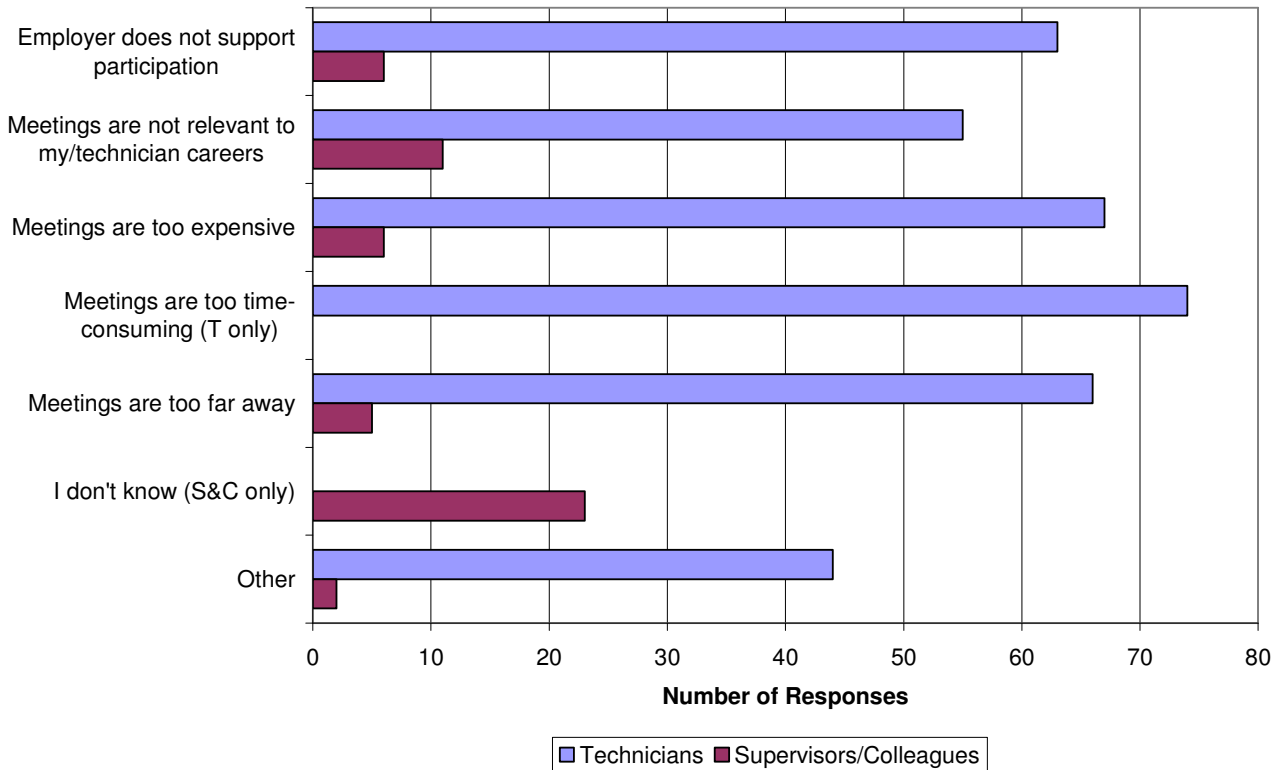
15. What level of meetings have you attended?

Technicians	
Local	70%
Regional (< 1 hour's drive)	25%
Regional (> 1 hour's drive)	21%
National	32%
Other	2%
# Respondents	140

Three respondents attended meetings outside the continental United States.

16. Why have you not attended professional organization meetings?*

Approximately 220 technicians and 35 supervisors and colleagues responded.



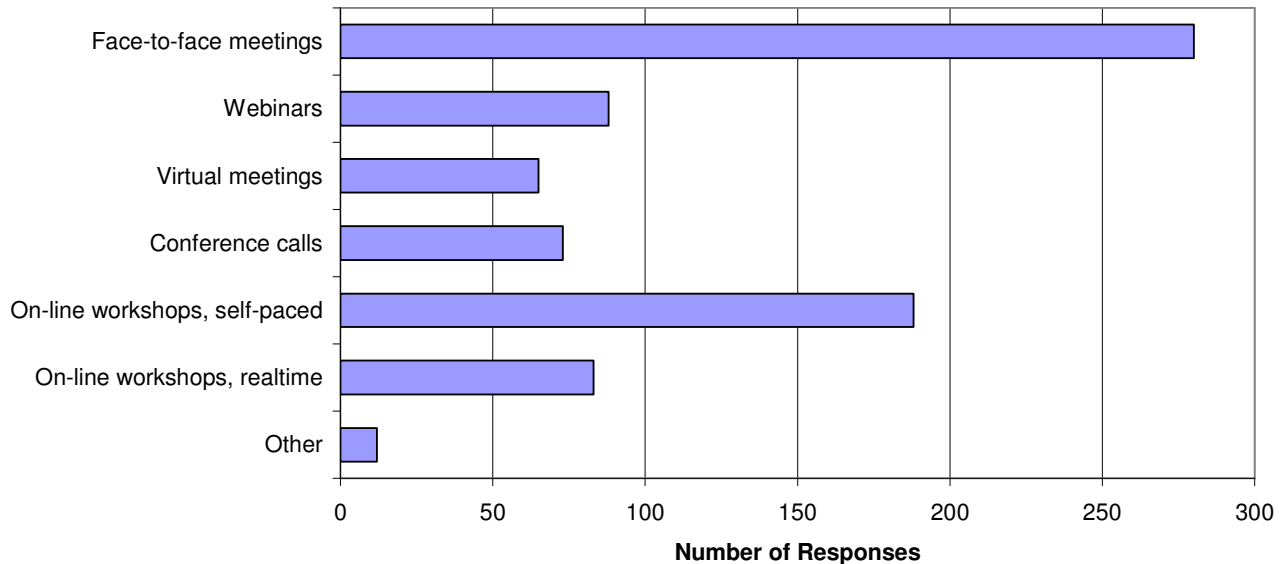
Other explanations included:

- budget
- work load
- have to take vacation
- not researched
- no interest
- not aware of what is offered
- not prioritized against other expenditures and meeting times
- not conducive to shift schedule

** Supervisors and colleagues were asked, "To the best of your knowledge, why have technicians not participated in any meetings?"

18. What types of interactions are important or beneficial to you?

Approximately 350 technicians responded.



Other explanations included:

- training onsite or off
- hands-on training
- education and certification
- practical classes (hands-on)
- off-site training

19. Are you a member of an on-line community?

Approximately 350 technicians responded. Most (240) said they were not a member of any on-line community. Fifteen additional comments were made, with most referring to My Space.

General Feedback

20. Is there anything else you would like ACS to know about technician needs regarding professional organizations?

From technicians:

Connections to work / employer support:

1. Technicians are supported more when the professional society ties in to their work needs. I receive little support for being a member of a "fellow technician group" but strong support when I connect to a Division or identity that connects with my job and profession.
2. Supervisor support is critical for us. The company might show support but if the supervisor does not then we will not be able to do anything. Companies need to emphasize the significance to all levels of supervisor if they really mean what they say.
3. I think the technicians are the work engines of the research and analytical departments, without a lot of thanks or glory. I think what you are trying to do, sounds like it is commendable, but if you take time away from their work you will also take a way their productivity (bottom line production). You can set these programs up, but if it is not acceptable for their management to have reduced productivity, are you really helping them?
4. Probably would participate if my company encouraged it; unfortunately, this is not the case.

5. While my company verbally encourages participation in organizations like ACS, when a person begins to get involved and becomes an active member at any level, it seems that the employee is viewed as having priorities mis-aligned and often suffers from negative feedback in performance reviews, despite maintaining job performance (and is then discouraged from participating as an active member and is forced to finish out their term commitments with less participation and possible career repercussions.)

Outreach to technician community:

6. Important that this be offered and said it is out there and available to all new technicians into job site so that they can get involved when they are first starting out to help them on their career, etc. I wish I had done this 27 yrs ago.
7. I think there are huge numbers of techs out there and we are not linked. For instance, here, we have lots of clinical lab techs...never trained in chemistry.. but really, my degree was in Ag, not chem!! but it's ALL chemistry. We should learn together... esp biological chem, or chemical biol whatever you wanna call it...
8. More info would be most helpful
9. Where I work, there is a lack of awareness about professional organizations among technicians.
10. I would like to know about the lab experiences of other techs - education, experiment techniques, and equipment.
11. ACS needs to be more visible as a society for technicians (2 year and 4 year BS degrees), as well as PhD scientists.

Acceptance by scientific community:

12. The Royal Society of Chemistry in the UK does not distinguish between Chemists and Technicians. This is something that most organisations would benefit from doing.
13. We're not chemists in the academic community, but I know more analytical chemistry than two other PhD chemists I work with simply because of my experience & self-education over the years. True, the two other chemists aren't analytical chemists however. Although my job title is chemist now, I am not regarded as a "true chemist" by your community.
14. Bachelor-degreed chemists who function as chemical technicians, usually by circumstance rather than choice, are in a "gray area" where their expertise and abilities are often overlooked because of their job title.

Cost:

15. I have been an ACS member in the past but let my membership lapse due to cost (my employer does not reimburse membership dues). This year I joined as a division member at a much lower rate. More technicians might join the ACS if this route was advertised as an alternative and less expensive method of joining.
16. I am a member of the ACS Chem Tech subgroup. I would like to become a full ACS member in the future, however the fees are quite high. It is hard for me to justify the cost with just a perceived benefit. Thanks for the opportunity to share my opinions.

Professional development:

17. I wish that the ACS would offer an Analytical Chemistry curriculum for chemical lab technicians. The curriculum could be offered in various levels of expertise. Successful completion of the program would "elevate" the chemical lab technician to "Analytical Chemist 1-4". I appreciate all that the ACS is doing but I feel that lab techs are falling through the cracks. Thanks.
18. Accessibility to free/low cost training and development courses over the internet is a priority for corporate support.
19. We could use funding/scholarships for attending conferences/continuing education.
20. Registration fee for some courses are very very high. No matter what the course is the fee should be \$1000 to \$1500.
21. Technologists have a harder time getting approved to attend meetings. Currently if you want an opportunity to attend a meeting / conference you must be presenting data.
22. It seems that because I am an hourly paid employee, many of the benefits of professional group involvement are not accessible to me, like attending meetings and off-site trainings. Because budgets are tight, more web based trainings and webinars would be helpful.

Technician organizations:

23. Tools to convince organizations of the value that TECH offers to technicians, e.g. real life examples, statistics etc
24. I belong to the Cincinnati chapter. I have been asked to accept the committee chair for a technician/research associates committee for the Cincinnati section. I am interested.
25. At my place of work, the technician group has a certain level of 'negativity' associated with it. Professionals and other technicians alike often look at it as a 'complaint' session. I'd like to see the platform of these groups change to something that really adds value to the company and the person attending. Until some 'positive feedback' starts circulating on what these groups are doing and have accomplished, I am more comfortable keeping my name off of their lists.

Job postings:

26. Post Technician jobs in the C&EN newsmagazine.
27. Job listings would be great. Tech openings are hard to find.

Job expectations:

28. Talk to students in high school, technical schools and universities, about first obtaining a degree (whichever they desire) and then work. Nothing wrong being a technician but, if you decide to further your education while working as a technician it is very hard. You get in a row of earning money and all the responsibilities as a technician and it makes it very hard to go back to school.
29. In all honesty, being a technician is a waste of a 4 yr degree.
30. Are there guidelines that differentiate a technician's duties from a professional's?

Miscellaneous:

31. More promotion to leadership encouraging technician involvement.
32. While I support this for younger technicians, I am about to retire and would have little time to devote to a new organization.
33. I am near the end of my career otherwise I would be very interested in a focus group and professional organizations.
34. Is there value in on-line degrees such as BS and MS in environmental type positions?
35. Study new molecules in medicinal plants, extraction and isolation them. My special skills are in alkaloids and antitumor compounds.
36. Provide better opportunity to obtain job competition
37. If it weren't for the cheap life insurance and dues paid by the company I wouldn't be a member of the ACS. You cater to academics and industry. Before my time, I've heard you really screwed over the American chemist in the 70's and 80's by lobbying congress for instant citizenship of foreign chemist, thereby lowering the American born chemist salary from a supply standpoint and foreigners willing to work for less money. That's something the American Medical Association would never do.
38. They should give special consideration to members outside the US, especially Africans like myself who have very low income and harsh working conditions.
39. Professional organizations tend to use their members as political pawns without their consent. I typically like to steer clear of these types of associations.
40. Just Thanks!!

From supervisors and colleagues:**Professional development**

1. Education courses for minimum cost. Having to pay \$1,000 for a course is not feasible, especially since you don't get college credit. Courses are needed for about \$200-400 dollars. Technicians are more likely to attend at regional and local levels. Also technicians are found in their disciplines, however, need a governance voice at the national level.
2. Courses that are more geared toward technician needs. \$1000 for a class is too expensive. Need courses to advance skills that can get certificates, and/or possible college credits. Inexpensive <\$500.
3. Two: 1. ACS short courses that are at the applied chemical technology professional level and at a reasonable price (\$200-500) 2. Career Consultants who understand the profession and its needs.
4. I'd like to see a strong link between local (and national) ACS activities related to technicians and local university training programs ... seems like many synergistic links could exist.

Local/regional opportunities:

5. Technicians are limited on traveling, more likely local and regional is the way to help the technician professionals.
6. I think regional/local meetings are more useful than large, national ones. The majority of our techs are exempt and are paid overtime during travel. Local meetings simplify attendance.

Benefits of membership:

7. Not only technicians but chemists are beginning to question the value of ACS membership. Most large companies provide access to ACS publications and travel to national meetings is becoming increasingly difficult to get approved. If these items are not important selling points to the customer, one then begins to question paying the \$100+ dollars each year for membership. I think a new value proposition should be proposed for those in this situation.
8. I think the organization fills a useful purpose.

Miscellaneous:

9. Technicians does not identify everyone within the Applied Technology profession, it is only one name of many. Those with BS and MS degrees don't want to join a profession for Technicians. Maybe a new name. We rely heavily on technician support and provide them career opportunities, just as any other professional.
10. I believe there needs to be more clarity regarding the degreed and non-degreed technician.